



## PMI RESEARCH & DEVELOPMENT

### **Study ZRHR-REXC-03-EU Clinical Study Report Appendix 15.4 Statistical Output**

<b>Study Title:</b>	A randomized, controlled, open-label, 3-arm parallel group, single-center study to demonstrate reductions in exposure to selected smoke constituents in smoking, healthy subjects switching to the Tobacco Heating System 2.2 (THS 2.2) or smoking abstinence, compared to continuing to use conventional cigarettes, for 5 days in confinement
<b>Study Number:</b>	ZRHR-REXC-03-EU
<b>Product Name:</b>	Tobacco Heating System 2.2 (THS 2.2)
<b>Study Initiated (first subject screened):</b>	29 June 2013
<b>Study Completed (last subject last visit):</b>	26 September 2013
<b>Principal Investigator and Affiliation:</b>	Katarzyna Jarus-Dziedzic, MD, PhD BioVirtus Research Site Sp. z o.o., Mokra 7 05-830 Kajetany, Poland
<b>Sponsor:</b>	Philip Morris Products S.A. PMI Research & Development Quai Jeanrenaud 5 2000 Neuchâtel, Switzerland
<b>Sponsor Signatories:</b>	Christelle Haziza, PhD, Manager P1 Clinical Program, Clinical Scientist Andrea Donelli, Clinical Scientist Guillaume de La Bourdonnaye, MEng, MSc, Biostatistician Kausar Aamir, MD, PhD, Medical Safety Officer
<b>Version:</b>	2.0
<b>Date:</b>	08 March 2016

This study was conducted in accordance with Good Clinical Practice.

#### **Confidentiality Statement**

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This document is confidential. Disclosure of any of its contents to third parties is not permitted except by the prior written consent of Philip Morris Products S.A.

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## **15.4 STATISTICAL OUTPUT**



### **15.4.1 Disposition and Background Data**

Not applicable.



## **15.4.2 Product Use**

Not applicable.



### **15.4.3 Primary Endpoints**



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**Listing 15.4.3.1 Analysis of Evening COHb (%) versus CC on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



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**Listing 15.4.3.1 Analysis of Evening COHb (%) versus CC on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0
Subjects	1
Max Obs Per Subject	159





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**Listing 15.4.3.1 Analysis of Evening COHb (%) versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.02794



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**Listing 15.4.3.1 Analysis of Evening COHb (%) versus CC on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

## Fit Statistics

-2 Res Log Likelihood	-91.4
AIC (smaller is better)	-89.4
AICC (smaller is better)	-89.3
BIC (smaller is better)	-86.3

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	34.48	<.0001
TRTAN	2	153	1188.09	<.0001
SEXC	1	153	1.59	0.2097

**Listing 15.4.3.1 Analysis of Evening COHb (%) versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
UCPDGR1	1	153	0.09	0.7591

## Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	0.05928	0.01881	153	3.15	0.0020	0.05	0.02212	0.09645
TRTAN	CC	1.5098	0.02612	153	57.80	<.0001	0.05	1.4582	1.5614

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.3.1 Analysis of Evening COHb (%) versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	SA	-0.01917	0.02682	153	-0.71	0.4759	0.05	-0.07216	0.03382

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.3.1 Analysis of Evening COHb (%) versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-1.4505	0.03218	153	-45.08	<.0001	0.05	-1.5140	-1.3869
TRTAN	SA	CC	-1.5289	0.03747	153	-40.80	<.0001	0.05	-1.6029	-1.4549

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

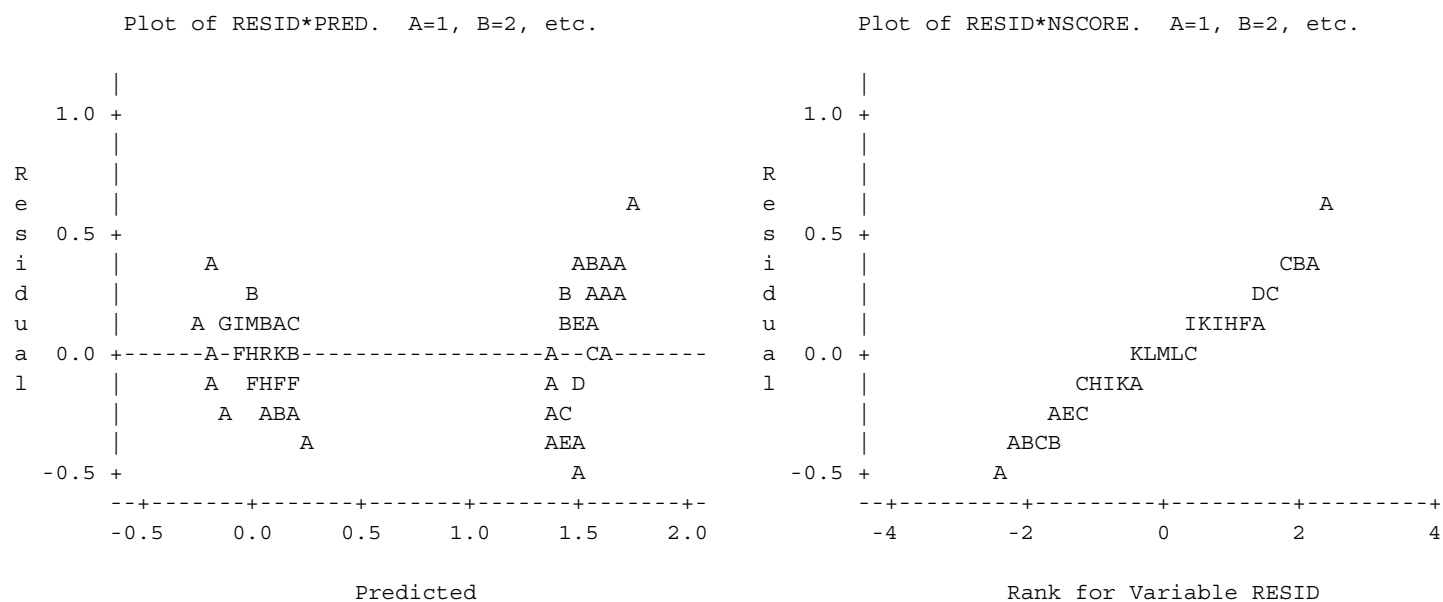
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**Listing 15.4.3.1 Analysis of Evening COHb (%) versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots





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**Listing 15.4.3.2 Analysis of MHBMA Urinary Concentration Adjusted for Creatinine (pg/mg creat)  
versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



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**Listing 15.4.3.2 Analysis of MHBMA Urinary Concentration Adjusted for Creatinine (pg/mg creat)  
versus CC on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0
Subjects	1
Max Obs Per Subject	159





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**Listing 15.4.3.2 Analysis of MHBMA Urinary Concentration Adjusted for Creatinine (pg/mg creat)  
versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.2606

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of MHBMA Urinary Concentration Adjusted for Creatinine (pg/mg creat)  
versus CC on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

## Fit Statistics

-2 Res Log Likelihood	252.4
AIC (smaller is better)	254.4
AICC (smaller is better)	254.4
BIC (smaller is better)	257.4

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	23.72	<.0001
TRTAN	2	153	368.14	<.0001
SEXC	1	153	1.05	0.3081

**Listing 15.4.3.2 Analysis of MHBMA Urinary Concentration Adjusted for Creatinine (pg/mg creat)  
versus CC on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
UCPDGR1	1	153	3.43	0.0660

## Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.2681	0.05745	153	91.69	<.0001	0.05	5.1546	5.3816
TRTAN	CC	7.7469	0.08016	153	96.64	<.0001	0.05	7.5885	7.9053

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of MHBMA Urinary Concentration Adjusted for Creatinine (pg/mg creat)  
versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	SA	5.1240	0.08199	153	62.49	<.0001	0.05	4.9620	5.2860

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.3.2 Analysis of MHBMA Urinary Concentration Adjusted for Creatinine (pg/mg creat)  
versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-2.4788	0.09872	153	-25.11	<.0001	0.05	-2.6738	-2.2837
TRTAN	SA	CC	-2.6229	0.1151	153	-22.79	<.0001	0.05	-2.8503	-2.3955

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

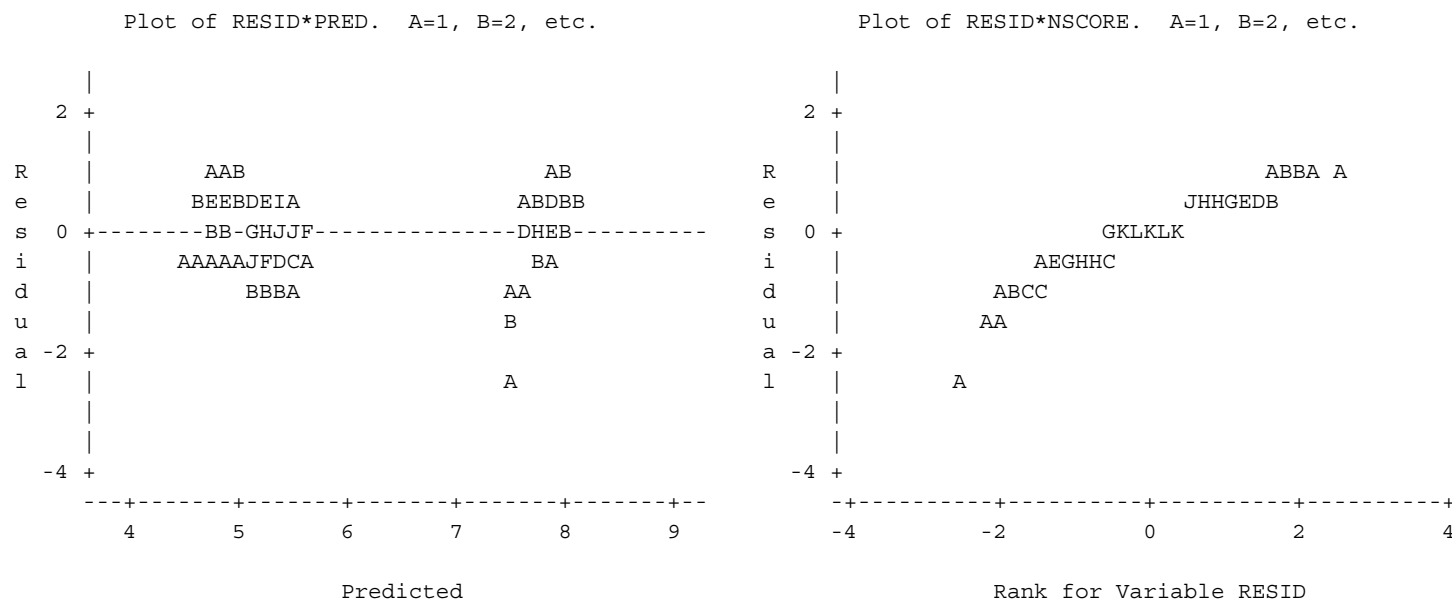
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**Listing 15.4.3.2 Analysis of MHBMA Urinary Concentration Adjusted for Creatinine (pg/mg creat) versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots





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**Listing 15.4.3.3 3-HPMA Urinary Concentration Adjusted for Creatinine (ng/mg creat) versus CC on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.3.3 3-HPMA Urinary Concentration Adjusted for Creatinine (ng/mg creat) versus CC on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0
Subjects	1
Max Obs Per Subject	159





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**Listing 15.4.3.3 3-HPMA Urinary Concentration Adjusted for Creatinine (ng/mg creat) versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.06586

**Listing 15.4.3.3 3-HPMA Urinary Concentration Adjusted for Creatinine (ng/mg creat) versus CC on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

## Fit Statistics

-2 Res Log Likelihood	40.6
AIC (smaller is better)	42.6
AICC (smaller is better)	42.6
BIC (smaller is better)	45.6

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	152.44	<.0001
TRTAN	2	153	298.12	<.0001
SEXC	1	153	0.39	0.5314

**Listing 15.4.3.3 3-HPMA Urinary Concentration Adjusted for Creatinine (ng/mg creat) versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
UCPDGR1	1	153	0.14	0.7077

## Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.9886	0.02888	153	207.33	<.0001	0.05	5.9316	6.0457
TRTAN	CC	6.8649	0.04014	153	171.04	<.0001	0.05	6.7856	6.9442

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.3.3 3-HPMA Urinary Concentration Adjusted for Creatinine (ng/mg creat) versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	SA	5.4913	0.04111	153	133.57	<.0001	0.05	5.4100	5.5725

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.3.3 3-HPMA Urinary Concentration Adjusted for Creatinine (ng/mg creat) versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Differences of Least Squares Means

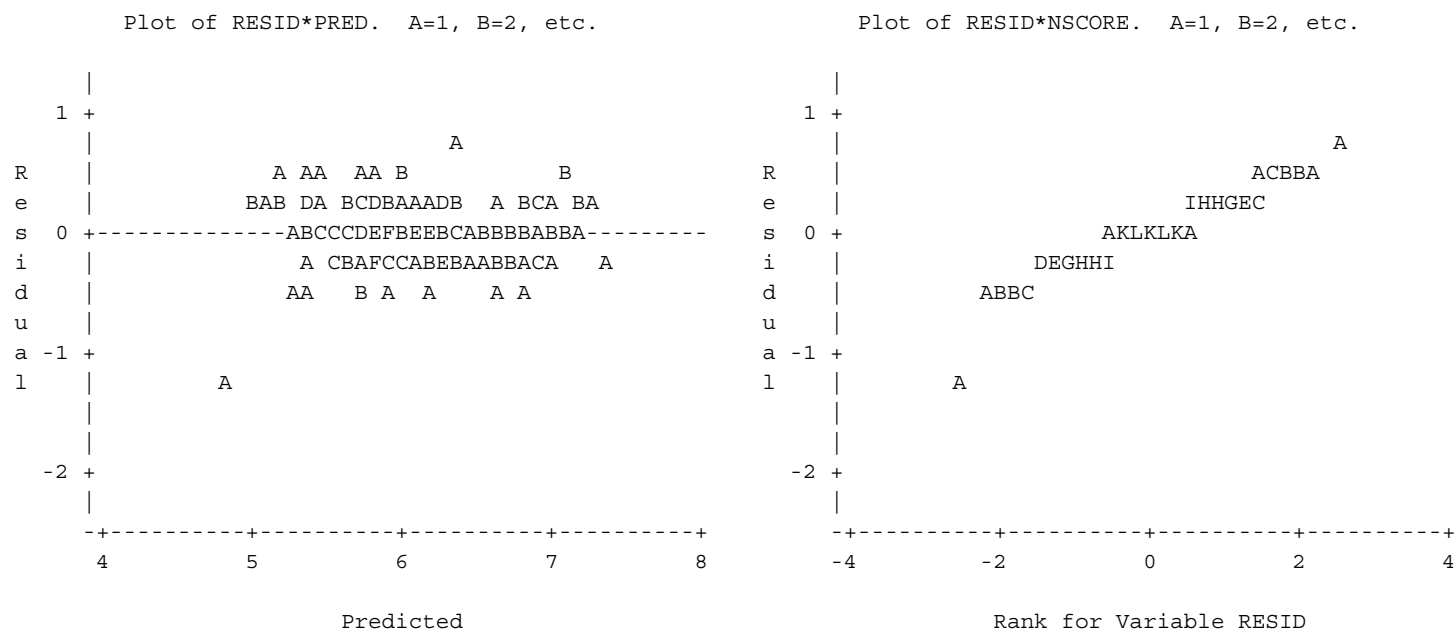
Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.8762	0.04948	153	-17.71	<.0001	0.05	-0.9740	-0.7785
TRTAN	SA	CC	-1.3736	0.05749	153	-23.89	<.0001	0.05	-1.4872	-1.2600

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.3.3 3-HPMA Urinary Concentration Adjusted for Creatinine (ng/mg creat) versus CC on Day 5 - FAS**

Proc Mixed Procedure  
Residual Plots





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**Listing 15.4.3.4 S-PMA Urinary Concentration Adjusted for Creatinine (pg/mg creat) versus CC on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.3.4 S-PMA Urinary Concentration Adjusted for Creatinine (pg/mg creat) versus CC on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0
Subjects	1
Max Obs Per Subject	159





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**Listing 15.4.3.4 S-PMA Urinary Concentration Adjusted for Creatinine (pg/mg creat) versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1302

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.3.4 S-PMA Urinary Concentration Adjusted for Creatinine (pg/mg creat) versus CC on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

## Fit Statistics

-2 Res Log Likelihood	146.0
AIC (smaller is better)	148.0
AICC (smaller is better)	148.1
BIC (smaller is better)	151.1

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	202.12	<.0001
TRTAN	2	153	932.30	<.0001
SEXC	1	153	16.44	<.0001

**Listing 15.4.3.4 S-PMA Urinary Concentration Adjusted for Creatinine (pg/mg creat) versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
UCPDGR1	1	153	0.00	0.9674

## Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.1030	0.04061	153	125.67	<.0001	0.05	5.0227	5.1832
TRTAN	CC	7.9187	0.05657	153	139.98	<.0001	0.05	7.8069	8.0304

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.3.4 S-PMA Urinary Concentration Adjusted for Creatinine (pg/mg creat) versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	SA	5.0348	0.05797	153	86.86	<.0001	0.05	4.9203	5.1493

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.3.4 S-PMA Urinary Concentration Adjusted for Creatinine (pg/mg creat) versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-2.8157	0.06965	153	-40.43	<.0001	0.05	-2.9533	-2.6781
TRTAN	SA	CC	-2.8839	0.08126	153	-35.49	<.0001	0.05	-3.0444	-2.7234

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

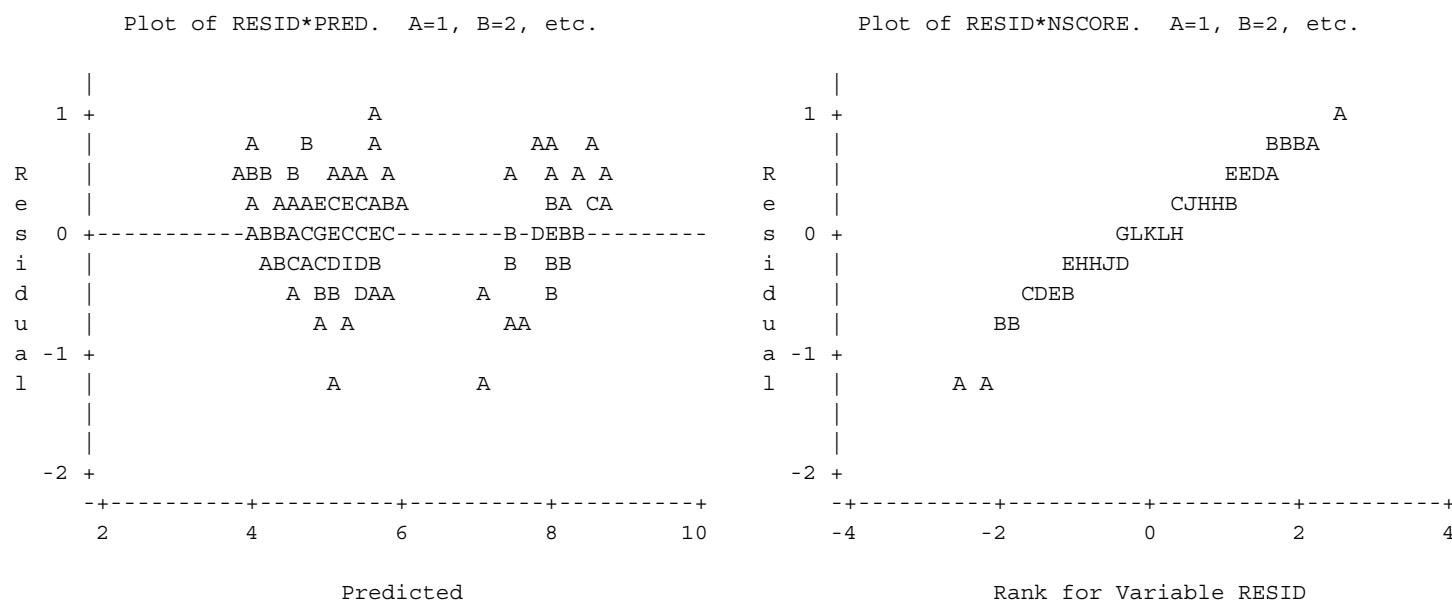
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**Listing 15.4.3.4 S-PMA Urinary Concentration Adjusted for Creatinine (pg/mg creat) versus CC on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots





#### **15.4.4 Secondary Endpoints**



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**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CARBXHGB -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





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**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CARBXHGB -----

Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CARBXHGB -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CARBXHGB -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.02794

Fit Statistics

-2 Res Log Likelihood	-91.4
AIC (smaller is better)	-89.4
AICC (smaller is better)	-89.3
BIC (smaller is better)	-86.3

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CARBXHGB -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	34.48	<.0001
TRTAN	2	153	1188.09	<.0001
SEXC	1	153	1.59	0.2097
UCPDGR1	1	153	0.09	0.7591

**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CARBXHGB -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	0.05928	0.01881	153	3.15	0.0020	0.05	0.02212	0.09645
TRTAN	CC	1.5098	0.02612	153	57.80	<.0001	0.05	1.4582	1.5614
TRTAN	SA	-0.01917	0.02682	153	-0.71	0.4759	0.05	-0.07216	0.03382

**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CARBXHGB -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.07845	0.03279	153	2.39	0.0180	0.05	0.01367	0.1432
TRTAN	CC	SA	1.5289	0.03747	153	40.80	<.0001	0.05	1.4549	1.6029

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U3HPMCRE -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



---

**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U3HPMCRE -----

Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U3HPMCRE -----

Dimensions

Subjects	1
Max Obs Per Subject	159

Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U3HPMCRE -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.06586

Fit Statistics

-2 Res Log Likelihood	40.6
AIC (smaller is better)	42.6
AICC (smaller is better)	42.6
BIC (smaller is better)	45.6

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U3HPMCRE -----

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	152.44	<.0001
TRTAN	2	153	298.12	<.0001
SEXC	1	153	0.39	0.5314
UCPDGR1	1	153	0.14	0.7077

**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U3HPMCRE -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.9886	0.02888	153	207.33	<.0001	0.05	5.9316	6.0457
TRTAN	CC	6.8649	0.04014	153	171.04	<.0001	0.05	6.7856	6.9442
TRTAN	SA	5.4913	0.04111	153	133.57	<.0001	0.05	5.4100	5.5725

**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U3HPMCRE -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.4974	0.05024	153	9.90	<.0001	0.05	0.3981	0.5966
TRTAN	CC	SA	1.3736	0.05749	153	23.89	<.0001	0.05	1.2600	1.4872

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UMHBMCRE -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UMHBMCRE -----

Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UMHBMCRE -----

Dimensions

Subjects	1
Max Obs Per Subject	159

Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UMHBMCRE -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.2606

Fit Statistics

-2 Res Log Likelihood	252.4
AIC (smaller is better)	254.4
AICC (smaller is better)	254.4
BIC (smaller is better)	257.4

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UMHBMCRE -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	23.72	<.0001
TRTAN	2	153	368.14	<.0001
SEXC	1	153	1.05	0.3081
UCPDGR1	1	153	3.43	0.0660

**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UMHBMCRE -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.2681	0.05745	153	91.69	<.0001	0.05	5.1546	5.3816
TRTAN	CC	7.7469	0.08016	153	96.64	<.0001	0.05	7.5885	7.9053
TRTAN	SA	5.1240	0.08199	153	62.49	<.0001	0.05	4.9620	5.2860

**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UMHBMCRE -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.1441	0.1001	153	1.44	0.1517	0.05	-0.05353	0.3418
TRTAN	CC	SA	2.6229	0.1151	153	22.79	<.0001	0.05	2.3955	2.8503

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USPMACRE -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



---

**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USPMACRE -----

Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USPMACRE -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USPMACRE -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1302

Fit Statistics

-2 Res Log Likelihood	146.0
AIC (smaller is better)	148.0
AICC (smaller is better)	148.1
BIC (smaller is better)	151.1

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USPMACRE -----

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	202.12	<.0001
TRTAN	2	153	932.30	<.0001
SEXC	1	153	16.44	<.0001
UCPDGR1	1	153	0.00	0.9674

**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USPMACRE -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.1030	0.04061	153	125.67	<.0001	0.05	5.0227	5.1832
TRTAN	CC	7.9187	0.05657	153	139.98	<.0001	0.05	7.8069	8.0304
TRTAN	SA	5.0348	0.05797	153	86.86	<.0001	0.05	4.9203	5.1493

**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USPMACRE -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.06819	0.07077	153	0.96	0.3368	0.05	-0.07162	0.2080
TRTAN	CC	SA	2.8839	0.08126	153	35.49	<.0001	0.05	2.7234	3.0444

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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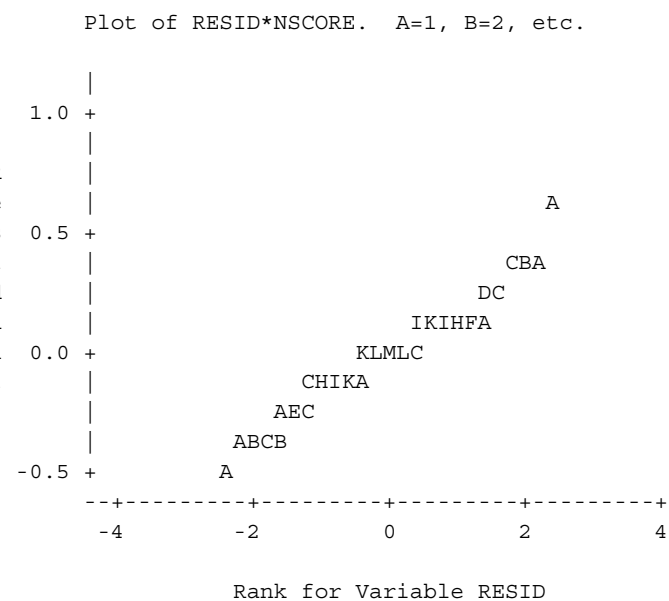
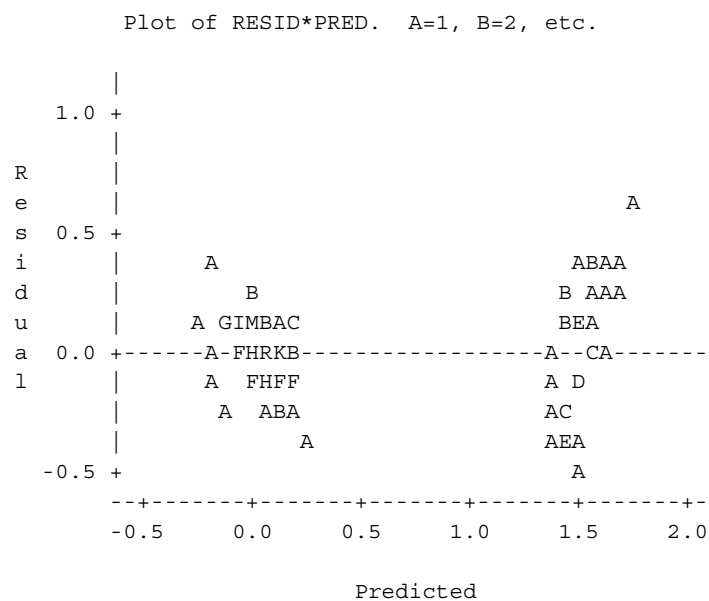
**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

----- Parameter Code=CARBXHGB -----



**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

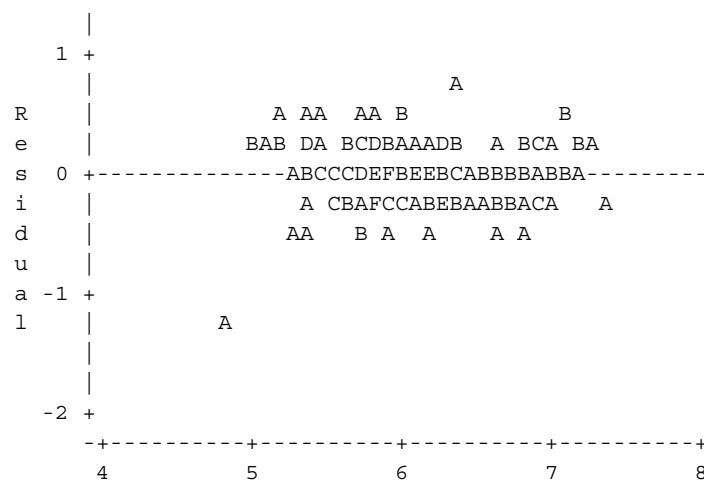
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

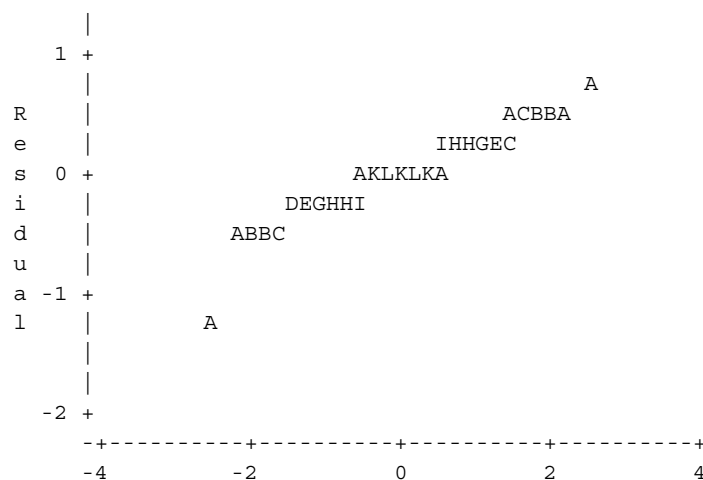
Residual Plots

----- Parameter Code=U3HPMCRE -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.



Predicted

Rank for Variable RESID

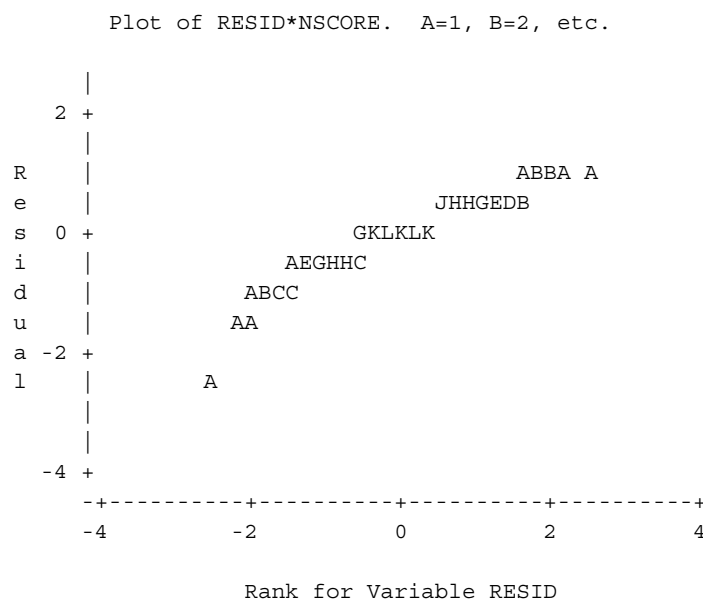
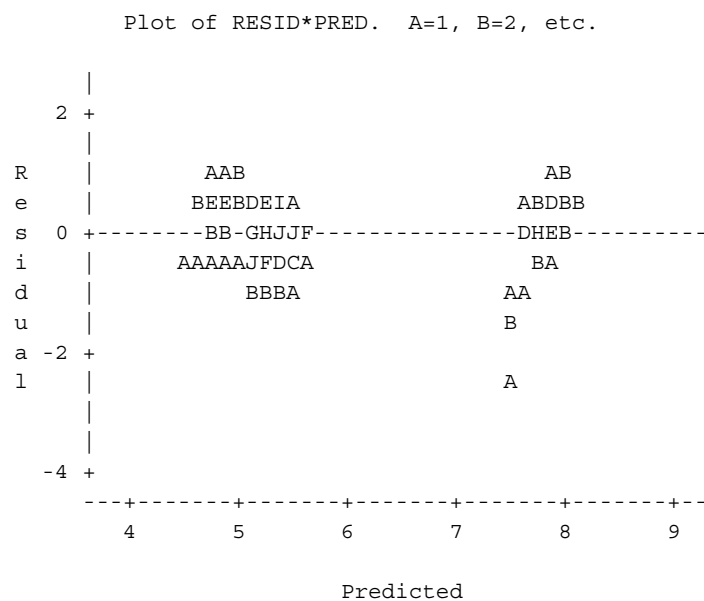
**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

----- Parameter Code=UMHBMCRE -----



**Listing 15.4.4.1 Primary Biomarkers of Exposure versus SA on Day 5 - FAS**

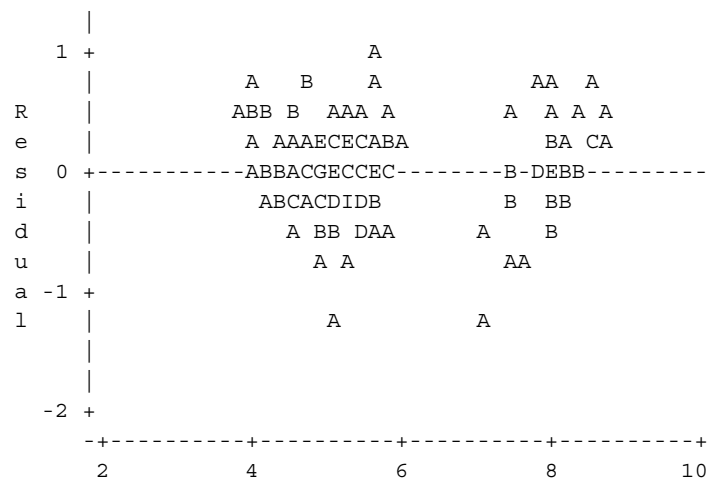
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

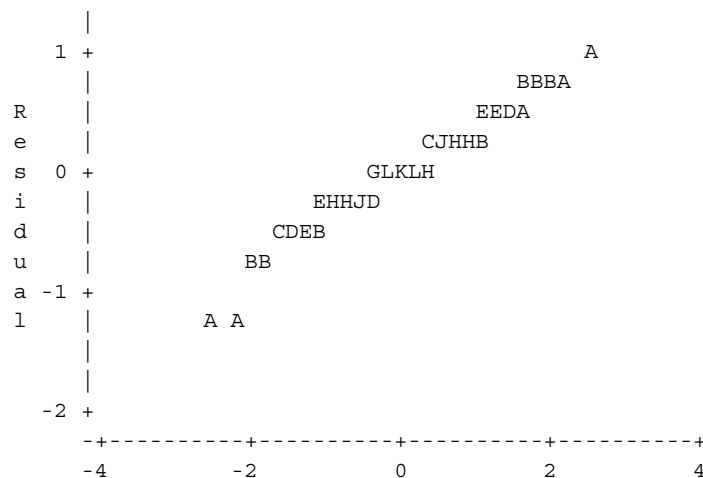
----- Parameter Code=USPMACRE -----

Plot of RESID\*PRED. A=1, B=2, etc.



Predicted

Plot of RESID\*NSCORE. A=1, B=2, etc.



Rank for Variable RESID



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**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U3HPM24U -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





---

**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U3HPM24U -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0



---

**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U3HPM24U -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U3HPM24U -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1024

Fit Statistics

-2 Res Log Likelihood	108.0
AIC (smaller is better)	110.0
AICC (smaller is better)	110.0
BIC (smaller is better)	113.0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U3HPM24U -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	127.56	<.0001
TRTAN	2	153	180.82	<.0001
SEXC	1	153	17.13	<.0001
UCPDGR1	1	153	2.21	0.1395

**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U3HPM24U -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	6.3528	0.03601	153	176.43	<.0001	0.05	6.2816	6.4239
TRTAN	CC	7.2569	0.05000	153	145.15	<.0001	0.05	7.1581	7.3556
TRTAN	SA	5.9479	0.05124	153	116.09	<.0001	0.05	5.8467	6.0492
TRTAN	THS 2.2	6.3528	0.03601	153	176.43	<.0001	0.05	6.2816	6.4239
TRTAN	CC	7.2569	0.05000	153	145.15	<.0001	0.05	7.1581	7.3556
TRTAN	SA	5.9479	0.05124	153	116.09	<.0001	0.05	5.8467	6.0492

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U3HPM24U -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.4048	0.06263	153	6.46	<.0001	0.05	0.2811	0.5286
TRTAN	CC	SA	1.3089	0.07159	153	18.28	<.0001	0.05	1.1675	1.4504
TRTAN	THS 2.2	CC	-0.9041	0.06164	153	-14.67	<.0001	0.05	-1.0259	-0.7823
TRTAN	SA	CC	-1.3089	0.07159	153	-18.28	<.0001	0.05	-1.4504	-1.1675

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UMHBM24U -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



---

**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UMHBM24U -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0





---

**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UMHBM24U -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UMHBM24U -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.2668

Fit Statistics

-2 Res Log Likelihood	256.0
AIC (smaller is better)	258.0
AICC (smaller is better)	258.0
BIC (smaller is better)	261.0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UMHBM24U -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	27.91	<.0001
TRTAN	2	153	357.40	<.0001
SEXC	1	153	18.63	<.0001
UCPDGR1	1	153	1.23	0.2688

**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UMHBM24U -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.6336	0.05813	153	96.92	<.0001	0.05	5.5188	5.7485
TRTAN	CC	8.1386	0.08117	153	100.27	<.0001	0.05	7.9783	8.2990
TRTAN	SA	5.5758	0.08302	153	67.16	<.0001	0.05	5.4118	5.7399
TRTAN	THS 2.2	5.6336	0.05813	153	96.92	<.0001	0.05	5.5188	5.7485
TRTAN	CC	8.1386	0.08117	153	100.27	<.0001	0.05	7.9783	8.2990
TRTAN	SA	5.5758	0.08302	153	67.16	<.0001	0.05	5.4118	5.7399

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UMHBM24U -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.05778	0.1013	153	0.57	0.5691	0.05	-0.1423	0.2579
TRTAN	CC	SA	2.5628	0.1167	153	21.97	<.0001	0.05	2.3323	2.7932
TRTAN	THS 2.2	CC	-2.5050	0.09994	153	-25.06	<.0001	0.05	-2.7024	-2.3075
TRTAN	SA	CC	-2.5628	0.1167	153	-21.97	<.0001	0.05	-2.7932	-2.3323

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USPMA24U -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



---

**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USPMA24U -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USPMA24U -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USPMA24U -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1621

Fit Statistics

-2 Res Log Likelihood	179.5
AIC (smaller is better)	181.5
AICC (smaller is better)	181.6
BIC (smaller is better)	184.6

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USPMA24U -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	185.07	<.0001
TRTAN	2	153	740.66	<.0001
SEXC	1	153	1.09	0.2988
UCPDGR1	1	153	0.46	0.4965

**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USPMA24U -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.4688	0.04530	153	120.71	<.0001	0.05	5.3793	5.5583
TRTAN	CC	8.3039	0.06318	153	131.44	<.0001	0.05	8.1791	8.4287
TRTAN	SA	5.4948	0.06474	153	84.87	<.0001	0.05	5.3669	5.6227
TRTAN	THS 2.2	5.4688	0.04530	153	120.71	<.0001	0.05	5.3793	5.5583
TRTAN	CC	8.3039	0.06318	153	131.44	<.0001	0.05	8.1791	8.4287
TRTAN	SA	5.4948	0.06474	153	84.87	<.0001	0.05	5.3669	5.6227

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USPMA24U -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	-0.02605	0.07901	153	-0.33	0.7421	0.05	-0.1821	0.1300
TRTAN	CC	SA	2.8091	0.09085	153	30.92	<.0001	0.05	2.6296	2.9886
TRTAN	THS 2.2	CC	-2.8351	0.07776	153	-36.46	<.0001	0.05	-2.9888	-2.6815
TRTAN	SA	CC	-2.8091	0.09085	153	-30.92	<.0001	0.05	-2.9886	-2.6296

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

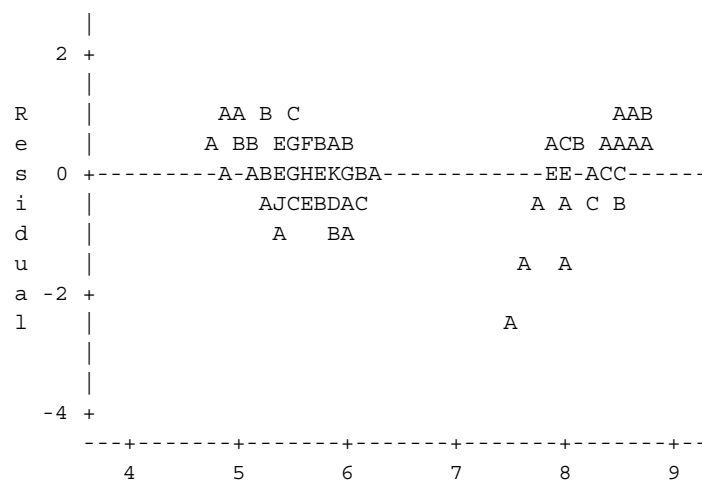
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

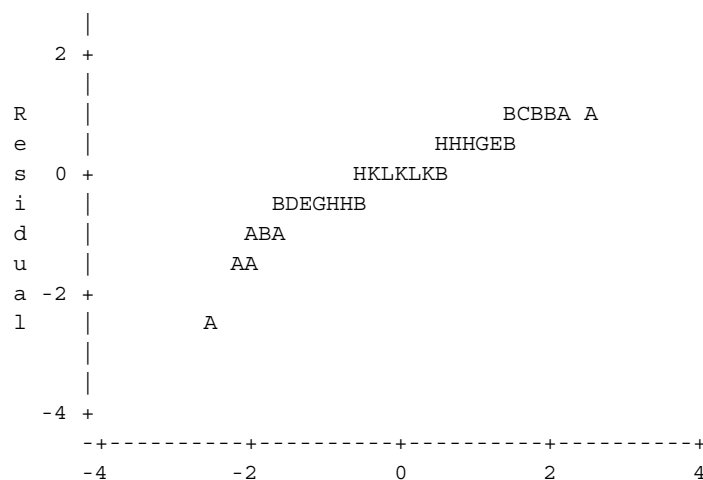
Residual Plots

----- Parameter Code=UMHBM24U -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.



**Listing 15.4.4.2 Urinary Quantity Excreted of MHBMA, 3-HPMA and S-PMA over 24 hours on Day 5 - FAS**

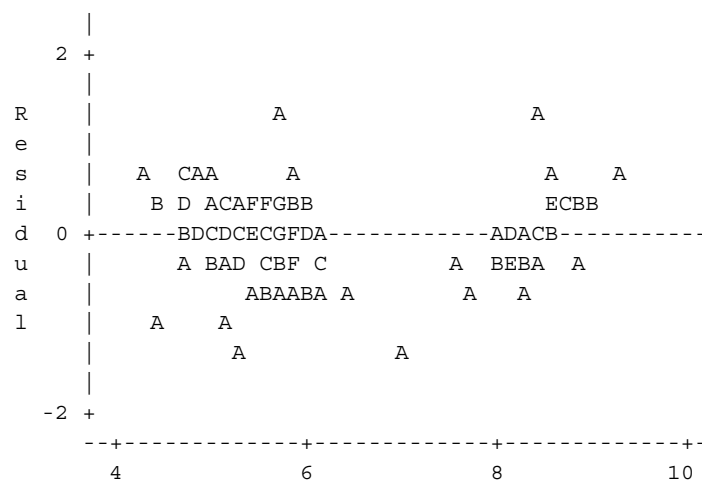
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

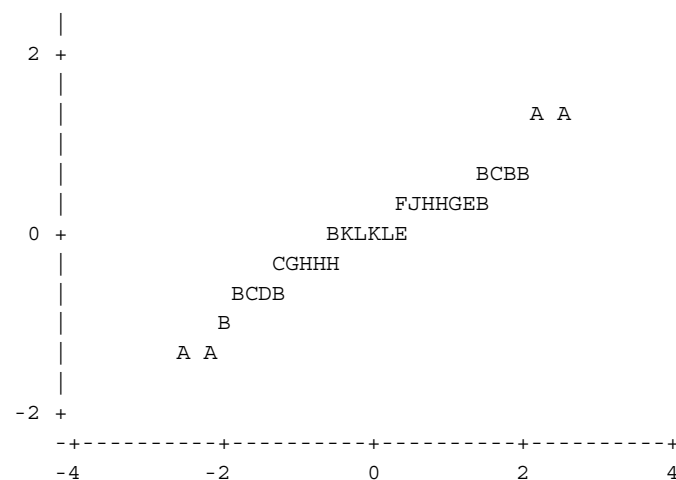
----- Parameter Code=USPMA24U -----

Plot of RESID\*PRED. A=1, B=2, etc.



Predicted

Plot of RESID\*NSCORE. A=1, B=2, etc.



Rank for Variable RESID



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**Listing 15.4.4.6 Analysis of Exhaled CO (ppm) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CO Analysis Value Unit=ppm -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





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**Listing 15.4.4.6 Analysis of Exhaled CO (ppm) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CO Analysis Value Unit=ppm -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.6 Analysis of Exhaled CO (ppm) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CO Analysis Value Unit=ppm -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	146
Number of Observations Not Used	13

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.6 Analysis of Exhaled CO (ppm) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CO Analysis Value Unit=ppm -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1857

Fit Statistics

-2 Res Log Likelihood	183.5
AIC (smaller is better)	185.5
AICC (smaller is better)	185.6
BIC (smaller is better)	188.5

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.6 Analysis of Exhaled CO (ppm) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CO Analysis Value Unit=ppm -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	140	18.25	<.0001
TRTAN	2	140	254.81	<.0001
SEXC	1	140	1.24	0.2665
UCPDGR1	1	140	1.08	0.3007

**Listing 15.4.4.6 Analysis of Exhaled CO (ppm) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CO Analysis Value Unit=ppm -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	0.7091	0.05055	140	14.03	<.0001	0.05	0.6092	0.8090
TRTAN	CC	2.5119	0.06732	140	37.31	<.0001	0.05	2.3788	2.6450
TRTAN	SA	0.7460	0.07660	140	9.74	<.0001	0.05	0.5945	0.8974
TRTAN	THS 2.2	0.7091	0.05055	140	14.03	<.0001	0.05	0.6092	0.8090
TRTAN	CC	2.5119	0.06732	140	37.31	<.0001	0.05	2.3788	2.6450
TRTAN	SA	0.7460	0.07660	140	9.74	<.0001	0.05	0.5945	0.8974

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.6 Analysis of Exhaled CO (ppm) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CO Analysis Value Unit=ppm -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	-0.03688	0.09202	140	-0.40	0.6892	0.05	-0.2188	0.1451
TRTAN	CC	SA	1.7659	0.1020	140	17.31	<.0001	0.05	1.5642	1.9676
TRTAN	THS 2.2	CC	-1.8028	0.08414	140	-21.43	<.0001	0.05	-1.9691	-1.6364
TRTAN	SA	CC	-1.7659	0.1020	140	-17.31	<.0001	0.05	-1.9676	-1.5642

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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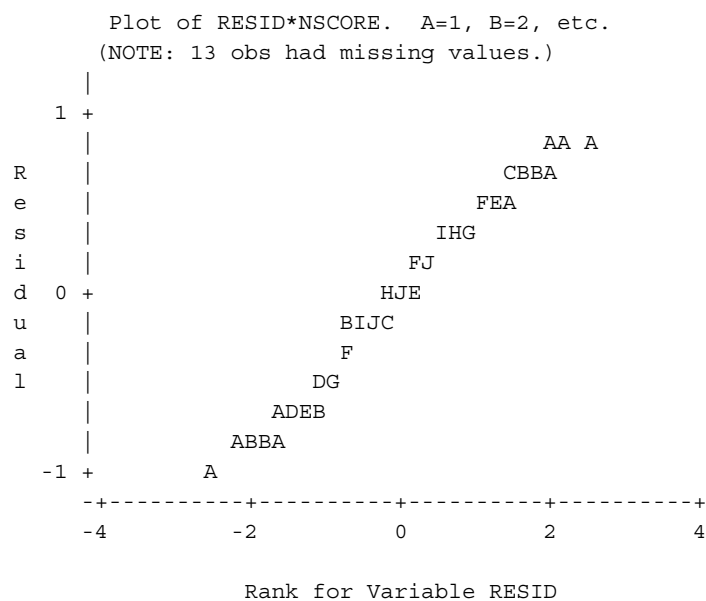
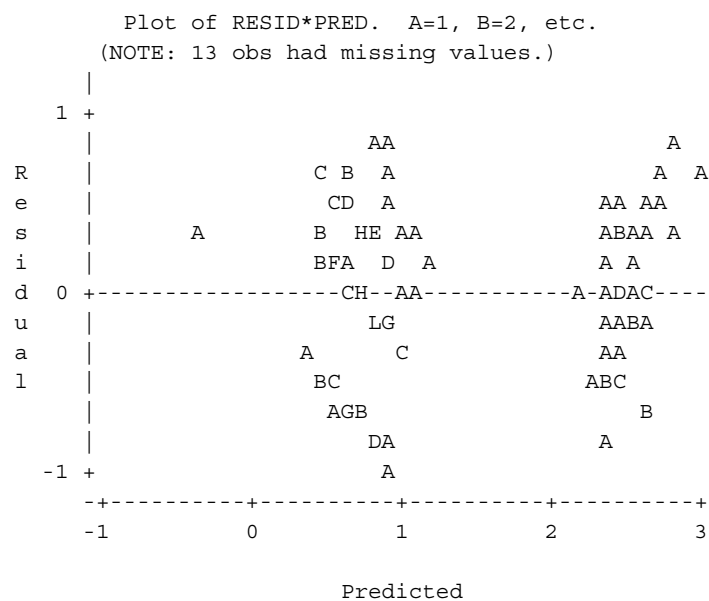
**Listing 15.4.4.6 Analysis of Exhaled CO (ppm) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

----- Parameter Code=CO -----





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**Listing 15.4.4.9 Analysis of Urinary 1-OHP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1OHP24U Analysis Value Unit=ng -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





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**Listing 15.4.4.9 Analysis of Urinary 1-OHP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1OHP24U Analysis Value Unit=ng -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.9 Analysis of Urinary 1-OHP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1OHP24U Analysis Value Unit=ng -----

Dimensions

Subjects	1
Max Obs Per Subject	159

Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.9 Analysis of Urinary 1-OHP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1OHP24U Analysis Value Unit=ng -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1396

Fit Statistics

-2 Res Log Likelihood	155.1
AIC (smaller is better)	157.1
AICC (smaller is better)	157.2
BIC (smaller is better)	160.2

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.9 Analysis of Urinary 1-OHP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1OHP24U Analysis Value Unit=ng -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	64.35	<.0001
TRTAN	2	153	69.87	<.0001
SEXC	1	153	1.79	0.1826
UCPDGR1	1	153	0.96	0.3297

**Listing 15.4.4.9 Analysis of Urinary 1-OHP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1OHP24U Analysis Value Unit=ng -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	4.7666	0.04205	153	113.36	<.0001	0.05	4.6836	4.8497
TRTAN	CC	5.6007	0.05838	153	95.94	<.0001	0.05	5.4854	5.7161
TRTAN	SA	4.8921	0.05984	153	81.75	<.0001	0.05	4.7739	5.0103
TRTAN	THS 2.2	4.7666	0.04205	153	113.36	<.0001	0.05	4.6836	4.8497
TRTAN	CC	5.6007	0.05838	153	95.94	<.0001	0.05	5.4854	5.7161
TRTAN	SA	4.8921	0.05984	153	81.75	<.0001	0.05	4.7739	5.0103

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.9 Analysis of Urinary 1-OHP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1OHP24U Analysis Value Unit=ng -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	-0.1255	0.07314	153	-1.72	0.0883	0.05	-0.2700	0.01902
TRTAN	CC	SA	0.7086	0.08360	153	8.48	<.0001	0.05	0.5435	0.8738
TRTAN	THS 2.2	CC	-0.8341	0.07196	153	-11.59	<.0001	0.05	-0.9763	-0.6920
TRTAN	SA	CC	-0.7086	0.08360	153	-8.48	<.0001	0.05	-0.8738	-0.5435

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.9 Analysis of Urinary 1-OHP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1OHPCRE Analysis Value Unit=pg/mg creat -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



---

**Listing 15.4.4.9 Analysis of Urinary 1-OHP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1OHPCRE Analysis Value Unit=pg/mg creat -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.9 Analysis of Urinary 1-OHP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1OHPCRE Analysis Value Unit=pg/mg creat -----

Dimensions

Subjects	1
Max Obs Per Subject	159

Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.9 Analysis of Urinary 1-OHP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1OHPCRE Analysis Value Unit=pg/mg creat -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.07795

Fit Statistics

-2 Res Log Likelihood	66.0
AIC (smaller is better)	68.0
AICC (smaller is better)	68.0
BIC (smaller is better)	71.0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.9 Analysis of Urinary 1-OHP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1OHPCRE Analysis Value Unit=pg/mg creat -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	99.08	<.0001
TRTAN	2	153	125.58	<.0001
SEXC	1	153	13.50	0.0003
UCPDGR1	1	153	0.21	0.6470

**Listing 15.4.4.9 Analysis of Urinary 1-OHP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1OHPCRE Analysis Value Unit=pg/mg creat -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	4.4003	0.03142	153	140.06	<.0001	0.05	4.3383	4.4624
TRTAN	CC	5.2133	0.04361	153	119.54	<.0001	0.05	5.1271	5.2995
TRTAN	SA	4.4347	0.04473	153	99.14	<.0001	0.05	4.3463	4.5230
TRTAN	THS 2.2	4.4003	0.03142	153	140.06	<.0001	0.05	4.3383	4.4624
TRTAN	CC	5.2133	0.04361	153	119.54	<.0001	0.05	5.1271	5.2995
TRTAN	SA	4.4347	0.04473	153	99.14	<.0001	0.05	4.3463	4.5230

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.9 Analysis of Urinary 1-OHP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1OHPCRE Analysis Value Unit=pg/mg creat -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	-0.03433	0.05468	153	-0.63	0.5310	0.05	-0.1424	0.07369
TRTAN	CC	SA	0.7786	0.06247	153	12.46	<.0001	0.05	0.6552	0.9020
TRTAN	THS 2.2	CC	-0.8130	0.05375	153	-15.13	<.0001	0.05	-0.9191	-0.7068
TRTAN	SA	CC	-0.7786	0.06247	153	-12.46	<.0001	0.05	-0.9020	-0.6552

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.9 Analysis of Urinary 1-OHP on Day 5 - FAS**

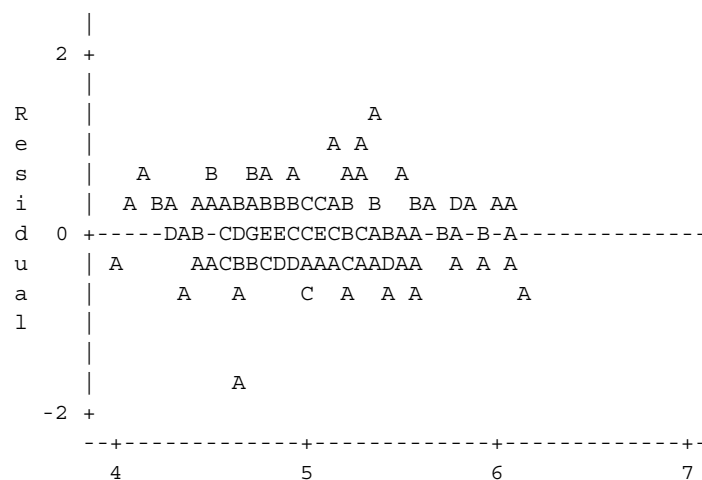
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

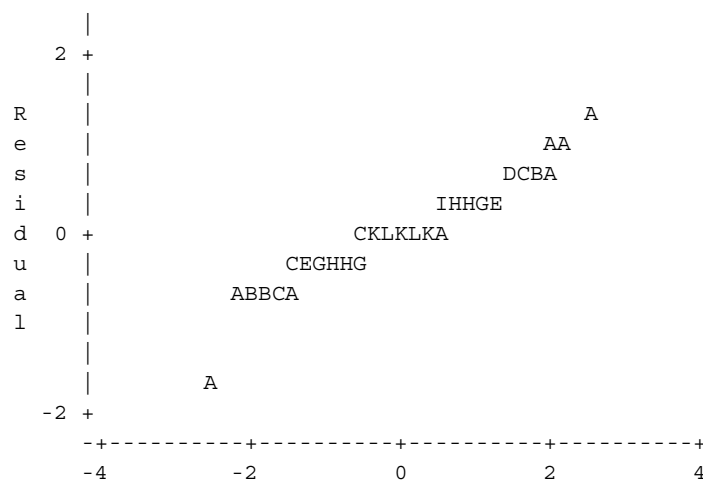
Residual Plots

----- Parameter Code=U1OHP24U -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.



Predicted

Rank for Variable RESID

**Listing 15.4.4.9 Analysis of Urinary 1-OHP on Day 5 - FAS**

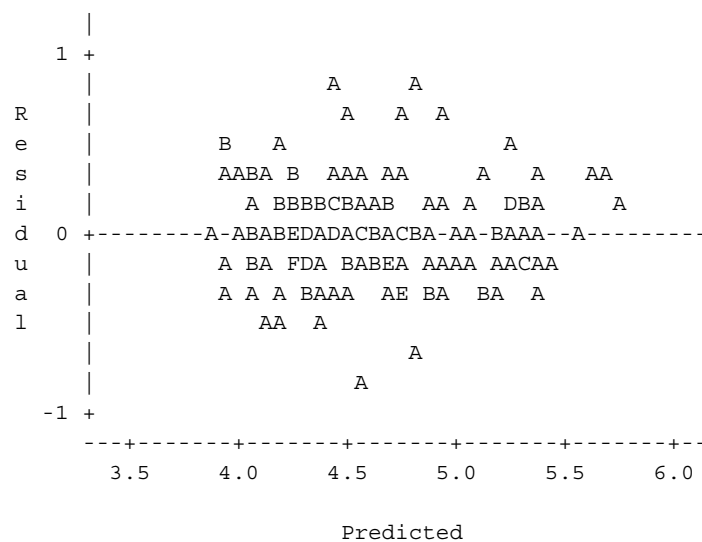
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

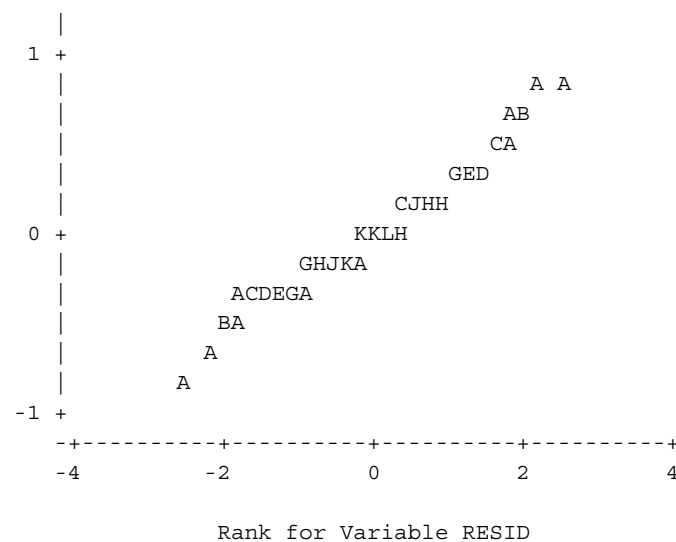
Residual Plots

----- Parameter Code=U1OHPCRE -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.





---

**Listing 15.4.4.11 Analysis of Urinary Total NNN on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNN24U Analysis Value Unit=ng -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





---

**Listing 15.4.4.11 Analysis of Urinary Total NNN on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNN24U Analysis Value Unit=ng -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.11 Analysis of Urinary Total NNN on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNN24U Analysis Value Unit=ng -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.11 Analysis of Urinary Total NNN on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNN24U Analysis Value Unit=ng -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.6820

Fit Statistics

-2 Res Log Likelihood	399.2
AIC (smaller is better)	401.2
AICC (smaller is better)	401.2
BIC (smaller is better)	404.2

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.11 Analysis of Urinary Total NNN on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNN24U Analysis Value Unit=ng -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	54.02	<.0001
TRTAN	2	153	196.94	<.0001
SEXC	1	153	0.32	0.5737
UCPDGR1	1	153	0.18	0.6678

**Listing 15.4.4.11 Analysis of Urinary Total NNN on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNN24U Analysis Value Unit=ng -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	0.7947	0.09293	153	8.55	<.0001	0.05	0.6111	0.9783
TRTAN	CC	2.2451	0.1292	153	17.38	<.0001	0.05	1.9899	2.5002
TRTAN	SA	-1.3986	0.1323	153	-10.57	<.0001	0.05	-1.6600	-1.1371
TRTAN	THS 2.2	0.7947	0.09293	153	8.55	<.0001	0.05	0.6111	0.9783
TRTAN	CC	2.2451	0.1292	153	17.38	<.0001	0.05	1.9899	2.5002
TRTAN	SA	-1.3986	0.1323	153	-10.57	<.0001	0.05	-1.6600	-1.1371

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.11 Analysis of Urinary Total NNN on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNN24U Analysis Value Unit=ng -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	2.1933	0.1617	153	13.56	<.0001	0.05	1.8738	2.5127
TRTAN	CC	SA	3.6436	0.1851	153	19.69	<.0001	0.05	3.2780	4.0092
TRTAN	THS 2.2	CC	-1.4504	0.1592	153	-9.11	<.0001	0.05	-1.7648	-1.1359
TRTAN	SA	CC	-3.6436	0.1851	153	-19.69	<.0001	0.05	-4.0092	-3.2780

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.11 Analysis of Urinary Total NNN on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNNCRE Analysis Value Unit=pg/mg creat -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



---

**Listing 15.4.4.11 Analysis of Urinary Total NNN on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNNCRE Analysis Value Unit=pg/mg creat -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.11 Analysis of Urinary Total NNN on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNNCRE Analysis Value Unit=pg/mg creat -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.11 Analysis of Urinary Total NNN on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNCRE Analysis Value Unit=pg/mg creat -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.6446

Fit Statistics

-2 Res Log Likelihood	390.6
AIC (smaller is better)	392.6
AICC (smaller is better)	392.7
BIC (smaller is better)	395.7

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.11 Analysis of Urinary Total NNN on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNNCRE Analysis Value Unit=pg/mg creat -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	49.52	<.0001
TRTAN	2	153	216.11	<.0001
SEXC	1	153	6.64	0.0109
UCPDGR1	1	153	0.54	0.4628

**Listing 15.4.4.11 Analysis of Urinary Total NNN on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNNCRE Analysis Value Unit=pg/mg creat -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	0.4298	0.09035	153	4.76	<.0001	0.05	0.2513	0.6082
TRTAN	CC	1.8521	0.1256	153	14.74	<.0001	0.05	1.6038	2.1003
TRTAN	SA	-1.8528	0.1287	153	-14.39	<.0001	0.05	-2.1071	-1.5985
TRTAN	THS 2.2	0.4298	0.09035	153	4.76	<.0001	0.05	0.2513	0.6082
TRTAN	CC	1.8521	0.1256	153	14.74	<.0001	0.05	1.6038	2.1003
TRTAN	SA	-1.8528	0.1287	153	-14.39	<.0001	0.05	-2.1071	-1.5985

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.11 Analysis of Urinary Total NNN on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNNCRE Analysis Value Unit=pg/mg creat -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	2.2826	0.1572	153	14.52	<.0001	0.05	1.9719	2.5932
TRTAN	CC	SA	3.7049	0.1801	153	20.57	<.0001	0.05	3.3490	4.0607
TRTAN	THS 2.2	CC	-1.4223	0.1548	153	-9.19	<.0001	0.05	-1.7282	-1.1164
TRTAN	SA	CC	-3.7049	0.1801	153	-20.57	<.0001	0.05	-4.0607	-3.3490

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.11 Analysis of Urinary Total NNN on Day 5 - FAS**

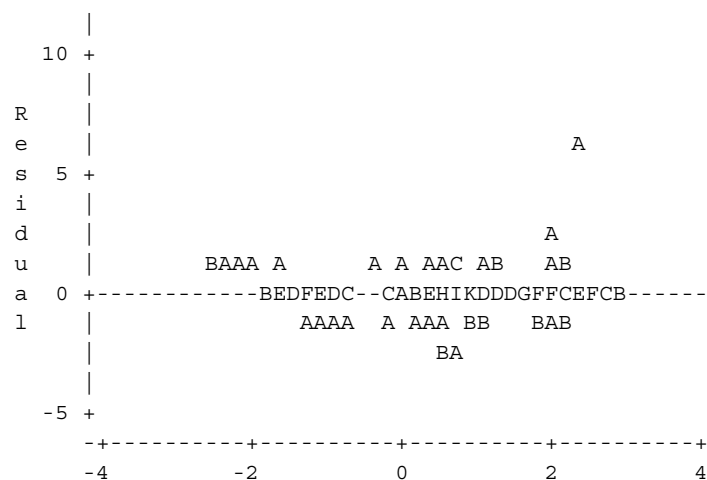
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

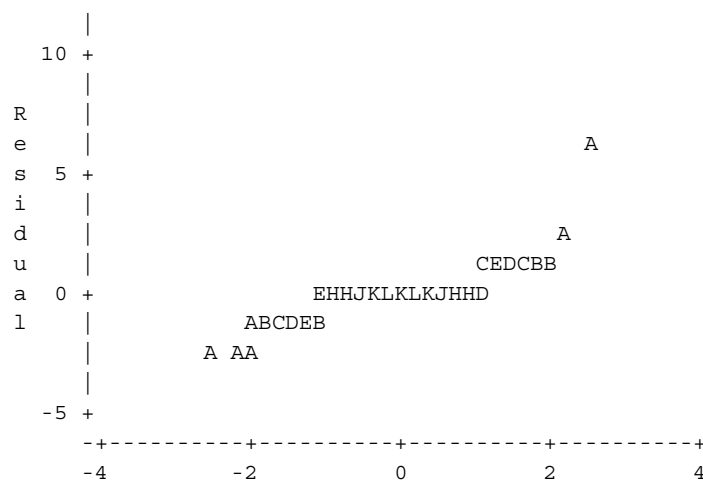
Residual Plots

----- Parameter Code=UNNN24U -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.



Predicted

Rank for Variable RESID

**Listing 15.4.4.11 Analysis of Urinary Total NNN on Day 5 - FAS**

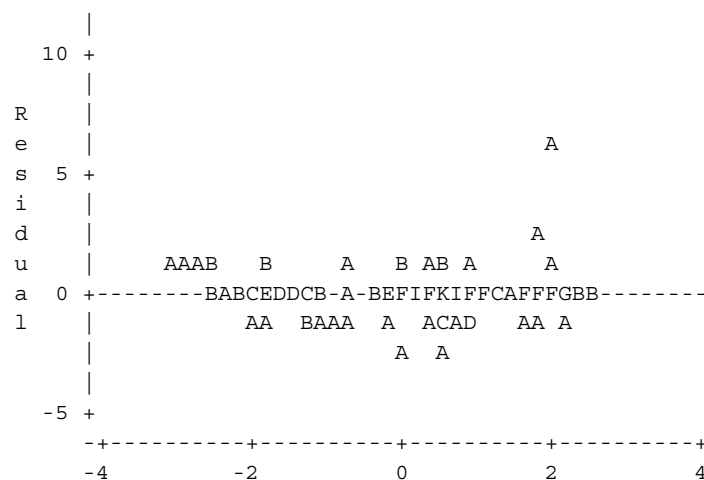
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

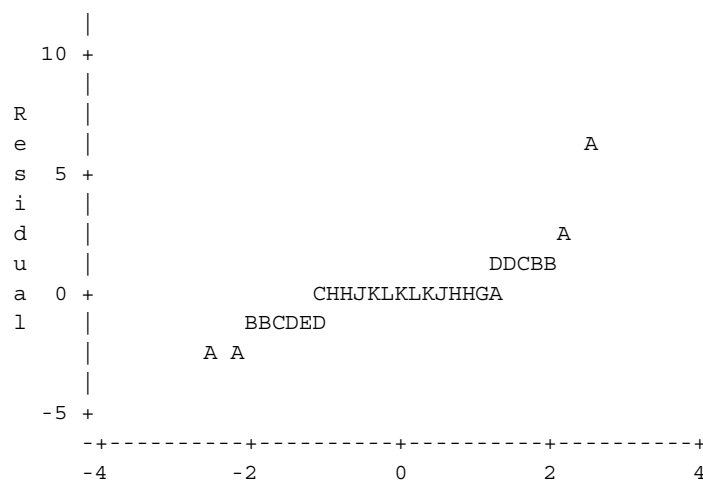
----- Parameter Code=UNNNCRE -----

Plot of RESID\*PRED. A=1, B=2, etc.



Predicted

Plot of RESID\*NSCORE. A=1, B=2, etc.



Rank for Variable RESID



---

**Listing 15.4.4.13 Analysis of Urinary 4-ABP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U4ABP24U Analysis Value Unit=ng -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





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**Listing 15.4.4.13 Analysis of Urinary 4-ABP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U4ABP24U Analysis Value Unit=ng -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.13 Analysis of Urinary 4-ABP on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U4ABP24U Analysis Value Unit=ng -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.13 Analysis of Urinary 4-ABP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U4ABP24U Analysis Value Unit=ng -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1572

Fit Statistics

-2 Res Log Likelihood	173.5
AIC (smaller is better)	175.5
AICC (smaller is better)	175.6
BIC (smaller is better)	178.6

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.13 Analysis of Urinary 4-ABP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U4ABP24U Analysis Value Unit=ng -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	41.62	<.0001
TRTAN	2	153	370.25	<.0001
SEXC	1	153	0.86	0.3546
UCPDGR1	1	153	3.12	0.0792

**Listing 15.4.4.13 Analysis of Urinary 4-ABP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U4ABP24U Analysis Value Unit=ng -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	1.0049	0.04461	153	22.53	<.0001	0.05	0.9168	1.0931
TRTAN	CC	2.9325	0.06193	153	47.35	<.0001	0.05	2.8101	3.0548
TRTAN	SA	0.9230	0.06350	153	14.54	<.0001	0.05	0.7975	1.0484
TRTAN	THS 2.2	1.0049	0.04461	153	22.53	<.0001	0.05	0.9168	1.0931
TRTAN	CC	2.9325	0.06193	153	47.35	<.0001	0.05	2.8101	3.0548
TRTAN	SA	0.9230	0.06350	153	14.54	<.0001	0.05	0.7975	1.0484

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.13 Analysis of Urinary 4-ABP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U4ABP24U Analysis Value Unit=ng -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.08197	0.07761	153	1.06	0.2926	0.05	-0.07136	0.2353
TRTAN	CC	SA	2.0095	0.08870	153	22.66	<.0001	0.05	1.8343	2.1847
TRTAN	THS 2.2	CC	-1.9275	0.07632	153	-25.26	<.0001	0.05	-2.0783	-1.7767
TRTAN	SA	CC	-2.0095	0.08870	153	-22.66	<.0001	0.05	-2.1847	-1.8343

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.13 Analysis of Urinary 4-ABP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U4ABPCRE Analysis Value Unit=pg/mg creat -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



---

**Listing 15.4.4.13 Analysis of Urinary 4-ABP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U4ABPCRE Analysis Value Unit=pg/mg creat -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.13 Analysis of Urinary 4-ABP on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U4ABPCRE Analysis Value Unit=pg/mg creat -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.13 Analysis of Urinary 4-ABP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U4ABPCRE Analysis Value Unit=pg/mg creat -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1512

Fit Statistics

-2 Res Log Likelihood	167.7
AIC (smaller is better)	169.7
AICC (smaller is better)	169.7
BIC (smaller is better)	172.7

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.13 Analysis of Urinary 4-ABP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U4ABPCRE Analysis Value Unit=pg/mg creat -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	26.07	<.0001
TRTAN	2	153	387.70	<.0001
SEXC	1	153	19.60	<.0001
UCPDGR1	1	153	0.40	0.5301

**Listing 15.4.4.13 Analysis of Urinary 4-ABP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U4ABPCRE Analysis Value Unit=pg/mg creat -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	0.6397	0.04375	153	14.62	<.0001	0.05	0.5532	0.7261
TRTAN	CC	2.5405	0.06074	153	41.83	<.0001	0.05	2.4205	2.6605
TRTAN	SA	0.4698	0.06228	153	7.54	<.0001	0.05	0.3468	0.5929
TRTAN	THS 2.2	0.6397	0.04375	153	14.62	<.0001	0.05	0.5532	0.7261
TRTAN	CC	2.5405	0.06074	153	41.83	<.0001	0.05	2.4205	2.6605
TRTAN	SA	0.4698	0.06228	153	7.54	<.0001	0.05	0.3468	0.5929

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.13 Analysis of Urinary 4-ABP on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U4ABPCRE Analysis Value Unit=pg/mg creat -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.1698	0.07611	153	2.23	0.0271	0.05	0.01948	0.3202
TRTAN	CC	SA	2.0707	0.08700	153	23.80	<.0001	0.05	1.8988	2.2426
TRTAN	THS 2.2	CC	-1.9008	0.07485	153	-25.39	<.0001	0.05	-2.0487	-1.7530
TRTAN	SA	CC	-2.0707	0.08700	153	-23.80	<.0001	0.05	-2.2426	-1.8988

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of Urinary 1-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1NA24U Analysis Value Unit=ng -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





---

**Listing 15.4.4.15 Analysis of Urinary 1-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1NA24U Analysis Value Unit=ng -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0



---

**Listing 15.4.4.15 Analysis of Urinary 1-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1NA24U Analysis Value Unit=ng -----

Dimensions

Subjects	1
Max Obs Per Subject	159

Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of Urinary 1-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1NA24U Analysis Value Unit=ng -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.2141

Fit Statistics

-2 Res Log Likelihood	220.8
AIC (smaller is better)	222.8
AICC (smaller is better)	222.8
BIC (smaller is better)	225.8

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of Urinary 1-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1NA24U Analysis Value Unit=ng -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	27.19	<.0001
TRTAN	2	153	803.53	<.0001
SEXC	1	153	0.00	0.9923
UCPDGR1	1	153	1.01	0.3161

**Listing 15.4.4.15 Analysis of Urinary 1-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1NA24U Analysis Value Unit=ng -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	1.5681	0.05210	153	30.10	<.0001	0.05	1.4652	1.6711
TRTAN	CC	4.8760	0.07240	153	67.35	<.0001	0.05	4.7330	5.0190
TRTAN	SA	1.3904	0.07411	153	18.76	<.0001	0.05	1.2440	1.5368
TRTAN	THS 2.2	1.5681	0.05210	153	30.10	<.0001	0.05	1.4652	1.6711
TRTAN	CC	4.8760	0.07240	153	67.35	<.0001	0.05	4.7330	5.0190
TRTAN	SA	1.3904	0.07411	153	18.76	<.0001	0.05	1.2440	1.5368

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of Urinary 1-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1NA24U Analysis Value Unit=ng -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.1778	0.09059	153	1.96	0.0515	0.05	-0.00120	0.3568
TRTAN	CC	SA	3.4856	0.1036	153	33.64	<.0001	0.05	3.2809	3.6903
TRTAN	THS 2.2	CC	-3.3078	0.08929	153	-37.05	<.0001	0.05	-3.4842	-3.1314
TRTAN	SA	CC	-3.4856	0.1036	153	-33.64	<.0001	0.05	-3.6903	-3.2809

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of Urinary 1-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1NACRE Analysis Value Unit=pg/mg creat -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



---

**Listing 15.4.4.15 Analysis of Urinary 1-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1NACRE Analysis Value Unit=pg/mg creat -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of Urinary 1-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1NACRE Analysis Value Unit=pg/mg creat -----

Dimensions

Subjects	1
Max Obs Per Subject	159

Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of Urinary 1-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1NACRE Analysis Value Unit=pg/mg creat -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1942

Fit Statistics

-2 Res Log Likelihood	206.0
AIC (smaller is better)	208.0
AICC (smaller is better)	208.0
BIC (smaller is better)	211.0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of Urinary 1-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1NACRE Analysis Value Unit=pg/mg creat -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	19.69	<.0001
TRTAN	2	153	895.66	<.0001
SEXC	1	153	24.41	<.0001
UCPDGR1	1	153	0.03	0.8684

**Listing 15.4.4.15 Analysis of Urinary 1-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1NACRE Analysis Value Unit=pg/mg creat -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	1.2003	0.04961	153	24.19	<.0001	0.05	1.1023	1.2984
TRTAN	CC	4.4885	0.06887	153	65.17	<.0001	0.05	4.3524	4.6245
TRTAN	SA	0.9377	0.07059	153	13.28	<.0001	0.05	0.7983	1.0772
TRTAN	THS 2.2	1.2003	0.04961	153	24.19	<.0001	0.05	1.1023	1.2984
TRTAN	CC	4.4885	0.06887	153	65.17	<.0001	0.05	4.3524	4.6245
TRTAN	SA	0.9377	0.07059	153	13.28	<.0001	0.05	0.7983	1.0772

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of Urinary 1-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U1NACRE Analysis Value Unit=pg/mg creat -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.2626	0.08632	153	3.04	0.0028	0.05	0.09206	0.4331
TRTAN	CC	SA	3.5507	0.09859	153	36.01	<.0001	0.05	3.3559	3.7455
TRTAN	THS 2.2	CC	-3.2881	0.08493	153	-38.72	<.0001	0.05	-3.4559	-3.1203
TRTAN	SA	CC	-3.5507	0.09859	153	-36.01	<.0001	0.05	-3.7455	-3.3559

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.15 Analysis of Urinary 1-NA on Day 5 - FAS**

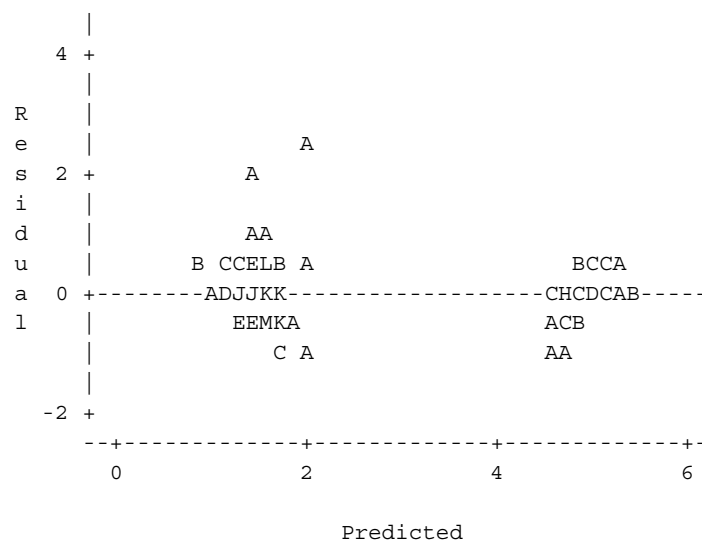
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

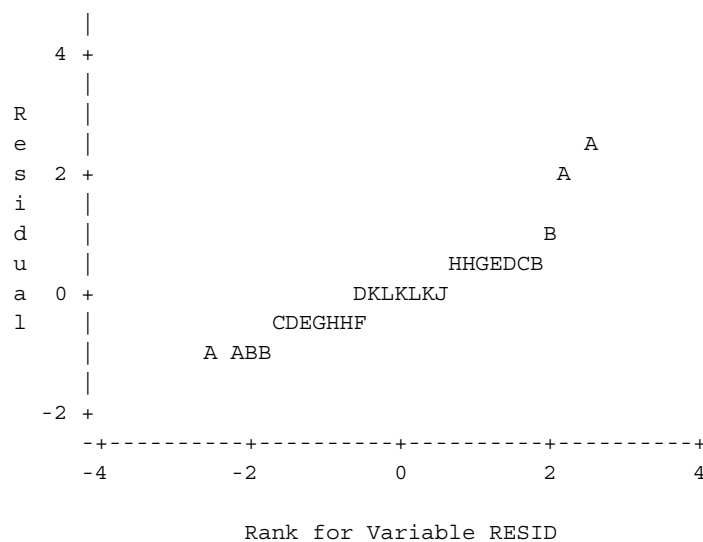
Residual Plots

----- Parameter Code=U1NA24U -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.



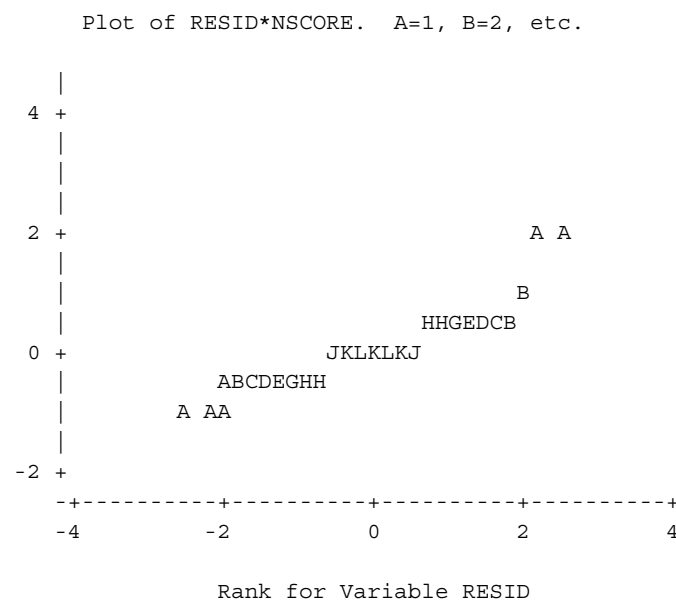
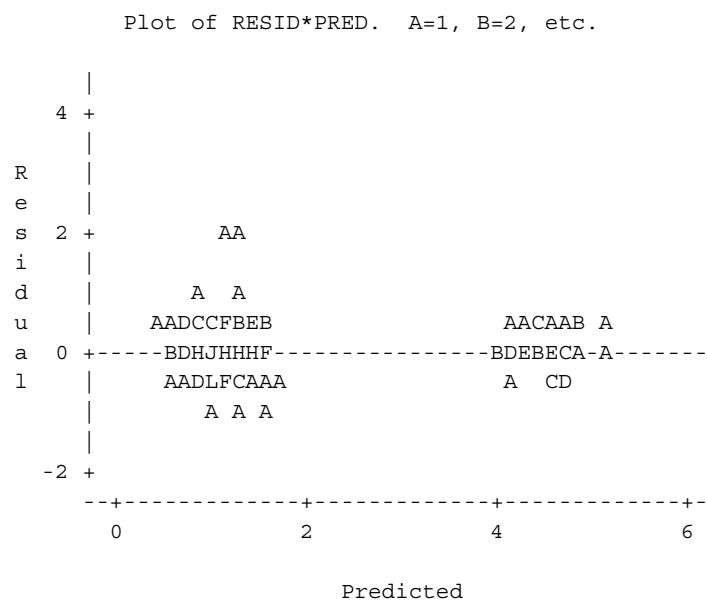
**Listing 15.4.4.15 Analysis of Urinary 1-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

----- Parameter Code=U1NACRE -----



Path: /cvn/projects/prj/development/000000106324/dev/tables/tl\_anlsecondbio.sas  
Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.17 Analysis of Urinary 2-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U2NA24U Analysis Value Unit=ng -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





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**Listing 15.4.4.17 Analysis of Urinary 2-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U2NA24U Analysis Value Unit=ng -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0



---

**Listing 15.4.4.17 Analysis of Urinary 2-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U2NA24U Analysis Value Unit=ng -----

Dimensions

Subjects	1
Max Obs Per Subject	159

Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.17 Analysis of Urinary 2-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U2NA24U Analysis Value Unit=ng -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1350

Fit Statistics

-2 Res Log Likelihood	150.1
AIC (smaller is better)	152.1
AICC (smaller is better)	152.1
BIC (smaller is better)	155.1

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.17 Analysis of Urinary 2-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U2NA24U Analysis Value Unit=ng -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	31.68	<.0001
TRTAN	2	153	550.27	<.0001
SEXC	1	153	0.30	0.5878
UCPDGR1	1	153	2.79	0.0968

**Listing 15.4.4.17 Analysis of Urinary 2-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U2NA24U Analysis Value Unit=ng -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	1.4457	0.04134	153	34.97	<.0001	0.05	1.3641	1.5274
TRTAN	CC	3.6333	0.05739	153	63.31	<.0001	0.05	3.5199	3.7467
TRTAN	SA	1.3808	0.05886	153	23.46	<.0001	0.05	1.2645	1.4970
TRTAN	THS 2.2	1.4457	0.04134	153	34.97	<.0001	0.05	1.3641	1.5274
TRTAN	CC	3.6333	0.05739	153	63.31	<.0001	0.05	3.5199	3.7467
TRTAN	SA	1.3808	0.05886	153	23.46	<.0001	0.05	1.2645	1.4970

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.17 Analysis of Urinary 2-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U2NA24U Analysis Value Unit=ng -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.06498	0.07195	153	0.90	0.3679	0.05	-0.07716	0.2071
TRTAN	CC	SA	2.2526	0.08222	153	27.40	<.0001	0.05	2.0901	2.4150
TRTAN	THS 2.2	CC	-2.1876	0.07072	153	-30.93	<.0001	0.05	-2.3273	-2.0479
TRTAN	SA	CC	-2.2526	0.08222	153	-27.40	<.0001	0.05	-2.4150	-2.0901

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.17 Analysis of Urinary 2-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U2NACRE Analysis Value Unit=pg/mg creat -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



---

**Listing 15.4.4.17 Analysis of Urinary 2-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U2NACRE Analysis Value Unit=pg/mg creat -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.17 Analysis of Urinary 2-NA on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U2NACRE Analysis Value Unit=pg/mg creat -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.17 Analysis of Urinary 2-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U2NACRE Analysis Value Unit=pg/mg creat -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1251

Fit Statistics

-2 Res Log Likelihood	138.6
AIC (smaller is better)	140.6
AICC (smaller is better)	140.6
BIC (smaller is better)	143.6

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.17 Analysis of Urinary 2-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U2NACRE Analysis Value Unit=pg/mg creat -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	21.30	<.0001
TRTAN	2	153	596.10	<.0001
SEXC	1	153	33.70	<.0001
UCPDGR1	1	153	0.24	0.6284

**Listing 15.4.4.17 Analysis of Urinary 2-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U2NACRE Analysis Value Unit=pg/mg creat -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	1.0812	0.03981	153	27.16	<.0001	0.05	1.0025	1.1598
TRTAN	CC	3.2407	0.05526	153	58.64	<.0001	0.05	3.1315	3.3498
TRTAN	SA	0.9272	0.05666	153	16.37	<.0001	0.05	0.8153	1.0391
TRTAN	THS 2.2	1.0812	0.03981	153	27.16	<.0001	0.05	1.0025	1.1598
TRTAN	CC	3.2407	0.05526	153	58.64	<.0001	0.05	3.1315	3.3498
TRTAN	SA	0.9272	0.05666	153	16.37	<.0001	0.05	0.8153	1.0391

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.17 Analysis of Urinary 2-NA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=U2NACRE Analysis Value Unit=pg/mg creat -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.1540	0.06925	153	2.22	0.0276	0.05	0.01718	0.2908
TRTAN	CC	SA	2.3135	0.07914	153	29.23	<.0001	0.05	2.1571	2.4698
TRTAN	THS 2.2	CC	-2.1595	0.06811	153	-31.70	<.0001	0.05	-2.2940	-2.0249
TRTAN	SA	CC	-2.3135	0.07914	153	-29.23	<.0001	0.05	-2.4698	-2.1571

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.17 Analysis of Urinary 2-NA on Day 5 - FAS**

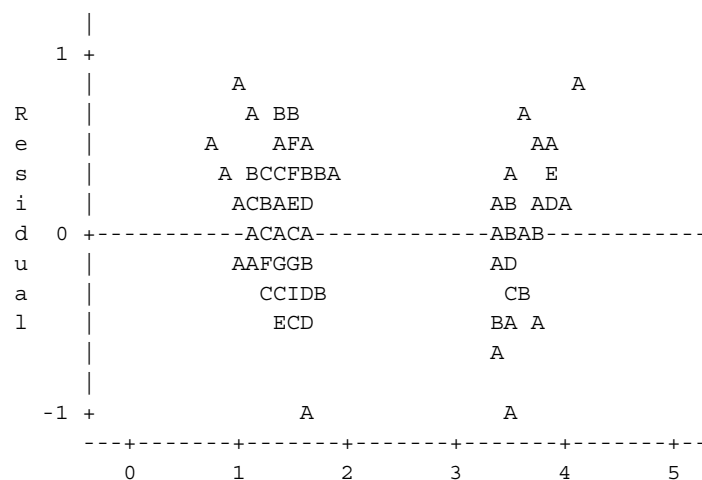
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

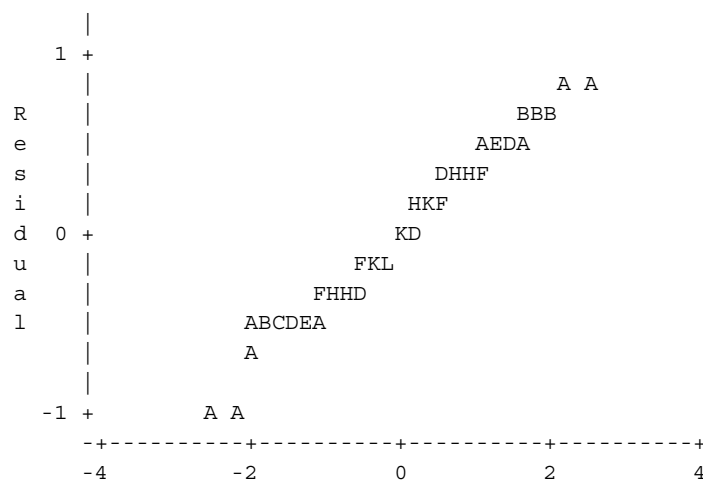
Residual Plots

----- Parameter Code=U2NA24U -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.



Predicted

Rank for Variable RESID

**Listing 15.4.4.17 Analysis of Urinary 2-NA on Day 5 - FAS**

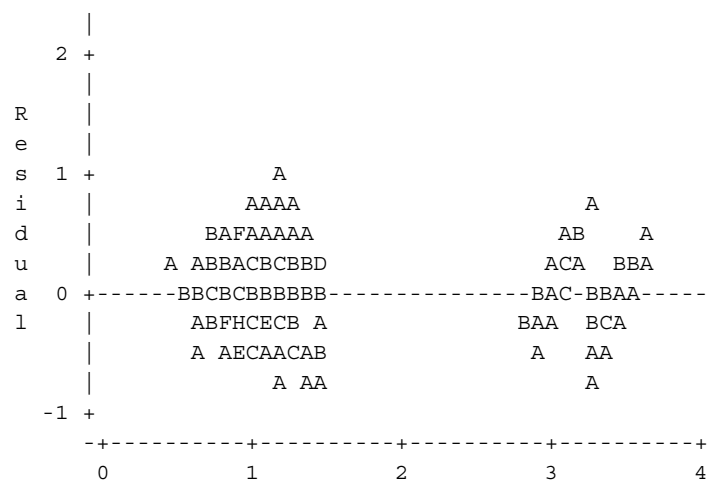
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

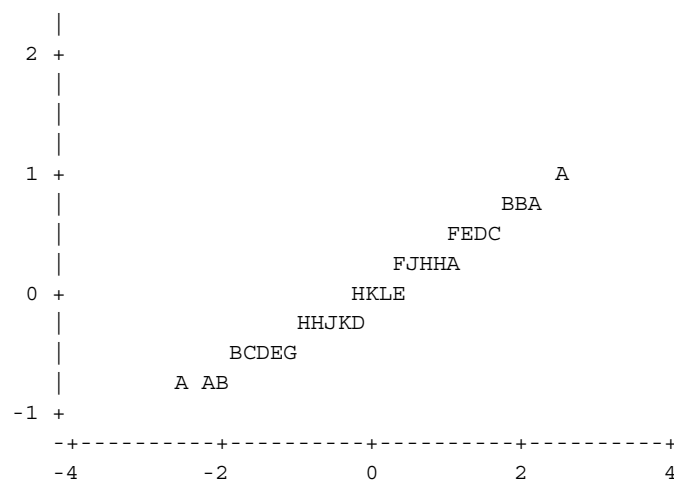
Residual Plots

----- Parameter Code=U2NACRE -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.



Predicted

Rank for Variable RESID



---

**Listing 15.4.4.19 Analysis of Urinary o-toluidine on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UOTOL24U Analysis Value Unit=ng -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



**Listing 15.4.4.19 Analysis of Urinary o-toluidine on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UOTOL24U Analysis Value Unit=ng -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0



---

**Listing 15.4.4.19 Analysis of Urinary o-toluidine on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UOTOL24U Analysis Value Unit=ng -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.19 Analysis of Urinary o-toluidine on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UOTOL24U Analysis Value Unit=ng -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1454

Fit Statistics

-2 Res Log Likelihood	161.5
AIC (smaller is better)	163.5
AICC (smaller is better)	163.5
BIC (smaller is better)	166.5

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.19 Analysis of Urinary o-toluidine on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UOTOL24U Analysis Value Unit=ng -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	11.29	0.0010
TRTAN	2	153	93.77	<.0001
SEXC	1	153	0.49	0.4847
UCPDGR1	1	153	5.16	0.0246

**Listing 15.4.4.19 Analysis of Urinary o-toluidine on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UOTOL24U Analysis Value Unit=ng -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	4.2931	0.04292	153	100.03	<.0001	0.05	4.2083	4.3779
TRTAN	CC	5.2000	0.05956	153	87.30	<.0001	0.05	5.0824	5.3177
TRTAN	SA	4.1877	0.06113	153	68.51	<.0001	0.05	4.0669	4.3084
TRTAN	THS 2.2	4.2931	0.04292	153	100.03	<.0001	0.05	4.2083	4.3779
TRTAN	CC	5.2000	0.05956	153	87.30	<.0001	0.05	5.0824	5.3177
TRTAN	SA	4.1877	0.06113	153	68.51	<.0001	0.05	4.0669	4.3084

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.19 Analysis of Urinary o-toluidine on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UOTOL24U Analysis Value Unit=ng -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.1054	0.07474	153	1.41	0.1604	0.05	-0.04222	0.2531
TRTAN	CC	SA	1.0124	0.08536	153	11.86	<.0001	0.05	0.8437	1.1810
TRTAN	THS 2.2	CC	-0.9070	0.07341	153	-12.35	<.0001	0.05	-1.0520	-0.7619
TRTAN	SA	CC	-1.0124	0.08536	153	-11.86	<.0001	0.05	-1.1810	-0.8437

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.19 Analysis of Urinary o-toluidine on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UOTOLCRE Analysis Value Unit=pg/mg creat -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



---

**Listing 15.4.4.19 Analysis of Urinary o-toluidine on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UOTOLCRE Analysis Value Unit=pg/mg creat -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.19 Analysis of Urinary o-toluidine on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UOTOLCRE Analysis Value Unit=pg/mg creat -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.19 Analysis of Urinary o-toluidine on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UOTOLCRE Analysis Value Unit=pg/mg creat -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1485

Fit Statistics

-2 Res Log Likelihood	164.7
AIC (smaller is better)	166.7
AICC (smaller is better)	166.7
BIC (smaller is better)	169.7

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.19 Analysis of Urinary o-toluidine on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UOTOLCRE Analysis Value Unit=pg/mg creat -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	4.01	0.0469
TRTAN	2	153	93.49	<.0001
SEXC	1	153	40.69	<.0001
UCPDGR1	1	153	0.82	0.3669

**Listing 15.4.4.19 Analysis of Urinary o-toluidine on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UOTOLCRE Analysis Value Unit=pg/mg creat -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	3.9296	0.04337	153	90.60	<.0001	0.05	3.8439	4.0153
TRTAN	CC	4.8042	0.06019	153	79.81	<.0001	0.05	4.6853	4.9232
TRTAN	SA	3.7365	0.06172	153	60.54	<.0001	0.05	3.6145	3.8584
TRTAN	THS 2.2	3.9296	0.04337	153	90.60	<.0001	0.05	3.8439	4.0153
TRTAN	CC	4.8042	0.06019	153	79.81	<.0001	0.05	4.6853	4.9232
TRTAN	SA	3.7365	0.06172	153	60.54	<.0001	0.05	3.6145	3.8584

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.19 Analysis of Urinary o-toluidine on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UOTOLCRE Analysis Value Unit=pg/mg creat -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.1931	0.07545	153	2.56	0.0114	0.05	0.04408	0.3422
TRTAN	CC	SA	1.0678	0.08620	153	12.39	<.0001	0.05	0.8975	1.2381
TRTAN	THS 2.2	CC	-0.8747	0.07421	153	-11.79	<.0001	0.05	-1.0213	-0.7280
TRTAN	SA	CC	-1.0678	0.08620	153	-12.39	<.0001	0.05	-1.2381	-0.8975

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.19 Analysis of Urinary o-toluidine on Day 5 - FAS**

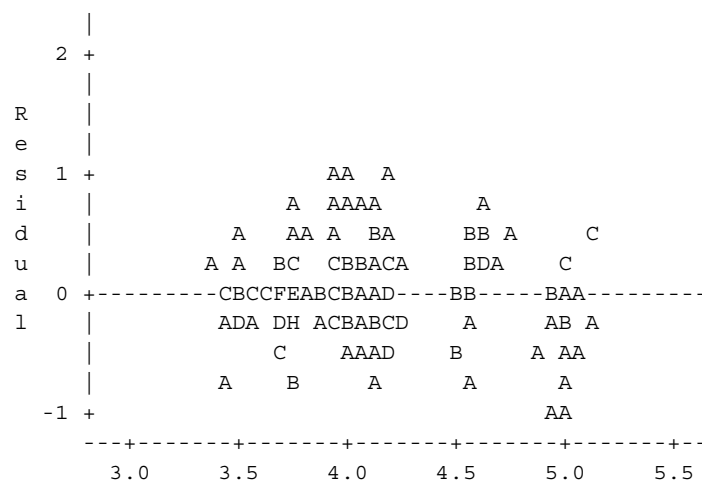
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

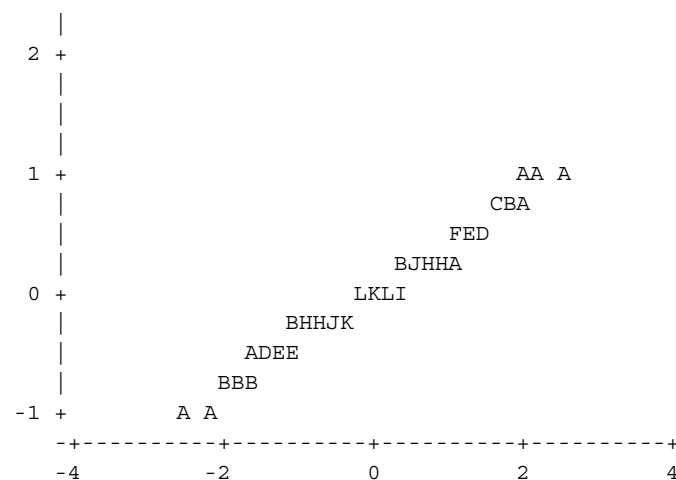
Residual Plots

----- Parameter Code=UOTOLCRE -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.





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**Listing 15.4.4.21 Analysis of Urinary CEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UCEMA24U Analysis Value Unit=Âµg -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





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**Listing 15.4.4.21 Analysis of Urinary CEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UCEMA24U Analysis Value Unit=Âµg -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.21 Analysis of Urinary CEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UCEMA24U Analysis Value Unit=Âµg -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.21 Analysis of Urinary CEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UCEMA24U Analysis Value Unit=Âµg -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1549

Fit Statistics

-2 Res Log Likelihood	171.8
AIC (smaller is better)	173.8
AICC (smaller is better)	173.8
BIC (smaller is better)	176.8

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.21 Analysis of Urinary CEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UCEMA24U Analysis Value Unit=Âµg -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	263.30	<.0001
TRTAN	2	153	408.46	<.0001
SEXC	1	153	1.61	0.2062
UCPDGR1	1	153	2.51	0.1149

**Listing 15.4.4.21 Analysis of Urinary CEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UCEMA24U Analysis Value Unit=Âµg -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	2.9544	0.04429	153	66.70	<.0001	0.05	2.8669	3.0419
TRTAN	CC	4.9977	0.06149	153	81.28	<.0001	0.05	4.8762	5.1192
TRTAN	SA	2.9649	0.06304	153	47.03	<.0001	0.05	2.8403	3.0894
TRTAN	THS 2.2	2.9544	0.04429	153	66.70	<.0001	0.05	2.8669	3.0419
TRTAN	CC	4.9977	0.06149	153	81.28	<.0001	0.05	4.8762	5.1192
TRTAN	SA	2.9649	0.06304	153	47.03	<.0001	0.05	2.8403	3.0894

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.21 Analysis of Urinary CEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UCEMA24U Analysis Value Unit=Âµg -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	-0.01051	0.07706	153	-0.14	0.8917	0.05	-0.1628	0.1417
TRTAN	CC	SA	2.0328	0.08806	153	23.08	<.0001	0.05	1.8589	2.2068
TRTAN	THS 2.2	CC	-2.0433	0.07578	153	-26.96	<.0001	0.05	-2.1931	-1.8936
TRTAN	SA	CC	-2.0328	0.08806	153	-23.08	<.0001	0.05	-2.2068	-1.8589

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.21 Analysis of Urinary CEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UCEMACRE Analysis Value Unit=ng/mg creat -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



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**Listing 15.4.4.21 Analysis of Urinary CEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UCEMACRE Analysis Value Unit=ng/mg creat -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.21 Analysis of Urinary CEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UCEMACRE Analysis Value Unit=ng/mg creat -----

Dimensions

Subjects	1
Max Obs Per Subject	159

Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.21 Analysis of Urinary CEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UCEMACRE Analysis Value Unit=ng/mg creat -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1119

Fit Statistics

-2 Res Log Likelihood	122.0
AIC (smaller is better)	124.0
AICC (smaller is better)	124.0
BIC (smaller is better)	127.0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.21 Analysis of Urinary CEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UCEMACRE Analysis Value Unit=ng/mg creat -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	332.07	<.0001
TRTAN	2	153	575.73	<.0001
SEXC	1	153	0.06	0.8026
UCPDGR1	1	153	5.26	0.0232

**Listing 15.4.4.21 Analysis of Urinary CEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UCEMACRE Analysis Value Unit=ng/mg creat -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	2.5873	0.03764	153	68.75	<.0001	0.05	2.5130	2.6617
TRTAN	CC	4.6154	0.05225	153	88.34	<.0001	0.05	4.5122	4.7186
TRTAN	SA	2.5015	0.05359	153	46.68	<.0001	0.05	2.3956	2.6074
TRTAN	THS 2.2	2.5873	0.03764	153	68.75	<.0001	0.05	2.5130	2.6617
TRTAN	CC	4.6154	0.05225	153	88.34	<.0001	0.05	4.5122	4.7186
TRTAN	SA	2.5015	0.05359	153	46.68	<.0001	0.05	2.3956	2.6074

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.21 Analysis of Urinary CEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UCEMACRE Analysis Value Unit=ng/mg creat -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.08582	0.06550	153	1.31	0.1921	0.05	-0.04358	0.2152
TRTAN	CC	SA	2.1139	0.07485	153	28.24	<.0001	0.05	1.9660	2.2618
TRTAN	THS 2.2	CC	-2.0280	0.06439	153	-31.50	<.0001	0.05	-2.1552	-1.9008
TRTAN	SA	CC	-2.1139	0.07485	153	-28.24	<.0001	0.05	-2.2618	-1.9660

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.21 Analysis of Urinary CEMA on Day 5 - FAS**

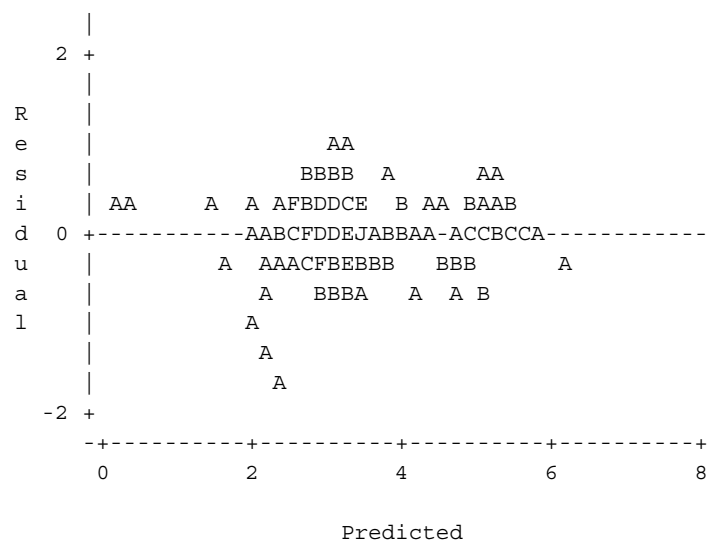
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

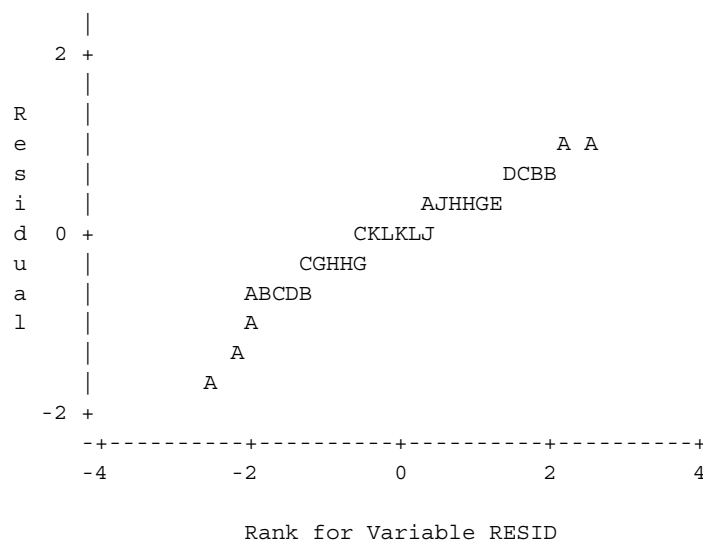
Residual Plots

----- Parameter Code=UCEMA24U -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.



**Listing 15.4.4.21 Analysis of Urinary CEMA on Day 5 - FAS**

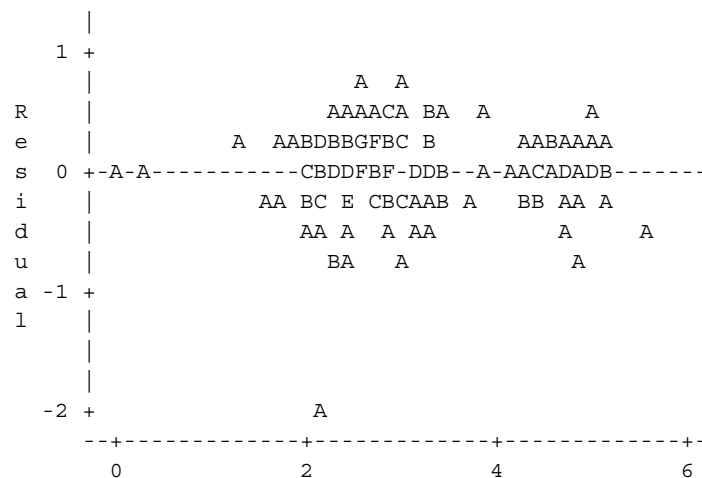
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

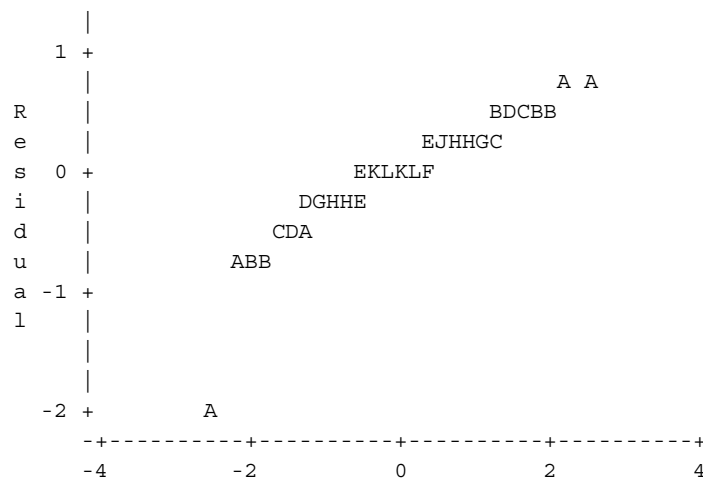
Residual Plots

----- Parameter Code=UCEMACRE -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.



Predicted

Rank for Variable RESID



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**Listing 15.4.4.23 Analysis of Urinary HEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHEMA24U Analysis Value Unit=ng -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





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**Listing 15.4.4.23 Analysis of Urinary HEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHEMA24U Analysis Value Unit=ng -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0



---

**Listing 15.4.4.23 Analysis of Urinary HEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHEMA24U Analysis Value Unit=ng -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.23 Analysis of Urinary HEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHEMA24U Analysis Value Unit=ng -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1939

Fit Statistics

-2 Res Log Likelihood	207.0
AIC (smaller is better)	209.0
AICC (smaller is better)	209.1
BIC (smaller is better)	212.1

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.23 Analysis of Urinary HEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHEMA24U Analysis Value Unit=ng -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	229.41	<.0001
TRTAN	2	153	102.68	<.0001
SEXC	1	153	0.02	0.8885
UCPDGR1	1	153	0.33	0.5664

**Listing 15.4.4.23 Analysis of Urinary HEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHEMA24U Analysis Value Unit=ng -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	7.5839	0.04957	153	152.99	<.0001	0.05	7.4859	7.6818
TRTAN	CC	8.7433	0.06897	153	126.77	<.0001	0.05	8.6070	8.8795
TRTAN	SA	7.6189	0.07057	153	107.96	<.0001	0.05	7.4795	7.7583
TRTAN	THS 2.2	7.5839	0.04957	153	152.99	<.0001	0.05	7.4859	7.6818
TRTAN	CC	8.7433	0.06897	153	126.77	<.0001	0.05	8.6070	8.8795
TRTAN	SA	7.6189	0.07057	153	107.96	<.0001	0.05	7.4795	7.7583

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.23 Analysis of Urinary HEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHEMA24U Analysis Value Unit=ng -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	-0.03507	0.08621	153	-0.41	0.6848	0.05	-0.2054	0.1353
TRTAN	CC	SA	1.1244	0.09880	153	11.38	<.0001	0.05	0.9292	1.3195
TRTAN	THS 2.2	CC	-1.1594	0.08502	153	-13.64	<.0001	0.05	-1.3274	-0.9915
TRTAN	SA	CC	-1.1244	0.09880	153	-11.38	<.0001	0.05	-1.3195	-0.9292

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.23 Analysis of Urinary HEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHEMACRE Analysis Value Unit=pg/mg creat -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



---

**Listing 15.4.4.23 Analysis of Urinary HEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHEMACRE Analysis Value Unit=pg/mg creat -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.23 Analysis of Urinary HEMA on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHEMACRE Analysis Value Unit=pg/mg creat -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.23 Analysis of Urinary HEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHEMACRE Analysis Value Unit=pg/mg creat -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1900

Fit Statistics

-2 Res Log Likelihood	203.9
AIC (smaller is better)	205.9
AICC (smaller is better)	205.9
BIC (smaller is better)	208.9

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.23 Analysis of Urinary HEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHEMACRE Analysis Value Unit=pg/mg creat -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	218.47	<.0001
TRTAN	2	153	107.10	<.0001
SEXC	1	153	13.07	0.0004
UCPDGR1	1	153	0.03	0.8647

**Listing 15.4.4.23 Analysis of Urinary HEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHEMACRE Analysis Value Unit=pg/mg creat -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	7.2176	0.04906	153	147.11	<.0001	0.05	7.1207	7.3146
TRTAN	CC	8.3571	0.06822	153	122.50	<.0001	0.05	8.2223	8.4918
TRTAN	SA	7.1601	0.06983	153	102.54	<.0001	0.05	7.0221	7.2980
TRTAN	THS 2.2	7.2176	0.04906	153	147.11	<.0001	0.05	7.1207	7.3146
TRTAN	CC	8.3571	0.06822	153	122.50	<.0001	0.05	8.2223	8.4918
TRTAN	SA	7.1601	0.06983	153	102.54	<.0001	0.05	7.0221	7.2980

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.23 Analysis of Urinary HEMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHEMACRE Analysis Value Unit=pg/mg creat -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.05759	0.08533	153	0.67	0.5008	0.05	-0.1110	0.2262
TRTAN	CC	SA	1.1970	0.09769	153	12.25	<.0001	0.05	1.0040	1.3900
TRTAN	THS 2.2	CC	-1.1394	0.08410	153	-13.55	<.0001	0.05	-1.3056	-0.9733
TRTAN	SA	CC	-1.1970	0.09769	153	-12.25	<.0001	0.05	-1.3900	-1.0040

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.23 Analysis of Urinary HEMA on Day 5 - FAS**

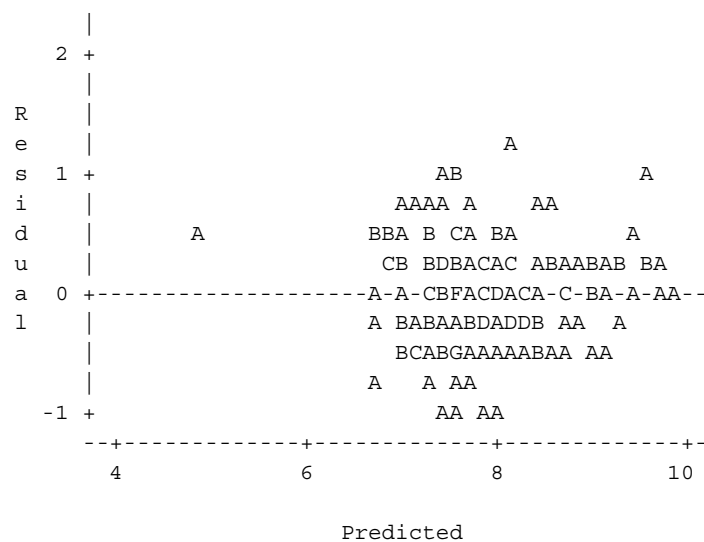
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

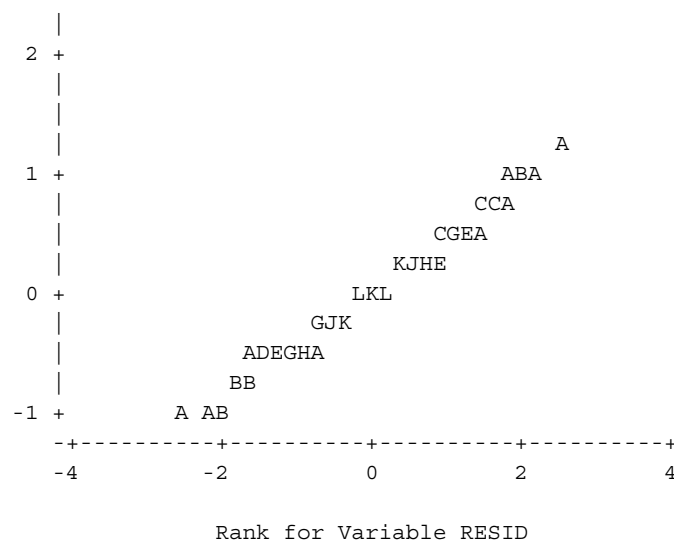
Residual Plots

----- Parameter Code=UHEMA24U -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.



Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.23 Analysis of Urinary HEMA on Day 5 - FAS**

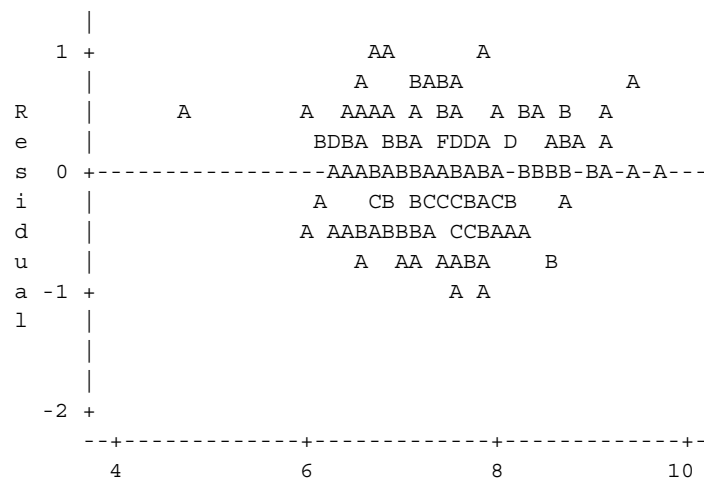
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

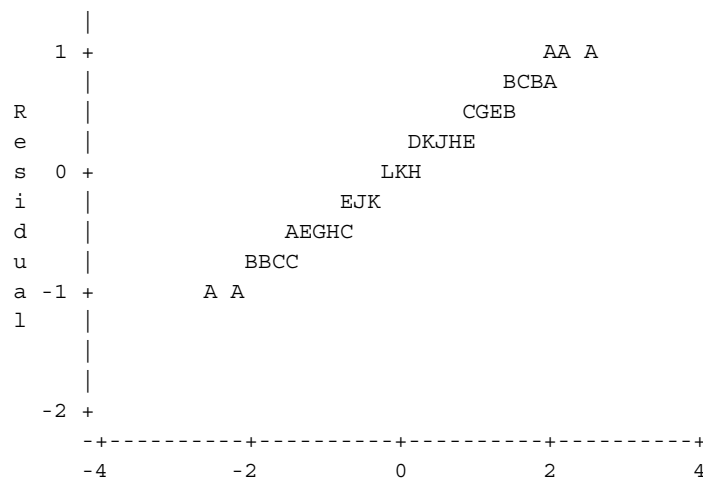
Residual Plots

----- Parameter Code=UHEMACRE -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.



Predicted

Rank for Variable RESID



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**Listing 15.4.4.25 Analysis of Urinary 3-hydroxy(a)benzopyrene on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UBAP24U Analysis Value Unit=pg -----

Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



**Listing 15.4.4.25 Analysis of Urinary 3-hydroxy(a)benzopyrene on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UBAP24U Analysis Value Unit=pg -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0



---

**Listing 15.4.4.25 Analysis of Urinary 3-hydroxy(a)benzopyrene on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UBAP24U Analysis Value Unit=pg -----

Dimensions

Subjects	1
Max Obs Per Subject	159

Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 05NOV15 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.25 Analysis of Urinary 3-hydroxy(a)benzopyrene on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UBAP24U Analysis Value Unit=pg -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.2124

Fit Statistics

-2 Res Log Likelihood	219.9
AIC (smaller is better)	221.9
AICC (smaller is better)	221.9
BIC (smaller is better)	224.9

**Listing 15.4.4.25 Analysis of Urinary 3-hydroxy(a)benzopyrene on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UBAP24U Analysis Value Unit=pg -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	40.10	<.0001
TRTAN	2	153	126.60	<.0001
SEXC	1	153	1.41	0.2372
UCPDGR1	1	153	1.24	0.2667

**Listing 15.4.4.25 Analysis of Urinary 3-hydroxy(a)benzopyrene on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UBAP24U Analysis Value Unit=pg -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	3.9725	0.05186	153	76.60	<.0001	0.05	3.8700	4.0749
TRTAN	CC	5.2958	0.07208	153	73.47	<.0001	0.05	5.1534	5.4382
TRTAN	SA	3.9473	0.07385	153	53.45	<.0001	0.05	3.8014	4.0932
TRTAN	THS 2.2	3.9725	0.05186	153	76.60	<.0001	0.05	3.8700	4.0749
TRTAN	CC	5.2958	0.07208	153	73.47	<.0001	0.05	5.1534	5.4382
TRTAN	SA	3.9473	0.07385	153	53.45	<.0001	0.05	3.8014	4.0932

**Listing 15.4.4.25 Analysis of Urinary 3-hydroxy(a)benzopyrene on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UBAP24U Analysis Value Unit=pg -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.02513	0.09023	153	0.28	0.7810	0.05	-0.1531	0.2034
TRTAN	CC	SA	1.3485	0.1033	153	13.06	<.0001	0.05	1.1444	1.5525
TRTAN	THS 2.2	CC	-1.3233	0.08882	153	-14.90	<.0001	0.05	-1.4988	-1.1479
TRTAN	SA	CC	-1.3485	0.1033	153	-13.06	<.0001	0.05	-1.5525	-1.1444

Program Run: 05NOV15 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.25 Analysis of Urinary 3-hydroxy(a)benzopyrene on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UBAPCRE Analysis Value Unit=fg/mg creat -----

Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.25 Analysis of Urinary 3-hydroxy(a)benzopyrene on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UBAPCRE Analysis Value Unit=fg/mg creat -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0





---

**Listing 15.4.4.25 Analysis of Urinary 3-hydroxy(a)benzopyrene on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UBAPCRE Analysis Value Unit=fg/mg creat -----

Dimensions

Subjects	1
Max Obs Per Subject	159

Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 05NOV15 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.25 Analysis of Urinary 3-hydroxy(a)benzopyrene on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UBAPCRE Analysis Value Unit=fg/mg creat -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1932

Fit Statistics

-2 Res Log Likelihood	205.4
AIC (smaller is better)	207.4
AICC (smaller is better)	207.5
BIC (smaller is better)	210.5

**Listing 15.4.4.25 Analysis of Urinary 3-hydroxy(a)benzopyrene on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UBAPCRE Analysis Value Unit=fg/mg creat -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	28.76	<.0001
TRTAN	2	153	138.57	<.0001
SEXC	1	153	11.81	0.0008
UCPDGR1	1	153	0.10	0.7479

**Listing 15.4.4.25 Analysis of Urinary 3-hydroxy(a)benzopyrene on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UBAPCRE Analysis Value Unit=fg/mg creat -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	3.6078	0.04946	153	72.94	<.0001	0.05	3.5101	3.7056
TRTAN	CC	4.8988	0.06881	153	71.19	<.0001	0.05	4.7629	5.0348
TRTAN	SA	3.4979	0.07050	153	49.62	<.0001	0.05	3.3586	3.6372
TRTAN	THS 2.2	3.6078	0.04946	153	72.94	<.0001	0.05	3.5101	3.7056
TRTAN	CC	4.8988	0.06881	153	71.19	<.0001	0.05	4.7629	5.0348
TRTAN	SA	3.4979	0.07050	153	49.62	<.0001	0.05	3.3586	3.6372

**Listing 15.4.4.25 Analysis of Urinary 3-hydroxy(a)benzopyrene on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UBAPCRE Analysis Value Unit=fg/mg creat -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.1099	0.08610	153	1.28	0.2035	0.05	-0.06015	0.2800
TRTAN	CC	SA	1.4009	0.09870	153	14.19	<.0001	0.05	1.2060	1.5959
TRTAN	THS 2.2	CC	-1.2910	0.08478	153	-15.23	<.0001	0.05	-1.4585	-1.1235
TRTAN	SA	CC	-1.4009	0.09870	153	-14.19	<.0001	0.05	-1.5959	-1.2060

Program Run: 05NOV15 cvn\_ahedge Program Status: FINAL

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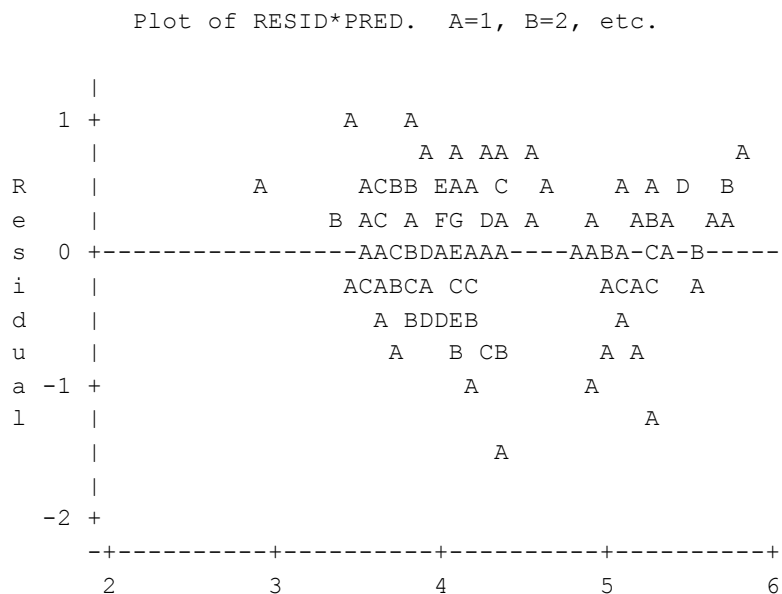
**Listing 15.4.4.25 Analysis of Urinary 3-hydroxy(a)benzopyrene on Day 5 - FAS**

Proc Mixed Procedure

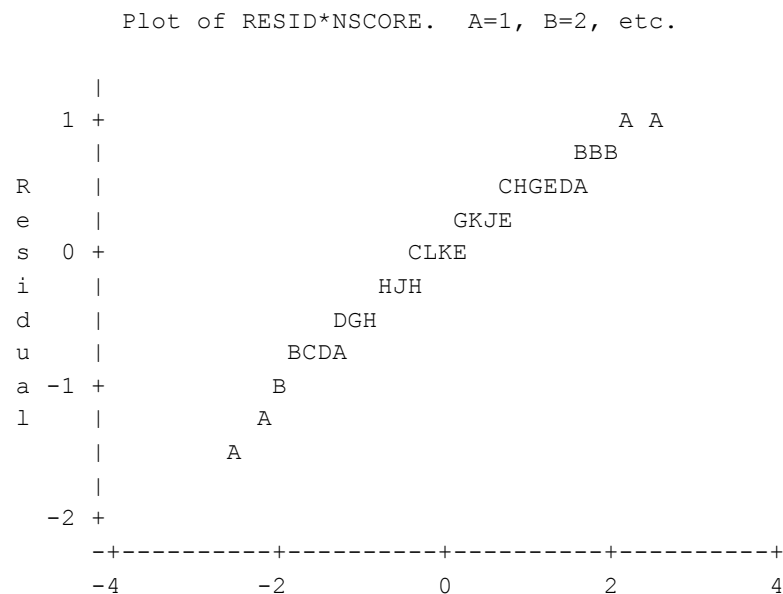
The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

----- Parameter Code=UBAP24U -----



Predicted



Rank for Variable RESID





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**Listing 15.4.4.27 Analysis of Urinary HMPMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHMPM24U Analysis Value Unit=Âµg -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





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**Listing 15.4.4.27 Analysis of Urinary HMPMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHMPM24U Analysis Value Unit=Âµg -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0



---

**Listing 15.4.4.27 Analysis of Urinary HMPMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHMPM24U Analysis Value Unit=Âµg -----

## Dimensions

Subjects	1
Max Obs Per Subject	158

## Number of Observations

Number of Observations Read	158
Number of Observations Used	158
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.27 Analysis of Urinary HMPMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHMPM24U Analysis Value Unit=Âµg -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1517

Fit Statistics

-2 Res Log Likelihood	166.9
AIC (smaller is better)	168.9
AICC (smaller is better)	168.9
BIC (smaller is better)	171.9

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.27 Analysis of Urinary HMPMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHMPM24U Analysis Value Unit=Âµg -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	152	30.05	<.0001
TRTAN	2	152	253.36	<.0001
SEXC	1	152	18.78	<.0001
UCPDGR1	1	152	0.05	0.8223

**Listing 15.4.4.27 Analysis of Urinary HMPMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHMPM24U Analysis Value Unit=Âµg -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	4.8107	0.04418	152	108.90	<.0001	0.05	4.7235	4.8980
TRTAN	CC	6.3316	0.06083	152	104.09	<.0001	0.05	6.2114	6.4518
TRTAN	SA	4.6261	0.06270	152	73.78	<.0001	0.05	4.5022	4.7500
TRTAN	THS 2.2	4.8107	0.04418	152	108.90	<.0001	0.05	4.7235	4.8980
TRTAN	CC	6.3316	0.06083	152	104.09	<.0001	0.05	6.2114	6.4518
TRTAN	SA	4.6261	0.06270	152	73.78	<.0001	0.05	4.5022	4.7500

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.27 Analysis of Urinary HMPMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHMPM24U Analysis Value Unit=Âµg -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.1846	0.07693	152	2.40	0.0176	0.05	0.03264	0.3366
TRTAN	CC	SA	1.7055	0.08739	152	19.52	<.0001	0.05	1.5329	1.8782
TRTAN	THS 2.2	CC	-1.5209	0.07516	152	-20.23	<.0001	0.05	-1.6694	-1.3724
TRTAN	SA	CC	-1.7055	0.08739	152	-19.52	<.0001	0.05	-1.8782	-1.5329

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.27 Analysis of Urinary HMPMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHMPMCRE Analysis Value Unit=ng/mg creat -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.27 Analysis of Urinary HMPMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHMPMCRE Analysis Value Unit=ng/mg creat -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.27 Analysis of Urinary HMPMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHMPMCRE Analysis Value Unit=ng/mg creat -----

Dimensions

Subjects	1
Max Obs Per Subject	158

Number of Observations

Number of Observations Read	158
Number of Observations Used	158
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.27 Analysis of Urinary HMPMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHMPMCRE Analysis Value Unit=ng/mg creat -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.09038

Fit Statistics

-2 Res Log Likelihood	88.3
AIC (smaller is better)	90.3
AICC (smaller is better)	90.3
BIC (smaller is better)	93.3

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.27 Analysis of Urinary HMPMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHMPMCRE Analysis Value Unit=ng/mg creat -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	152	41.97	<.0001
TRTAN	2	152	432.37	<.0001
SEXC	1	152	1.42	0.2353
UCPDGR1	1	152	0.56	0.4548

**Listing 15.4.4.27 Analysis of Urinary HMPMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHMPMCRE Analysis Value Unit=ng/mg creat -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	4.4488	0.03410	152	130.46	<.0001	0.05	4.3814	4.5161
TRTAN	CC	5.9385	0.04696	152	126.46	<.0001	0.05	5.8457	6.0313
TRTAN	SA	4.1677	0.04826	152	86.37	<.0001	0.05	4.0723	4.2630
TRTAN	THS 2.2	4.4488	0.03410	152	130.46	<.0001	0.05	4.3814	4.5161
TRTAN	CC	5.9385	0.04696	152	126.46	<.0001	0.05	5.8457	6.0313
TRTAN	SA	4.1677	0.04826	152	86.37	<.0001	0.05	4.0723	4.2630

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.27 Analysis of Urinary HMPMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UHMPMCRE Analysis Value Unit=ng/mg creat -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.2811	0.05920	152	4.75	<.0001	0.05	0.1641	0.3981
TRTAN	CC	SA	1.7708	0.06731	152	26.31	<.0001	0.05	1.6378	1.9038
TRTAN	THS 2.2	CC	-1.4897	0.05806	152	-25.66	<.0001	0.05	-1.6044	-1.3750
TRTAN	SA	CC	-1.7708	0.06731	152	-26.31	<.0001	0.05	-1.9038	-1.6378

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.27 Analysis of Urinary HMPMA on Day 5 - FAS**

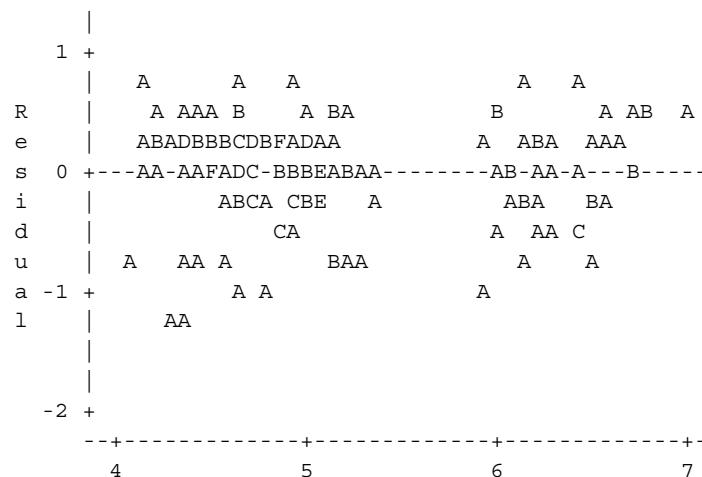
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

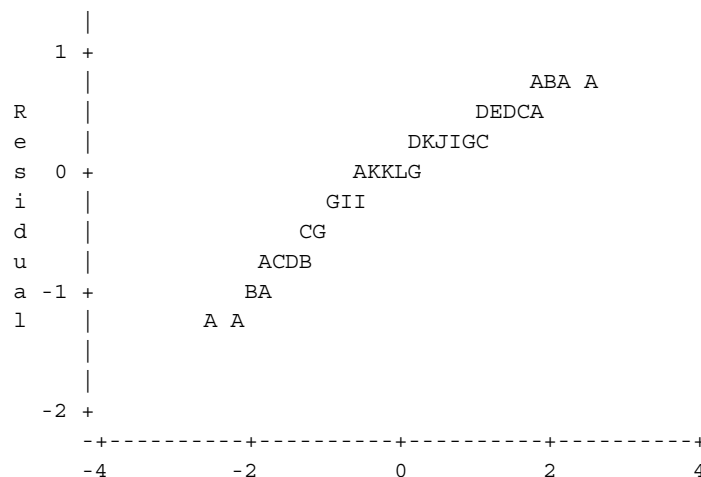
----- Parameter Code=UHMPM24U -----

Plot of RESID\*PRED. A=1, B=2, etc.



Predicted

Plot of RESID\*NSCORE. A=1, B=2, etc.



Rank for Variable RESID

**Listing 15.4.4.27 Analysis of Urinary HMPMA on Day 5 - FAS**

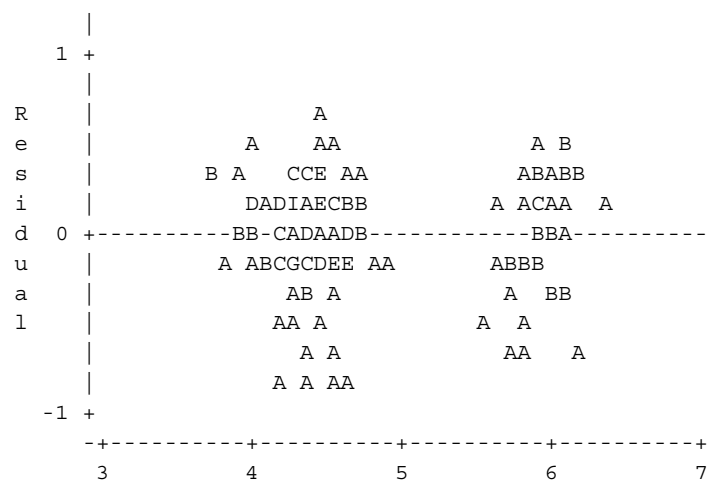
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

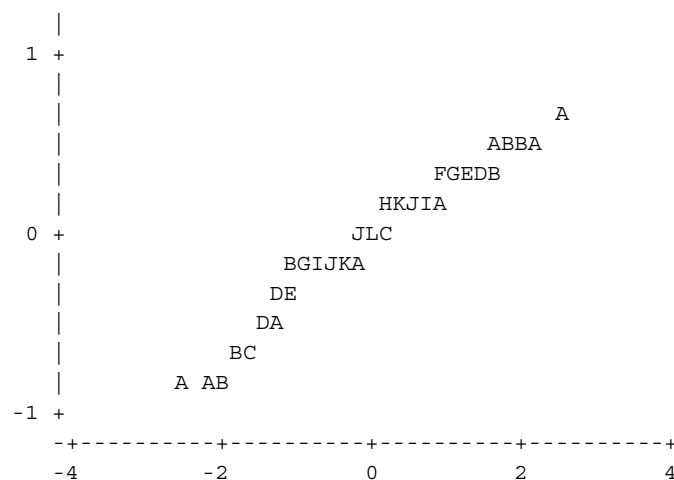
Residual Plots

----- Parameter Code=UHMPMCRE -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.





---

**Listing 15.4.4.29 Analysis of Urinary S-BMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USBMA24U Analysis Value Unit=ng -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





---

**Listing 15.4.4.29 Analysis of Urinary S-BMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USBMA24U Analysis Value Unit=ng -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.29 Analysis of Urinary S-BMA on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USBMA24U Analysis Value Unit=ng -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.29 Analysis of Urinary S-BMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USBMA24U Analysis Value Unit=ng -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.3407

Fit Statistics

-2 Res Log Likelihood	292.1
AIC (smaller is better)	294.1
AICC (smaller is better)	294.1
BIC (smaller is better)	297.1

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.29 Analysis of Urinary S-BMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USBMA24U Analysis Value Unit=ng -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	52.99	<.0001
TRTAN	2	153	1.18	0.3098
SEXC	1	153	2.54	0.1128
UCPDGR1	1	153	1.67	0.1980

**Listing 15.4.4.29 Analysis of Urinary S-BMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USBMA24U Analysis Value Unit=ng -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	9.3833	0.06571	153	142.80	<.0001	0.05	9.2535	9.5131
TRTAN	CC	9.3029	0.09119	153	102.01	<.0001	0.05	9.1228	9.4831
TRTAN	SA	9.5022	0.09352	153	101.61	<.0001	0.05	9.3175	9.6870
TRTAN	THS 2.2	9.3833	0.06571	153	142.80	<.0001	0.05	9.2535	9.5131
TRTAN	CC	9.3029	0.09119	153	102.01	<.0001	0.05	9.1228	9.4831
TRTAN	SA	9.5022	0.09352	153	101.61	<.0001	0.05	9.3175	9.6870

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.29 Analysis of Urinary S-BMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USBMA24U Analysis Value Unit=ng -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	-0.1189	0.1143	153	-1.04	0.3000	0.05	-0.3448	0.1070
TRTAN	CC	SA	-0.1993	0.1306	153	-1.53	0.1291	0.05	-0.4573	0.05870
TRTAN	THS 2.2	CC	0.08038	0.1124	153	0.71	0.4758	0.05	-0.1417	0.3025
TRTAN	SA	CC	0.1993	0.1306	153	1.53	0.1291	0.05	-0.05870	0.4573

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.29 Analysis of Urinary S-BMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USBMACRE Analysis Value Unit=pg/mg creat -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



---

**Listing 15.4.4.29 Analysis of Urinary S-BMA on Day 5 - FAS**

## Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USBMACRE Analysis Value Unit=pg/mg creat -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0





---

**Listing 15.4.4.29 Analysis of Urinary S-BMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USBMACRE Analysis Value Unit=pg/mg creat -----

Dimensions

Subjects	1
Max Obs Per Subject	159

Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.29 Analysis of Urinary S-BMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USBMACRE Analysis Value Unit=pg/mg creat -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.2618

Fit Statistics

-2 Res Log Likelihood	251.8
AIC (smaller is better)	253.8
AICC (smaller is better)	253.8
BIC (smaller is better)	256.8

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.29 Analysis of Urinary S-BMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USBMACRE Analysis Value Unit=pg/mg creat -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	69.32	<.0001
TRTAN	2	153	0.70	0.4976
SEXC	1	153	0.38	0.5367
UCPDGR1	1	153	1.46	0.2286

**Listing 15.4.4.29 Analysis of Urinary S-BMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USBMACRE Analysis Value Unit=pg/mg creat -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	9.0169	0.05761	153	156.52	<.0001	0.05	8.9031	9.1308
TRTAN	CC	8.9177	0.07999	153	111.48	<.0001	0.05	8.7596	9.0757
TRTAN	SA	9.0419	0.08195	153	110.33	<.0001	0.05	8.8800	9.2038
TRTAN	THS 2.2	9.0169	0.05761	153	156.52	<.0001	0.05	8.9031	9.1308
TRTAN	CC	8.9177	0.07999	153	111.48	<.0001	0.05	8.7596	9.0757
TRTAN	SA	9.0419	0.08195	153	110.33	<.0001	0.05	8.8800	9.2038

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.29 Analysis of Urinary S-BMA on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=USBMACRE Analysis Value Unit=pg/mg creat -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	-0.02493	0.1002	153	-0.25	0.8038	0.05	-0.2229	0.1730
TRTAN	CC	SA	-0.1242	0.1145	153	-1.08	0.2798	0.05	-0.3505	0.1020
TRTAN	THS 2.2	CC	0.09928	0.09864	153	1.01	0.3158	0.05	-0.09559	0.2942
TRTAN	SA	CC	0.1242	0.1145	153	1.08	0.2798	0.05	-0.1020	0.3505

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.29 Analysis of Urinary S-BMA on Day 5 - FAS**

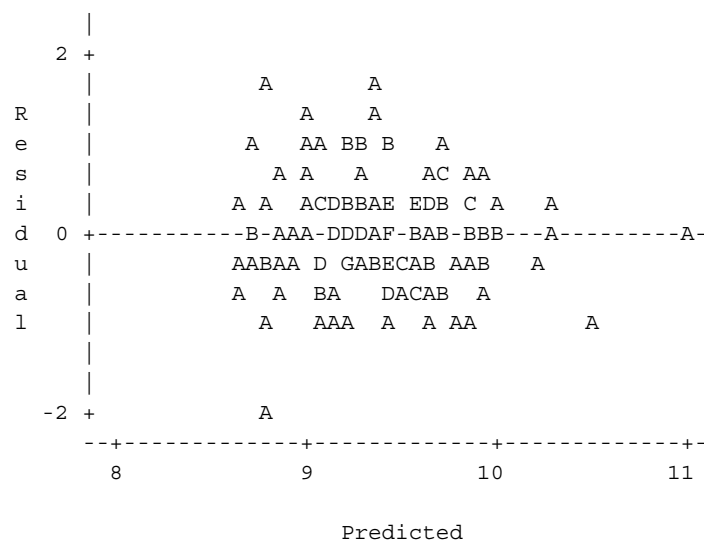
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

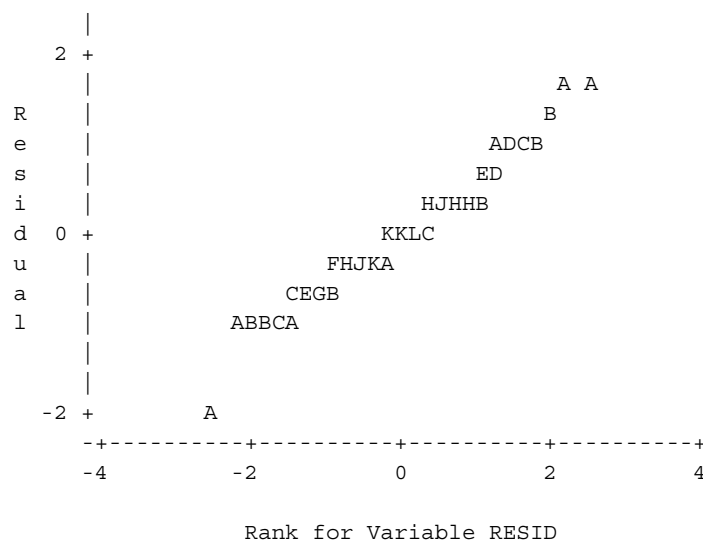
Residual Plots

----- Parameter Code=USBMA24U -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.



**Listing 15.4.4.29 Analysis of Urinary S-BMA on Day 5 - FAS**

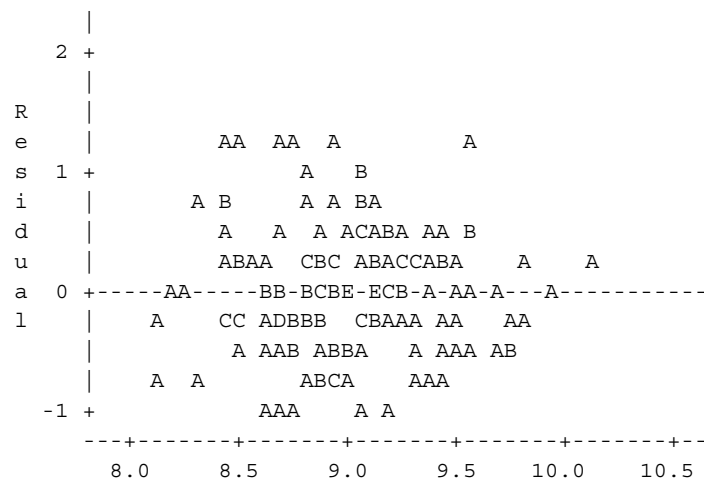
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

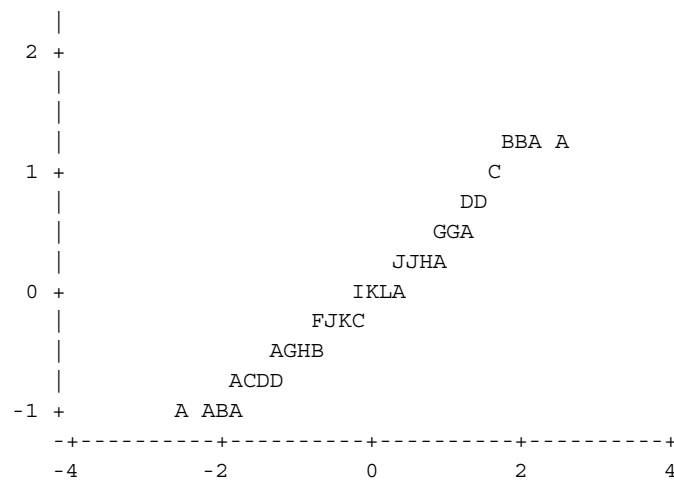
Residual Plots

----- Parameter Code=USBMACRE -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.





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**Listing 15.4.4.31 Analysis of Urinary Total NNAL on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNAL24U Analysis Value Unit=ng -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





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**Listing 15.4.4.31 Analysis of Urinary Total NNAL on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNAL24U Analysis Value Unit=ng -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.31 Analysis of Urinary Total NNAL on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNAL24U Analysis Value Unit=ng -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.31 Analysis of Urinary Total NNAL on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNAL24U Analysis Value Unit=ng -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1249

Fit Statistics

-2 Res Log Likelihood	139.2
AIC (smaller is better)	141.2
AICC (smaller is better)	141.2
BIC (smaller is better)	144.2

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.31 Analysis of Urinary Total NNAL on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNAL24U Analysis Value Unit=ng -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	535.13	<.0001
TRTAN	2	153	99.89	<.0001
SEXC	1	153	0.76	0.3854
UCPDGR1	1	153	0.18	0.6750

**Listing 15.4.4.31 Analysis of Urinary Total NNAL on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNAL24U Analysis Value Unit=ng -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	4.2706	0.03977	153	107.39	<.0001	0.05	4.1920	4.3491
TRTAN	CC	5.1195	0.05523	153	92.70	<.0001	0.05	5.0104	5.2286
TRTAN	SA	4.1265	0.05663	153	72.87	<.0001	0.05	4.0147	4.2384
TRTAN	THS 2.2	4.2706	0.03977	153	107.39	<.0001	0.05	4.1920	4.3491
TRTAN	CC	5.1195	0.05523	153	92.70	<.0001	0.05	5.0104	5.2286
TRTAN	SA	4.1265	0.05663	153	72.87	<.0001	0.05	4.0147	4.2384

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.31 Analysis of Urinary Total NNAL on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNAL24U Analysis Value Unit=ng -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.1440	0.06920	153	2.08	0.0391	0.05	0.007283	0.2807
TRTAN	CC	SA	0.9929	0.07914	153	12.55	<.0001	0.05	0.8366	1.1493
TRTAN	THS 2.2	CC	-0.8489	0.06806	153	-12.47	<.0001	0.05	-0.9834	-0.7145
TRTAN	SA	CC	-0.9929	0.07914	153	-12.55	<.0001	0.05	-1.1493	-0.8366

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.31 Analysis of Urinary Total NNAL on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNALCRE Analysis Value Unit=pg/mg creat -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



---

**Listing 15.4.4.31 Analysis of Urinary Total NNAL on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNALCRE Analysis Value Unit=pg/mg creat -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.31 Analysis of Urinary Total NNAL on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNALCRE Analysis Value Unit=pg/mg creat -----

Dimensions

Subjects	1
Max Obs Per Subject	159

Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.31 Analysis of Urinary Total NNAL on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNALCRE Analysis Value Unit=pg/mg creat -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.07101

Fit Statistics

-2 Res Log Likelihood	52.8
AIC (smaller is better)	54.8
AICC (smaller is better)	54.8
BIC (smaller is better)	57.8

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.31 Analysis of Urinary Total NNAL on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNALCRE Analysis Value Unit=pg/mg creat -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	880.05	<.0001
TRTAN	2	153	187.81	<.0001
SEXC	1	153	0.49	0.4830
UCPDGR1	1	153	1.14	0.2865

**Listing 15.4.4.31 Analysis of Urinary Total NNAL on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNALCRE Analysis Value Unit=pg/mg creat -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	3.9042	0.02998	153	130.21	<.0001	0.05	3.8449	3.9634
TRTAN	CC	4.7356	0.04166	153	113.67	<.0001	0.05	4.6533	4.8179
TRTAN	SA	3.6632	0.04273	153	85.74	<.0001	0.05	3.5788	3.7476
TRTAN	THS 2.2	3.9042	0.02998	153	130.21	<.0001	0.05	3.8449	3.9634
TRTAN	CC	4.7356	0.04166	153	113.67	<.0001	0.05	4.6533	4.8179
TRTAN	SA	3.6632	0.04273	153	85.74	<.0001	0.05	3.5788	3.7476

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.31 Analysis of Urinary Total NNAL on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNNALCRE Analysis Value Unit=pg/mg creat -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.2410	0.05220	153	4.62	<.0001	0.05	0.1378	0.3441
TRTAN	CC	SA	1.0724	0.05974	153	17.95	<.0001	0.05	0.9544	1.1904
TRTAN	THS 2.2	CC	-0.8315	0.05133	153	-16.20	<.0001	0.05	-0.9329	-0.7301
TRTAN	SA	CC	-1.0724	0.05974	153	-17.95	<.0001	0.05	-1.1904	-0.9544

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.31 Analysis of Urinary Total NNAL on Day 5 - FAS**

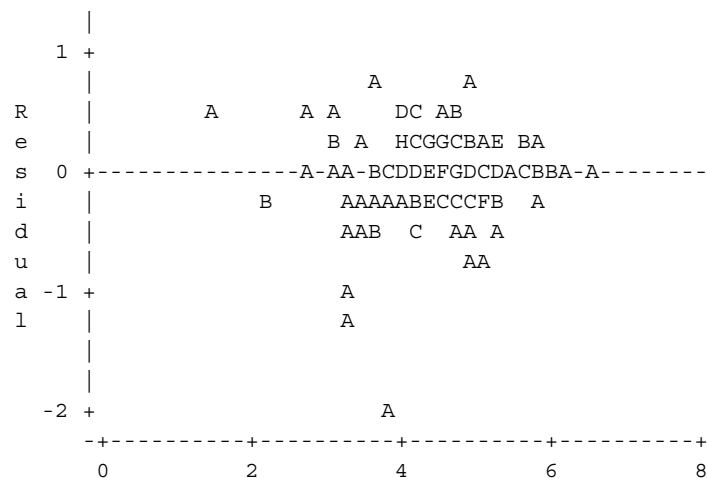
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

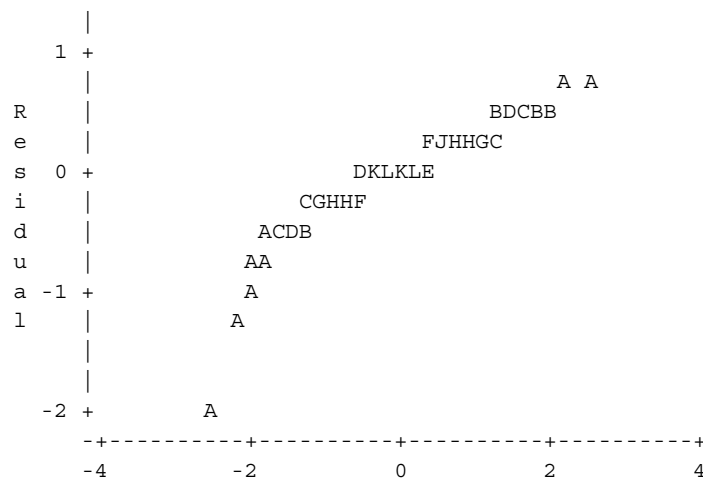
Residual Plots

----- Parameter Code=UNNAL24U -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.



Predicted

Rank for Variable RESID

**Listing 15.4.4.31 Analysis of Urinary Total NNAL on Day 5 - FAS**

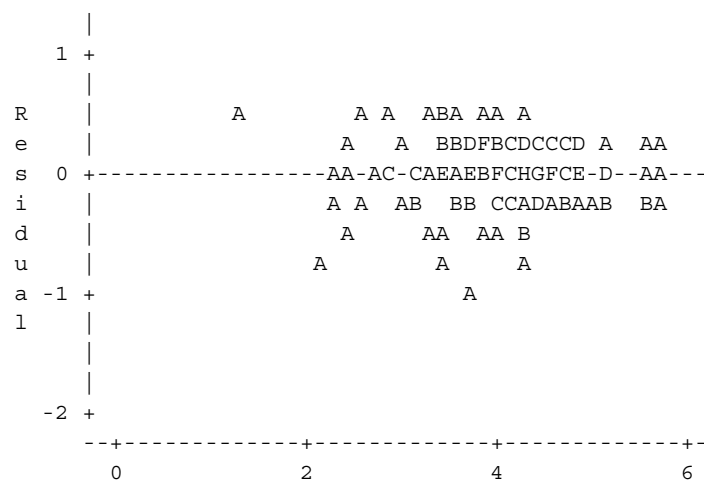
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

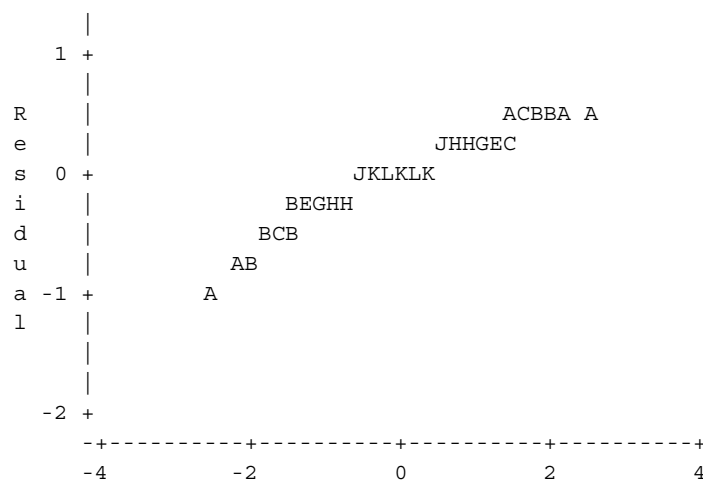
----- Parameter Code=UNNALCRE -----

Plot of RESID\*PRED. A=1, B=2, etc.



Predicted

Plot of RESID\*NSCORE. A=1, B=2, etc.



Rank for Variable RESID



---

**Listing 15.4.4.33 Analysis of Urinary NEQ on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNEQ24U Analysis Value Unit=mg -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





---

**Listing 15.4.4.33 Analysis of Urinary NEQ on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNEQ24U Analysis Value Unit=mg -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.33 Analysis of Urinary NEQ on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNEQ24U Analysis Value Unit=mg -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.33 Analysis of Urinary NEQ on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNEQ24U Analysis Value Unit=mg -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1794

Fit Statistics

-2 Res Log Likelihood	193.7
AIC (smaller is better)	195.7
AICC (smaller is better)	195.7
BIC (smaller is better)	198.7

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.33 Analysis of Urinary NEQ on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNEQ24U Analysis Value Unit=mg -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	98.55	<.0001
TRTAN	2	153	1475.78	<.0001
SEXC	1	153	15.34	0.0001
UCPDGR1	1	153	1.22	0.2718

**Listing 15.4.4.33 Analysis of Urinary NEQ on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNEQ24U Analysis Value Unit=mg -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	2.7281	0.04766	153	57.24	<.0001	0.05	2.6340	2.8223
TRTAN	CC	2.7005	0.06619	153	40.80	<.0001	0.05	2.5698	2.8313
TRTAN	SA	-1.5265	0.06787	153	-22.49	<.0001	0.05	-1.6606	-1.3924
TRTAN	THS 2.2	2.7281	0.04766	153	57.24	<.0001	0.05	2.6340	2.8223
TRTAN	CC	2.7005	0.06619	153	40.80	<.0001	0.05	2.5698	2.8313
TRTAN	SA	-1.5265	0.06787	153	-22.49	<.0001	0.05	-1.6606	-1.3924

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.33 Analysis of Urinary NEQ on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNEQ24U Analysis Value Unit=mg -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	4.2546	0.08294	153	51.30	<.0001	0.05	4.0908	4.4185
TRTAN	CC	SA	4.2270	0.09484	153	44.57	<.0001	0.05	4.0397	4.4144
TRTAN	THS 2.2	CC	0.02761	0.08156	153	0.34	0.7354	0.05	-0.1335	0.1887
TRTAN	SA	CC	-4.2270	0.09484	153	-44.57	<.0001	0.05	-4.4144	-4.0397

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.33 Analysis of Urinary NEQ on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNEQCRE Analysis Value Unit=mg/g creat -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



---

**Listing 15.4.4.33 Analysis of Urinary NEQ on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNEQCRE Analysis Value Unit=mg/g creat -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.33 Analysis of Urinary NEQ on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNEQCRE Analysis Value Unit=mg/g creat -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	159
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.33 Analysis of Urinary NEQ on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNEQCRE Analysis Value Unit=mg/g creat -----

Covariance Parameter  
Estimates

Cov Parm Estimate

Residual 0.1181

Fit Statistics

-2 Res Log Likelihood	129.7
AIC (smaller is better)	131.7
AICC (smaller is better)	131.8
BIC (smaller is better)	134.8

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.33 Analysis of Urinary NEQ on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNEQCRE Analysis Value Unit=mg/g creat -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	153	137.97	<.0001
TRTAN	2	153	2329.47	<.0001
SEXC	1	153	3.71	0.0559
UCPDGR1	1	153	3.37	0.0684

**Listing 15.4.4.33 Analysis of Urinary NEQ on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNEQCRE Analysis Value Unit=mg/g creat -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	2.3620	0.03867	153	61.09	<.0001	0.05	2.2856	2.4384
TRTAN	CC	2.3143	0.05374	153	43.06	<.0001	0.05	2.2081	2.4204
TRTAN	SA	-1.9867	0.05512	153	-36.04	<.0001	0.05	-2.0956	-1.8778
TRTAN	THS 2.2	2.3620	0.03867	153	61.09	<.0001	0.05	2.2856	2.4384
TRTAN	CC	2.3143	0.05374	153	43.06	<.0001	0.05	2.2081	2.4204
TRTAN	SA	-1.9867	0.05512	153	-36.04	<.0001	0.05	-2.0956	-1.8778

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.33 Analysis of Urinary NEQ on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UNEQCRE Analysis Value Unit=mg/g creat -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	4.3487	0.06733	153	64.58	<.0001	0.05	4.2157	4.4817
TRTAN	CC	SA	4.3009	0.07709	153	55.79	<.0001	0.05	4.1486	4.4532
TRTAN	THS 2.2	CC	0.04775	0.06621	153	0.72	0.4719	0.05	-0.08305	0.1785
TRTAN	SA	CC	-4.3009	0.07709	153	-55.79	<.0001	0.05	-4.4532	-4.1486

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.33 Analysis of Urinary NEQ on Day 5 - FAS**

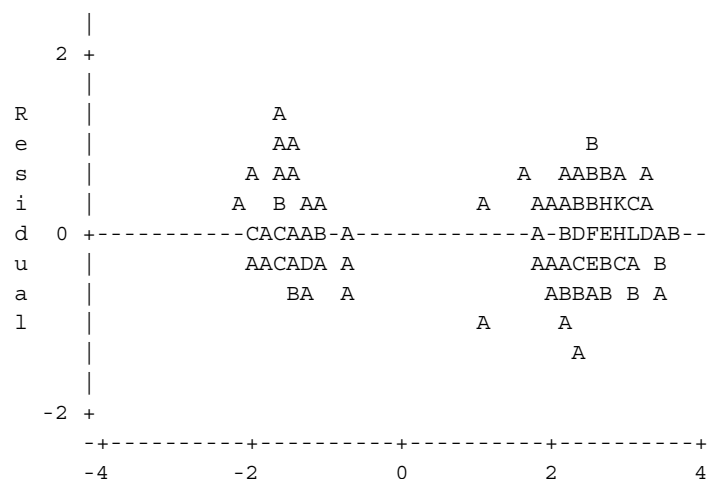
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

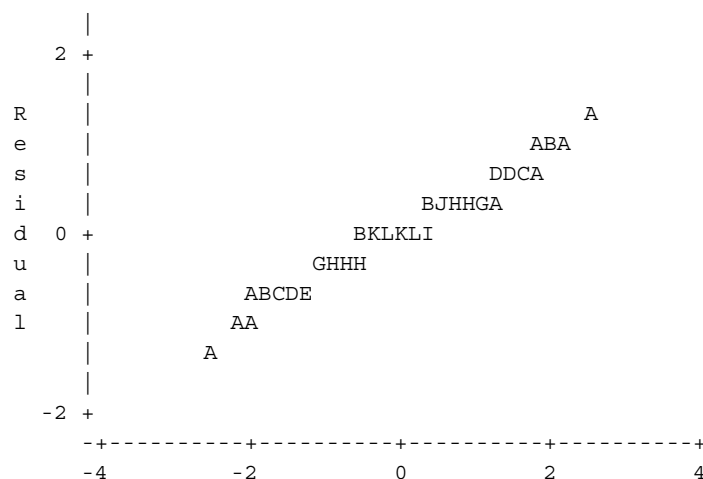
Residual Plots

----- Parameter Code=UNEQ24U -----

Plot of RESID\*PRED. A=1, B=2, etc.



Plot of RESID\*NSCORE. A=1, B=2, etc.



Predicted

Rank for Variable RESID

**Listing 15.4.4.33 Analysis of Urinary NEQ on Day 5 - FAS**

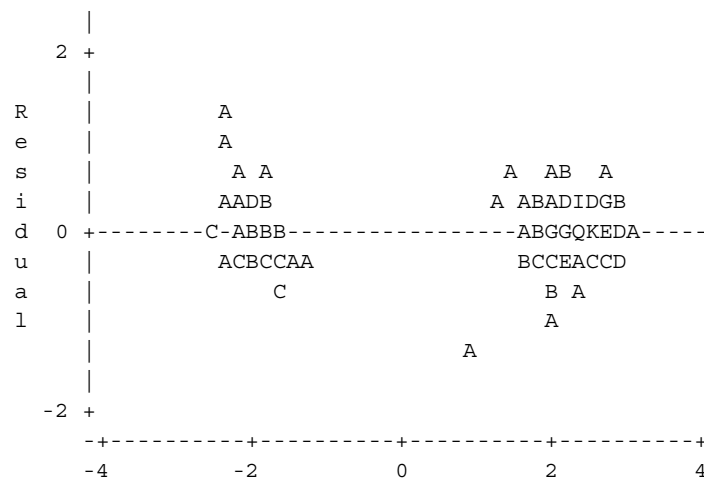
Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

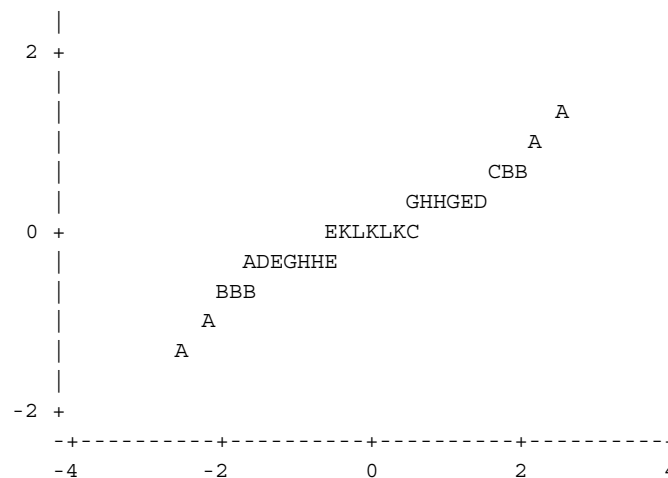
----- Parameter Code=UNEQCRE -----

Plot of RESID\*PRED. A=1, B=2, etc.



Predicted

Plot of RESID\*NSCORE. A=1, B=2, etc.



Rank for Variable RESID

**Listing 15.4.4.39 Analysis of Plasma Nicotine Concentration Parameters on Day 5 - FAS**Parameter: C<sub>avg</sub> (ng/mL)

Proc Mixed Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

## Model Information

Data Set	WORK.ADPPMOD
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day





---

**Listing 15.4.4.39 Analysis of Plasma Nicotine Concentration Parameters on Day 5 - FAS**Parameter: C<sub>avg</sub> (ng/mL)

Proc Mixed Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

## Dimensions

Covariance Parameters	1
Columns in X	7
Columns in Z	0
Subjects	1
Max Obs Per Subject	119

## Number of Observations

Number of Observations Read	119
Number of Observations Used	119
Number of Observations Not Used	0

Covariance Parameter  
Estimates

Cov Parm	Estimate
Residual	0.3031

**Listing 15.4.4.39 Analysis of Plasma Nicotine Concentration Parameters on Day 5 - FAS**Parameter: C<sub>avg</sub> (ng/mL)

Proc Mixed Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

## Fit Statistics

-2 Res Log Likelihood	203.9
AIC (smaller is better)	205.9
AICC (smaller is better)	206.0
BIC (smaller is better)	208.7

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTAN	1	115	1.29	0.2582
SEXC	1	115	4.79	0.0306
UCPDGR1	1	115	3.95	0.0494

**Listing 15.4.4.39 Analysis of Plasma Nicotine Concentration Parameters on Day 5 - FAS**Parameter: C<sub>avg</sub> (ng/mL)

Proc Mixed Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

## Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	2.5207	0.06195	115	40.69	<.0001	0.05	2.3980	2.6434
TRTAN	CC	2.3992	0.08709	115	27.55	<.0001	0.05	2.2267	2.5717

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.1215	0.1069	115	1.14	0.2582	0.05	-0.09027	0.3332

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.39 Analysis of Plasma Nicotine Concentration Parameters on Day 5 - FAS**Parameter: C<sub>peak</sub> (ng/mL)

Proc Mixed Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

## Model Information

Data Set	WORK.ADPPMOD
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day



---

**Listing 15.4.4.39 Analysis of Plasma Nicotine Concentration Parameters on Day 5 - FAS**Parameter: C<sub>peak</sub> (ng/mL)

Proc Mixed Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

## Dimensions

Covariance Parameters	1
Columns in X	7
Columns in Z	0
Subjects	1
Max Obs Per Subject	119

## Number of Observations

Number of Observations Read	119
Number of Observations Used	119
Number of Observations Not Used	0

Covariance Parameter  
Estimates

Cov Parm	Estimate
Residual	0.2763

**Listing 15.4.4.39 Analysis of Plasma Nicotine Concentration Parameters on Day 5 - FAS**Parameter: C<sub>peak</sub> (ng/mL)

Proc Mixed Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

## Fit Statistics

-2 Res Log Likelihood	193.3
AIC (smaller is better)	195.3
AICC (smaller is better)	195.3
BIC (smaller is better)	198.0

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTAN	1	115	1.39	0.2405
SEXC	1	115	3.27	0.0733
UCPDGR1	1	115	3.93	0.0498

**Listing 15.4.4.39 Analysis of Plasma Nicotine Concentration Parameters on Day 5 - FAS**Parameter: C<sub>peak</sub> (ng/mL)

Proc Mixed Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

## Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	3.1545	0.05915	115	53.33	<.0001	0.05	3.0374	3.2717
TRTAN	CC	3.0341	0.08315	115	36.49	<.0001	0.05	2.8694	3.1988

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.1204	0.1021	115	1.18	0.2405	0.05	-0.08175	0.3226

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

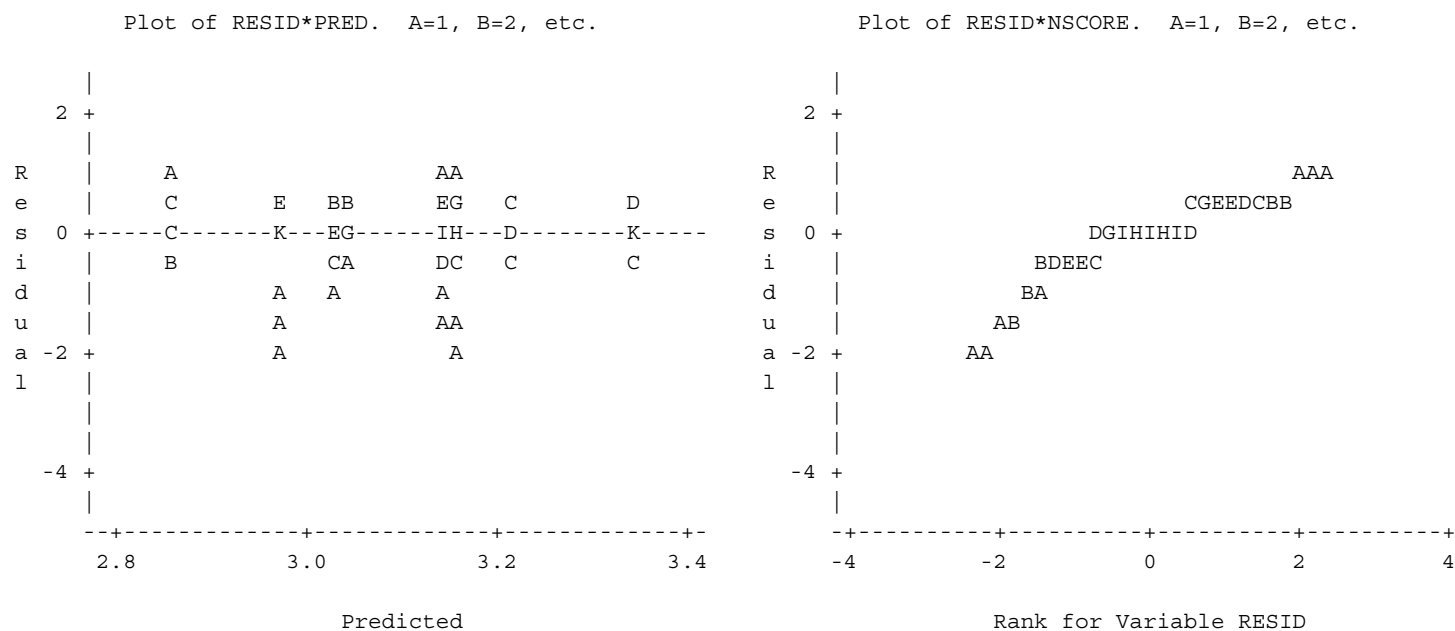
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**Listing 15.4.4.39 Analysis of Plasma Nicotine Concentration Parameters on Day 5 - FAS**

Parameter:  $C_{peak}$  (ng/mL)  
Residual Plots





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**Listing 15.4.4.39 Analysis of Plasma Nicotine Concentration Parameters on Day 5 - FAS**

Parameter:  $t_{\text{peak}}$  (h)  
Proc Nparlway procedure

Wilcoxon Scores (Rank Sums) for Variable AVAL  
Classified by Variable TRTAN

TRTAN	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
-----					
THS 2.2	79	4634.0	4740.0	165.804810	58.658228
CC	40	2506.0	2400.0	165.804810	62.650000

Average scores were used for ties.



---

**Listing 15.4.4.39 Analysis of Plasma Nicotine Concentration Parameters on Day 5 - FAS**

Parameter:  $t_{\text{peak}}$  (h)  
Proc Nparlway procedure

Wilcoxon Two-Sample Test

Statistic	2506.0000
-----------	-----------

Normal Approximation

Z	0.6363
---	--------

One-Sided Pr > Z	0.2623
------------------	--------

Two-Sided Pr >  Z	0.5246
-------------------	--------

t Approximation

One-Sided Pr > Z	0.2629
------------------	--------

Two-Sided Pr >  Z	0.5258
-------------------	--------

Z includes a continuity correction of 0.5.

Kruskal-Wallis Test

Chi-Square	0.4087
------------	--------

DF	1
----	---

Pr > Chi-Square	0.5226
-----------------	--------



---

**Listing 15.4.4.39 Analysis of Plasma Nicotine Concentration Parameters on Day 5 - FAS**Parameter:  $t_{\text{peak}}$  (h)

Proc Nparlway procedure

Hodges-Lehmann Estimation

Location Shift      0.0000

95% Confidence Limits		Interval Midpoint	Asymptotic Standard Error
0.0000	0.0000	0.0000	0.0000

Path: /cvn/projects/prj/development/000000106324/dev/tables/tl\_anlpkparm.sas  
Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.40 Analysis of Plasma Cotinine Concentration Parameters on Day 5 - FAS**Parameter: C<sub>avg</sub> (ng/mL)

Proc Mixed Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

## Model Information

Data Set	WORK.ADPPMOD
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day



---

**Listing 15.4.4.40 Analysis of Plasma Cotinine Concentration Parameters on Day 5 - FAS**Parameter: C<sub>avg</sub> (ng/mL)

Proc Mixed Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

## Dimensions

Covariance Parameters	1
Columns in X	7
Columns in Z	0
Subjects	1
Max Obs Per Subject	120

## Number of Observations

Number of Observations Read	120
Number of Observations Used	120
Number of Observations Not Used	0

Covariance Parameter  
Estimates

Cov Parm	Estimate
Residual	0.2759

**Listing 15.4.4.40 Analysis of Plasma Cotinine Concentration Parameters on Day 5 - FAS**Parameter: C<sub>avg</sub> (ng/mL)

Proc Mixed Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

## Fit Statistics

-2 Res Log Likelihood	194.7
AIC (smaller is better)	196.7
AICC (smaller is better)	196.7
BIC (smaller is better)	199.4

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTAN	1	116	1.07	0.3029
SEXC	1	116	1.78	0.1846
UCPDGR1	1	116	5.30	0.0231

**Listing 15.4.4.40 Analysis of Plasma Cotine Concentration Parameters on Day 5 - FAS**Parameter: C<sub>avg</sub> (ng/mL)

Proc Mixed Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

## Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.3939	0.05910	116	91.27	<.0001	0.05	5.2769	5.5110
TRTAN	CC	5.2893	0.08204	116	64.47	<.0001	0.05	5.1268	5.4518

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.1046	0.1011	116	1.03	0.3029	0.05	-0.09563	0.3049

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.40 Analysis of Plasma Cotinine Concentration Parameters on Day 5 - FAS**Parameter: C<sub>peak</sub> (ng/mL)

Proc Mixed Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

## Model Information

Data Set	WORK.ADPPMOD
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day



---

**Listing 15.4.4.40 Analysis of Plasma Cotine Concentration Parameters on Day 5 - FAS**Parameter: C<sub>peak</sub> (ng/mL)

Proc Mixed Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

## Dimensions

Covariance Parameters	1
Columns in X	7
Columns in Z	0
Subjects	1
Max Obs Per Subject	120

## Number of Observations

Number of Observations Read	120
Number of Observations Used	120
Number of Observations Not Used	0

Covariance Parameter  
Estimates

Cov Parm	Estimate
Residual	0.2715



---

**Listing 15.4.4.40 Analysis of Plasma Cotine Concentration Parameters on Day 5 - FAS**Parameter: C<sub>peak</sub> (ng/mL)

Proc Mixed Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

## Fit Statistics

-2 Res Log Likelihood	192.8
AIC (smaller is better)	194.8
AICC (smaller is better)	194.9
BIC (smaller is better)	197.6

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TRTAN	1	116	1.67	0.1993
SEXC	1	116	1.00	0.3194
UCPDGR1	1	116	7.09	0.0089

**Listing 15.4.4.40 Analysis of Plasma Cotine Concentration Parameters on Day 5 - FAS**Parameter: C<sub>peak</sub> (ng/mL)

Proc Mixed Procedure

The where clause used on the dataset adam.adpp: pprotfl='Y' and anl01fl='Y'

## Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.5599	0.05863	116	94.83	<.0001	0.05	5.4437	5.6760
TRTAN	CC	5.4304	0.08139	116	66.72	<.0001	0.05	5.2692	5.5916

## Differences of Least Squares Means

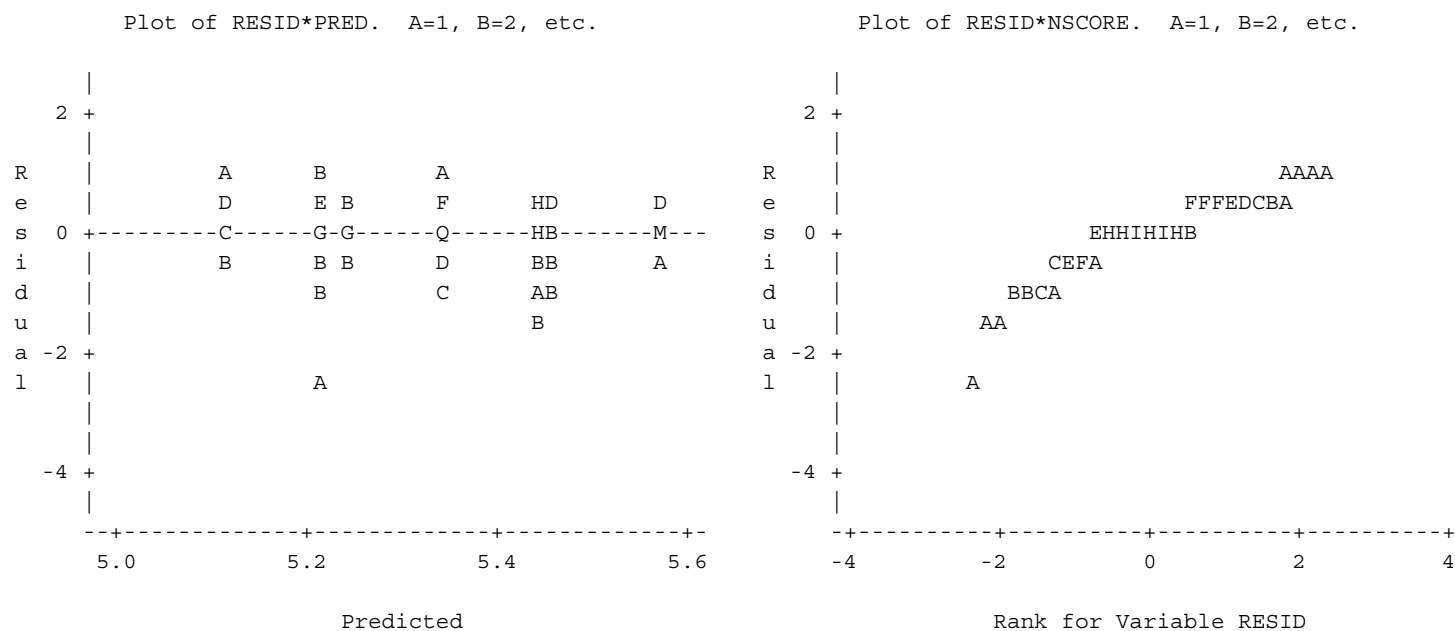
Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.1295	0.1003	116	1.29	0.1993	0.05	-0.06918	0.3282

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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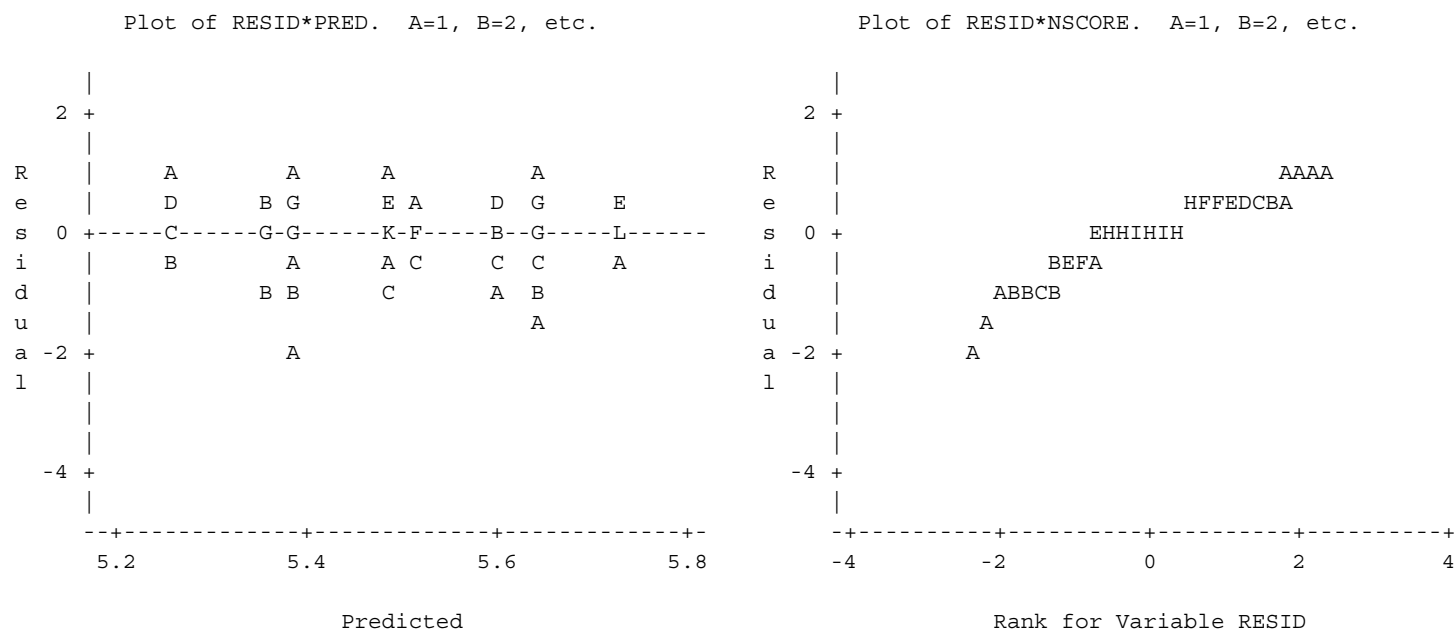
**Listing 15.4.4.40 Analysis of Plasma Cotine Concentration Parameters on Day 5 - FAS**

Parameter: C<sub>avg</sub> (ng/mL)  
Residual Plots



**Listing 15.4.4.40 Analysis of Plasma Cotine Concentration Parameters on Day 5 - FAS**

Parameter: C<sub>peak</sub> (ng/mL)  
Residual Plots





---

**Listing 15.4.4.40 Analysis of Plasma Cotinine Concentration Parameters on Day 5 - FAS**

Parameter:  $t_{\text{peak}}$  (h)  
Proc Nparlway procedure

Wilcoxon Scores (Rank Sums) for Variable AVAL  
Classified by Variable TRTAN

TRTAN	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
-----					
THS 2.2	79	4712.0	4779.50	173.836414	59.645570
CC	41	2548.0	2480.50	173.836414	62.146341

Average scores were used for ties.



---

**Listing 15.4.4.40 Analysis of Plasma Cotine Concentration Parameters on Day 5 - FAS**

Parameter:  $t_{\text{peak}}$  (h)  
Proc Nparlway procedure

Wilcoxon Two-Sample Test

Statistic	2548.0000
-----------	-----------

Normal Approximation

Z	0.3854
---	--------

One-Sided Pr > Z	0.3500
------------------	--------

Two-Sided Pr >  Z	0.6999
-------------------	--------

t Approximation

One-Sided Pr > Z	0.3503
------------------	--------

Two-Sided Pr >  Z	0.7006
-------------------	--------

Z includes a continuity correction of 0.5.

Kruskal-Wallis Test

Chi-Square	0.1508
------------	--------

DF	1
----	---

Pr > Chi-Square	0.6978
-----------------	--------





---

**Listing 15.4.4.40 Analysis of Plasma Cotinine Concentration Parameters on Day 5 - FAS**Parameter:  $t_{\text{peak}}$  (h)

Proc Nparlway procedure

Hodges-Lehmann Estimation

Location Shift      0.0000

95% Confidence Limits		Interval Midpoint	Asymptotic Standard Error
0.0000	0.0667	0.0333	0.0170

Path: /cvn/projects/prj/development/000000106324/dev/tables/tl\_anlpkparm.sas  
Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.41 Analysis of Change from Day 0 Plasma Nicotine and Cotinine Concentrations at 08:00 PM on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adpc: fasfl='Y' and anl01fl='Y'

----- Parameter (N)=1 Parameter=Nicotine (ng/mL) Analysis Visit=Day 5 -----

Model Information

Data Set	WORK.ADPC
Dependent Variable	CHG
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.41 Analysis of Change from Day 0 Plasma Nicotine and Cotinine Concentrations at 08:00 PM on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adpc: fasfl='Y' and anl01fl='Y'

----- Parameter (N)=1 Parameter=Nicotine (ng/mL) Analysis Visit=Day 5 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0



---

**Listing 15.4.4.41 Analysis of Change from Day 0 Plasma Nicotine and Cotinine Concentrations at 08:00 PM on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adpc: fasfl='Y' and anl01fl='Y'

----- Parameter (N)=1 Parameter=Nicotine (ng/mL) Analysis Visit=Day 5 -----

## Dimensions

Subjects	1
Max Obs Per Subject	120

## Number of Observations

Number of Observations Read	120
Number of Observations Used	120
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.41 Analysis of Change from Day 0 Plasma Nicotine and Cotinine Concentrations at 08:00 PM on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adpc: fasfl='Y' and anl01fl='Y'

----- Parameter (N)=1 Parameter=Nicotine (ng/mL) Analysis Visit=Day 5 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      51.4796

Fit Statistics

-2 Res Log Likelihood	803.2
AIC (smaller is better)	805.2
AICC (smaller is better)	805.3
BIC (smaller is better)	808.0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.41 Analysis of Change from Day 0 Plasma Nicotine and Cotinine Concentrations at 08:00 PM on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adpc: fasfl='Y' and anl01fl='Y'

----- Parameter (N)=1 Parameter=Nicotine (ng/mL) Analysis Visit=Day 5 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASE	1	115	23.78	<.0001
TRTAN	1	115	3.41	0.0676
SEXC	1	115	4.47	0.0368
UCPDGR1	1	115	2.34	0.1286

**Listing 15.4.4.41 Analysis of Change from Day 0 Plasma Nicotine and Cotinine Concentrations at 08:00 PM on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adpc: fasfl='Y' and anl01fl='Y'

----- Parameter (N)=1 Parameter=Nicotine (ng/mL) Analysis Visit=Day 5 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	3.5370	0.8074	115	4.38	<.0001	0.05	1.9377	5.1363
TRTAN	CC	0.9877	1.1209	115	0.88	0.3801	0.05	-1.2325	3.2079

**Listing 15.4.4.41 Analysis of Change from Day 0 Plasma Nicotine and Cotinine Concentrations at 08:00 PM on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adpc: fasfl='Y' and anl01fl='Y'

----- Parameter (N)=1 Parameter=Nicotine (ng/mL) Analysis Visit=Day 5 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	2.5493	1.3815	115	1.85	0.0676	0.05	-0.1872	5.2858

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.41 Analysis of Change from Day 0 Plasma Nicotine and Cotinine Concentrations at 08:00 PM on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adpc: fasfl='Y' and anl01fl='Y'

----- Parameter (N)=2 Parameter=Cotinine (ng/mL) Analysis Visit=Day 5 -----

Model Information

Data Set	WORK.ADPC
Dependent Variable	CHG
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.41 Analysis of Change from Day 0 Plasma Nicotine and Cotinine Concentrations at 08:00 PM on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adpc: fasfl='Y' and anl01fl='Y'

----- Parameter (N)=2 Parameter=Cotinine (ng/mL) Analysis Visit=Day 5 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0



---

**Listing 15.4.4.41 Analysis of Change from Day 0 Plasma Nicotine and Cotinine Concentrations at 08:00 PM on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adpc: fasfl='Y' and anl01fl='Y'

----- Parameter (N)=2 Parameter=Cotinine (ng/mL) Analysis Visit=Day 5 -----

Dimensions

Subjects	1
Max Obs Per Subject	120

Number of Observations

Number of Observations Read	120
Number of Observations Used	120
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.41 Analysis of Change from Day 0 Plasma Nicotine and Cotinine Concentrations at 08:00 PM on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adpc: fasfl='Y' and anl01fl='Y'

----- Parameter (N)=2 Parameter=Cotinine (ng/mL) Analysis Visit=Day 5 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      4138.63

Fit Statistics

-2 Res Log Likelihood	1312.8
AIC (smaller is better)	1314.8
AICC (smaller is better)	1314.8
BIC (smaller is better)	1317.5

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.41 Analysis of Change from Day 0 Plasma Nicotine and Cotinine Concentrations at 08:00 PM on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adpc: fasfl='Y' and anl01fl='Y'

----- Parameter (N)=2 Parameter=Cotinine (ng/mL) Analysis Visit=Day 5 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASE	1	115	0.52	0.4710
TRTAN	1	115	6.22	0.0140
SEXC	1	115	4.38	0.0385
UCPDGR1	1	115	1.70	0.1943

**Listing 15.4.4.41 Analysis of Change from Day 0 Plasma Nicotine and Cotinine Concentrations at 08:00 PM on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adpc: fasfl='Y' and anl01fl='Y'

----- Parameter (N)=2 Parameter=Cotinine (ng/mL) Analysis Visit=Day 5 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	25.2045	7.2391	115	3.48	0.0007	0.05	10.8652	39.5437
TRTAN	CC	-5.7007	10.0508	115	-0.57	0.5717	0.05	-25.6093	14.2080

**Listing 15.4.4.41 Analysis of Change from Day 0 Plasma Nicotine and Cotinine Concentrations at 08:00 PM on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adpc: fasfl='Y' and anl01fl='Y'

----- Parameter (N)=2 Parameter=Cotinine (ng/mL) Analysis Visit=Day 5 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	30.9051	12.3875	115	2.49	0.0140	0.05	6.3679	55.4424

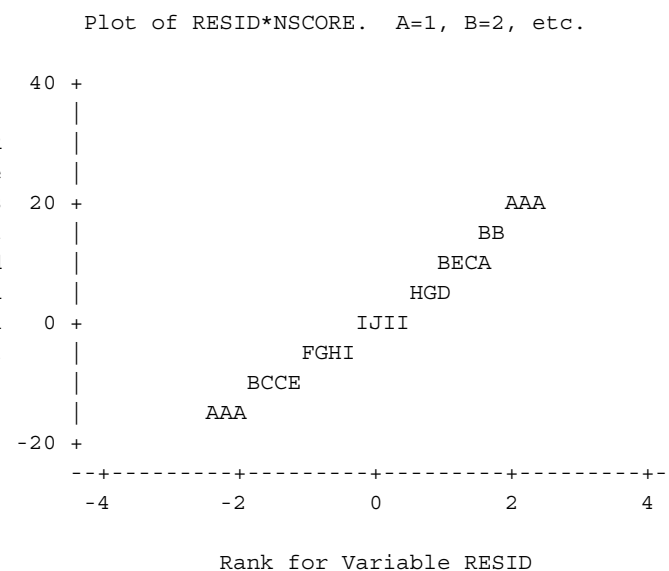
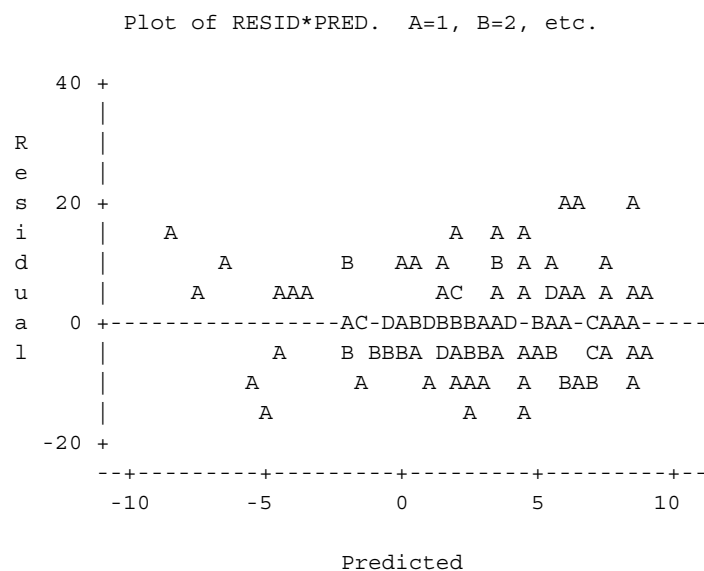
Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.41 Analysis of Change from Day 0 Plasma Nicotine and Cotinine Concentrations at 08:00 PM on Day 5 - FAS**

Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=1 Parameter=Nicotine (ng/mL) Analysis Visit=Day 5 -----

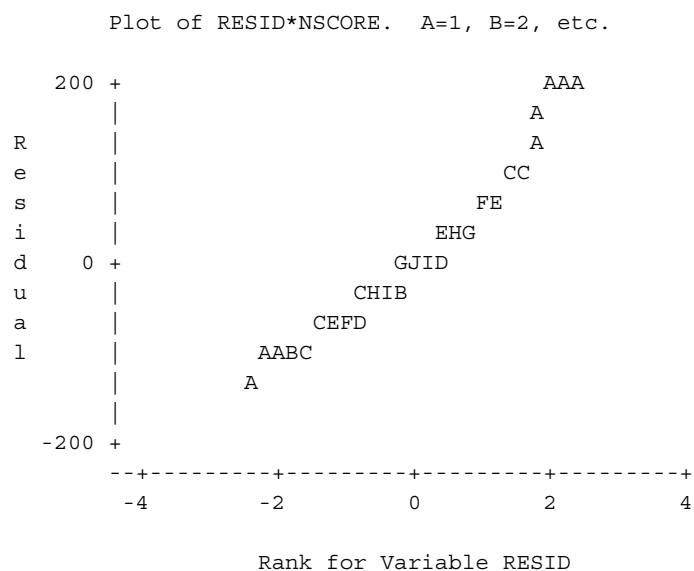
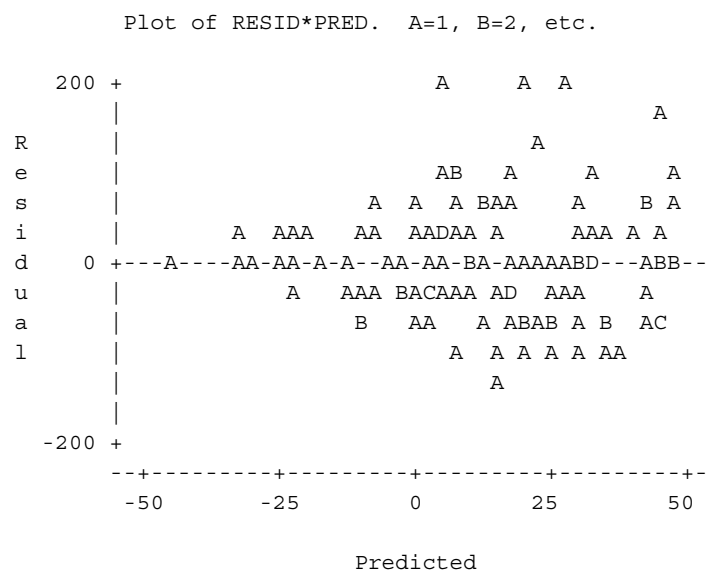




**Listing 15.4.4.41 Analysis of Change from Day 0 Plasma Nicotine and Cotinine Concentrations at 08:00 PM on Day 5 - FAS**

Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=2 Parameter=Cotinine (ng/mL) Analysis Visit=Day 5 -----





---

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Model Information

Data Set	WORK.ADQSSU
Dependent Variable	CHG
Covariance Structure	Unstructured
Subject Effect	SUBJIDN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Between-Within

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Class Level Information

Class	Levels	Values
SUBJIDN	160	1 4 8 10 11 13 14 15 16 17 20 21 22 23 25 28 29 30 31 34 35 37 38 39 42 44 49 51 52 53 55 57 60 62 63 64 66 67 69 71 72 74 76 80 83 85 86 87 88 90 93 104 105 106 107 110 112 114 117 118 121 122 123 126 127 128 129 130 133 134 136 137 139 140 145 147 148 149 150 152 153 155 156 160 162 167 169 170 177 181 183 185 187 189 190 191 192 193 195 196 197 198 200 202 203 204 206 210 216 218 220 224 228 229 230 232 234 240 241 244 249 251 252 255 256 262 264 265 266 272 273 276 277 278 279 281 282 283 285 287 289 291 292 296 298 300 301 306 307

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqssu: fasfl='Y'

		308	313	315	316	317	318	320
		321	322	325	328			
SEXN	2	Male	Female					
UCPDGR1N	2	10-19	cig/day	>19	cig/day			
TRTAN	3	THS	2.2	CC	SA			
AVISITN	5	Day 1	Day 2	Day 3	Day 4	Day 5		

## Dimensions

Covariance Parameters	15
Columns in X	29
Columns in Z	0
Subjects	160
Max Obs Per Subject	5

## Number of Observations

Number of Observations Read	797
Number of Observations Used	797
Number of Observations Not Used	0

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	2795.67061031	
1	2	2372.66967641	0.00000003
2	1	2372.66966349	0.00000000

Convergence criteria met.

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(1,1)	SUBJIDN	1.7836
UN(2,1)	SUBJIDN	0.7590
UN(2,2)	SUBJIDN	1.8341
UN(3,1)	SUBJIDN	1.0625
UN(3,2)	SUBJIDN	1.2198
UN(3,3)	SUBJIDN	1.7567
UN(4,1)	SUBJIDN	1.0319

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(4,2)	SUBJIDN	1.1876
UN(4,3)	SUBJIDN	1.4264
UN(4,4)	SUBJIDN	1.9162
UN(5,1)	SUBJIDN	0.9678
UN(5,2)	SUBJIDN	1.0104
UN(5,3)	SUBJIDN	1.0375
UN(5,4)	SUBJIDN	1.3967
UN(5,5)	SUBJIDN	2.3747

## Fit Statistics

-2 Res Log Likelihood	2372.7
AIC (smaller is better)	2402.7
AICC (smaller is better)	2403.3
BIC (smaller is better)	2448.8

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqssu: fasfl='Y'

## Null Model Likelihood Ratio Test

DF	Chi-Square	Pr > ChiSq
14	423.00	<.0001

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASE	1	154	59.90	<.0001
SEXN	1	154	0.14	0.7049
UCPDGR1N	1	154	3.17	0.0769
TRTAN	2	154	35.28	<.0001
AVISITN	4	154	7.05	<.0001
TRTAN*AVISITN	8	154	1.52	0.1551

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha
TRTAN	THS 2.2		-0.5154	0.1265	154	-4.08	<.0001	0.05
TRTAN	CC		-0.2022	0.1764	154	-1.15	0.2534	0.05
TRTAN	SA		1.3132	0.1809	154	7.26	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 1	-0.3497	0.1494	154	-2.34	0.0205	0.05
TRTAN*AVISITN	THS 2.2	Day 2	-0.3834	0.1515	154	-2.53	0.0124	0.05
TRTAN*AVISITN	THS 2.2	Day 3	-0.5427	0.1487	154	-3.65	0.0004	0.05
TRTAN*AVISITN	THS 2.2	Day 4	-0.5666	0.1553	154	-3.65	0.0004	0.05
TRTAN*AVISITN	THS 2.2	Day 5	-0.7345	0.1731	154	-4.24	<.0001	0.05
TRTAN*AVISITN	CC	Day 1	-0.07931	0.2086	154	-0.38	0.7044	0.05
TRTAN*AVISITN	CC	Day 2	-0.1281	0.2116	154	-0.61	0.5458	0.05
TRTAN*AVISITN	CC	Day 3	-0.1305	0.2071	154	-0.63	0.5294	0.05
TRTAN*AVISITN	CC	Day 4	-0.3354	0.2163	154	-1.55	0.1230	0.05
TRTAN*AVISITN	CC	Day 5	-0.3379	0.2407	154	-1.40	0.1625	0.05
TRTAN*AVISITN	SA	Day 1	1.7599	0.2139	154	8.23	<.0001	0.05
TRTAN*AVISITN	SA	Day 2	1.5496	0.2169	154	7.14	<.0001	0.05
TRTAN*AVISITN	SA	Day 3	1.4573	0.2123	154	6.86	<.0001	0.05
TRTAN*AVISITN	SA	Day 4	0.9291	0.2217	154	4.19	<.0001	0.05



**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Lower	Upper
TRTAN	THS 2.2		-0.7652	-0.2655
TRTAN	CC		-0.5507	0.1462
TRTAN	SA		0.9559	1.6705
TRTAN*AVISITN	THS 2.2	Day 1	-0.6448	-0.05451
TRTAN*AVISITN	THS 2.2	Day 2	-0.6827	-0.08412
TRTAN*AVISITN	THS 2.2	Day 3	-0.8364	-0.2490
TRTAN*AVISITN	THS 2.2	Day 4	-0.8735	-0.2597
TRTAN*AVISITN	THS 2.2	Day 5	-1.0765	-0.3926
TRTAN*AVISITN	CC	Day 1	-0.4915	0.3329
TRTAN*AVISITN	CC	Day 2	-0.5461	0.2899
TRTAN*AVISITN	CC	Day 3	-0.5396	0.2785
TRTAN*AVISITN	CC	Day 4	-0.7626	0.09181
TRTAN*AVISITN	CC	Day 5	-0.8134	0.1377
TRTAN*AVISITN	SA	Day 1	1.3372	2.1825
TRTAN*AVISITN	SA	Day 2	1.1210	1.9782
TRTAN*AVISITN	SA	Day 3	1.0379	1.8767
TRTAN*AVISITN	SA	Day 4	0.4910	1.3671

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha
TRTAN*AVISITN	SA	Day 5	0.8701	0.2468	154	3.53	0.0006	0.05

Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Lower	Upper
TRTAN*AVISITN	SA	Day 5	0.3825	1.3577

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN	THS 2.2		CC		-0.3131	0.2172	154	-1.44	0.1513
TRTAN	THS 2.2		SA		-1.8286	0.2208	154	-8.28	<.0001
TRTAN	CC		SA		-1.5154	0.2526	154	-6.00	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	0.03375	0.1620	154	0.21	0.8353
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	0.1931	0.1334	154	1.45	0.1500
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	0.2169	0.1435	154	1.51	0.1327
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	0.3849	0.1674	154	2.30	0.0229
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	-0.2704	0.2567	154	-1.05	0.2939
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	-0.2216	0.2591	154	-0.86	0.3938
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	-0.2191	0.2554	154	-0.86	0.3923
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	-0.01425	0.2629	154	-0.05	0.9568
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	-0.01182	0.2834	154	-0.04	0.9668
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 1	-2.1095	0.2611	154	-8.08	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 2	-1.8993	0.2635	154	-7.21	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 3	-1.8070	0.2597	154	-6.96	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 4	-1.2787	0.2675	154	-4.78	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 5	-1.2198	0.2886	154	-4.23	<.0001

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN	THS 2.2		CC		0.05	-0.7421	0.1158
TRTAN	THS 2.2		SA		0.05	-2.2648	-1.3923
TRTAN	CC		SA		0.05	-2.0144	-1.0165
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	0.05	-0.2863	0.3538
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	0.05	-0.07056	0.4567
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	0.05	-0.06661	0.5005
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	0.05	0.05409	0.7157
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	0.05	-0.7775	0.2368
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	0.05	-0.7334	0.2903
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	0.05	-0.7237	0.2855
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	0.05	-0.5337	0.5052
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	0.05	-0.5717	0.5480
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 1	0.05	-2.6252	-1.5938
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 2	0.05	-2.4199	-1.3787
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 3	0.05	-2.3201	-1.2939
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 4	0.05	-1.8072	-0.7503
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 5	0.05	-1.7900	-0.6496

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.1593	0.1204	154	1.32	0.1879
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.1832	0.1317	154	1.39	0.1662
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.3511	0.1661	154	2.11	0.0362
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	-0.3041	0.2579	154	-1.18	0.2402
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	-0.2553	0.2603	154	-0.98	0.3282
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	-0.2529	0.2567	154	-0.99	0.3260
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	-0.04800	0.2641	154	-0.18	0.8560
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	-0.04557	0.2845	154	-0.16	0.8730
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 1	-2.1433	0.2623	154	-8.17	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 2	-1.9330	0.2647	154	-7.30	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 3	-1.8407	0.2609	154	-7.05	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 4	-1.3125	0.2687	154	-4.89	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 5	-1.2535	0.2897	154	-4.33	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	0.02389	0.1019	154	0.23	0.8149
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	0.1918	0.1613	154	1.19	0.2362
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	-0.4634	0.2563	154	-1.81	0.0725
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	-0.4146	0.2587	154	-1.60	0.1110

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.05	-0.07864	0.3972
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.05	-0.07693	0.4433
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.05	0.02291	0.6794
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	0.05	-0.8136	0.2054
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	0.05	-0.7696	0.2589
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	0.05	-0.7599	0.2541
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	0.05	-0.5698	0.4738
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	0.05	-0.6076	0.5165
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 1	0.05	-2.6614	-1.6252
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 2	0.05	-2.4560	-1.4101
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 3	0.05	-2.3562	-1.3252
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 4	0.05	-1.8432	-0.7817
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 5	0.05	-1.8259	-0.6812
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	0.05	-0.1774	0.2252
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	0.05	-0.1269	0.5105
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	0.05	-0.9697	0.04287
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	0.05	-0.9256	0.09638

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	-0.4122	0.2550	154	-1.62	0.1080
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	-0.2073	0.2625	154	-0.79	0.4309
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	-0.2049	0.2830	154	-0.72	0.4702
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 1	-2.3026	0.2606	154	-8.83	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 2	-2.0923	0.2631	154	-7.95	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 3	-2.0000	0.2593	154	-7.71	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 4	-1.4718	0.2671	154	-5.51	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 5	-1.4128	0.2882	154	-4.90	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	0.1679	0.1377	154	1.22	0.2244
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	-0.4873	0.2602	154	-1.87	0.0630
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	-0.4385	0.2626	154	-1.67	0.0969
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	-0.4361	0.2589	154	-1.68	0.0942
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	-0.2312	0.2663	154	-0.87	0.3867
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	-0.2288	0.2866	154	-0.80	0.4260
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 1	-2.3265	0.2645	154	-8.80	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 2	-2.1162	0.2669	154	-7.93	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 3	-2.0239	0.2632	154	-7.69	<.0001

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	0.05	-0.9159	0.09155
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	0.05	-0.7259	0.3113
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	0.05	-0.7640	0.3542
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 1	0.05	-2.8175	-1.7877
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 2	0.05	-2.6121	-1.5725
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 3	0.05	-2.5123	-1.4877
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 4	0.05	-1.9994	-0.9442
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 5	0.05	-1.9823	-0.8434
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	0.05	-0.1040	0.4399
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	0.05	-1.0013	0.02675
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	0.05	-0.9572	0.08018
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	0.05	-0.9476	0.07547
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	0.05	-0.7574	0.2950
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	0.05	-0.7949	0.3374
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 1	0.05	-2.8490	-1.8039
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 2	0.05	-2.6435	-1.5889
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 3	0.05	-2.5438	-1.5040



**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 4	-1.4957	0.2709	154	-5.52	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 5	-1.4367	0.2917	154	-4.92	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	-0.6552	0.2712	154	-2.42	0.0169
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	-0.6065	0.2735	154	-2.22	0.0280
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	-0.6040	0.2700	154	-2.24	0.0267
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	-0.3991	0.2771	154	-1.44	0.1518
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	-0.3967	0.2966	154	-1.34	0.1830
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 1	-2.4944	0.2753	154	-9.06	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 2	-2.2841	0.2777	154	-8.23	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 3	-2.1918	0.2741	154	-8.00	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 4	-1.6636	0.2814	154	-5.91	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 5	-1.6047	0.3016	154	-5.32	<.0001
TRTAN*AVISITN	CC	Day 1	CC	Day 2	0.04878	0.2263	154	0.22	0.8296
TRTAN*AVISITN	CC	Day 1	CC	Day 3	0.05122	0.1858	154	0.28	0.7832
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.2561	0.1998	154	1.28	0.2018
TRTAN*AVISITN	CC	Day 1	CC	Day 5	0.2585	0.2328	154	1.11	0.2686
TRTAN*AVISITN	CC	Day 1	SA	Day 1	-1.8392	0.2988	154	-6.16	<.0001

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 4	0.05	-2.0307	-0.9606
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 5	0.05	-2.0130	-0.8604
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	0.05	-1.1910	-0.1195
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	0.05	-1.1467	-0.06625
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	0.05	-1.1374	-0.07068
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	0.05	-0.9465	0.1483
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	0.05	-0.9826	0.1892
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 1	0.05	-3.0383	-1.9505
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 2	0.05	-2.8326	-1.7356
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 3	0.05	-2.7332	-1.6504
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 4	0.05	-2.2196	-1.1077
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 5	0.05	-2.2004	-1.0089
TRTAN*AVISITN	CC	Day 1	CC	Day 2	0.05	-0.3983	0.4958
TRTAN*AVISITN	CC	Day 1	CC	Day 3	0.05	-0.3158	0.4183
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.05	-0.1385	0.6507
TRTAN*AVISITN	CC	Day 1	CC	Day 5	0.05	-0.2014	0.7185
TRTAN*AVISITN	CC	Day 1	SA	Day 1	0.05	-2.4294	-1.2490

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	CC	Day 1	SA	Day 2	-1.6289	0.3009	154	-5.41	<.0001
TRTAN*AVISITN	CC	Day 1	SA	Day 3	-1.5366	0.2976	154	-5.16	<.0001
TRTAN*AVISITN	CC	Day 1	SA	Day 4	-1.0084	0.3044	154	-3.31	0.0012
TRTAN*AVISITN	CC	Day 1	SA	Day 5	-0.9494	0.3231	154	-2.94	0.0038
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.002439	0.1676	154	0.01	0.9884
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.2073	0.1831	154	1.13	0.2594
TRTAN*AVISITN	CC	Day 2	CC	Day 5	0.2098	0.2310	154	0.91	0.3653
TRTAN*AVISITN	CC	Day 2	SA	Day 1	-1.8879	0.3008	154	-6.28	<.0001
TRTAN*AVISITN	CC	Day 2	SA	Day 2	-1.6777	0.3030	154	-5.54	<.0001
TRTAN*AVISITN	CC	Day 2	SA	Day 3	-1.5854	0.2997	154	-5.29	<.0001
TRTAN*AVISITN	CC	Day 2	SA	Day 4	-1.0572	0.3064	154	-3.45	0.0007
TRTAN*AVISITN	CC	Day 2	SA	Day 5	-0.9982	0.3250	154	-3.07	0.0025
TRTAN*AVISITN	CC	Day 3	CC	Day 4	0.2049	0.1414	154	1.45	0.1495
TRTAN*AVISITN	CC	Day 3	CC	Day 5	0.2073	0.2240	154	0.93	0.3560
TRTAN*AVISITN	CC	Day 3	SA	Day 1	-1.8904	0.2977	154	-6.35	<.0001
TRTAN*AVISITN	CC	Day 3	SA	Day 2	-1.6801	0.2998	154	-5.60	<.0001
TRTAN*AVISITN	CC	Day 3	SA	Day 3	-1.5878	0.2965	154	-5.36	<.0001

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	CC	Day 1	SA	Day 2	0.05	-2.2234	-1.0345
TRTAN*AVISITN	CC	Day 1	SA	Day 3	0.05	-2.1245	-0.9487
TRTAN*AVISITN	CC	Day 1	SA	Day 4	0.05	-1.6097	-0.4071
TRTAN*AVISITN	CC	Day 1	SA	Day 5	0.05	-1.5878	-0.3111
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.05	-0.3286	0.3335
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.05	-0.1545	0.5691
TRTAN*AVISITN	CC	Day 2	CC	Day 5	0.05	-0.2466	0.6661
TRTAN*AVISITN	CC	Day 2	SA	Day 1	0.05	-2.4822	-1.2937
TRTAN*AVISITN	CC	Day 2	SA	Day 2	0.05	-2.2762	-1.0792
TRTAN*AVISITN	CC	Day 2	SA	Day 3	0.05	-2.1774	-0.9934
TRTAN*AVISITN	CC	Day 2	SA	Day 4	0.05	-1.6625	-0.4519
TRTAN*AVISITN	CC	Day 2	SA	Day 5	0.05	-1.6403	-0.3561
TRTAN*AVISITN	CC	Day 3	CC	Day 4	0.05	-0.07450	0.4843
TRTAN*AVISITN	CC	Day 3	CC	Day 5	0.05	-0.2351	0.6497
TRTAN*AVISITN	CC	Day 3	SA	Day 1	0.05	-2.4784	-1.3024
TRTAN*AVISITN	CC	Day 3	SA	Day 2	0.05	-2.2724	-1.0878
TRTAN*AVISITN	CC	Day 3	SA	Day 3	0.05	-2.1735	-1.0021

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	CC	Day 3	SA	Day 4	-1.0596	0.3033	154	-3.49	0.0006
TRTAN*AVISITN	CC	Day 3	SA	Day 5	-1.0006	0.3221	154	-3.11	0.0023
TRTAN*AVISITN	CC	Day 4	CC	Day 5	0.002439	0.1911	154	0.01	0.9898
TRTAN*AVISITN	CC	Day 4	SA	Day 1	-2.0953	0.3041	154	-6.89	<.0001
TRTAN*AVISITN	CC	Day 4	SA	Day 2	-1.8850	0.3062	154	-6.16	<.0001
TRTAN*AVISITN	CC	Day 4	SA	Day 3	-1.7927	0.3030	154	-5.92	<.0001
TRTAN*AVISITN	CC	Day 4	SA	Day 4	-1.2645	0.3097	154	-4.08	<.0001
TRTAN*AVISITN	CC	Day 4	SA	Day 5	-1.2055	0.3281	154	-3.67	0.0003
TRTAN*AVISITN	CC	Day 5	SA	Day 1	-2.0977	0.3220	154	-6.51	<.0001
TRTAN*AVISITN	CC	Day 5	SA	Day 2	-1.8874	0.3240	154	-5.83	<.0001
TRTAN*AVISITN	CC	Day 5	SA	Day 3	-1.7951	0.3209	154	-5.59	<.0001
TRTAN*AVISITN	CC	Day 5	SA	Day 4	-1.2669	0.3272	154	-3.87	0.0002
TRTAN*AVISITN	CC	Day 5	SA	Day 5	-1.2080	0.3447	154	-3.50	0.0006
TRTAN*AVISITN	SA	Day 1	SA	Day 2	0.2103	0.2320	154	0.91	0.3663
TRTAN*AVISITN	SA	Day 1	SA	Day 3	0.3026	0.1905	154	1.59	0.1143
TRTAN*AVISITN	SA	Day 1	SA	Day 4	0.8308	0.2048	154	4.06	<.0001
TRTAN*AVISITN	SA	Day 1	SA	Day 5	0.8897	0.2387	154	3.73	0.0003

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	CC	Day 3	SA	Day 4	0.05	-1.6588	-0.4604
TRTAN*AVISITN	CC	Day 3	SA	Day 5	0.05	-1.6370	-0.3643
TRTAN*AVISITN	CC	Day 4	CC	Day 5	0.05	-0.3751	0.3800
TRTAN*AVISITN	CC	Day 4	SA	Day 1	0.05	-2.6961	-1.4945
TRTAN*AVISITN	CC	Day 4	SA	Day 2	0.05	-2.4900	-1.2800
TRTAN*AVISITN	CC	Day 4	SA	Day 3	0.05	-2.3912	-1.1942
TRTAN*AVISITN	CC	Day 4	SA	Day 4	0.05	-1.8762	-0.6528
TRTAN*AVISITN	CC	Day 4	SA	Day 5	0.05	-1.8537	-0.5574
TRTAN*AVISITN	CC	Day 5	SA	Day 1	0.05	-2.7338	-1.4616
TRTAN*AVISITN	CC	Day 5	SA	Day 2	0.05	-2.5275	-1.2474
TRTAN*AVISITN	CC	Day 5	SA	Day 3	0.05	-2.4291	-1.1612
TRTAN*AVISITN	CC	Day 5	SA	Day 4	0.05	-1.9133	-0.6205
TRTAN*AVISITN	CC	Day 5	SA	Day 5	0.05	-1.8889	-0.5270
TRTAN*AVISITN	SA	Day 1	SA	Day 2	0.05	-0.2481	0.6686
TRTAN*AVISITN	SA	Day 1	SA	Day 3	0.05	-0.07376	0.6789
TRTAN*AVISITN	SA	Day 1	SA	Day 4	0.05	0.4261	1.2354
TRTAN*AVISITN	SA	Day 1	SA	Day 5	0.05	0.4181	1.3613

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	SA	Day 2	SA	Day 3	0.09231	0.1718	154	0.54	0.5919
TRTAN*AVISITN	SA	Day 2	SA	Day 4	0.6205	0.1878	154	3.30	0.0012
TRTAN*AVISITN	SA	Day 2	SA	Day 5	0.6795	0.2369	154	2.87	0.0047
TRTAN*AVISITN	SA	Day 3	SA	Day 4	0.5282	0.1450	154	3.64	0.0004
TRTAN*AVISITN	SA	Day 3	SA	Day 5	0.5872	0.2296	154	2.56	0.0115
TRTAN*AVISITN	SA	Day 4	SA	Day 5	0.05897	0.1960	154	0.30	0.7639

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	SA	Day 2	SA	Day 3	0.05	-0.2471	0.4317
TRTAN*AVISITN	SA	Day 2	SA	Day 4	0.05	0.2496	0.9914
TRTAN*AVISITN	SA	Day 2	SA	Day 5	0.05	0.2116	1.1474
TRTAN*AVISITN	SA	Day 3	SA	Day 4	0.05	0.2418	0.8147

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	SA	Day 3	SA	Day 5	0.05	0.1336	1.0408
TRTAN*AVISITN	SA	Day 4	SA	Day 5	0.05	-0.3281	0.4461

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Model Information

Data Set	WORK.ADQSSU
Dependent Variable	CHG
Covariance Structure	Unstructured
Subject Effect	SUBJIDN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Between-Within

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Class Level Information

Class	Levels	Values
SUBJIDN	160	1 4 8 10 11 13 14 15 16 17 20 21 22 23 25 28 29 30 31 34 35 37 38 39 42 44 49 51 52 53 55 57 60 62 63 64 66 67 69 71 72 74 76 80 83 85 86 87 88 90 93 104 105 106 107 110 112 114 117 118 121 122 123 126 127 128 129 130 133 134 136 137 139 140 145 147 148 149 150 152 153 155 156 160 162 167 169 170 177 181 183 185 187 189 190 191 192 193 195 196 197 198 200 202 203 204 206 210 216 218 220 224 228 229 230 232 234 240 241 244 249 251 252 255 256 262 264 265 266 272 273 276 277 278 279 281 282 283 285 287 289 291 292 296 298 300 301 306 307

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqssu: fasfl='Y'

		308	313	315	316	317	318	320
		321	322	325	328			
SEXN	2	Male	Female					
UCPDGR1N	2	10-19	cig/day	>19	cig/day			
TRTAN	3	THS	2.2	CC	SA			
AVISITN	5	Day 1	Day 2	Day 3	Day 4	Day 5		

## Dimensions

Covariance Parameters	15
Columns in X	29
Columns in Z	0
Subjects	160
Max Obs Per Subject	5

## Number of Observations

Number of Observations Read	797
Number of Observations Used	797
Number of Observations Not Used	0

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	3016.08782165	
1	2	2638.60852444	0.00000002
2	1	2638.60851136	0.00000000

Convergence criteria met.

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(1,1)	SUBJIDN	2.3540
UN(2,1)	SUBJIDN	0.9366
UN(2,2)	SUBJIDN	2.3485
UN(3,1)	SUBJIDN	1.4486
UN(3,2)	SUBJIDN	1.5486
UN(3,3)	SUBJIDN	2.4382
UN(4,1)	SUBJIDN	1.3099



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**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(4,2)	SUBJIDN	1.4011
UN(4,3)	SUBJIDN	1.7775
UN(4,4)	SUBJIDN	2.4635
UN(5,1)	SUBJIDN	1.2827
UN(5,2)	SUBJIDN	1.3123
UN(5,3)	SUBJIDN	1.2551
UN(5,4)	SUBJIDN	1.7234
UN(5,5)	SUBJIDN	3.2164

## Fit Statistics

-2 Res Log Likelihood	2638.6
AIC (smaller is better)	2668.6
AICC (smaller is better)	2669.2
BIC (smaller is better)	2714.7

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqssu: fasfl='Y'

## Null Model Likelihood Ratio Test

DF	Chi-Square	Pr > ChiSq
14	377.48	<.0001

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASE	1	154	76.49	<.0001
SEXN	1	154	0.04	0.8337
UCPDGR1N	1	154	3.52	0.0625
TRTAN	2	154	31.00	<.0001
AVISITN	4	154	6.55	<.0001
TRTAN*AVISITN	8	154	0.91	0.5113

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha
TRTAN	THS 2.2		-0.5648	0.1432	154	-3.94	0.0001	0.05
TRTAN	CC		-0.2026	0.2000	154	-1.01	0.3128	0.05
TRTAN	SA		1.3793	0.2046	154	6.74	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 1	-0.4683	0.1717	154	-2.73	0.0071	0.05
TRTAN*AVISITN	THS 2.2	Day 2	-0.3433	0.1715	154	-2.00	0.0471	0.05
TRTAN*AVISITN	THS 2.2	Day 3	-0.5456	0.1752	154	-3.11	0.0022	0.05
TRTAN*AVISITN	THS 2.2	Day 4	-0.6563	0.1763	154	-3.72	0.0003	0.05
TRTAN*AVISITN	THS 2.2	Day 5	-0.8105	0.2015	154	-4.02	<.0001	0.05
TRTAN*AVISITN	CC	Day 1	-0.08940	0.2400	154	-0.37	0.7101	0.05
TRTAN*AVISITN	CC	Day 2	-0.05525	0.2398	154	-0.23	0.8180	0.05
TRTAN*AVISITN	CC	Day 3	-0.04550	0.2443	154	-0.19	0.8525	0.05
TRTAN*AVISITN	CC	Day 4	-0.4455	0.2455	154	-1.81	0.0716	0.05
TRTAN*AVISITN	CC	Day 5	-0.3772	0.2804	154	-1.35	0.1806	0.05
TRTAN*AVISITN	SA	Day 1	1.7691	0.2457	154	7.20	<.0001	0.05
TRTAN*AVISITN	SA	Day 2	1.6357	0.2454	154	6.66	<.0001	0.05
TRTAN*AVISITN	SA	Day 3	1.5537	0.2501	154	6.21	<.0001	0.05
TRTAN*AVISITN	SA	Day 4	0.9998	0.2514	154	3.98	0.0001	0.05

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Lower	Upper
TRTAN	THS 2.2		-0.8478	-0.2819
TRTAN	CC		-0.5978	0.1926
TRTAN	SA		0.9751	1.7836
TRTAN*AVISITN	THS 2.2	Day 1	-0.8075	-0.1291
TRTAN*AVISITN	THS 2.2	Day 2	-0.6821	-0.00450
TRTAN*AVISITN	THS 2.2	Day 3	-0.8918	-0.1994
TRTAN*AVISITN	THS 2.2	Day 4	-1.0045	-0.3081
TRTAN*AVISITN	THS 2.2	Day 5	-1.2086	-0.4124
TRTAN*AVISITN	CC	Day 1	-0.5636	0.3848
TRTAN*AVISITN	CC	Day 2	-0.5289	0.4184
TRTAN*AVISITN	CC	Day 3	-0.5281	0.4371
TRTAN*AVISITN	CC	Day 4	-0.9305	0.03955
TRTAN*AVISITN	CC	Day 5	-0.9312	0.1768
TRTAN*AVISITN	SA	Day 1	1.2837	2.2545
TRTAN*AVISITN	SA	Day 2	1.1509	2.1206
TRTAN*AVISITN	SA	Day 3	1.0597	2.0477
TRTAN*AVISITN	SA	Day 4	0.5033	1.4964



**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha
TRTAN*AVISITN	SA	Day 5	0.9383	0.2872	154	3.27	0.0013	0.05

## Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Lower	Upper
TRTAN*AVISITN	SA	Day 5	0.3709	1.5057

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN	THS 2.2		CC		-0.3623	0.2464	154	-1.47	0.1436
TRTAN	THS 2.2		SA		-1.9441	0.2499	154	-7.78	<.0001
TRTAN	CC		SA		-1.5819	0.2861	154	-5.53	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	-0.1250	0.1881	154	-0.66	0.5073
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	0.07730	0.1545	154	0.50	0.6175
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	0.1880	0.1664	154	1.13	0.2602
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	0.3422	0.1947	154	1.76	0.0808
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	-0.3789	0.2954	154	-1.28	0.2016
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	-0.4131	0.2952	154	-1.40	0.1638
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	-0.4228	0.2989	154	-1.41	0.1592
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	-0.02282	0.2999	154	-0.08	0.9395
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	-0.09111	0.3291	154	-0.28	0.7823
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 1	-2.2374	0.2998	154	-7.46	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 2	-2.1040	0.2996	154	-7.02	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 3	-2.0220	0.3034	154	-6.66	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 4	-1.4682	0.3045	154	-4.82	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 5	-1.4066	0.3347	154	-4.20	<.0001

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN	THS 2.2		CC		0.05	-0.8490	0.1245
TRTAN	THS 2.2		SA		0.05	-2.4377	-1.4506
TRTAN	CC		SA		0.05	-2.1471	-1.0167
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	0.05	-0.4965	0.2465
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	0.05	-0.2278	0.3824
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	0.05	-0.1407	0.5167
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	0.05	-0.04242	0.7268
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	0.05	-0.9626	0.2047
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	0.05	-0.9963	0.1701
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	0.05	-1.0133	0.1677
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	0.05	-0.6153	0.5697
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	0.05	-0.7413	0.5591
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 1	0.05	-2.8297	-1.6451
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 2	0.05	-2.6959	-1.5122
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 3	0.05	-2.6214	-1.4226
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 4	0.05	-2.0697	-0.8666
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 5	0.05	-2.0678	-0.7454

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.2023	0.1459	154	1.39	0.1676
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.3130	0.1592	154	1.97	0.0510
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.4672	0.1926	154	2.43	0.0164
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	-0.2539	0.2953	154	-0.86	0.3912
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	-0.2881	0.2951	154	-0.98	0.3305
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	-0.2978	0.2988	154	-1.00	0.3204
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	0.1022	0.2998	154	0.34	0.7337
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	0.03389	0.3290	154	0.10	0.9181
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 1	-2.1124	0.2997	154	-7.05	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 2	-1.9790	0.2995	154	-6.61	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 3	-1.8970	0.3033	154	-6.25	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 4	-1.3432	0.3044	154	-4.41	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 5	-1.2816	0.3346	154	-3.83	0.0002
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	0.1107	0.1306	154	0.85	0.3977
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	0.2649	0.1995	154	1.33	0.1862
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	-0.4562	0.2975	154	-1.53	0.1272
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	-0.4904	0.2973	154	-1.65	0.1011

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.05	-0.08593	0.4905
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.05	-0.00141	0.6275
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.05	0.08671	0.8477
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	0.05	-0.8373	0.3295
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	0.05	-0.8710	0.2949
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	0.05	-0.8881	0.2924
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	0.05	-0.4901	0.6945
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	0.05	-0.6161	0.6839
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 1	0.05	-2.7045	-1.5203
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 2	0.05	-2.5707	-1.3874
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 3	0.05	-2.4962	-1.2978
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 4	0.05	-1.9444	-0.7419
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 5	0.05	-1.9426	-0.6207
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	0.05	-0.1472	0.3686
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	0.05	-0.1292	0.6590
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	0.05	-1.0439	0.1315
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	0.05	-1.0776	0.09693

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	-0.5001	0.3009	154	-1.66	0.0986
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	-0.1001	0.3020	154	-0.33	0.7407
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	-0.1684	0.3310	154	-0.51	0.6116
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 1	-2.3147	0.3019	154	-7.67	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 2	-2.1813	0.3016	154	-7.23	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 3	-2.0993	0.3054	154	-6.87	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 4	-1.5455	0.3065	154	-5.04	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 5	-1.4839	0.3365	154	-4.41	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	0.1542	0.1681	154	0.92	0.3606
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	-0.5669	0.2981	154	-1.90	0.0591
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	-0.6011	0.2979	154	-2.02	0.0454
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	-0.6108	0.3016	154	-2.03	0.0445
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	-0.2108	0.3026	154	-0.70	0.4869
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	-0.2791	0.3315	154	-0.84	0.4011
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 1	-2.4254	0.3025	154	-8.02	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 2	-2.2921	0.3022	154	-7.58	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 3	-2.2100	0.3060	154	-7.22	<.0001

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	0.05	-1.0946	0.09440
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	0.05	-0.6967	0.4964
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	0.05	-0.8223	0.4854
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 1	0.05	-2.9110	-1.7183
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 2	0.05	-2.7772	-1.5855
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 3	0.05	-2.7027	-1.4959
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 4	0.05	-2.1509	-0.9400
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 5	0.05	-2.1487	-0.8191
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	0.05	-0.1780	0.4863
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	0.05	-1.1559	0.02199
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	0.05	-1.1896	-0.01260
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	0.05	-1.2066	-0.01514
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	0.05	-0.8086	0.3869
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	0.05	-0.9341	0.3758
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 1	0.05	-3.0229	-1.8279
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 2	0.05	-2.8891	-1.6950
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 3	0.05	-2.8146	-1.6055

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 4	-1.6562	0.3071	154	-5.39	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 5	-1.5946	0.3370	154	-4.73	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	-0.7211	0.3137	154	-2.30	0.0229
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	-0.7553	0.3135	154	-2.41	0.0172
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	-0.7650	0.3170	154	-2.41	0.0170
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	-0.3650	0.3180	154	-1.15	0.2527
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	-0.4333	0.3456	154	-1.25	0.2118
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 1	-2.5796	0.3178	154	-8.12	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 2	-2.4463	0.3176	154	-7.70	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 3	-2.3642	0.3212	154	-7.36	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 4	-1.8104	0.3222	154	-5.62	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 5	-1.7488	0.3509	154	-4.98	<.0001
TRTAN*AVISITN	CC	Day 1	CC	Day 2	-0.03415	0.2627	154	-0.13	0.8967
TRTAN*AVISITN	CC	Day 1	CC	Day 3	-0.04390	0.2150	154	-0.20	0.8385
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.3561	0.2315	154	1.54	0.1261
TRTAN*AVISITN	CC	Day 1	CC	Day 5	0.2878	0.2707	154	1.06	0.2894
TRTAN*AVISITN	CC	Day 1	SA	Day 1	-1.8585	0.3434	154	-5.41	<.0001



**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 4	0.05	-2.2628	-1.0496
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 5	0.05	-2.2605	-0.9288
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	0.05	-1.3409	-0.1014
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	0.05	-1.3746	-0.1359
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	0.05	-1.3912	-0.1388
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	0.05	-0.9932	0.2631
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	0.05	-1.1161	0.2495
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 1	0.05	-3.2075	-1.9517
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 2	0.05	-3.0737	-1.8188
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 3	0.05	-2.9988	-1.7296
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 4	0.05	-2.4469	-1.1738
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 5	0.05	-2.4421	-1.0556
TRTAN*AVISITN	CC	Day 1	CC	Day 2	0.05	-0.5531	0.4848
TRTAN*AVISITN	CC	Day 1	CC	Day 3	0.05	-0.4686	0.3808
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.05	-0.1013	0.8135
TRTAN*AVISITN	CC	Day 1	CC	Day 5	0.05	-0.2470	0.8226
TRTAN*AVISITN	CC	Day 1	SA	Day 1	0.05	-2.5369	-1.1800

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	CC	Day 1	SA	Day 2	-1.7251	0.3432	154	-5.03	<.0001
TRTAN*AVISITN	CC	Day 1	SA	Day 3	-1.6431	0.3466	154	-4.74	<.0001
TRTAN*AVISITN	CC	Day 1	SA	Day 4	-1.0892	0.3475	154	-3.13	0.0021
TRTAN*AVISITN	CC	Day 1	SA	Day 5	-1.0277	0.3743	154	-2.75	0.0068
TRTAN*AVISITN	CC	Day 2	CC	Day 3	-0.00976	0.2030	154	-0.05	0.9617
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.3902	0.2214	154	1.76	0.0800
TRTAN*AVISITN	CC	Day 2	CC	Day 5	0.3220	0.2678	154	1.20	0.2311
TRTAN*AVISITN	CC	Day 2	SA	Day 1	-1.8243	0.3432	154	-5.31	<.0001
TRTAN*AVISITN	CC	Day 2	SA	Day 2	-1.6910	0.3430	154	-4.93	<.0001
TRTAN*AVISITN	CC	Day 2	SA	Day 3	-1.6089	0.3464	154	-4.65	<.0001
TRTAN*AVISITN	CC	Day 2	SA	Day 4	-1.0551	0.3473	154	-3.04	0.0028
TRTAN*AVISITN	CC	Day 2	SA	Day 5	-0.9936	0.3741	154	-2.66	0.0087
TRTAN*AVISITN	CC	Day 3	CC	Day 4	0.4000	0.1812	154	2.21	0.0288
TRTAN*AVISITN	CC	Day 3	CC	Day 5	0.3317	0.2769	154	1.20	0.2328
TRTAN*AVISITN	CC	Day 3	SA	Day 1	-1.8146	0.3464	154	-5.24	<.0001
TRTAN*AVISITN	CC	Day 3	SA	Day 2	-1.6812	0.3462	154	-4.86	<.0001
TRTAN*AVISITN	CC	Day 3	SA	Day 3	-1.5992	0.3495	154	-4.58	<.0001

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	CC	Day 1	SA	Day 2	0.05	-2.4032	-1.0471
TRTAN*AVISITN	CC	Day 1	SA	Day 3	0.05	-2.3277	-0.9584
TRTAN*AVISITN	CC	Day 1	SA	Day 4	0.05	-1.7757	-0.4027
TRTAN*AVISITN	CC	Day 1	SA	Day 5	0.05	-1.7670	-0.2884
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.05	-0.4108	0.3913
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.05	-0.04714	0.8276
TRTAN*AVISITN	CC	Day 2	CC	Day 5	0.05	-0.2071	0.8510
TRTAN*AVISITN	CC	Day 2	SA	Day 1	0.05	-2.5024	-1.1462
TRTAN*AVISITN	CC	Day 2	SA	Day 2	0.05	-2.3687	-1.0133
TRTAN*AVISITN	CC	Day 2	SA	Day 3	0.05	-2.2932	-0.9247
TRTAN*AVISITN	CC	Day 2	SA	Day 4	0.05	-1.7412	-0.3690
TRTAN*AVISITN	CC	Day 2	SA	Day 5	0.05	-1.7325	-0.2546
TRTAN*AVISITN	CC	Day 3	CC	Day 4	0.05	0.04197	0.7580
TRTAN*AVISITN	CC	Day 3	CC	Day 5	0.05	-0.2154	0.8788
TRTAN*AVISITN	CC	Day 3	SA	Day 1	0.05	-2.4989	-1.1302
TRTAN*AVISITN	CC	Day 3	SA	Day 2	0.05	-2.3652	-0.9973
TRTAN*AVISITN	CC	Day 3	SA	Day 3	0.05	-2.2897	-0.9087

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	CC	Day 3	SA	Day 4	-1.0453	0.3505	154	-2.98	0.0033
TRTAN*AVISITN	CC	Day 3	SA	Day 5	-0.9838	0.3770	154	-2.61	0.0100
TRTAN*AVISITN	CC	Day 4	CC	Day 5	-0.06829	0.2334	154	-0.29	0.7702
TRTAN*AVISITN	CC	Day 4	SA	Day 1	-2.2146	0.3473	154	-6.38	<.0001
TRTAN*AVISITN	CC	Day 4	SA	Day 2	-2.0812	0.3471	154	-6.00	<.0001
TRTAN*AVISITN	CC	Day 4	SA	Day 3	-1.9992	0.3504	154	-5.71	<.0001
TRTAN*AVISITN	CC	Day 4	SA	Day 4	-1.4453	0.3513	154	-4.11	<.0001
TRTAN*AVISITN	CC	Day 4	SA	Day 5	-1.3838	0.3778	154	-3.66	0.0003
TRTAN*AVISITN	CC	Day 5	SA	Day 1	-2.1463	0.3728	154	-5.76	<.0001
TRTAN*AVISITN	CC	Day 5	SA	Day 2	-2.0129	0.3726	154	-5.40	<.0001
TRTAN*AVISITN	CC	Day 5	SA	Day 3	-1.9309	0.3757	154	-5.14	<.0001
TRTAN*AVISITN	CC	Day 5	SA	Day 4	-1.3770	0.3766	154	-3.66	0.0003
TRTAN*AVISITN	CC	Day 5	SA	Day 5	-1.3155	0.4014	154	-3.28	0.0013
TRTAN*AVISITN	SA	Day 1	SA	Day 2	0.1333	0.2693	154	0.50	0.6213
TRTAN*AVISITN	SA	Day 1	SA	Day 3	0.2154	0.2204	154	0.98	0.3300
TRTAN*AVISITN	SA	Day 1	SA	Day 4	0.7692	0.2374	154	3.24	0.0015
TRTAN*AVISITN	SA	Day 1	SA	Day 5	0.8308	0.2776	154	2.99	0.0032

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	CC	Day 3	SA	Day 4	0.05	-1.7376	-0.3530
TRTAN*AVISITN	CC	Day 3	SA	Day 5	0.05	-1.7285	-0.2391
TRTAN*AVISITN	CC	Day 4	CC	Day 5	0.05	-0.5293	0.3928
TRTAN*AVISITN	CC	Day 4	SA	Day 1	0.05	-2.9007	-1.5285
TRTAN*AVISITN	CC	Day 4	SA	Day 2	0.05	-2.7669	-1.3955
TRTAN*AVISITN	CC	Day 4	SA	Day 3	0.05	-2.6914	-1.3070
TRTAN*AVISITN	CC	Day 4	SA	Day 4	0.05	-2.1394	-0.7513
TRTAN*AVISITN	CC	Day 4	SA	Day 5	0.05	-2.1301	-0.6374
TRTAN*AVISITN	CC	Day 5	SA	Day 1	0.05	-2.8827	-1.4098
TRTAN*AVISITN	CC	Day 5	SA	Day 2	0.05	-2.7490	-1.2768
TRTAN*AVISITN	CC	Day 5	SA	Day 3	0.05	-2.6731	-1.1887
TRTAN*AVISITN	CC	Day 5	SA	Day 4	0.05	-2.1209	-0.6332
TRTAN*AVISITN	CC	Day 5	SA	Day 5	0.05	-2.1084	-0.5226
TRTAN*AVISITN	SA	Day 1	SA	Day 2	0.05	-0.3988	0.6654
TRTAN*AVISITN	SA	Day 1	SA	Day 3	0.05	-0.2201	0.6508
TRTAN*AVISITN	SA	Day 1	SA	Day 4	0.05	0.3003	1.2382
TRTAN*AVISITN	SA	Day 1	SA	Day 5	0.05	0.2824	1.3791

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	SA	Day 2	SA	Day 3	0.08205	0.2081	154	0.39	0.6940
TRTAN*AVISITN	SA	Day 2	SA	Day 4	0.6359	0.2270	154	2.80	0.0057
TRTAN*AVISITN	SA	Day 2	SA	Day 5	0.6974	0.2746	154	2.54	0.0121
TRTAN*AVISITN	SA	Day 3	SA	Day 4	0.5538	0.1858	154	2.98	0.0033
TRTAN*AVISITN	SA	Day 3	SA	Day 5	0.6154	0.2839	154	2.17	0.0318
TRTAN*AVISITN	SA	Day 4	SA	Day 5	0.06154	0.2393	154	0.26	0.7974

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	SA	Day 2	SA	Day 3	0.05	-0.3291	0.4932
TRTAN*AVISITN	SA	Day 2	SA	Day 4	0.05	0.1874	1.0844
TRTAN*AVISITN	SA	Day 2	SA	Day 5	0.05	0.1550	1.2399
TRTAN*AVISITN	SA	Day 3	SA	Day 4	0.05	0.1868	0.9209

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	SA	Day 3	SA	Day 5	0.05	0.05446	1.1763
TRTAN*AVISITN	SA	Day 4	SA	Day 5	0.05	-0.4112	0.5343

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Model Information

Data Set	WORK.ADQSSU
Dependent Variable	CHG
Covariance Structure	Unstructured
Subject Effect	SUBJIDN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Between-Within



**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Class Level Information

Class	Levels	Values
SUBJIDN	160	1 4 8 10 11 13 14 15 16 17 20 21 22 23 25 28 29 30 31 34 35 37 38 39 42 44 49 51 52 53 55 57 60 62 63 64 66 67 69 71 72 74 76 80 83 85 86 87 88 90 93 104 105 106 107 110 112 114 117 118 121 122 123 126 127 128 129 130 133 134 136 137 139 140 145 147 148 149 150 152 153 155 156 160 162 167 169 170 177 181 183 185 187 189 190 191 192 193 195 196 197 198 200 202 203 204 206 210 216 218 220 224 228 229 230 232 234 240 241 244 249 251 252 255 256 262 264 265 266 272 273 276 277 278 279 281 282 283 285 287 289 291 292 296 298 300 301 306 307

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqssu: fasfl='Y'

		308 313 315 316 317 318 320
		321 322 325 328
SEXN	2	Male Female
UCPDGR1N	2	10-19 cig/day >19 cig/day
TRTAN	3	THS 2.2 CC SA
AVISITN	5	Day 1 Day 2 Day 3 Day 4 Day 5

## Dimensions

Covariance Parameters	15
Columns in X	29
Columns in Z	0
Subjects	160
Max Obs Per Subject	5

## Number of Observations

Number of Observations Read	797
Number of Observations Used	797
Number of Observations Not Used	0

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	2755.66012502	
1	2	2277.84052050	0.00000003
2	1	2277.84050605	0.00000000

Convergence criteria met.

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(1,1)	SUBJIDN	1.6773
UN(2,1)	SUBJIDN	0.8439
UN(2,2)	SUBJIDN	1.8157
UN(3,1)	SUBJIDN	1.0026
UN(3,2)	SUBJIDN	1.2451
UN(3,3)	SUBJIDN	1.6207
UN(4,1)	SUBJIDN	0.9993

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(4,2)	SUBJIDN	1.2504
UN(4,3)	SUBJIDN	1.3586
UN(4,4)	SUBJIDN	1.7915
UN(5,1)	SUBJIDN	0.9520
UN(5,2)	SUBJIDN	1.0291
UN(5,3)	SUBJIDN	1.1058
UN(5,4)	SUBJIDN	1.4204
UN(5,5)	SUBJIDN	2.2798

## Fit Statistics

-2 Res Log Likelihood	2277.8
AIC (smaller is better)	2307.8
AICC (smaller is better)	2308.5
BIC (smaller is better)	2354.0

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Null Model Likelihood Ratio Test

DF	Chi-Square	Pr > ChiSq
14	477.82	<.0001

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASE	1	154	42.01	<.0001
SEXN	1	154	0.26	0.6110
UCPDGR1N	1	154	2.26	0.1347
TRTAN	2	154	31.70	<.0001
AVISITN	4	154	6.34	<.0001
TRTAN*AVISITN	8	154	2.23	0.0277

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha
TRTAN	THS 2.2		-0.4582	0.1259	154	-3.64	0.0004	0.05
TRTAN	CC		-0.2272	0.1756	154	-1.29	0.1977	0.05
TRTAN	SA		1.2567	0.1803	154	6.97	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 1	-0.2235	0.1448	154	-1.54	0.1249	0.05
TRTAN*AVISITN	THS 2.2	Day 2	-0.4160	0.1507	154	-2.76	0.0065	0.05
TRTAN*AVISITN	THS 2.2	Day 3	-0.5319	0.1427	154	-3.73	0.0003	0.05
TRTAN*AVISITN	THS 2.2	Day 4	-0.4686	0.1501	154	-3.12	0.0021	0.05
TRTAN*AVISITN	THS 2.2	Day 5	-0.6509	0.1696	154	-3.84	0.0002	0.05
TRTAN*AVISITN	CC	Day 1	-0.09452	0.2023	154	-0.47	0.6410	0.05
TRTAN*AVISITN	CC	Day 2	-0.2262	0.2105	154	-1.07	0.2842	0.05
TRTAN*AVISITN	CC	Day 3	-0.2409	0.1989	154	-1.21	0.2277	0.05
TRTAN*AVISITN	CC	Day 4	-0.2506	0.2091	154	-1.20	0.2325	0.05
TRTAN*AVISITN	CC	Day 5	-0.3238	0.2358	154	-1.37	0.1718	0.05
TRTAN*AVISITN	SA	Day 1	1.7603	0.2076	154	8.48	<.0001	0.05
TRTAN*AVISITN	SA	Day 2	1.4731	0.2160	154	6.82	<.0001	0.05
TRTAN*AVISITN	SA	Day 3	1.3705	0.2041	154	6.72	<.0001	0.05
TRTAN*AVISITN	SA	Day 4	0.8680	0.2145	154	4.05	<.0001	0.05

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Lower	Upper
TRTAN	THS 2.2		-0.7069	-0.2095
TRTAN	CC		-0.5742	0.1198
TRTAN	SA		0.9006	1.6128
TRTAN*AVISITN	THS 2.2	Day 1	-0.5096	0.06264
TRTAN*AVISITN	THS 2.2	Day 2	-0.7137	-0.1183
TRTAN*AVISITN	THS 2.2	Day 3	-0.8139	-0.2500
TRTAN*AVISITN	THS 2.2	Day 4	-0.7651	-0.1721
TRTAN*AVISITN	THS 2.2	Day 5	-0.9858	-0.3159
TRTAN*AVISITN	CC	Day 1	-0.4942	0.3051
TRTAN*AVISITN	CC	Day 2	-0.6420	0.1896
TRTAN*AVISITN	CC	Day 3	-0.6337	0.1520
TRTAN*AVISITN	CC	Day 4	-0.6637	0.1624
TRTAN*AVISITN	CC	Day 5	-0.7897	0.1421
TRTAN*AVISITN	SA	Day 1	1.3502	2.1704
TRTAN*AVISITN	SA	Day 2	1.0465	1.8997
TRTAN*AVISITN	SA	Day 3	0.9674	1.7736
TRTAN*AVISITN	SA	Day 4	0.4442	1.2918

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha
TRTAN*AVISITN	SA	Day 5	0.8116	0.2419	154	3.35	0.0010	0.05

## Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Lower	Upper
TRTAN*AVISITN	SA	Day 5	0.3336	1.2895



**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN	THS 2.2		CC		-0.2310	0.2161	154	-1.07	0.2867
TRTAN	THS 2.2		SA		-1.7149	0.2200	154	-7.80	<.0001
TRTAN	CC		SA		-1.4839	0.2518	154	-5.89	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	0.1925	0.1502	154	1.28	0.2020
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	0.3084	0.1275	154	2.42	0.0167
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	0.2451	0.1360	154	1.80	0.0735
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	0.4274	0.1609	154	2.66	0.0088
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	-0.1290	0.2488	154	-0.52	0.6049
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	0.002730	0.2555	154	0.01	0.9915
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	0.01736	0.2460	154	0.07	0.9438
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	0.02712	0.2543	154	0.11	0.9152
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	0.1003	0.2767	154	0.36	0.7176
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 1	-1.9838	0.2532	154	-7.83	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 2	-1.6966	0.2601	154	-6.52	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 3	-1.5940	0.2503	154	-6.37	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 4	-1.0915	0.2589	154	-4.22	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 5	-1.0351	0.2821	154	-3.67	0.0003

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN	THS 2.2		CC		0.05	-0.6578	0.1958
TRTAN	THS 2.2		SA		0.05	-2.1494	-1.2803
TRTAN	CC		SA		0.05	-1.9813	-0.9865
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	0.05	-0.1043	0.4893
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	0.05	0.05653	0.5603
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	0.05	-0.02362	0.5138
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	0.05	0.1094	0.7453
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	0.05	-0.6205	0.3625
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	0.05	-0.5020	0.5074
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	0.05	-0.4686	0.5033
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	0.05	-0.4753	0.5295
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	0.05	-0.4464	0.6470
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 1	0.05	-2.4840	-1.4835
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 2	0.05	-2.2105	-1.1827
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 3	0.05	-2.0886	-1.0995
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 4	0.05	-1.6030	-0.5799
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 5	0.05	-1.5923	-0.4778

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.1159	0.1092	154	1.06	0.2902
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.05260	0.1181	154	0.45	0.6568
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.2349	0.1603	154	1.46	0.1450
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	-0.3215	0.2522	154	-1.27	0.2044
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	-0.1898	0.2588	154	-0.73	0.4646
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	-0.1751	0.2495	154	-0.70	0.4838
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	-0.1654	0.2577	154	-0.64	0.5220
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	-0.09221	0.2799	154	-0.33	0.7422
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 1	-2.1763	0.2566	154	-8.48	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 2	-1.8891	0.2634	154	-7.17	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 3	-1.7865	0.2538	154	-7.04	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 4	-1.2840	0.2623	154	-4.90	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 5	-1.2276	0.2851	154	-4.31	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	-0.06332	0.09380	154	-0.68	0.5006
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	0.1189	0.1462	154	0.81	0.4172
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	-0.4374	0.2476	154	-1.77	0.0792
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	-0.3057	0.2543	154	-1.20	0.2312

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.05	-0.09983	0.3317
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.05	-0.1808	0.2860
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.05	-0.08187	0.5516
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	0.05	-0.8198	0.1768
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	0.05	-0.7011	0.3216
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	0.05	-0.6680	0.3177
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	0.05	-0.6745	0.3437
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	0.05	-0.6451	0.4606
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 1	0.05	-2.6832	-1.6693
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 2	0.05	-2.4095	-1.3687
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 3	0.05	-2.2879	-1.2852
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 4	0.05	-1.8021	-0.7659
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 5	0.05	-1.7908	-0.6643
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	0.05	-0.2486	0.1220
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	0.05	-0.1699	0.4078
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	0.05	-0.9264	0.05165
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	0.05	-0.8080	0.1967

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	-0.2911	0.2448	154	-1.19	0.2362
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	-0.2813	0.2531	154	-1.11	0.2682
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	-0.2081	0.2756	154	-0.76	0.4514
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 1	-2.2922	0.2520	154	-9.10	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 2	-2.0050	0.2590	154	-7.74	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 3	-1.9025	0.2491	154	-7.64	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 4	-1.3999	0.2578	154	-5.43	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 5	-1.3435	0.2810	154	-4.78	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	0.1823	0.1248	154	1.46	0.1462
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	-0.3741	0.2519	154	-1.49	0.1396
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	-0.2424	0.2585	154	-0.94	0.3499
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	-0.2277	0.2491	154	-0.91	0.3621
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	-0.2180	0.2574	154	-0.85	0.3983
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	-0.1448	0.2795	154	-0.52	0.6052
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 1	-2.2289	0.2563	154	-8.70	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 2	-1.9417	0.2631	154	-7.38	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 3	-1.8391	0.2534	154	-7.26	<.0001

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	0.05	-0.7746	0.1925
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	0.05	-0.7813	0.2187
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	0.05	-0.7527	0.3364
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 1	0.05	-2.7901	-1.7943
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 2	0.05	-2.5166	-1.4934
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 3	0.05	-2.3946	-1.4103
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 4	0.05	-1.9091	-0.8907
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 5	0.05	-1.8986	-0.7884
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	0.05	-0.06425	0.4288
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	0.05	-0.8717	0.1235
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	0.05	-0.7530	0.2683
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	0.05	-0.7199	0.2644
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	0.05	-0.7264	0.2904
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	0.05	-0.6970	0.4074
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 1	0.05	-2.7352	-1.7226
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 2	0.05	-2.4615	-1.4219
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 3	0.05	-2.3398	-1.3385

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 4	-1.3366	0.2619	154	-5.10	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 5	-1.2802	0.2848	154	-4.49	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	-0.5563	0.2639	154	-2.11	0.0367
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	-0.4246	0.2703	154	-1.57	0.1182
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	-0.4100	0.2613	154	-1.57	0.1187
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	-0.4002	0.2692	154	-1.49	0.1391
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	-0.3271	0.2904	154	-1.13	0.2619
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 1	-2.4111	0.2681	154	-8.99	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 2	-2.1240	0.2747	154	-7.73	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 3	-2.0214	0.2654	154	-7.62	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 4	-1.5188	0.2735	154	-5.55	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 5	-1.4624	0.2955	154	-4.95	<.0001
TRTAN*AVISITN	CC	Day 1	CC	Day 2	0.1317	0.2098	154	0.63	0.5312
TRTAN*AVISITN	CC	Day 1	CC	Day 3	0.1463	0.1776	154	0.82	0.4111
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.1561	0.1894	154	0.82	0.4110
TRTAN*AVISITN	CC	Day 1	CC	Day 5	0.2293	0.2238	154	1.02	0.3072
TRTAN*AVISITN	CC	Day 1	SA	Day 1	-1.8548	0.2899	154	-6.40	<.0001

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 4	0.05	-1.8540	-0.8191
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 5	0.05	-1.8428	-0.7175
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	0.05	-1.0777	-0.03493
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	0.05	-0.9585	0.1093
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	0.05	-0.9262	0.1062
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	0.05	-0.9320	0.1315
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	0.05	-0.9008	0.2467
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 1	0.05	-2.9408	-1.8815
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 2	0.05	-2.6666	-1.5814
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 3	0.05	-2.5457	-1.4971
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 4	0.05	-2.0592	-0.9785
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 5	0.05	-2.0463	-0.8786
TRTAN*AVISITN	CC	Day 1	CC	Day 2	0.05	-0.2828	0.5462
TRTAN*AVISITN	CC	Day 1	CC	Day 3	0.05	-0.2044	0.4971
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.05	-0.2180	0.5302
TRTAN*AVISITN	CC	Day 1	CC	Day 5	0.05	-0.2128	0.6713
TRTAN*AVISITN	CC	Day 1	SA	Day 1	0.05	-2.4276	-1.2820



**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	CC	Day 1	SA	Day 2	-1.5676	0.2960	154	-5.30	<.0001
TRTAN*AVISITN	CC	Day 1	SA	Day 3	-1.4651	0.2874	154	-5.10	<.0001
TRTAN*AVISITN	CC	Day 1	SA	Day 4	-0.9625	0.2950	154	-3.26	0.0014
TRTAN*AVISITN	CC	Day 1	SA	Day 5	-0.9061	0.3155	154	-2.87	0.0047
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.01463	0.1519	154	0.10	0.9234
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.02439	0.1643	154	0.15	0.8822
TRTAN*AVISITN	CC	Day 2	CC	Day 5	0.09756	0.2229	154	0.44	0.6622
TRTAN*AVISITN	CC	Day 2	SA	Day 1	-1.9865	0.2957	154	-6.72	<.0001
TRTAN*AVISITN	CC	Day 2	SA	Day 2	-1.6993	0.3017	154	-5.63	<.0001
TRTAN*AVISITN	CC	Day 2	SA	Day 3	-1.5968	0.2932	154	-5.45	<.0001
TRTAN*AVISITN	CC	Day 2	SA	Day 4	-1.0942	0.3006	154	-3.64	0.0004
TRTAN*AVISITN	CC	Day 2	SA	Day 5	-1.0378	0.3208	154	-3.24	0.0015
TRTAN*AVISITN	CC	Day 3	CC	Day 4	0.009756	0.1302	154	0.07	0.9404
TRTAN*AVISITN	CC	Day 3	CC	Day 5	0.08293	0.2030	154	0.41	0.6834
TRTAN*AVISITN	CC	Day 3	SA	Day 1	-2.0011	0.2876	154	-6.96	<.0001
TRTAN*AVISITN	CC	Day 3	SA	Day 2	-1.7140	0.2937	154	-5.84	<.0001
TRTAN*AVISITN	CC	Day 3	SA	Day 3	-1.6114	0.2850	154	-5.65	<.0001

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	CC	Day 1	SA	Day 2	0.05	-2.1524	-0.9829
TRTAN*AVISITN	CC	Day 1	SA	Day 3	0.05	-2.0329	-0.8972
TRTAN*AVISITN	CC	Day 1	SA	Day 4	0.05	-1.5452	-0.3798
TRTAN*AVISITN	CC	Day 1	SA	Day 5	0.05	-1.5293	-0.2829
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.05	-0.2855	0.3148
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.05	-0.3001	0.3489
TRTAN*AVISITN	CC	Day 2	CC	Day 5	0.05	-0.3428	0.5379
TRTAN*AVISITN	CC	Day 2	SA	Day 1	0.05	-2.5707	-1.4023
TRTAN*AVISITN	CC	Day 2	SA	Day 2	0.05	-2.2953	-1.1034
TRTAN*AVISITN	CC	Day 2	SA	Day 3	0.05	-2.1761	-1.0175
TRTAN*AVISITN	CC	Day 2	SA	Day 4	0.05	-1.6881	-0.5003
TRTAN*AVISITN	CC	Day 2	SA	Day 5	0.05	-1.6715	-0.4041
TRTAN*AVISITN	CC	Day 3	CC	Day 4	0.05	-0.2475	0.2670
TRTAN*AVISITN	CC	Day 3	CC	Day 5	0.05	-0.3180	0.4839
TRTAN*AVISITN	CC	Day 3	SA	Day 1	0.05	-2.5692	-1.4331
TRTAN*AVISITN	CC	Day 3	SA	Day 2	0.05	-2.2941	-1.1338
TRTAN*AVISITN	CC	Day 3	SA	Day 3	0.05	-2.1745	-1.0483

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	CC	Day 3	SA	Day 4	-1.1088	0.2926	154	-3.79	0.0002
TRTAN*AVISITN	CC	Day 3	SA	Day 5	-1.0524	0.3133	154	-3.36	0.0010
TRTAN*AVISITN	CC	Day 4	CC	Day 5	0.07317	0.1732	154	0.42	0.6734
TRTAN*AVISITN	CC	Day 4	SA	Day 1	-2.0109	0.2947	154	-6.82	<.0001
TRTAN*AVISITN	CC	Day 4	SA	Day 2	-1.7237	0.3007	154	-5.73	<.0001
TRTAN*AVISITN	CC	Day 4	SA	Day 3	-1.6212	0.2922	154	-5.55	<.0001
TRTAN*AVISITN	CC	Day 4	SA	Day 4	-1.1186	0.2996	154	-3.73	0.0003
TRTAN*AVISITN	CC	Day 4	SA	Day 5	-1.0622	0.3198	154	-3.32	0.0011
TRTAN*AVISITN	CC	Day 5	SA	Day 1	-2.0841	0.3143	154	-6.63	<.0001
TRTAN*AVISITN	CC	Day 5	SA	Day 2	-1.7969	0.3199	154	-5.62	<.0001
TRTAN*AVISITN	CC	Day 5	SA	Day 3	-1.6943	0.3119	154	-5.43	<.0001
TRTAN*AVISITN	CC	Day 5	SA	Day 4	-1.1918	0.3189	154	-3.74	0.0003
TRTAN*AVISITN	CC	Day 5	SA	Day 5	-1.1354	0.3380	154	-3.36	0.0010
TRTAN*AVISITN	SA	Day 1	SA	Day 2	0.2872	0.2151	154	1.33	0.1839
TRTAN*AVISITN	SA	Day 1	SA	Day 3	0.3897	0.1821	154	2.14	0.0339
TRTAN*AVISITN	SA	Day 1	SA	Day 4	0.8923	0.1942	154	4.60	<.0001
TRTAN*AVISITN	SA	Day 1	SA	Day 5	0.9487	0.2294	154	4.13	<.0001

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	CC	Day 3	SA	Day 4	0.05	-1.6869	-0.5308
TRTAN*AVISITN	CC	Day 3	SA	Day 5	0.05	-1.6713	-0.4336
TRTAN*AVISITN	CC	Day 4	CC	Day 5	0.05	-0.2691	0.4154
TRTAN*AVISITN	CC	Day 4	SA	Day 1	0.05	-2.5931	-1.4287
TRTAN*AVISITN	CC	Day 4	SA	Day 2	0.05	-2.3177	-1.1297
TRTAN*AVISITN	CC	Day 4	SA	Day 3	0.05	-2.1985	-1.0438
TRTAN*AVISITN	CC	Day 4	SA	Day 4	0.05	-1.7105	-0.5267
TRTAN*AVISITN	CC	Day 4	SA	Day 5	0.05	-1.6940	-0.4303
TRTAN*AVISITN	CC	Day 5	SA	Day 1	0.05	-2.7049	-1.4632
TRTAN*AVISITN	CC	Day 5	SA	Day 2	0.05	-2.4288	-1.1650
TRTAN*AVISITN	CC	Day 5	SA	Day 3	0.05	-2.3106	-1.0781
TRTAN*AVISITN	CC	Day 5	SA	Day 4	0.05	-1.8217	-0.5618
TRTAN*AVISITN	CC	Day 5	SA	Day 5	0.05	-1.8030	-0.4677
TRTAN*AVISITN	SA	Day 1	SA	Day 2	0.05	-0.1378	0.7122
TRTAN*AVISITN	SA	Day 1	SA	Day 3	0.05	0.03009	0.7494
TRTAN*AVISITN	SA	Day 1	SA	Day 4	0.05	0.5088	1.2759
TRTAN*AVISITN	SA	Day 1	SA	Day 5	0.05	0.4955	1.4020

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	SA	Day 2	SA	Day 3	0.1026	0.1558	154	0.66	0.5112
TRTAN*AVISITN	SA	Day 2	SA	Day 4	0.6051	0.1684	154	3.59	0.0004
TRTAN*AVISITN	SA	Day 2	SA	Day 5	0.6615	0.2286	154	2.89	0.0043
TRTAN*AVISITN	SA	Day 3	SA	Day 4	0.5026	0.1335	154	3.76	0.0002
TRTAN*AVISITN	SA	Day 3	SA	Day 5	0.5590	0.2081	154	2.69	0.0080
TRTAN*AVISITN	SA	Day 4	SA	Day 5	0.05641	0.1776	154	0.32	0.7512

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	SA	Day 2	SA	Day 3	0.05	-0.2052	0.4103
TRTAN*AVISITN	SA	Day 2	SA	Day 4	0.05	0.2724	0.9379
TRTAN*AVISITN	SA	Day 2	SA	Day 5	0.05	0.2100	1.1130
TRTAN*AVISITN	SA	Day 3	SA	Day 4	0.05	0.2388	0.7663

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Proc Mixed Procedure

The where clause used on the dataset adam.adqssu: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	SA	Day 3	SA	Day 5	0.05	0.1479	0.9701
TRTAN*AVISITN	SA	Day 4	SA	Day 5	0.05	-0.2945	0.4073

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

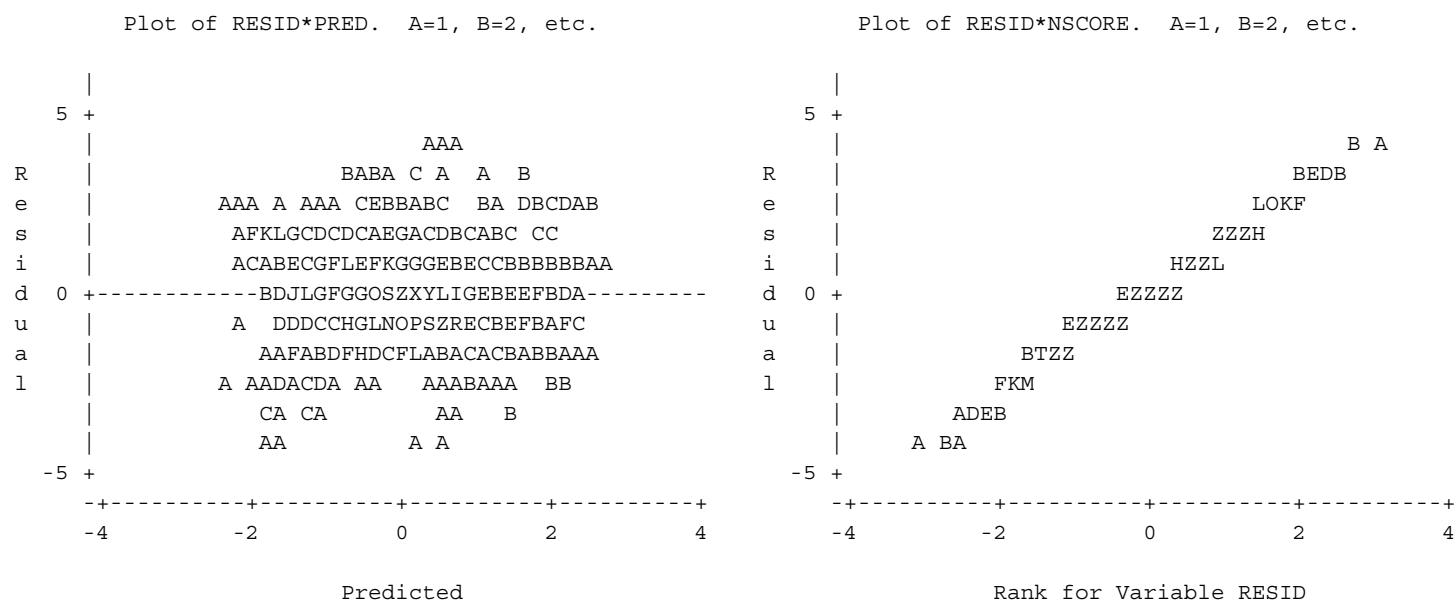
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**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Total Score

Residual Plots

The where clause used on the dataset adam.adqssu: fasfl='Y'



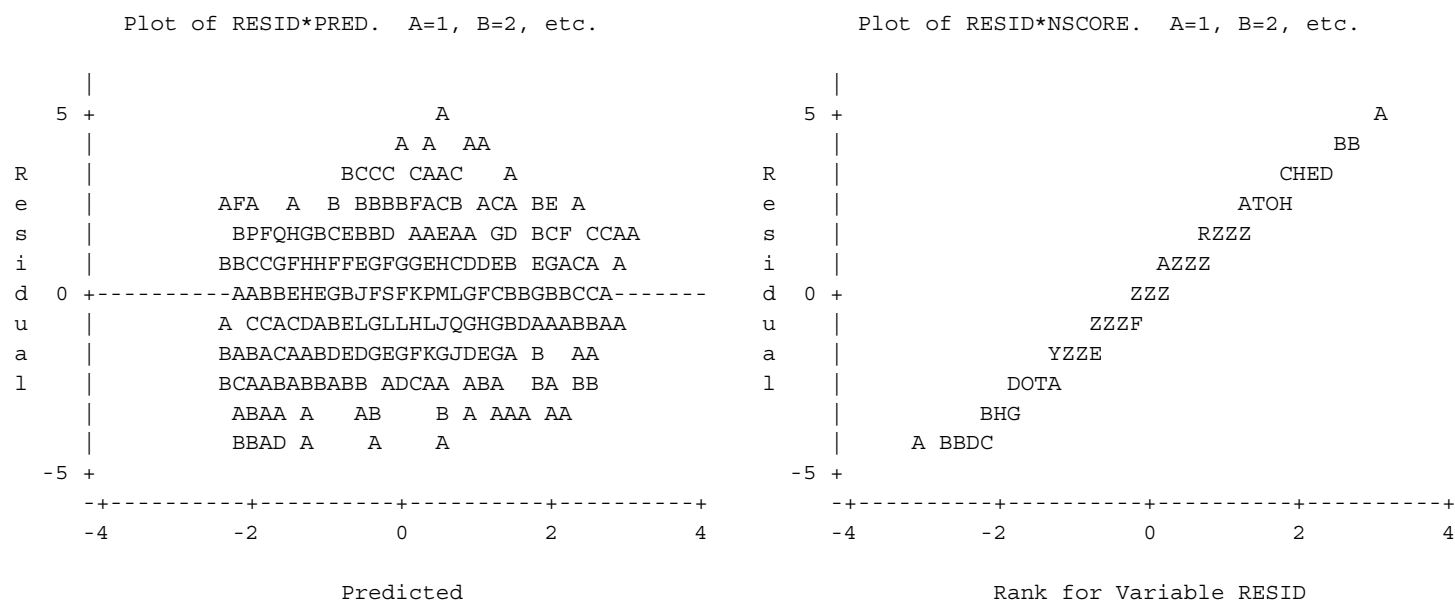
NOTE: 241 obs hidden.

**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 1 - Reward

Residual Plots

The where clause used on the dataset adam.adqssu: fasfl='Y'



NOTE: 240 obs hidden.

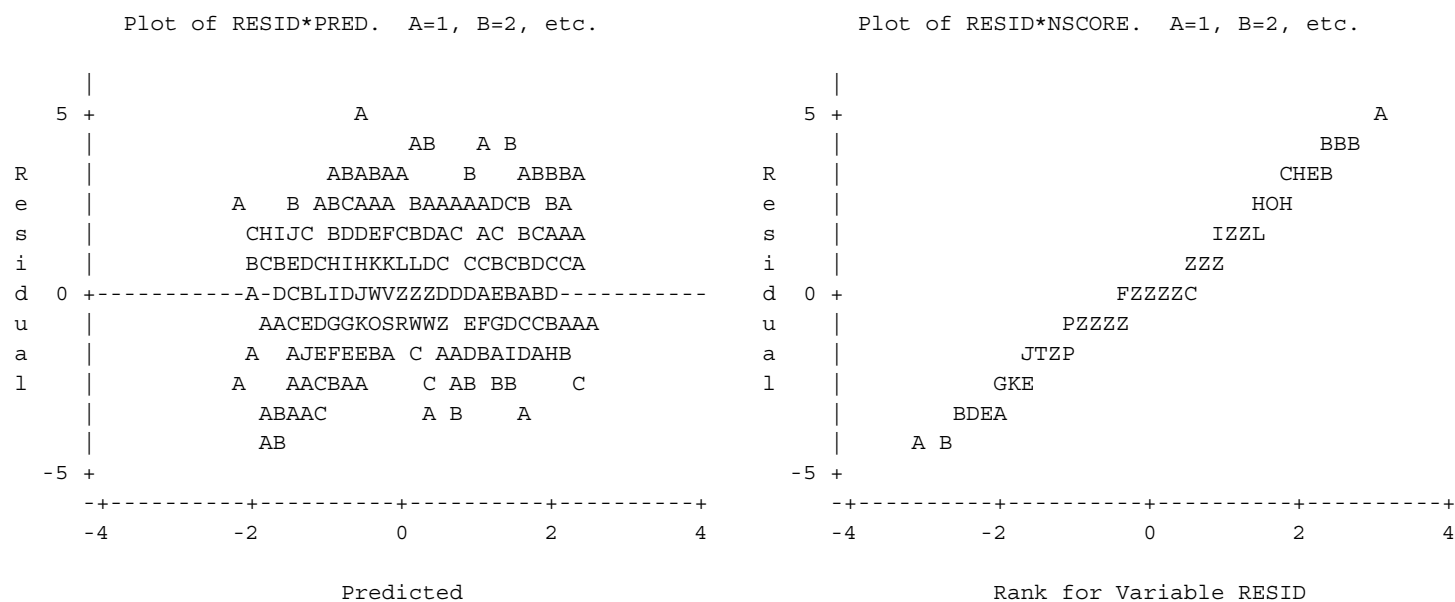


**Listing 15.2.4.44 Analysis of Change from Baseline QSU-brief Questionnaire Factors and Total Score - FAS**

Variable: Factor 2 - Relief

Residual Plots

The where clause used on the dataset adam.adqssu: fasfl='Y'



NOTE: 40 obs hidden.

NOTE: 247 obs hidden.

Path: /cvn/projects/prj/development/000000106324/dev/tables/tlf\_anlqsu.sas  
Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqsnd: fasfl='Y'

**Model Information**

Data Set	WORK.ADQSND
Dependent Variable	CHG
Covariance Structure	Unstructured
Subject Effect	SUBJIDN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Between-Within

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Class Level Information

Class	Levels	Values
SUBJIDN	160	1 4 8 10 11 13 14 15 16 17 20 21 22 23 25 28 29 30 31 34 35 37 38 39 42 44 49 51 52 53 55 57 60 62 63 64 66 67 69 71 72 74 76 80 83 85 86 87 88 90 93 104 105 106 107 110 112 114 117 118 121 122 123 126 127 128 129 130 133 134 136 137 139 140 145 147 148 149 150 152 153 155 156 160 162 167 169 170 177 181 183 185 187 189 190 191 192 193 195 196 197 198 200 202 203 204 206 210 216 218 220 224 228 229 230 232 234 240 241 244 249 251 252 255 256 262 264 265 266 272 273 276 277 278 279 281 282 283 285 287 289 291 292 296 298 300 301 306 307

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqsnd: fasfl='Y'

		308 313 315 316 317 318 320
		321 322 325 328
SEXN	2	Male Female
UCPDGR1N	2	10-19 cig/day >19 cig/day
TRTAN	3	THS 2.2 CC SA
AVISITN	6	Day 1 Day 2 Day 3 Day 4 Day 5 Day 6

## Dimensions

Covariance Parameters	21
Columns in X	33
Columns in Z	0
Subjects	160
Max Obs Per Subject	6

## Number of Observations

Number of Observations Read	824
Number of Observations Used	824
Number of Observations Not Used	0

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	4812.39594901	
1	2	5068.82661095	0.00936543
2	1	4912.60583066	0.01930505
3	1	4704.47152917	0.06995142
4	1	4645.66085577	0.24809394
5	1	4534.08428838	0.06532999
6	1	4524.33157190	1.20659283
7	1	4437.93548191	0.92350613
8	1	4359.17044813	0.86882634
9	2	4326.46998729	0.77245294
10	3	4294.39681005	0.53204541
11	1	4270.19821551	0.01726752
12	3	4254.57258397	0.00425144
13	1	4247.56181635	0.00064655
14	1	4246.56585840	0.00002455
15	1	4246.53092203	0.00000004
16	1	4246.53085993	0.00000000

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqsnd: fasfl='Y'

Convergence criteria met.

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(1,1)	SUBJIDN	38.6539
UN(2,1)	SUBJIDN	19.7318
UN(2,2)	SUBJIDN	24.3503
UN(3,1)	SUBJIDN	13.5637
UN(3,2)	SUBJIDN	14.3453
UN(3,3)	SUBJIDN	20.5479
UN(4,1)	SUBJIDN	6.8584
UN(4,2)	SUBJIDN	13.0062
UN(4,3)	SUBJIDN	14.8972
UN(4,4)	SUBJIDN	17.5890
UN(5,1)	SUBJIDN	11.2170
UN(5,2)	SUBJIDN	12.8343
UN(5,3)	SUBJIDN	13.5294
UN(5,4)	SUBJIDN	13.5291
UN(5,5)	SUBJIDN	17.0332
UN(6,1)	SUBJIDN	12.5325



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**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(6,2)	SUBJIDN	10.1777
UN(6,3)	SUBJIDN	9.9145
UN(6,4)	SUBJIDN	10.1833
UN(6,5)	SUBJIDN	13.1279
UN(6,6)	SUBJIDN	21.0807

## Fit Statistics

-2 Res Log Likelihood	4246.5
AIC (smaller is better)	4288.5
AICC (smaller is better)	4289.7
BIC (smaller is better)	4353.1

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Null Model Likelihood Ratio Test

DF	Chi-Square	Pr > ChiSq
20	565.87	<.0001

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASE	1	154	58.48	<.0001
SEXN	1	154	0.21	0.6474
UCPDGR1N	1	154	0.18	0.6700
TRTAN	2	154	11.11	<.0001
AVISITN	5	154	3.61	0.0041
TRTAN*AVISITN	10	154	2.41	0.0107



**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha
TRTAN	THS 2.2		-1.1485	0.4651	154	-2.47	0.0146	0.05
TRTAN	CC		-0.1346	0.6578	154	-0.20	0.8381	0.05
TRTAN	SA		2.5393	0.6319	154	4.02	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 1	-1.7358	1.3347	154	-1.30	0.1953	0.05
TRTAN*AVISITN	THS 2.2	Day 2	-0.1677	0.5518	154	-0.30	0.7616	0.05
TRTAN*AVISITN	THS 2.2	Day 3	-1.0052	0.5069	154	-1.98	0.0491	0.05
TRTAN*AVISITN	THS 2.2	Day 4	-1.4087	0.4701	154	-3.00	0.0032	0.05
TRTAN*AVISITN	THS 2.2	Day 5	-1.3326	0.4628	154	-2.88	0.0046	0.05
TRTAN*AVISITN	THS 2.2	Day 6	-1.2410	0.5158	154	-2.41	0.0173	0.05
TRTAN*AVISITN	CC	Day 1	2.1299	1.9607	154	1.09	0.2791	0.05
TRTAN*AVISITN	CC	Day 2	-0.6802	0.7715	154	-0.88	0.3793	0.05
TRTAN*AVISITN	CC	Day 3	-0.8997	0.7089	154	-1.27	0.2063	0.05
TRTAN*AVISITN	CC	Day 4	-0.9973	0.6560	154	-1.52	0.1305	0.05
TRTAN*AVISITN	CC	Day 5	-0.3144	0.6456	154	-0.49	0.6270	0.05
TRTAN*AVISITN	CC	Day 6	-0.04608	0.7180	154	-0.06	0.9489	0.05
TRTAN*AVISITN	SA	Day 1	1.5528	1.4386	154	1.08	0.2821	0.05
TRTAN*AVISITN	SA	Day 2	4.7417	0.7904	154	6.00	<.0001	0.05

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Lower	Upper
TRTAN	THS 2.2		-2.0674	-0.2297
TRTAN	CC		-1.4341	1.1648
TRTAN	SA		1.2909	3.7877
TRTAN*AVISITN	THS 2.2	Day 1	-4.3725	0.9008
TRTAN*AVISITN	THS 2.2	Day 2	-1.2578	0.9224
TRTAN*AVISITN	THS 2.2	Day 3	-2.0066	-0.00380
TRTAN*AVISITN	THS 2.2	Day 4	-2.3373	-0.4801
TRTAN*AVISITN	THS 2.2	Day 5	-2.2468	-0.4184
TRTAN*AVISITN	THS 2.2	Day 6	-2.2600	-0.2221
TRTAN*AVISITN	CC	Day 1	-1.7435	6.0032
TRTAN*AVISITN	CC	Day 2	-2.2043	0.8439
TRTAN*AVISITN	CC	Day 3	-2.3001	0.5006
TRTAN*AVISITN	CC	Day 4	-2.2932	0.2986
TRTAN*AVISITN	CC	Day 5	-1.5897	0.9609
TRTAN*AVISITN	CC	Day 6	-1.4644	1.3723
TRTAN*AVISITN	SA	Day 1	-1.2891	4.3948
TRTAN*AVISITN	SA	Day 2	3.1803	6.3032

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha
TRTAN*AVISITN	SA	Day 3	3.4084	0.7261	154	4.69	<.0001	0.05
TRTAN*AVISITN	SA	Day 4	2.4853	0.6719	154	3.70	0.0003	0.05
TRTAN*AVISITN	SA	Day 5	2.0238	0.6612	154	3.06	0.0026	0.05
TRTAN*AVISITN	SA	Day 6	1.0238	0.7355	154	1.39	0.1659	0.05

## Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Lower	Upper
TRTAN*AVISITN	SA	Day 3	1.9739	4.8429
TRTAN*AVISITN	SA	Day 4	1.1581	3.8126
TRTAN*AVISITN	SA	Day 5	0.7177	3.3299
TRTAN*AVISITN	SA	Day 6	-0.4291	2.4767

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN	THS 2.2		CC		-1.0139	0.8058	154	-1.26	0.2102
TRTAN	THS 2.2		SA		-3.6878	0.7847	154	-4.70	<.0001
TRTAN	CC		SA		-2.6740	0.9127	154	-2.93	0.0039
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	-1.5681	1.2617	154	-1.24	0.2158
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	-0.7306	1.3033	154	-0.56	0.5759
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	-0.3271	1.3534	154	-0.24	0.8093
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	-0.4033	1.3094	154	-0.31	0.7585
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 6	-0.4948	1.3162	154	-0.38	0.7075
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	-3.8657	2.3718	154	-1.63	0.1052
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	-1.0556	1.5423	154	-0.68	0.4947
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	-0.8361	1.5119	154	-0.55	0.5811
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	-0.7385	1.4878	154	-0.50	0.6203
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	-1.4215	1.4833	154	-0.96	0.3394
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 6	-1.6898	1.5162	154	-1.11	0.2668
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 1	-3.2887	1.9624	154	-1.68	0.0958
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 2	-6.4776	1.5510	154	-4.18	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 3	-5.1443	1.5192	154	-3.39	0.0009

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN	THS 2.2		CC		0.05	-2.6058	0.5780
TRTAN	THS 2.2		SA		0.05	-5.2380	-2.1377
TRTAN	CC		SA		0.05	-4.4770	-0.8710
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	0.05	-4.0607	0.9244
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	0.05	-3.3053	1.8440
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	0.05	-3.0008	2.3466
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	0.05	-2.9900	2.1834
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 6	0.05	-3.0949	2.1053
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	0.05	-8.5512	0.8198
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	0.05	-4.1023	1.9911
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	0.05	-3.8228	2.1506
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	0.05	-3.6778	2.2007
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	0.05	-4.3517	1.5087
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 6	0.05	-4.6850	1.3055
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 1	0.05	-7.1653	0.5879
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 2	0.05	-9.5416	-3.4136
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 3	0.05	-8.1455	-2.1430

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 4	-4.2212	1.4941	154	-2.83	0.0054
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 5	-3.7596	1.4893	154	-2.52	0.0126
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 6	-2.7596	1.5237	154	-1.81	0.0721
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.8375	0.4501	154	1.86	0.0647
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	1.2410	0.4473	154	2.77	0.0062
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	1.1649	0.4445	154	2.62	0.0097
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 6	1.0733	0.5621	154	1.91	0.0580
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	-2.2976	2.0368	154	-1.13	0.2611
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	0.5125	0.9486	154	0.54	0.5898
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	0.7320	0.8983	154	0.81	0.4164
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	0.8296	0.8572	154	0.97	0.3347
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	0.1467	0.8493	154	0.17	0.8631
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 6	-0.1216	0.9055	154	-0.13	0.8933
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 1	-1.7205	1.5409	154	-1.12	0.2659
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 2	-4.9094	0.9641	154	-5.09	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 3	-3.5761	0.9121	154	-3.92	0.0001
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 4	-2.6530	0.8695	154	-3.05	0.0027

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 4	0.05	-7.1727	-1.2697
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 5	0.05	-6.7017	-0.8176
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 6	0.05	-5.7698	0.2505
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.05	-0.05168	1.7267
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.05	0.3574	2.1247
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.05	0.2867	2.0430
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 6	0.05	-0.03701	2.1837
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	0.05	-6.3213	1.7261
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	0.05	-1.3613	2.3864
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	0.05	-1.0426	2.5067
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	0.05	-0.8639	2.5231
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	0.05	-1.5311	1.8244
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 6	0.05	-1.9105	1.6673
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 1	0.05	-4.7645	1.3234
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 2	0.05	-6.8140	-3.0049
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 3	0.05	-5.3780	-1.7742
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 4	0.05	-4.3708	-0.9353

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 5	-2.1915	0.8613	154	-2.54	0.0119
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 6	-1.1915	0.9196	154	-1.30	0.1970
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	0.4035	0.3245	154	1.24	0.2155
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	0.3274	0.3643	154	0.90	0.3702
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 6	0.2358	0.5244	154	0.45	0.6535
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	-3.1351	2.0251	154	-1.55	0.1236
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	-0.3250	0.9232	154	-0.35	0.7253
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	-0.1055	0.8715	154	-0.12	0.9038
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	-0.00790	0.8291	154	-0.01	0.9924
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	-0.6908	0.8208	154	-0.84	0.4013
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 6	-0.9591	0.8789	154	-1.09	0.2769
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 1	-2.5580	1.5254	154	-1.68	0.0956
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 2	-5.7469	0.9391	154	-6.12	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 3	-4.4136	0.8857	154	-4.98	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 4	-3.4905	0.8418	154	-4.15	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 5	-3.0290	0.8333	154	-3.64	0.0004
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 6	-2.0290	0.8934	154	-2.27	0.0245



**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 5	0.05	-3.8930	-0.4900
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 6	0.05	-3.0081	0.6251
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	0.05	-0.2375	1.0445
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	0.05	-0.3922	1.0470
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 6	0.05	-0.8001	1.2717
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	0.05	-7.1357	0.8655
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	0.05	-2.1487	1.4987
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	0.05	-1.8271	1.6162
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	0.05	-1.6457	1.6299
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	0.05	-2.3124	0.9307
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 6	0.05	-2.6954	0.7772
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 1	0.05	-5.5714	0.4553
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 2	0.05	-7.6021	-3.8917
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 3	0.05	-6.1633	-2.6639
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 4	0.05	-5.1534	-1.8276
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 5	0.05	-4.6751	-1.3829
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 6	0.05	-3.7938	-0.2642

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	-0.07616	0.3094	154	-0.25	0.8059
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 6	-0.1677	0.4811	154	-0.35	0.7279
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	-3.5386	2.0162	154	-1.76	0.0812
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	-0.7285	0.9035	154	-0.81	0.4213
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	-0.5090	0.8506	154	-0.60	0.5505
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	-0.4114	0.8071	154	-0.51	0.6109
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	-1.0943	0.7986	154	-1.37	0.1726
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 6	-1.3626	0.8582	154	-1.59	0.1144
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 1	-2.9616	1.5135	154	-1.96	0.0522
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 2	-6.1505	0.9197	154	-6.69	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 3	-4.8171	0.8651	154	-5.57	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 4	-3.8940	0.8201	154	-4.75	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 5	-3.4325	0.8113	154	-4.23	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 6	-2.4325	0.8729	154	-2.79	0.0060
TRTAN*AVISITN	THS 2.2	Day 5	THS 2.2	Day 6	-0.09152	0.3873	154	-0.24	0.8135
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	-3.4624	2.0145	154	-1.72	0.0877
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	-0.6523	0.8997	154	-0.73	0.4695

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	0.05	-0.6874	0.5350
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 6	0.05	-1.1182	0.7828
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	0.05	-7.5216	0.4444
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	0.05	-2.5133	1.0563
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	0.05	-2.1894	1.1714
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	0.05	-2.0058	1.1830
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	0.05	-2.6720	0.4834
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 6	0.05	-3.0580	0.3328
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 1	0.05	-5.9515	0.02835
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 2	0.05	-7.9673	-4.3336
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 3	0.05	-6.5261	-3.1082
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 4	0.05	-5.5141	-2.2740
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 5	0.05	-5.0353	-1.8297
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 6	0.05	-4.1570	-0.7080
TRTAN*AVISITN	THS 2.2	Day 5	THS 2.2	Day 6	0.05	-0.8566	0.6736
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	0.05	-7.4421	0.5172
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	0.05	-2.4297	1.1251

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	-0.4328	0.8466	154	-0.51	0.6099
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	-0.3353	0.8029	154	-0.42	0.6768
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	-1.0182	0.7944	154	-1.28	0.2019
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 6	-1.2865	0.8543	154	-1.51	0.1341
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 1	-2.8854	1.5113	154	-1.91	0.0581
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 2	-6.0743	0.9160	154	-6.63	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 3	-4.7410	0.8611	154	-5.51	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 4	-3.8179	0.8159	154	-4.68	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 5	-3.3563	0.8071	154	-4.16	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 6	-2.3563	0.8690	154	-2.71	0.0075
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 1	-3.3709	2.0274	154	-1.66	0.0984
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 2	-0.5608	0.9281	154	-0.60	0.5466
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 3	-0.3413	0.8768	154	-0.39	0.6976
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 4	-0.2437	0.8346	154	-0.29	0.7706
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 5	-0.9267	0.8264	154	-1.12	0.2639
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 6	-1.1950	0.8841	154	-1.35	0.1785
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 1	-2.7939	1.5283	154	-1.83	0.0695

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	0.05	-2.1053	1.2397
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	0.05	-1.9213	1.2508
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	0.05	-2.5875	0.5511
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 6	0.05	-2.9741	0.4011
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 1	0.05	-5.8709	0.1001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 2	0.05	-7.8839	-4.2647
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 3	0.05	-6.4421	-3.0398
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 4	0.05	-5.4297	-2.2061
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 5	0.05	-4.9508	-1.7619
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 6	0.05	-4.0731	-0.6396
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 1	0.05	-7.3760	0.6341
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 2	0.05	-2.3943	1.2727
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 3	0.05	-2.0733	1.3907
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 4	0.05	-1.8924	1.4050
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 5	0.05	-2.5592	0.7059
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 6	0.05	-2.9415	0.5516
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 1	0.05	-5.8130	0.2253

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 2	-5.9828	0.9439	154	-6.34	<.0001
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 3	-4.6494	0.8907	154	-5.22	<.0001
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 4	-3.7264	0.8471	154	-4.40	<.0001
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 5	-3.2648	0.8386	154	-3.89	0.0001
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 6	-2.2648	0.8984	154	-2.52	0.0127
TRTAN*AVISITN	CC	Day 1	CC	Day 2	2.8101	1.8644	154	1.51	0.1338
TRTAN*AVISITN	CC	Day 1	CC	Day 3	3.0296	1.9195	154	1.58	0.1165
TRTAN*AVISITN	CC	Day 1	CC	Day 4	3.1272	1.9847	154	1.58	0.1172
TRTAN*AVISITN	CC	Day 1	CC	Day 5	2.4443	1.9269	154	1.27	0.2065
TRTAN*AVISITN	CC	Day 1	CC	Day 6	2.1760	1.9359	154	1.12	0.2628
TRTAN*AVISITN	CC	Day 1	SA	Day 1	0.5771	2.4319	154	0.24	0.8128
TRTAN*AVISITN	CC	Day 1	SA	Day 2	-2.6119	2.1142	154	-1.24	0.2186
TRTAN*AVISITN	CC	Day 1	SA	Day 3	-1.2785	2.0910	154	-0.61	0.5418
TRTAN*AVISITN	CC	Day 1	SA	Day 4	-0.3554	2.0728	154	-0.17	0.8641
TRTAN*AVISITN	CC	Day 1	SA	Day 5	0.1061	2.0693	154	0.05	0.9592
TRTAN*AVISITN	CC	Day 1	SA	Day 6	1.1061	2.0943	154	0.53	0.5982
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.2195	0.6287	154	0.35	0.7275

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 2	0.05	-7.8474	-4.1182
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 3	0.05	-6.4091	-2.8898
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 4	0.05	-5.3998	-2.0530
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 5	0.05	-4.9215	-1.6081
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 6	0.05	-4.0395	-0.4901
TRTAN*AVISITN	CC	Day 1	CC	Day 2	0.05	-0.8731	6.4933
TRTAN*AVISITN	CC	Day 1	CC	Day 3	0.05	-0.7622	6.8215
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.05	-0.7937	7.0480
TRTAN*AVISITN	CC	Day 1	CC	Day 5	0.05	-1.3624	6.2509
TRTAN*AVISITN	CC	Day 1	CC	Day 6	0.05	-1.6483	6.0003
TRTAN*AVISITN	CC	Day 1	SA	Day 1	0.05	-4.2272	5.3813
TRTAN*AVISITN	CC	Day 1	SA	Day 2	0.05	-6.7884	1.5647
TRTAN*AVISITN	CC	Day 1	SA	Day 3	0.05	-5.4093	2.8522
TRTAN*AVISITN	CC	Day 1	SA	Day 4	0.05	-4.4502	3.7393
TRTAN*AVISITN	CC	Day 1	SA	Day 5	0.05	-3.9819	4.1940
TRTAN*AVISITN	CC	Day 1	SA	Day 6	0.05	-3.0311	5.2433
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.05	-1.0225	1.4616

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.3171	0.6233	154	0.51	0.6117
TRTAN*AVISITN	CC	Day 2	CC	Day 5	-0.3659	0.6191	154	-0.59	0.5554
TRTAN*AVISITN	CC	Day 2	CC	Day 6	-0.6341	0.7820	154	-0.81	0.4187
TRTAN*AVISITN	CC	Day 2	SA	Day 1	-2.2331	1.6325	154	-1.37	0.1734
TRTAN*AVISITN	CC	Day 2	SA	Day 2	-5.4220	1.1051	154	-4.91	<.0001
TRTAN*AVISITN	CC	Day 2	SA	Day 3	-4.0886	1.0600	154	-3.86	0.0002
TRTAN*AVISITN	CC	Day 2	SA	Day 4	-3.1656	1.0236	154	-3.09	0.0024
TRTAN*AVISITN	CC	Day 2	SA	Day 5	-2.7040	1.0166	154	-2.66	0.0086
TRTAN*AVISITN	CC	Day 2	SA	Day 6	-1.7040	1.0664	154	-1.60	0.1121
TRTAN*AVISITN	CC	Day 3	CC	Day 4	0.09756	0.4511	154	0.22	0.8291
TRTAN*AVISITN	CC	Day 3	CC	Day 5	-0.5854	0.5066	154	-1.16	0.2497
TRTAN*AVISITN	CC	Day 3	CC	Day 6	-0.8537	0.7292	154	-1.17	0.2435
TRTAN*AVISITN	CC	Day 3	SA	Day 1	-2.4526	1.6039	154	-1.53	0.1283
TRTAN*AVISITN	CC	Day 3	SA	Day 2	-5.6415	1.0623	154	-5.31	<.0001
TRTAN*AVISITN	CC	Day 3	SA	Day 3	-4.3081	1.0153	154	-4.24	<.0001
TRTAN*AVISITN	CC	Day 3	SA	Day 4	-3.3851	0.9773	154	-3.46	0.0007
TRTAN*AVISITN	CC	Day 3	SA	Day 5	-2.9235	0.9699	154	-3.01	0.0030



**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.05	-0.9142	1.5483
TRTAN*AVISITN	CC	Day 2	CC	Day 5	0.05	-1.5889	0.8572
TRTAN*AVISITN	CC	Day 2	CC	Day 6	0.05	-2.1791	0.9108
TRTAN*AVISITN	CC	Day 2	SA	Day 1	0.05	-5.4581	0.9920
TRTAN*AVISITN	CC	Day 2	SA	Day 2	0.05	-7.6050	-3.2389
TRTAN*AVISITN	CC	Day 2	SA	Day 3	0.05	-6.1827	-1.9946
TRTAN*AVISITN	CC	Day 2	SA	Day 4	0.05	-5.1877	-1.1434
TRTAN*AVISITN	CC	Day 2	SA	Day 5	0.05	-4.7124	-0.6957
TRTAN*AVISITN	CC	Day 2	SA	Day 6	0.05	-3.8108	0.4027
TRTAN*AVISITN	CC	Day 3	CC	Day 4	0.05	-0.7935	0.9887
TRTAN*AVISITN	CC	Day 3	CC	Day 5	0.05	-1.5861	0.4154
TRTAN*AVISITN	CC	Day 3	CC	Day 6	0.05	-2.2941	0.5868
TRTAN*AVISITN	CC	Day 3	SA	Day 1	0.05	-5.6210	0.7159
TRTAN*AVISITN	CC	Day 3	SA	Day 2	0.05	-7.7400	-3.5430
TRTAN*AVISITN	CC	Day 3	SA	Day 3	0.05	-6.3139	-2.3024
TRTAN*AVISITN	CC	Day 3	SA	Day 4	0.05	-5.3156	-1.4545
TRTAN*AVISITN	CC	Day 3	SA	Day 5	0.05	-4.8396	-1.0074

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	CC	Day 3	SA	Day 6	-1.9235	1.0220	154	-1.88	0.0617
TRTAN*AVISITN	CC	Day 4	CC	Day 5	-0.6829	0.4295	154	-1.59	0.1139
TRTAN*AVISITN	CC	Day 4	CC	Day 6	-0.9512	0.6681	154	-1.42	0.1566
TRTAN*AVISITN	CC	Day 4	SA	Day 1	-2.5501	1.5812	154	-1.61	0.1088
TRTAN*AVISITN	CC	Day 4	SA	Day 2	-5.7390	1.0277	154	-5.58	<.0001
TRTAN*AVISITN	CC	Day 4	SA	Day 3	-4.4057	0.9792	154	-4.50	<.0001
TRTAN*AVISITN	CC	Day 4	SA	Day 4	-3.4826	0.9396	154	-3.71	0.0003
TRTAN*AVISITN	CC	Day 4	SA	Day 5	-3.0211	0.9320	154	-3.24	0.0015
TRTAN*AVISITN	CC	Day 4	SA	Day 6	-2.0211	0.9861	154	-2.05	0.0421
TRTAN*AVISITN	CC	Day 5	CC	Day 6	-0.2683	0.5378	154	-0.50	0.6186
TRTAN*AVISITN	CC	Day 5	SA	Day 1	-1.8672	1.5769	154	-1.18	0.2382
TRTAN*AVISITN	CC	Day 5	SA	Day 2	-5.0561	1.0211	154	-4.95	<.0001
TRTAN*AVISITN	CC	Day 5	SA	Day 3	-3.7228	0.9722	154	-3.83	0.0002
TRTAN*AVISITN	CC	Day 5	SA	Day 4	-2.7997	0.9324	154	-3.00	0.0031
TRTAN*AVISITN	CC	Day 5	SA	Day 5	-2.3382	0.9247	154	-2.53	0.0125
TRTAN*AVISITN	CC	Day 5	SA	Day 6	-1.3382	0.9792	154	-1.37	0.1737
TRTAN*AVISITN	CC	Day 6	SA	Day 1	-1.5989	1.6079	154	-0.99	0.3216

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	CC	Day 3	SA	Day 6	0.05	-3.9426	0.09550
TRTAN*AVISITN	CC	Day 4	CC	Day 5	0.05	-1.5314	0.1656
TRTAN*AVISITN	CC	Day 4	CC	Day 6	0.05	-2.2711	0.3687
TRTAN*AVISITN	CC	Day 4	SA	Day 1	0.05	-5.6738	0.5735
TRTAN*AVISITN	CC	Day 4	SA	Day 2	0.05	-7.7693	-3.7088
TRTAN*AVISITN	CC	Day 4	SA	Day 3	0.05	-6.3400	-2.4714
TRTAN*AVISITN	CC	Day 4	SA	Day 4	0.05	-5.3388	-1.6264
TRTAN*AVISITN	CC	Day 4	SA	Day 5	0.05	-4.8622	-1.1799
TRTAN*AVISITN	CC	Day 4	SA	Day 6	0.05	-3.9691	-0.07305
TRTAN*AVISITN	CC	Day 5	CC	Day 6	0.05	-1.3307	0.7941
TRTAN*AVISITN	CC	Day 5	SA	Day 1	0.05	-4.9824	1.2480
TRTAN*AVISITN	CC	Day 5	SA	Day 2	0.05	-7.0733	-3.0389
TRTAN*AVISITN	CC	Day 5	SA	Day 3	0.05	-5.6434	-1.8022
TRTAN*AVISITN	CC	Day 5	SA	Day 4	0.05	-4.6416	-0.9578
TRTAN*AVISITN	CC	Day 5	SA	Day 5	0.05	-4.1649	-0.5114
TRTAN*AVISITN	CC	Day 5	SA	Day 6	0.05	-3.2726	0.5962
TRTAN*AVISITN	CC	Day 6	SA	Day 1	0.05	-4.7754	1.5775

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	CC	Day 6	SA	Day 2	-4.7878	1.0684	154	-4.48	<.0001
TRTAN*AVISITN	CC	Day 6	SA	Day 3	-3.4545	1.0217	154	-3.38	0.0009
TRTAN*AVISITN	CC	Day 6	SA	Day 4	-2.5314	0.9839	154	-2.57	0.0110
TRTAN*AVISITN	CC	Day 6	SA	Day 5	-2.0699	0.9766	154	-2.12	0.0357
TRTAN*AVISITN	CC	Day 6	SA	Day 6	-1.0699	1.0284	154	-1.04	0.2998
TRTAN*AVISITN	SA	Day 1	SA	Day 2	-3.1889	1.2969	154	-2.46	0.0150
TRTAN*AVISITN	SA	Day 1	SA	Day 3	-1.8556	1.3787	154	-1.35	0.1803
TRTAN*AVISITN	SA	Day 1	SA	Day 4	-0.9325	1.4727	154	-0.63	0.5276
TRTAN*AVISITN	SA	Day 1	SA	Day 5	-0.4710	1.3896	154	-0.34	0.7351
TRTAN*AVISITN	SA	Day 1	SA	Day 6	0.5290	1.4026	154	0.38	0.7066
TRTAN*AVISITN	SA	Day 2	SA	Day 3	1.3333	0.6447	154	2.07	0.0403
TRTAN*AVISITN	SA	Day 2	SA	Day 4	2.2564	0.6390	154	3.53	0.0005
TRTAN*AVISITN	SA	Day 2	SA	Day 5	2.7179	0.6348	154	4.28	<.0001
TRTAN*AVISITN	SA	Day 2	SA	Day 6	3.7179	0.8019	154	4.64	<.0001
TRTAN*AVISITN	SA	Day 3	SA	Day 4	0.9231	0.4625	154	2.00	0.0477
TRTAN*AVISITN	SA	Day 3	SA	Day 5	1.3846	0.5194	154	2.67	0.0085
TRTAN*AVISITN	SA	Day 3	SA	Day 6	2.3846	0.7476	154	3.19	0.0017

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	CC	Day 6	SA	Day 2	0.05	-6.8984	-2.6773
TRTAN*AVISITN	CC	Day 6	SA	Day 3	0.05	-5.4729	-1.4361
TRTAN*AVISITN	CC	Day 6	SA	Day 4	0.05	-4.4751	-0.5878
TRTAN*AVISITN	CC	Day 6	SA	Day 5	0.05	-3.9992	-0.1406
TRTAN*AVISITN	CC	Day 6	SA	Day 6	0.05	-3.1014	0.9617
TRTAN*AVISITN	SA	Day 1	SA	Day 2	0.05	-5.7510	-0.6268
TRTAN*AVISITN	SA	Day 1	SA	Day 3	0.05	-4.5792	0.8681
TRTAN*AVISITN	SA	Day 1	SA	Day 4	0.05	-3.8418	1.9768
TRTAN*AVISITN	SA	Day 1	SA	Day 5	0.05	-3.2162	2.2742
TRTAN*AVISITN	SA	Day 1	SA	Day 6	0.05	-2.2418	3.2999
TRTAN*AVISITN	SA	Day 2	SA	Day 3	0.05	0.05983	2.6068
TRTAN*AVISITN	SA	Day 2	SA	Day 4	0.05	0.9940	3.5188
TRTAN*AVISITN	SA	Day 2	SA	Day 5	0.05	1.4639	3.9719
TRTAN*AVISITN	SA	Day 2	SA	Day 6	0.05	2.1339	5.3020
TRTAN*AVISITN	SA	Day 3	SA	Day 4	0.05	0.009410	1.8367
TRTAN*AVISITN	SA	Day 3	SA	Day 5	0.05	0.3585	2.4107
TRTAN*AVISITN	SA	Day 3	SA	Day 6	0.05	0.9077	3.8616

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	SA	Day 4	SA	Day 5	0.4615	0.4404	154	1.05	0.2963
TRTAN*AVISITN	SA	Day 4	SA	Day 6	1.4615	0.6851	154	2.13	0.0345
TRTAN*AVISITN	SA	Day 5	SA	Day 6	1.0000	0.5514	154	1.81	0.0717

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	SA	Day 4	SA	Day 5	0.05	-0.4085	1.3315
TRTAN*AVISITN	SA	Day 4	SA	Day 6	0.05	0.1082	2.8149
TRTAN*AVISITN	SA	Day 5	SA	Day 6	0.05	-0.08930	2.0893



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**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Model Information

Data Set	WORK.ADQSND
Dependent Variable	CHG
Covariance Structure	Unstructured
Subject Effect	SUBJIDN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Between-Within

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Class Level Information

Class	Levels	Values
SUBJIDN	160	1 4 8 10 11 13 14 15 16 17 20 21 22 23 25 28 29 30 31 34 35 37 38 39 42 44 49 51 52 53 55 57 60 62 63 64 66 67 69 71 72 74 76 80 83 85 86 87 88 90 93 104 105 106 107 110 112 114 117 118 121 122 123 126 127 128 129 130 133 134 136 137 139 140 145 147 148 149 150 152 153 155 156 160 162 167 169 170 177 181 183 185 187 189 190 191 192 193 195 196 197 198 200 202 203 204 206 210 216 218 220 224 228 229 230 232 234 240 241 244 249 251 252 255 256 262 264 265 266 272 273 276 277 278 279 281 282 283 285 287 289 291 292 296 298 300 301 306 307



**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqsnd: fasfl='Y'

		308 313 315 316 317 318 320
		321 322 325 328
SEXN	2	Male Female
UCPDGR1N	2	10-19 cig/day >19 cig/day
TRTAN	3	THS 2.2 CC SA
AVISITN	6	Day 1 Day 2 Day 3 Day 4 Day 5 Day 6

## Dimensions

Covariance Parameters	21
Columns in X	33
Columns in Z	0
Subjects	160
Max Obs Per Subject	6

## Number of Observations

Number of Observations Read	824
Number of Observations Used	824
Number of Observations Not Used	0

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	5170.67713907	
1	2	5177.53226878	0.00870357
2	1	4970.91055955	0.03028404
3	1	4906.73085147	0.16484212
4	1	4877.04923474	2.31795255
5	1	4707.91866828	0.38395810
6	1	4632.98079546	0.14402586
7	1	4605.20119968	0.08716036
8	1	4585.47118051	0.00997212
9	1	4577.03120138	0.00390623
10	1	4569.91377905	0.00046495
11	1	4569.12835514	0.00001179
12	1	4569.10977073	0.00000001
13	1	4569.10975467	0.00000000

Convergence criteria met.

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(1,1)	SUBJIDN	48.5522
UN(2,1)	SUBJIDN	30.4714
UN(2,2)	SUBJIDN	40.0340
UN(3,1)	SUBJIDN	21.3602
UN(3,2)	SUBJIDN	24.0169
UN(3,3)	SUBJIDN	31.7243
UN(4,1)	SUBJIDN	14.0719
UN(4,2)	SUBJIDN	20.8416
UN(4,3)	SUBJIDN	24.4564
UN(4,4)	SUBJIDN	29.0871
UN(5,1)	SUBJIDN	19.0503
UN(5,2)	SUBJIDN	20.8607
UN(5,3)	SUBJIDN	21.4206
UN(5,4)	SUBJIDN	22.9266
UN(5,5)	SUBJIDN	28.2262
UN(6,1)	SUBJIDN	23.0511
UN(6,2)	SUBJIDN	17.8376
UN(6,3)	SUBJIDN	17.0454
UN(6,4)	SUBJIDN	17.8143



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**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(6,5)	SUBJIDN	21.4370
UN(6,6)	SUBJIDN	30.7878

## Fit Statistics

-2 Res Log Likelihood	4569.1
AIC (smaller is better)	4611.1
AICC (smaller is better)	4612.3
BIC (smaller is better)	4675.7

## Null Model Likelihood Ratio Test

DF	Chi-Square	Pr > ChiSq
20	601.57	<.0001

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASE	1	154	37.63	<.0001
SEYN	1	154	0.47	0.4923
UCPDGR1N	1	154	0.21	0.6482
TRTAN	2	154	4.09	0.0187
AVISITN	5	154	3.46	0.0055
TRTAN*AVISITN	10	154	2.09	0.0283

## Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha
TRTAN	THS 2.2		-0.5163	0.5762	154	-0.90	0.3717	0.05
TRTAN	CC		-0.03938	0.8123	154	-0.05	0.9614	0.05
TRTAN	SA		2.2481	0.7955	154	2.83	0.0053	0.05
TRTAN*AVISITN	THS 2.2	Day 1	-0.3854	1.4198	154	-0.27	0.7864	0.05

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha
TRTAN*AVISITN	THS 2.2	Day 2	0.8725	0.7075	154	1.23	0.2194	0.05
TRTAN*AVISITN	THS 2.2	Day 3	-0.3650	0.6299	154	-0.58	0.5631	0.05
TRTAN*AVISITN	THS 2.2	Day 4	-0.7340	0.6044	154	-1.21	0.2264	0.05
TRTAN*AVISITN	THS 2.2	Day 5	-1.4076	0.5958	154	-2.36	0.0194	0.05
TRTAN*AVISITN	THS 2.2	Day 6	-1.0782	0.6231	154	-1.73	0.0856	0.05
TRTAN*AVISITN	CC	Day 1	1.7831	2.0825	154	0.86	0.3932	0.05
TRTAN*AVISITN	CC	Day 2	-0.2527	0.9893	154	-0.26	0.7988	0.05
TRTAN*AVISITN	CC	Day 3	-0.8380	0.8809	154	-0.95	0.3429	0.05
TRTAN*AVISITN	CC	Day 4	-1.0087	0.8436	154	-1.20	0.2336	0.05
TRTAN*AVISITN	CC	Day 5	-0.1551	0.8310	154	-0.19	0.8522	0.05
TRTAN*AVISITN	CC	Day 6	0.2352	0.8678	154	0.27	0.7868	0.05
TRTAN*AVISITN	SA	Day 1	1.1627	1.5546	154	0.75	0.4557	0.05
TRTAN*AVISITN	SA	Day 2	4.5421	1.0136	154	4.48	<.0001	0.05
TRTAN*AVISITN	SA	Day 3	3.2344	0.9024	154	3.58	0.0005	0.05
TRTAN*AVISITN	SA	Day 4	2.2857	0.8641	154	2.65	0.0090	0.05
TRTAN*AVISITN	SA	Day 5	1.8242	0.8512	154	2.14	0.0337	0.05
TRTAN*AVISITN	SA	Day 6	0.4396	0.8890	154	0.49	0.6217	0.05

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Lower	Upper
TRTAN	THS 2.2		-1.6545	0.6220
TRTAN	CC		-1.6441	1.5653
TRTAN	SA		0.6766	3.8197
TRTAN*AVISITN	THS 2.2	Day 1	-3.1903	2.4195
TRTAN*AVISITN	THS 2.2	Day 2	-0.5252	2.2703
TRTAN*AVISITN	THS 2.2	Day 3	-1.6093	0.8793
TRTAN*AVISITN	THS 2.2	Day 4	-1.9281	0.4600
TRTAN*AVISITN	THS 2.2	Day 5	-2.5846	-0.2306
TRTAN*AVISITN	THS 2.2	Day 6	-2.3090	0.1527
TRTAN*AVISITN	CC	Day 1	-2.3309	5.8971
TRTAN*AVISITN	CC	Day 2	-2.2069	1.7016
TRTAN*AVISITN	CC	Day 3	-2.5782	0.9022
TRTAN*AVISITN	CC	Day 4	-2.6752	0.6577
TRTAN*AVISITN	CC	Day 5	-1.7968	1.4866
TRTAN*AVISITN	CC	Day 6	-1.4792	1.9495
TRTAN*AVISITN	SA	Day 1	-1.9084	4.2338
TRTAN*AVISITN	SA	Day 2	2.5398	6.5445

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Lower	Upper
TRTAN*AVISITN	SA	Day 3	1.4518	5.0171
TRTAN*AVISITN	SA	Day 4	0.5787	3.9927
TRTAN*AVISITN	SA	Day 5	0.1426	3.5058
TRTAN*AVISITN	SA	Day 6	-1.3166	2.1957

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN	THS 2.2		CC		-0.4769	0.9960	154	-0.48	0.6328
TRTAN	THS 2.2		SA		-2.7644	0.9824	154	-2.81	0.0055
TRTAN	CC		SA		-2.2875	1.1379	154	-2.01	0.0461
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	-1.2579	1.3245	154	-0.95	0.3437
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	-0.02044	1.3704	154	-0.01	0.9881



**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	0.3486	1.4248	154	0.24	0.8070
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	1.0222	1.3761	154	0.74	0.4587
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 6	0.6927	1.3508	154	0.51	0.6088
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	-2.1685	2.5206	154	-0.86	0.3910
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	-0.1328	1.7309	154	-0.08	0.9390
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	0.4526	1.6713	154	0.27	0.7869
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	0.6233	1.6520	154	0.38	0.7064
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	-0.2303	1.6456	154	-0.14	0.8889
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 6	-0.6206	1.6645	154	-0.37	0.7098
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 1	-1.5481	2.1054	154	-0.74	0.4633
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 2	-4.9275	1.7444	154	-2.82	0.0054
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 3	-3.6198	1.6823	154	-2.15	0.0330
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 4	-2.6711	1.6620	154	-1.61	0.1101
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 5	-2.2096	1.6554	154	-1.33	0.1839
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 6	-0.8250	1.6751	154	-0.49	0.6231
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	1.2375	0.5446	154	2.27	0.0244
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	1.6066	0.5870	154	2.74	0.0069

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	2.2801	0.5777	154	3.95	0.0001
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 6	1.9507	0.6653	154	2.93	0.0039
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	-0.9105	2.1994	154	-0.41	0.6795
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	1.1252	1.2162	154	0.93	0.3563
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	1.7105	1.1298	154	1.51	0.1321
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	1.8813	1.1010	154	1.71	0.0895
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	1.0276	1.0914	154	0.94	0.3479
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 6	0.6374	1.1197	154	0.57	0.5700
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 1	-0.2902	1.7082	154	-0.17	0.8653
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 2	-3.6696	1.2363	154	-2.97	0.0035
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 3	-2.3619	1.1469	154	-2.06	0.0411
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 4	-1.4132	1.1170	154	-1.27	0.2077
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 5	-0.9517	1.1071	154	-0.86	0.3913
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 6	0.4330	1.1363	154	0.38	0.7037
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	0.3691	0.3877	154	0.95	0.3426
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	1.0426	0.4646	154	2.24	0.0263
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 6	0.7132	0.5988	154	1.19	0.2355

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	-2.1480	2.1757	154	-0.99	0.3250
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	-0.1123	1.1728	154	-0.10	0.9238
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	0.4730	1.0829	154	0.44	0.6628
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	0.6438	1.0528	154	0.61	0.5418
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	-0.2099	1.0428	154	-0.20	0.8408
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 6	-0.6001	1.0723	154	-0.56	0.5765
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 1	-1.5277	1.6775	154	-0.91	0.3639
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 2	-4.9071	1.1935	154	-4.11	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 3	-3.5994	1.1006	154	-3.27	0.0013
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 4	-2.6507	1.0695	154	-2.48	0.0143
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 5	-2.1892	1.0591	154	-2.07	0.0404
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 6	-0.8045	1.0897	154	-0.74	0.4614
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	0.6735	0.3808	154	1.77	0.0789
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 6	0.3441	0.5537	154	0.62	0.5352
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	-2.5171	2.1684	154	-1.16	0.2475
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	-0.4814	1.1593	154	-0.42	0.6786
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	0.1040	1.0683	154	0.10	0.9226

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

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## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	0.2747	1.0378	154	0.26	0.7916
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	-0.5790	1.0276	154	-0.56	0.5740
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 6	-0.9692	1.0576	154	-0.92	0.3609
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 1	-1.8967	1.6681	154	-1.14	0.2573
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 2	-5.2762	1.1802	154	-4.47	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 3	-3.9685	1.0862	154	-3.65	0.0004
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 4	-3.0198	1.0546	154	-2.86	0.0048
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 5	-2.5582	1.0441	154	-2.45	0.0154
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 6	-1.1736	1.0751	154	-1.09	0.2767
TRTAN*AVISITN	THS 2.2	Day 5	THS 2.2	Day 6	-0.3294	0.4519	154	-0.73	0.4671
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	-3.1906	2.1661	154	-1.47	0.1428
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	-1.1549	1.1549	154	-1.00	0.3189
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	-0.5696	1.0635	154	-0.54	0.5930
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	-0.3988	1.0328	154	-0.39	0.6999
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	-1.2525	1.0226	154	-1.22	0.2225
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 6	-1.6427	1.0527	154	-1.56	0.1207
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 1	-2.5703	1.6649	154	-1.54	0.1247

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

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## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 2	-5.9497	1.1758	154	-5.06	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 3	-4.6420	1.0814	154	-4.29	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 4	-3.6933	1.0497	154	-3.52	0.0006
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 5	-3.2318	1.0391	154	-3.11	0.0022
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 6	-1.8471	1.0703	154	-1.73	0.0864
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 1	-2.8612	2.1737	154	-1.32	0.1900
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 2	-0.8255	1.1692	154	-0.71	0.4812
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 3	-0.2401	1.0791	154	-0.22	0.8242
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 4	-0.06940	1.0488	154	-0.07	0.9473
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 5	-0.9231	1.0388	154	-0.89	0.3756
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 6	-1.3133	1.0684	154	-1.23	0.2209
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 1	-2.2409	1.6749	154	-1.34	0.1829
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 2	-5.6203	1.1899	154	-4.72	<.0001
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 3	-4.3126	1.0967	154	-3.93	0.0001
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 4	-3.3639	1.0654	154	-3.16	0.0019
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 5	-2.9023	1.0550	154	-2.75	0.0067
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 6	-1.5177	1.0857	154	-1.40	0.1641

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	CC	Day 1	CC	Day 2	2.0357	1.9560	154	1.04	0.2996
TRTAN*AVISITN	CC	Day 1	CC	Day 3	2.6211	2.0168	154	1.30	0.1957
TRTAN*AVISITN	CC	Day 1	CC	Day 4	2.7918	2.0878	154	1.34	0.1831
TRTAN*AVISITN	CC	Day 1	CC	Day 5	1.9382	2.0236	154	0.96	0.3397
TRTAN*AVISITN	CC	Day 1	CC	Day 6	1.5479	1.9906	154	0.78	0.4380
TRTAN*AVISITN	CC	Day 1	SA	Day 1	0.6204	2.5991	154	0.24	0.8117
TRTAN*AVISITN	CC	Day 1	SA	Day 2	-2.7591	2.3165	154	-1.19	0.2355
TRTAN*AVISITN	CC	Day 1	SA	Day 3	-1.4514	2.2700	154	-0.64	0.5235
TRTAN*AVISITN	CC	Day 1	SA	Day 4	-0.5026	2.2551	154	-0.22	0.8239
TRTAN*AVISITN	CC	Day 1	SA	Day 5	-0.04111	2.2502	154	-0.02	0.9854
TRTAN*AVISITN	CC	Day 1	SA	Day 6	1.3435	2.2648	154	0.59	0.5539
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.5854	0.7607	154	0.77	0.4428
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.7561	0.8181	154	0.92	0.3568
TRTAN*AVISITN	CC	Day 2	CC	Day 5	-0.09756	0.8045	154	-0.12	0.9036
TRTAN*AVISITN	CC	Day 2	CC	Day 6	-0.4878	0.9259	154	-0.53	0.5990
TRTAN*AVISITN	CC	Day 2	SA	Day 1	-1.4154	1.8432	154	-0.77	0.4437
TRTAN*AVISITN	CC	Day 2	SA	Day 2	-4.7948	1.4171	154	-3.38	0.0009

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	CC	Day 2	SA	Day 3	-3.4871	1.3399	154	-2.60	0.0102
TRTAN*AVISITN	CC	Day 2	SA	Day 4	-2.5384	1.3144	154	-1.93	0.0553
TRTAN*AVISITN	CC	Day 2	SA	Day 5	-2.0768	1.3060	154	-1.59	0.1138
TRTAN*AVISITN	CC	Day 2	SA	Day 6	-0.6922	1.3309	154	-0.52	0.6037
TRTAN*AVISITN	CC	Day 3	CC	Day 4	0.1707	0.5387	154	0.32	0.7517
TRTAN*AVISITN	CC	Day 3	CC	Day 5	-0.6829	0.6460	154	-1.06	0.2921
TRTAN*AVISITN	CC	Day 3	CC	Day 6	-1.0732	0.8326	154	-1.29	0.1993
TRTAN*AVISITN	CC	Day 3	SA	Day 1	-2.0007	1.7873	154	-1.12	0.2647
TRTAN*AVISITN	CC	Day 3	SA	Day 2	-5.3801	1.3437	154	-4.00	<.0001
TRTAN*AVISITN	CC	Day 3	SA	Day 3	-4.0725	1.2620	154	-3.23	0.0015
TRTAN*AVISITN	CC	Day 3	SA	Day 4	-3.1237	1.2349	154	-2.53	0.0124
TRTAN*AVISITN	CC	Day 3	SA	Day 5	-2.6622	1.2259	154	-2.17	0.0314
TRTAN*AVISITN	CC	Day 3	SA	Day 6	-1.2776	1.2524	154	-1.02	0.3093
TRTAN*AVISITN	CC	Day 4	CC	Day 5	-0.8537	0.5287	154	-1.61	0.1084
TRTAN*AVISITN	CC	Day 4	CC	Day 6	-1.2439	0.7690	154	-1.62	0.1078
TRTAN*AVISITN	CC	Day 4	SA	Day 1	-2.1715	1.7693	154	-1.23	0.2216
TRTAN*AVISITN	CC	Day 4	SA	Day 2	-5.5509	1.3196	154	-4.21	<.0001

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	CC	Day 4	SA	Day 3	-4.2432	1.2362	154	-3.43	0.0008
TRTAN*AVISITN	CC	Day 4	SA	Day 4	-3.2945	1.2085	154	-2.73	0.0072
TRTAN*AVISITN	CC	Day 4	SA	Day 5	-2.8329	1.1994	154	-2.36	0.0194
TRTAN*AVISITN	CC	Day 4	SA	Day 6	-1.4483	1.2265	154	-1.18	0.2395
TRTAN*AVISITN	CC	Day 5	CC	Day 6	-0.3902	0.6274	154	-0.62	0.5349
TRTAN*AVISITN	CC	Day 5	SA	Day 1	-1.3178	1.7633	154	-0.75	0.4560
TRTAN*AVISITN	CC	Day 5	SA	Day 2	-4.6972	1.3116	154	-3.58	0.0005
TRTAN*AVISITN	CC	Day 5	SA	Day 3	-3.3895	1.2277	154	-2.76	0.0065
TRTAN*AVISITN	CC	Day 5	SA	Day 4	-2.4408	1.1998	154	-2.03	0.0436
TRTAN*AVISITN	CC	Day 5	SA	Day 5	-1.9793	1.1906	154	-1.66	0.0985
TRTAN*AVISITN	CC	Day 5	SA	Day 6	-0.5947	1.2179	154	-0.49	0.6260
TRTAN*AVISITN	CC	Day 6	SA	Day 1	-0.9276	1.7809	154	-0.52	0.6032
TRTAN*AVISITN	CC	Day 6	SA	Day 2	-4.3070	1.3352	154	-3.23	0.0015
TRTAN*AVISITN	CC	Day 6	SA	Day 3	-2.9993	1.2529	154	-2.39	0.0179
TRTAN*AVISITN	CC	Day 6	SA	Day 4	-2.0506	1.2256	154	-1.67	0.0963
TRTAN*AVISITN	CC	Day 6	SA	Day 5	-1.5890	1.2166	154	-1.31	0.1934
TRTAN*AVISITN	CC	Day 6	SA	Day 6	-0.2044	1.2433	154	-0.16	0.8696



**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	SA	Day 1	SA	Day 2	-3.3794	1.3712	154	-2.46	0.0148
TRTAN*AVISITN	SA	Day 1	SA	Day 3	-2.0717	1.4609	154	-1.42	0.1582
TRTAN*AVISITN	SA	Day 1	SA	Day 4	-1.1230	1.5622	154	-0.72	0.4733
TRTAN*AVISITN	SA	Day 1	SA	Day 5	-0.6615	1.4707	154	-0.45	0.6535
TRTAN*AVISITN	SA	Day 1	SA	Day 6	0.7231	1.4225	154	0.51	0.6119
TRTAN*AVISITN	SA	Day 2	SA	Day 3	1.3077	0.7799	154	1.68	0.0956
TRTAN*AVISITN	SA	Day 2	SA	Day 4	2.2564	0.8388	154	2.69	0.0079
TRTAN*AVISITN	SA	Day 2	SA	Day 5	2.7179	0.8249	154	3.29	0.0012
TRTAN*AVISITN	SA	Day 2	SA	Day 6	4.1026	0.9493	154	4.32	<.0001
TRTAN*AVISITN	SA	Day 3	SA	Day 4	0.9487	0.5524	154	1.72	0.0879
TRTAN*AVISITN	SA	Day 3	SA	Day 5	1.4103	0.6623	154	2.13	0.0348
TRTAN*AVISITN	SA	Day 3	SA	Day 6	2.7949	0.8537	154	3.27	0.0013
TRTAN*AVISITN	SA	Day 4	SA	Day 5	0.4615	0.5421	154	0.85	0.3959
TRTAN*AVISITN	SA	Day 4	SA	Day 6	1.8462	0.7885	154	2.34	0.0205
TRTAN*AVISITN	SA	Day 5	SA	Day 6	1.3846	0.6433	154	2.15	0.0329

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN	THS 2.2		CC		0.05	-2.4446	1.4908
TRTAN	THS 2.2		SA		0.05	-4.7051	-0.8237
TRTAN	CC		SA		0.05	-4.5354	-0.03957
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	0.05	-3.8744	1.3585
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	0.05	-2.7277	2.6868
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	0.05	-2.4661	3.1634
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	0.05	-1.6963	3.7406
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 6	0.05	-1.9758	3.3613
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	0.05	-7.1479	2.8110
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	0.05	-3.5521	3.2866
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	0.05	-2.8491	3.7543
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	0.05	-2.6401	3.8868
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	0.05	-3.4812	3.0206
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 6	0.05	-3.9087	2.6676
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 1	0.05	-5.7072	2.6110
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 2	0.05	-8.3737	-1.4814
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 3	0.05	-6.9431	-0.2966

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 4	0.05	-5.9545	0.6122
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 5	0.05	-5.4798	1.0606
TRTAN*AVISITN	THS 2.2	Day 1	SA	Day 6	0.05	-4.1341	2.4842
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.05	0.1617	2.3133
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.05	0.4470	2.7662
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.05	1.1388	3.4214
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 6	0.05	0.6364	3.2649
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	0.05	-5.2554	3.4343
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	0.05	-1.2775	3.5278
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	0.05	-0.5215	3.9426
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	0.05	-0.2938	4.0563
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	0.05	-1.1285	3.1837
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 6	0.05	-1.5746	2.8493
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 1	0.05	-3.6646	3.0843
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 2	0.05	-6.1118	-1.2274
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 3	0.05	-4.6275	-0.09631
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 4	0.05	-3.6198	0.7934

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 5	0.05	-3.1386	1.2353
TRTAN*AVISITN	THS 2.2	Day 2	SA	Day 6	0.05	-1.8119	2.6778
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	0.05	-0.3968	1.1350
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	0.05	0.1247	1.9605
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 6	0.05	-0.4697	1.8960
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	0.05	-6.4460	2.1499
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	0.05	-2.4291	2.2045
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	0.05	-1.6662	2.6123
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	0.05	-1.4360	2.7236
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	0.05	-2.2699	1.8501
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 6	0.05	-2.7185	1.5182
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 1	0.05	-4.8415	1.7862
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 2	0.05	-7.2649	-2.5493
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 3	0.05	-5.7737	-1.4251
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 4	0.05	-4.7634	-0.5379
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 5	0.05	-4.2814	-0.09690
TRTAN*AVISITN	THS 2.2	Day 3	SA	Day 6	0.05	-2.9572	1.3481

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

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## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	0.05	-0.07866	1.4257
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 6	0.05	-0.7497	1.4380
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	0.05	-6.8008	1.7666
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	0.05	-2.7716	1.8089
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	0.05	-2.0065	2.2145
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	0.05	-1.7755	2.3249
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	0.05	-2.6090	1.4511
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 6	0.05	-3.0585	1.1201
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 1	0.05	-5.1920	1.3985
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 2	0.05	-7.6077	-2.9446
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 3	0.05	-6.1143	-1.8227
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 4	0.05	-5.1032	-0.9363
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 5	0.05	-4.6209	-0.4956
TRTAN*AVISITN	THS 2.2	Day 4	SA	Day 6	0.05	-3.2975	0.9503
TRTAN*AVISITN	THS 2.2	Day 5	THS 2.2	Day 6	0.05	-1.2221	0.5633
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	0.05	-7.4697	1.0884
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	0.05	-3.4364	1.1265

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

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## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	0.05	-2.6705	1.5314
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	0.05	-2.4392	1.6415
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	0.05	-3.2727	0.7677
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 6	0.05	-3.7224	0.4369
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 1	0.05	-5.8594	0.7188
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 2	0.05	-8.2726	-3.6269
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 3	0.05	-6.7784	-2.5056
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 4	0.05	-5.7670	-1.6196
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 5	0.05	-5.2846	-1.1789
TRTAN*AVISITN	THS 2.2	Day 5	SA	Day 6	0.05	-3.9615	0.2672
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 1	0.05	-7.1554	1.4330
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 2	0.05	-3.1353	1.4843
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 3	0.05	-2.3718	1.8915
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 4	0.05	-2.1414	2.0026
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 5	0.05	-2.9751	1.1290
TRTAN*AVISITN	THS 2.2	Day 6	CC	Day 6	0.05	-3.4240	0.7974
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 1	0.05	-5.5496	1.0679

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

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## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 2	0.05	-7.9708	-3.2697
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 3	0.05	-6.4791	-2.1461
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 4	0.05	-5.4686	-1.2592
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 5	0.05	-4.9864	-0.8182
TRTAN*AVISITN	THS 2.2	Day 6	SA	Day 6	0.05	-3.6624	0.6270
TRTAN*AVISITN	CC	Day 1	CC	Day 2	0.05	-1.8283	5.8997
TRTAN*AVISITN	CC	Day 1	CC	Day 3	0.05	-1.3632	6.6053
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.05	-1.3326	6.9162
TRTAN*AVISITN	CC	Day 1	CC	Day 5	0.05	-2.0595	5.9358
TRTAN*AVISITN	CC	Day 1	CC	Day 6	0.05	-2.3844	5.4802
TRTAN*AVISITN	CC	Day 1	SA	Day 1	0.05	-4.5141	5.7548
TRTAN*AVISITN	CC	Day 1	SA	Day 2	0.05	-7.3353	1.8172
TRTAN*AVISITN	CC	Day 1	SA	Day 3	0.05	-5.9358	3.0331
TRTAN*AVISITN	CC	Day 1	SA	Day 4	0.05	-4.9576	3.9523
TRTAN*AVISITN	CC	Day 1	SA	Day 5	0.05	-4.4864	4.4041
TRTAN*AVISITN	CC	Day 1	SA	Day 6	0.05	-3.1305	5.8175
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.05	-0.9174	2.0881

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.05	-0.8600	2.3722
TRTAN*AVISITN	CC	Day 2	CC	Day 5	0.05	-1.6869	1.4918
TRTAN*AVISITN	CC	Day 2	CC	Day 6	0.05	-2.3168	1.3412
TRTAN*AVISITN	CC	Day 2	SA	Day 1	0.05	-5.0565	2.2258
TRTAN*AVISITN	CC	Day 2	SA	Day 2	0.05	-7.5943	-1.9952
TRTAN*AVISITN	CC	Day 2	SA	Day 3	0.05	-6.1340	-0.8402
TRTAN*AVISITN	CC	Day 2	SA	Day 4	0.05	-5.1349	0.05816
TRTAN*AVISITN	CC	Day 2	SA	Day 5	0.05	-4.6567	0.5031
TRTAN*AVISITN	CC	Day 2	SA	Day 6	0.05	-3.3213	1.9369
TRTAN*AVISITN	CC	Day 3	CC	Day 4	0.05	-0.8935	1.2350
TRTAN*AVISITN	CC	Day 3	CC	Day 5	0.05	-1.9591	0.5932
TRTAN*AVISITN	CC	Day 3	CC	Day 6	0.05	-2.7179	0.5716
TRTAN*AVISITN	CC	Day 3	SA	Day 1	0.05	-5.5316	1.5301
TRTAN*AVISITN	CC	Day 3	SA	Day 2	0.05	-8.0347	-2.7256
TRTAN*AVISITN	CC	Day 3	SA	Day 3	0.05	-6.5654	-1.5795
TRTAN*AVISITN	CC	Day 3	SA	Day 4	0.05	-5.5632	-0.6843
TRTAN*AVISITN	CC	Day 3	SA	Day 5	0.05	-5.0840	-0.2404



**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	CC	Day 3	SA	Day 6	0.05	-3.7517	1.1965
TRTAN*AVISITN	CC	Day 4	CC	Day 5	0.05	-1.8981	0.1908
TRTAN*AVISITN	CC	Day 4	CC	Day 6	0.05	-2.7631	0.2753
TRTAN*AVISITN	CC	Day 4	SA	Day 1	0.05	-5.6666	1.3237
TRTAN*AVISITN	CC	Day 4	SA	Day 2	0.05	-8.1577	-2.9441
TRTAN*AVISITN	CC	Day 4	SA	Day 3	0.05	-6.6853	-1.8011
TRTAN*AVISITN	CC	Day 4	SA	Day 4	0.05	-5.6819	-0.9070
TRTAN*AVISITN	CC	Day 4	SA	Day 5	0.05	-5.2023	-0.4636
TRTAN*AVISITN	CC	Day 4	SA	Day 6	0.05	-3.8712	0.9745
TRTAN*AVISITN	CC	Day 5	CC	Day 6	0.05	-1.6297	0.8492
TRTAN*AVISITN	CC	Day 5	SA	Day 1	0.05	-4.8012	2.1656
TRTAN*AVISITN	CC	Day 5	SA	Day 2	0.05	-7.2883	-2.1062
TRTAN*AVISITN	CC	Day 5	SA	Day 3	0.05	-5.8148	-0.9643
TRTAN*AVISITN	CC	Day 5	SA	Day 4	0.05	-4.8111	-0.07056
TRTAN*AVISITN	CC	Day 5	SA	Day 5	0.05	-4.3313	0.3727
TRTAN*AVISITN	CC	Day 5	SA	Day 6	0.05	-3.0005	1.8112
TRTAN*AVISITN	CC	Day 6	SA	Day 1	0.05	-4.4458	2.5907

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2

Proc Mixed Procedure

The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	CC	Day 6	SA	Day 2	0.05	-6.9447	-1.6693
TRTAN*AVISITN	CC	Day 6	SA	Day 3	0.05	-5.4743	-0.5243
TRTAN*AVISITN	CC	Day 6	SA	Day 4	0.05	-4.4717	0.3706
TRTAN*AVISITN	CC	Day 6	SA	Day 5	0.05	-3.9923	0.8143
TRTAN*AVISITN	CC	Day 6	SA	Day 6	0.05	-2.6604	2.2516
TRTAN*AVISITN	SA	Day 1	SA	Day 2	0.05	-6.0882	-0.6707
TRTAN*AVISITN	SA	Day 1	SA	Day 3	0.05	-4.9578	0.8143
TRTAN*AVISITN	SA	Day 1	SA	Day 4	0.05	-4.2091	1.9631
TRTAN*AVISITN	SA	Day 1	SA	Day 5	0.05	-3.5669	2.2439
TRTAN*AVISITN	SA	Day 1	SA	Day 6	0.05	-2.0870	3.5333
TRTAN*AVISITN	SA	Day 2	SA	Day 3	0.05	-0.2331	2.8485
TRTAN*AVISITN	SA	Day 2	SA	Day 4	0.05	0.5994	3.9134
TRTAN*AVISITN	SA	Day 2	SA	Day 5	0.05	1.0883	4.3476
TRTAN*AVISITN	SA	Day 2	SA	Day 6	0.05	2.2272	5.9779
TRTAN*AVISITN	SA	Day 3	SA	Day 4	0.05	-0.1424	2.0399
TRTAN*AVISITN	SA	Day 3	SA	Day 5	0.05	0.1018	2.7187
TRTAN*AVISITN	SA	Day 3	SA	Day 6	0.05	1.1085	4.4813

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 2  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqsnd: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	SA	Day 4	SA	Day 5	0.05	-0.6093	1.5324
TRTAN*AVISITN	SA	Day 4	SA	Day 6	0.05	0.2885	3.4038
TRTAN*AVISITN	SA	Day 5	SA	Day 6	0.05	0.1138	2.6555

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

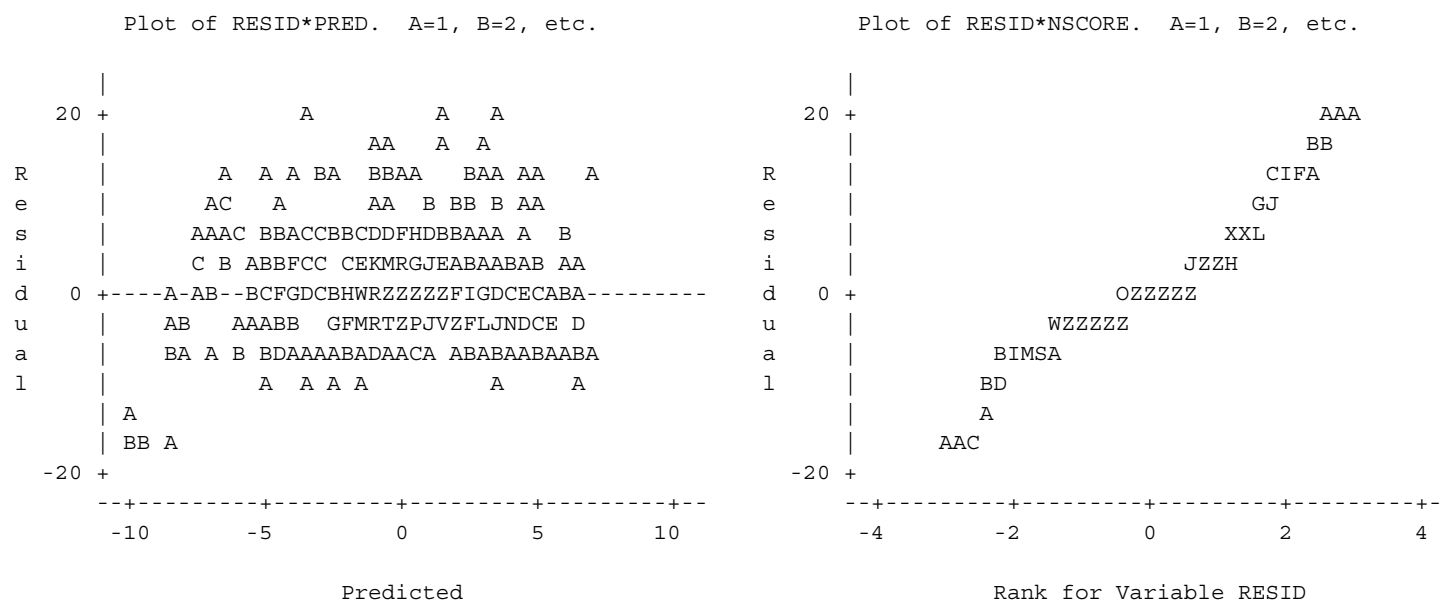
(Page 58 of 60)

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

Variable: Total Score 1

Residual Plots

The where clause used on the dataset adam.adqssu: fasfl='Y'



NOTE: 76 obs hidden.

NOTE: 297 obs hidden.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

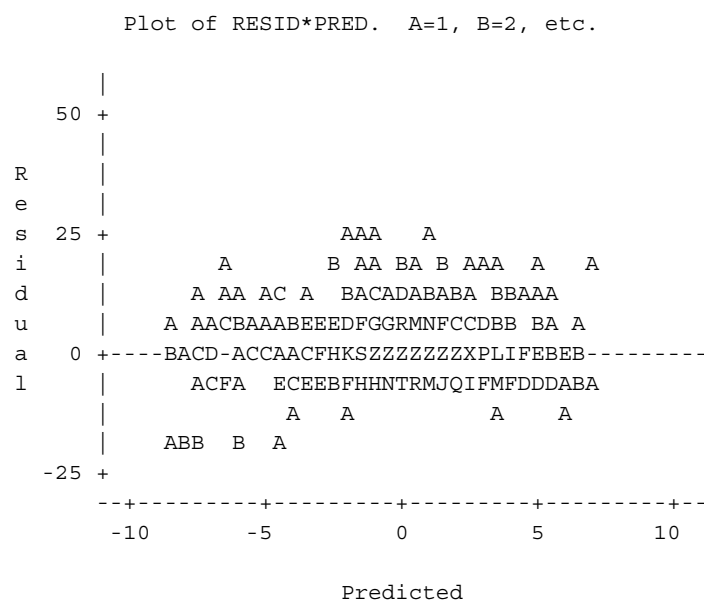
(Page 59 of 60)

**Listing 15.4.4.46 Analysis of Change from Baseline MNWS Questionnaire Total Scores - FAS**

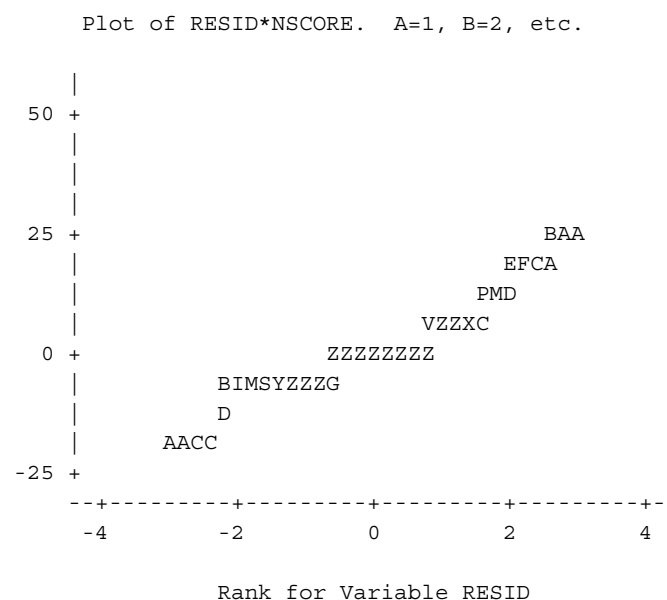
Variable: Total Score 2

Residual Plots

The where clause used on the dataset adam.adqssu: fasfl='Y'



NOTE: 115 obs hidden.



NOTE: 298 obs hidden.

Path: /cvn/projects/prj/development/000000106324/dev/tables/tlf\_anlmnws.sas  
Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Model Information

Data Set	WORK.ADQSPA
Dependent Variable	CHG
Covariance Structure	Unstructured
Subject Effect	SUBJIDN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Between-Within

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Class Level Information

Class	Levels	Values
SUBJIDN	120	1 4 8 11 14 16 20 21 22 25 29 30 31 34 35 37 38 39 42 44 53 55 57 60 64 66 67 69 72 74 80 83 85 87 88 90 93 105 106 107 110 112 117 118 121 122 126 129 130 134 136 139 140 147 148 149 152 153 155 156 160 162 167 170 177 181 183 187 189 190 191 192 193 195 196 198 200 202 204 206 210 216 220 224 228 229 230 232 234 241 244 255 256 262 264 272 276 277 278 279 281 282 283 285 287 291 296 298 300 301 307 308 313 315 316 318 320 321 322 328
SEXN	2	Male Female
UCPDGR1N	2	10-19 cig/day >19 cig/day
TRTAN	2	THS 2.2 CC



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**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Class Level Information

Class	Levels	Values
AVISITN	5	Day 1 Day 2 Day 3 Day 4 Day 5

## Dimensions

Covariance Parameters	15
Columns in X	23
Columns in Z	0
Subjects	120
Max Obs Per Subject	5

## Number of Observations

Number of Observations Read	597
Number of Observations Used	597
Number of Observations Not Used	0



**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	1340.71139764	
1	2	1038.29562247	0.00033143
2	1	1038.28975549	0.00000010
3	1	1038.28975381	0.00000000

Convergence criteria met.

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(1,1)	SUBJIDN	0.7772
UN(2,1)	SUBJIDN	0.4781
UN(2,2)	SUBJIDN	0.6267
UN(3,1)	SUBJIDN	0.2414
UN(3,2)	SUBJIDN	0.2905
UN(3,3)	SUBJIDN	0.2567

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(4,1)	SUBJIDN	0.1868
UN(4,2)	SUBJIDN	0.2242
UN(4,3)	SUBJIDN	0.1859
UN(4,4)	SUBJIDN	0.3310
UN(5,1)	SUBJIDN	0.1369
UN(5,2)	SUBJIDN	0.2112
UN(5,3)	SUBJIDN	0.1627
UN(5,4)	SUBJIDN	0.2295
UN(5,5)	SUBJIDN	0.6881

## Fit Statistics

-2 Res Log Likelihood	1038.3
AIC (smaller is better)	1068.3
AICC (smaller is better)	1069.1
BIC (smaller is better)	1110.1

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Null Model Likelihood Ratio Test

DF	Chi-Square	Pr > ChiSq
14	302.42	<.0001

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASE	1	115	102.37	<.0001
SEXN	1	115	3.29	0.0721
UCPDGR1N	1	115	0.49	0.4856
TRTAN	1	115	5.57	0.0200
AVISITN	4	115	3.94	0.0049
TRTAN*AVISITN	4	115	1.31	0.2711

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha
TRTAN	THS 2.2		0.1498	0.06145	115	2.44	0.0163	0.05
TRTAN	CC		-0.09987	0.08546	115	-1.17	0.2450	0.05
TRTAN*AVISITN	THS 2.2	Day 1	0.3993	0.09934	115	4.02	0.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 2	0.1841	0.08924	115	2.06	0.0413	0.05
TRTAN*AVISITN	THS 2.2	Day 3	0.03132	0.05745	115	0.55	0.5867	0.05
TRTAN*AVISITN	THS 2.2	Day 4	-0.01970	0.06528	115	-0.30	0.7634	0.05
TRTAN*AVISITN	THS 2.2	Day 5	0.1537	0.09403	115	1.63	0.1048	0.05
TRTAN*AVISITN	CC	Day 1	-0.07548	0.1381	115	-0.55	0.5857	0.05
TRTAN*AVISITN	CC	Day 2	-0.05109	0.1241	115	-0.41	0.6813	0.05
TRTAN*AVISITN	CC	Day 3	-0.1730	0.07981	115	-2.17	0.0322	0.05
TRTAN*AVISITN	CC	Day 4	-0.1487	0.09045	115	-1.64	0.1030	0.05
TRTAN*AVISITN	CC	Day 5	-0.05109	0.1300	115	-0.39	0.6950	0.05

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Lower	Upper
TRTAN	THS 2.2		0.02806	0.2715
TRTAN	CC		-0.2692	0.06941
TRTAN*AVISITN	THS 2.2	Day 1	0.2026	0.5961
TRTAN*AVISITN	THS 2.2	Day 2	0.007380	0.3609
TRTAN*AVISITN	THS 2.2	Day 3	-0.08248	0.1451
TRTAN*AVISITN	THS 2.2	Day 4	-0.1490	0.1096
TRTAN*AVISITN	THS 2.2	Day 5	-0.03252	0.3400
TRTAN*AVISITN	CC	Day 1	-0.3490	0.1980
TRTAN*AVISITN	CC	Day 2	-0.2969	0.1947
TRTAN*AVISITN	CC	Day 3	-0.3311	-0.01495
TRTAN*AVISITN	CC	Day 4	-0.3278	0.03052
TRTAN*AVISITN	CC	Day 5	-0.3085	0.2064

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN	THS 2.2		CC		0.2496	0.1058	115	2.36	0.0200
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	0.2152	0.07527	115	2.86	0.0050
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	0.3680	0.08365	115	4.40	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	0.4190	0.09664	115	4.34	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	0.2456	0.1232	115	1.99	0.0486
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	0.4748	0.1704	115	2.79	0.0062
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	0.4504	0.1593	115	2.83	0.0055
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	0.5724	0.1279	115	4.48	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	0.5480	0.1348	115	4.07	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	0.4504	0.1639	115	2.75	0.0070
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.1528	0.06202	115	2.46	0.0152
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.2038	0.08054	115	2.53	0.0127
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.03040	0.1068	115	0.28	0.7763
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	0.2596	0.1647	115	1.58	0.1178
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	0.2352	0.1532	115	1.54	0.1274
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	0.3572	0.1202	115	2.97	0.0036
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	0.3328	0.1275	115	2.61	0.0102

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN	THS 2.2		CC		0.05	0.04012	0.4592
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	0.05	0.06609	0.3643
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	0.05	0.2023	0.5337
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	0.05	0.2276	0.6104
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	0.05	0.001530	0.4897
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	0.05	0.1373	0.8124
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	0.05	0.1349	0.7659
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	0.05	0.3191	0.8256
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	0.05	0.2811	0.8149
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	0.05	0.1257	0.7751
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.05	0.02997	0.2757
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.05	0.04431	0.3634
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.05	-0.1811	0.2419
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	0.05	-0.06667	0.5859
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	0.05	-0.06818	0.5387
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	0.05	0.1192	0.5952
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	0.05	0.08027	0.5853

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	0.2352	0.1580	115	1.49	0.1393
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	0.05102	0.05260	115	0.97	0.3342
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	-0.1224	0.08910	115	-1.37	0.1721
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	0.1068	0.1499	115	0.71	0.4777
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	0.08241	0.1371	115	0.60	0.5490
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	0.2044	0.09890	115	2.07	0.0410
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	0.1800	0.1077	115	1.67	0.0973
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	0.08241	0.1425	115	0.58	0.5641
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	-0.1734	0.08473	115	-2.05	0.0429
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	0.05578	0.1531	115	0.36	0.7162
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	0.03139	0.1406	115	0.22	0.8237
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	0.1533	0.1036	115	1.48	0.1418
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	0.1290	0.1120	115	1.15	0.2522
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	0.03139	0.1458	115	0.22	0.8299
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	0.2292	0.1674	115	1.37	0.1735
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	0.2048	0.1560	115	1.31	0.1919
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	0.3268	0.1238	115	2.64	0.0094



**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	0.05	-0.07772	0.5482
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	0.05	-0.05318	0.1552
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	0.05	-0.2989	0.05407
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	0.05	-0.1902	0.4038
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	0.05	-0.1892	0.3540
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	0.05	0.008459	0.4003
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	0.05	-0.03330	0.3932
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	0.05	-0.1998	0.3647
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	0.05	-0.3413	-0.00561
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	0.05	-0.2475	0.3590
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	0.05	-0.2471	0.3099
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	0.05	-0.05197	0.3587
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	0.05	-0.09299	0.3509
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	0.05	-0.2575	0.3202
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	0.05	-0.1023	0.5608
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	0.05	-0.1042	0.5139
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	0.05	0.08158	0.5720

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	0.3024	0.1309	115	2.31	0.0227
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	0.2048	0.1608	115	1.27	0.2052
TRTAN*AVISITN	CC	Day 1	CC	Day 2	-0.02439	0.1045	115	-0.23	0.8158
TRTAN*AVISITN	CC	Day 1	CC	Day 3	0.09756	0.1159	115	0.84	0.4018
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.07317	0.1338	115	0.55	0.5857
TRTAN*AVISITN	CC	Day 1	CC	Day 5	-0.02439	0.1705	115	-0.14	0.8865
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.1220	0.08587	115	1.42	0.1583
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.09756	0.1114	115	0.88	0.3832
TRTAN*AVISITN	CC	Day 2	CC	Day 5	1.18E-14	0.1475	115	0.00	1.0000
TRTAN*AVISITN	CC	Day 3	CC	Day 4	-0.02439	0.07257	115	-0.34	0.7374
TRTAN*AVISITN	CC	Day 3	CC	Day 5	-0.1220	0.1229	115	-0.99	0.3232
TRTAN*AVISITN	CC	Day 4	CC	Day 5	-0.09756	0.1169	115	-0.83	0.4056

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Aversion Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	0.05	0.04311	0.5617
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	0.05	-0.1136	0.5233
TRTAN*AVISITN	CC	Day 1	CC	Day 2	0.05	-0.2314	0.1826
TRTAN*AVISITN	CC	Day 1	CC	Day 3	0.05	-0.1321	0.3272
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.05	-0.1920	0.3383
TRTAN*AVISITN	CC	Day 1	CC	Day 5	0.05	-0.3621	0.3133
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.05	-0.04814	0.2920
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.05	-0.1232	0.3183
TRTAN*AVISITN	CC	Day 2	CC	Day 5	0.05	-0.2922	0.2922
TRTAN*AVISITN	CC	Day 3	CC	Day 4	0.05	-0.1681	0.1194
TRTAN*AVISITN	CC	Day 3	CC	Day 5	0.05	-0.3654	0.1215
TRTAN*AVISITN	CC	Day 4	CC	Day 5	0.05	-0.3291	0.1339



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**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Model Information

Data Set	WORK.ADQSPA
Dependent Variable	CHG
Covariance Structure	Unstructured
Subject Effect	SUBJIDN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Between-Within

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Class Level Information

Class	Levels	Values
SUBJIDN	120	1 4 8 11 14 16 20 21 22 25 29 30 31 34 35 37 38 39 42 44 53 55 57 60 64 66 67 69 72 74 80 83 85 87 88 90 93 105 106 107 110 112 117 118 121 122 126 129 130 134 136 139 140 147 148 149 152 153 155 156 160 162 167 170 177 181 183 187 189 190 191 192 193 195 196 198 200 202 204 206 210 216 220 224 228 229 230 232 234 241 244 255 256 262 264 272 276 277 278 279 281 282 283 285 287 291 296 298 300 301 307 308 313 315 316 318 320 321 322 328
SEXN	2	Male Female
UCPDGR1N	2	10-19 cig/day >19 cig/day
TRTAN	2	THS 2.2 CC



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**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Class Level Information

Class	Levels	Values
AVISITN	5	Day 1 Day 2 Day 3 Day 4 Day 5

## Dimensions

Covariance Parameters	15
Columns in X	23
Columns in Z	0
Subjects	120
Max Obs Per Subject	5

## Number of Observations

Number of Observations Read	597
Number of Observations Used	597
Number of Observations Not Used	0

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	2169.40665436	
1	2	1908.72089704	0.00000001
2	1	1908.72089122	0.00000000

Convergence criteria met.

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(1,1)	SUBJIDN	2.0534
UN(2,1)	SUBJIDN	1.1473
UN(2,2)	SUBJIDN	2.3650
UN(3,1)	SUBJIDN	1.0844
UN(3,2)	SUBJIDN	1.2817
UN(3,3)	SUBJIDN	1.8812
UN(4,1)	SUBJIDN	0.9059

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(4,2)	SUBJIDN	1.1829
UN(4,3)	SUBJIDN	1.3360
UN(4,4)	SUBJIDN	2.3555
UN(5,1)	SUBJIDN	1.1331
UN(5,2)	SUBJIDN	1.4012
UN(5,3)	SUBJIDN	1.2894
UN(5,4)	SUBJIDN	1.4792
UN(5,5)	SUBJIDN	2.3581

## Fit Statistics

-2 Res Log Likelihood	1908.7
AIC (smaller is better)	1938.7
AICC (smaller is better)	1939.6
BIC (smaller is better)	1980.5



**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Null Model Likelihood Ratio Test

DF	Chi-Square	Pr > ChiSq
14	260.69	<.0001

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASE	1	115	46.40	<.0001
SEXN	1	115	1.86	0.1757
UCPDGR1N	1	115	0.69	0.4072
TRTAN	1	115	23.92	<.0001
AVISITN	4	115	1.38	0.2464
TRTAN*AVISITN	4	115	0.67	0.6140

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha
TRTAN	THS 2.2		-1.5350	0.1344	115	-11.42	<.0001	0.05
TRTAN	CC		-0.4116	0.1862	115	-2.21	0.0290	0.05
TRTAN*AVISITN	THS 2.2	Day 1	-1.6202	0.1613	115	-10.04	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 2	-1.3164	0.1731	115	-7.60	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 3	-1.5620	0.1550	115	-10.08	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 4	-1.6659	0.1735	115	-9.60	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 5	-1.5103	0.1735	115	-8.70	<.0001	0.05
TRTAN*AVISITN	CC	Day 1	-0.3336	0.2239	115	-1.49	0.1390	0.05
TRTAN*AVISITN	CC	Day 2	-0.3824	0.2403	115	-1.59	0.1142	0.05
TRTAN*AVISITN	CC	Day 3	-0.5287	0.2143	115	-2.47	0.0151	0.05
TRTAN*AVISITN	CC	Day 4	-0.5775	0.2398	115	-2.41	0.0176	0.05
TRTAN*AVISITN	CC	Day 5	-0.2360	0.2399	115	-0.98	0.3273	0.05

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Lower	Upper
TRTAN	THS 2.2		-1.8011	-1.2688
TRTAN	CC		-0.7805	-0.04281
TRTAN*AVISITN	THS 2.2	Day 1	-1.9398	-1.3006
TRTAN*AVISITN	THS 2.2	Day 2	-1.6593	-0.9735
TRTAN*AVISITN	THS 2.2	Day 3	-1.8690	-1.2551
TRTAN*AVISITN	THS 2.2	Day 4	-2.0096	-1.3221
TRTAN*AVISITN	THS 2.2	Day 5	-1.8539	-1.1666
TRTAN*AVISITN	CC	Day 1	-0.7771	0.1099
TRTAN*AVISITN	CC	Day 2	-0.8583	0.09354
TRTAN*AVISITN	CC	Day 3	-0.9532	-0.1042
TRTAN*AVISITN	CC	Day 4	-1.0525	-0.1025
TRTAN*AVISITN	CC	Day 5	-0.7112	0.2392

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN	THS 2.2		CC		-1.1233	0.2297	115	-4.89	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	-0.3038	0.1640	115	-1.85	0.0665
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	-0.05815	0.1501	115	-0.39	0.6991
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	0.04570	0.1821	115	0.25	0.8023
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	-0.1099	0.1655	115	-0.66	0.5078
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	-1.2866	0.2760	115	-4.66	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	-1.2378	0.2894	115	-4.28	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	-1.0915	0.2683	115	-4.07	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	-1.0427	0.2891	115	-3.61	0.0005
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	-1.3842	0.2892	115	-4.79	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.2456	0.1465	115	1.68	0.0964
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.3495	0.1734	115	2.02	0.0462
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.1939	0.1566	115	1.24	0.2184
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	-0.9828	0.2831	115	-3.47	0.0007
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	-0.9340	0.2962	115	-3.15	0.0021
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	-0.7877	0.2755	115	-2.86	0.0051
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	-0.7389	0.2958	115	-2.50	0.0139

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN	THS 2.2		CC		0.05	-1.5783	-0.6684
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	0.05	-0.6286	0.02098
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	0.05	-0.3554	0.2391
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	0.05	-0.3149	0.4064
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	0.05	-0.4377	0.2179
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	0.05	-1.8333	-0.7399
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	0.05	-1.8112	-0.6645
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	0.05	-1.6229	-0.5600
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	0.05	-1.6153	-0.4701
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	0.05	-1.9569	-0.8114
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.05	-0.04460	0.5359
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.05	0.005947	0.6931
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.05	-0.1164	0.5042
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	0.05	-1.5435	-0.4221
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	0.05	-1.5207	-0.3473
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	0.05	-1.3335	-0.2419
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	0.05	-1.3248	-0.1530

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	-1.0804	0.2959	115	-3.65	0.0004
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	0.1038	0.1416	115	0.73	0.4649
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	-0.05178	0.1459	115	-0.35	0.7233
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	-1.2285	0.2723	115	-4.51	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	-1.1797	0.2859	115	-4.13	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	-1.0333	0.2645	115	-3.91	0.0002
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	-0.9846	0.2855	115	-3.45	0.0008
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	-1.3260	0.2856	115	-4.64	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	-0.1556	0.1500	115	-1.04	0.3017
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	-1.3323	0.2833	115	-4.70	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	-1.2835	0.2964	115	-4.33	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	-1.1372	0.2758	115	-4.12	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	-1.0884	0.2960	115	-3.68	0.0004
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	-1.4299	0.2961	115	-4.83	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	-1.1767	0.2833	115	-4.15	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	-1.1279	0.2964	115	-3.81	0.0002
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	-0.9816	0.2758	115	-3.56	0.0005

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	0.05	-1.6665	-0.4942
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	0.05	-0.1767	0.3844
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	0.05	-0.3408	0.2372
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	0.05	-1.7679	-0.6890
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	0.05	-1.7461	-0.6133
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	0.05	-1.5573	-0.5094
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	0.05	-1.5501	-0.4190
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	0.05	-1.8918	-0.7602
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	0.05	-0.4527	0.1415
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	0.05	-1.8935	-0.7711
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	0.05	-1.8707	-0.6964
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	0.05	-1.6835	-0.5909
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	0.05	-1.6748	-0.5020
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	0.05	-2.0165	-0.8433
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	0.05	-1.7378	-0.6155
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	0.05	-1.7150	-0.5408
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	0.05	-1.5278	-0.4353

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	-0.9328	0.2960	115	-3.15	0.0021
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	-1.2742	0.2961	115	-4.30	<.0001
TRTAN*AVISITN	CC	Day 1	CC	Day 2	0.04878	0.2276	115	0.21	0.8307
TRTAN*AVISITN	CC	Day 1	CC	Day 3	0.1951	0.2075	115	0.94	0.3491
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.2439	0.2517	115	0.97	0.3345
TRTAN*AVISITN	CC	Day 1	CC	Day 5	-0.09756	0.2287	115	-0.43	0.6705
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.1463	0.2026	115	0.72	0.4715
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.1951	0.2396	115	0.81	0.4172
TRTAN*AVISITN	CC	Day 2	CC	Day 5	-0.1463	0.2164	115	-0.68	0.5003
TRTAN*AVISITN	CC	Day 3	CC	Day 4	0.04878	0.1954	115	0.25	0.8033
TRTAN*AVISITN	CC	Day 3	CC	Day 5	-0.2927	0.2012	115	-1.45	0.1486
TRTAN*AVISITN	CC	Day 4	CC	Day 5	-0.3415	0.2069	115	-1.65	0.1016



**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Craving Reduction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	0.05	-1.5191	-0.3464
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	0.05	-1.8608	-0.6877
TRTAN*AVISITN	CC	Day 1	CC	Day 2	0.05	-0.4020	0.4996
TRTAN*AVISITN	CC	Day 1	CC	Day 3	0.05	-0.2160	0.6062
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.05	-0.2546	0.7424
TRTAN*AVISITN	CC	Day 1	CC	Day 5	0.05	-0.5507	0.3555
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.05	-0.2550	0.5476
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.05	-0.2796	0.6698
TRTAN*AVISITN	CC	Day 2	CC	Day 5	0.05	-0.5751	0.2824
TRTAN*AVISITN	CC	Day 3	CC	Day 4	0.05	-0.3382	0.4357
TRTAN*AVISITN	CC	Day 3	CC	Day 5	0.05	-0.6913	0.1059
TRTAN*AVISITN	CC	Day 4	CC	Day 5	0.05	-0.7513	0.06838

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Enjoyment of Respiratory Tract Sensation Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Model Information

Data Set	WORK.ADQSPA
Dependent Variable	CHG
Covariance Structure	Unstructured
Subject Effect	SUBJIDN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Between-Within

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Enjoyment of Respiratory Tract Sensation Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Class Level Information

Class	Levels	Values
SUBJIDN	120	1 4 8 11 14 16 20 21 22 25 29 30 31 34 35 37 38 39 42 44 53 55 57 60 64 66 67 69 72 74 80 83 85 87 88 90 93 105 106 107 110 112 117 118 121 122 126 129 130 134 136 139 140 147 148 149 152 153 155 156 160 162 167 170 177 181 183 187 189 190 191 192 193 195 196 198 200 202 204 206 210 216 220 224 228 229 230 232 234 241 244 255 256 262 264 272 276 277 278 279 281 282 283 285 287 291 296 298 300 301 307 308 313 315 316 318 320 321 322 328
SEXN	2	Male Female
UCPDGR1N	2	10-19 cig/day >19 cig/day
TRTAN	2	THS 2.2 CC

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Enjoyment of Respiratory Tract Sensation Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Class Level Information

Class	Levels	Values
AVISITN	5	Day 1 Day 2 Day 3 Day 4 Day 5

## Dimensions

Covariance Parameters	15
Columns in X	23
Columns in Z	0
Subjects	120
Max Obs Per Subject	5

## Number of Observations

Number of Observations Read	597
Number of Observations Used	597
Number of Observations Not Used	0

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Enjoyment of Respiratory Tract Sensation Subscale  
Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	1944.85810601	
1	2	1740.47177045	0.00000000

Convergence criteria met.

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(1,1)	SUBJIDN	1.6447
UN(2,1)	SUBJIDN	0.6520
UN(2,2)	SUBJIDN	1.5510
UN(3,1)	SUBJIDN	0.5615
UN(3,2)	SUBJIDN	0.6384
UN(3,3)	SUBJIDN	1.2268
UN(4,1)	SUBJIDN	0.5167
UN(4,2)	SUBJIDN	0.6658



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**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Enjoyment of Respiratory Tract Sensation Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(4,3)	SUBJIDN	0.9402
UN(4,4)	SUBJIDN	1.5401
UN(5,1)	SUBJIDN	0.6528
UN(5,2)	SUBJIDN	0.6073
UN(5,3)	SUBJIDN	0.8090
UN(5,4)	SUBJIDN	0.8752
UN(5,5)	SUBJIDN	1.5073

## Fit Statistics

-2 Res Log Likelihood	1740.5
AIC (smaller is better)	1770.5
AICC (smaller is better)	1771.3
BIC (smaller is better)	1812.3

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Enjoyment of Respiratory Tract Sensation Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Null Model Likelihood Ratio Test

DF	Chi-Square	Pr > ChiSq
14	204.39	<.0001

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASE	1	115	71.85	<.0001
SEXN	1	115	0.99	0.3222
UCPDGR1N	1	115	1.46	0.2292
TRTAN	1	115	31.33	<.0001
AVISITN	4	115	2.65	0.0368
TRTAN*AVISITN	4	115	1.15	0.3351

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Enjoyment of Respiratory Tract Sensation Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha
TRTAN	THS 2.2		-1.2263	0.1042	115	-11.76	<.0001	0.05
TRTAN	CC		-0.2272	0.1446	115	-1.57	0.1189	0.05
TRTAN*AVISITN	THS 2.2	Day 1	-1.4333	0.1444	115	-9.92	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 2	-1.0409	0.1403	115	-7.42	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 3	-1.3474	0.1253	115	-10.75	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 4	-1.1553	0.1405	115	-8.23	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 5	-1.1547	0.1389	115	-8.31	<.0001	0.05
TRTAN*AVISITN	CC	Day 1	-0.3052	0.2006	115	-1.52	0.1308	0.05
TRTAN*AVISITN	CC	Day 2	-0.1833	0.1948	115	-0.94	0.3487	0.05
TRTAN*AVISITN	CC	Day 3	-0.2808	0.1733	115	-1.62	0.1079	0.05
TRTAN*AVISITN	CC	Day 4	-0.3784	0.1941	115	-1.95	0.0537	0.05
TRTAN*AVISITN	CC	Day 5	0.01185	0.1920	115	0.06	0.9509	0.05



**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Enjoyment of Respiratory Tract Sensation Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Lower	Upper
TRTAN	THS 2.2		-1.4328	-1.0198
TRTAN	CC		-0.5135	0.05920
TRTAN*AVISITN	THS 2.2	Day 1	-1.7194	-1.1473
TRTAN*AVISITN	THS 2.2	Day 2	-1.3188	-0.7631
TRTAN*AVISITN	THS 2.2	Day 3	-1.5957	-1.0991
TRTAN*AVISITN	THS 2.2	Day 4	-1.4335	-0.8771
TRTAN*AVISITN	THS 2.2	Day 5	-1.4299	-0.8795
TRTAN*AVISITN	CC	Day 1	-0.7025	0.09208
TRTAN*AVISITN	CC	Day 2	-0.5691	0.2026
TRTAN*AVISITN	CC	Day 3	-0.6241	0.06246
TRTAN*AVISITN	CC	Day 4	-0.7629	0.006096
TRTAN*AVISITN	CC	Day 5	-0.3685	0.3922

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Enjoyment of Respiratory Tract Sensation Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN	THS 2.2		CC		-0.9992	0.1785	115	-5.60	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	-0.3924	0.1547	115	-2.54	0.0126
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	-0.08598	0.1493	115	-0.58	0.5657
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	-0.2781	0.1656	115	-1.68	0.0959
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	-0.2787	0.1535	115	-1.82	0.0721
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	-1.1281	0.2474	115	-4.56	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	-1.2501	0.2427	115	-5.15	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	-1.1525	0.2258	115	-5.10	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	-1.0550	0.2421	115	-4.36	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	-1.4452	0.2405	115	-6.01	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.3064	0.1384	115	2.21	0.0288
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.1143	0.1499	115	0.76	0.4472
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.1137	0.1534	115	0.74	0.4598
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	-0.7357	0.2449	115	-3.00	0.0033
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	-0.8577	0.2402	115	-3.57	0.0005
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	-0.7601	0.2232	115	-3.41	0.0009
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	-0.6626	0.2397	115	-2.76	0.0066

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Enjoyment of Respiratory Tract Sensation Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN	THS 2.2		CC		0.05	-1.3528	-0.6455
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	0.05	-0.6989	-0.08588
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	0.05	-0.3816	0.2097
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	0.05	-0.6061	0.04999
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	0.05	-0.5827	0.02539
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	0.05	-1.6181	-0.6382
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	0.05	-1.7308	-0.7694
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	0.05	-1.5998	-0.7052
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	0.05	-1.5346	-0.5753
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	0.05	-1.9215	-0.9689
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.05	0.03234	0.5805
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.05	-0.1826	0.4112
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.05	-0.1901	0.4176
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	0.05	-1.2209	-0.2505
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	0.05	-1.3335	-0.3818
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	0.05	-1.2022	-0.3181
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	0.05	-1.1373	-0.1878

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Enjoyment of Respiratory Tract Sensation Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	-1.0528	0.2380	115	-4.42	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	-0.1921	0.1066	115	-1.80	0.0742
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	-0.1927	0.1196	115	-1.61	0.1100
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	-1.0422	0.2367	115	-4.40	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	-1.1641	0.2318	115	-5.02	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	-1.0665	0.2141	115	-4.98	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	-0.9690	0.2313	115	-4.19	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	-1.3592	0.2295	115	-5.92	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	-0.00058	0.1289	115	-0.00	0.9964
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	-0.8500	0.2451	115	-3.47	0.0007
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	-0.9720	0.2404	115	-4.04	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	-0.8744	0.2233	115	-3.92	0.0002
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	-0.7769	0.2398	115	-3.24	0.0016
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	-1.1671	0.2381	115	-4.90	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	-0.8495	0.2442	115	-3.48	0.0007
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	-0.9714	0.2395	115	-4.06	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	-0.8739	0.2224	115	-3.93	0.0001

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Enjoyment of Respiratory Tract Sensation Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	0.05	-1.5242	-0.5814
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	0.05	-0.4033	0.01906
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	0.05	-0.4296	0.04426
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	0.05	-1.5111	-0.5732
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	0.05	-1.6234	-0.7049
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	0.05	-1.4907	-0.6424
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	0.05	-1.4271	-0.5109
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	0.05	-1.8139	-0.9045
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	0.05	-0.2560	0.2548
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	0.05	-1.3355	-0.3646
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	0.05	-1.4481	-0.4959
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	0.05	-1.3168	-0.4321
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	0.05	-1.2519	-0.3019
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	0.05	-1.6388	-0.6954
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	0.05	-1.3332	-0.3658
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	0.05	-1.4458	-0.4971
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	0.05	-1.3143	-0.4334

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Enjoyment of Respiratory Tract Sensation Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	-0.7763	0.2389	115	-3.25	0.0015
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	-1.1665	0.2372	115	-4.92	<.0001
TRTAN*AVISITN	CC	Day 1	CC	Day 2	-0.1220	0.2148	115	-0.57	0.5713
TRTAN*AVISITN	CC	Day 1	CC	Day 3	-0.02439	0.2065	115	-0.12	0.9062
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.07317	0.2291	115	0.32	0.7500
TRTAN*AVISITN	CC	Day 1	CC	Day 5	-0.3171	0.2122	115	-1.49	0.1379
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.09756	0.1913	115	0.51	0.6111
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.1951	0.2072	115	0.94	0.3482
TRTAN*AVISITN	CC	Day 2	CC	Day 5	-0.1951	0.2121	115	-0.92	0.3594
TRTAN*AVISITN	CC	Day 3	CC	Day 4	0.09756	0.1470	115	0.66	0.5084
TRTAN*AVISITN	CC	Day 3	CC	Day 5	-0.2927	0.1650	115	-1.77	0.0787
TRTAN*AVISITN	CC	Day 4	CC	Day 5	-0.3902	0.1779	115	-2.19	0.0302

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Enjoyment of Respiratory Tract Sensation Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	0.05	-1.2495	-0.3031
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	0.05	-1.6365	-0.6966
TRTAN*AVISITN	CC	Day 1	CC	Day 2	0.05	-0.5474	0.3035
TRTAN*AVISITN	CC	Day 1	CC	Day 3	0.05	-0.4335	0.3847
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.05	-0.3806	0.5269
TRTAN*AVISITN	CC	Day 1	CC	Day 5	0.05	-0.7374	0.1033
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.05	-0.2814	0.4766
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.05	-0.2152	0.6054
TRTAN*AVISITN	CC	Day 2	CC	Day 5	0.05	-0.6152	0.2249
TRTAN*AVISITN	CC	Day 3	CC	Day 4	0.05	-0.1937	0.3888
TRTAN*AVISITN	CC	Day 3	CC	Day 5	0.05	-0.6195	0.03414
TRTAN*AVISITN	CC	Day 4	CC	Day 5	0.05	-0.7425	-0.03795



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**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Psychological Reward Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Model Information

Data Set	WORK.ADQSPA
Dependent Variable	CHG
Covariance Structure	Unstructured
Subject Effect	SUBJIDN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Between-Within



**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Psychological Reward Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Class Level Information

Class	Levels	Values
SUBJIDN	120	1 4 8 11 14 16 20 21 22 25 29 30 31 34 35 37 38 39 42 44 53 55 57 60 64 66 67 69 72 74 80 83 85 87 88 90 93 105 106 107 110 112 117 118 121 122 126 129 130 134 136 139 140 147 148 149 152 153 155 156 160 162 167 170 177 181 183 187 189 190 191 192 193 195 196 198 200 202 204 206 210 216 220 224 228 229 230 232 234 241 244 255 256 262 264 272 276 277 278 279 281 282 283 285 287 291 296 298 300 301 307 308 313 315 316 318 320 321 322 328
SEXN	2	Male Female
UCPDGR1N	2	10-19 cig/day >19 cig/day
TRTAN	2	THS 2.2 CC



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**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Psychological Reward Subscale  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqspa: fasfl='Y'

## Class Level Information

Class	Levels	Values
AVISITN	5	Day 1 Day 2 Day 3 Day 4 Day 5

## Dimensions

Covariance Parameters	15
Columns in X	23
Columns in Z	0
Subjects	120
Max Obs Per Subject	5

## Number of Observations

Number of Observations Read	597
Number of Observations Used	597
Number of Observations Not Used	0

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Psychological Reward Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	1721.24965642	
1	2	1300.27056009	0.00000045
2	1	1300.27050946	0.00000000

Convergence criteria met.

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(1,1)	SUBJIDN	0.8850
UN(2,1)	SUBJIDN	0.6974
UN(2,2)	SUBJIDN	1.1024
UN(3,1)	SUBJIDN	0.5546
UN(3,2)	SUBJIDN	0.8419
UN(3,3)	SUBJIDN	1.0298
UN(4,1)	SUBJIDN	0.5702

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Psychological Reward Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(4,2)	SUBJIDN	0.7010
UN(4,3)	SUBJIDN	0.8077
UN(4,4)	SUBJIDN	1.0243
UN(5,1)	SUBJIDN	0.5579
UN(5,2)	SUBJIDN	0.6983
UN(5,3)	SUBJIDN	0.6739
UN(5,4)	SUBJIDN	0.7637
UN(5,5)	SUBJIDN	1.0679

## Fit Statistics

-2 Res Log Likelihood	1300.3
AIC (smaller is better)	1330.3
AICC (smaller is better)	1331.1
BIC (smaller is better)	1372.1

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Psychological Reward Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Null Model Likelihood Ratio Test

DF	Chi-Square	Pr > ChiSq
14	420.98	<.0001

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASE	1	115	26.06	<.0001
SEXN	1	115	2.01	0.1587
UCPDGR1N	1	115	0.18	0.6689
TRTAN	1	115	18.60	<.0001
AVISITN	4	115	3.60	0.0084
TRTAN*AVISITN	4	115	1.09	0.3651

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Psychological Reward Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha
TRTAN	THS 2.2		-1.1286	0.09795	115	-11.52	<.0001	0.05
TRTAN	CC		-0.4051	0.1359	115	-2.98	0.0035	0.05
TRTAN*AVISITN	THS 2.2	Day 1	-1.0969	0.1060	115	-10.35	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 2	-0.9830	0.1183	115	-8.31	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 3	-1.1175	0.1146	115	-9.75	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 4	-1.1972	0.1144	115	-10.46	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 5	-1.2486	0.1168	115	-10.69	<.0001	0.05
TRTAN*AVISITN	CC	Day 1	-0.2949	0.1472	115	-2.00	0.0475	0.05
TRTAN*AVISITN	CC	Day 2	-0.2363	0.1642	115	-1.44	0.1529	0.05
TRTAN*AVISITN	CC	Day 3	-0.5583	0.1588	115	-3.52	0.0006	0.05
TRTAN*AVISITN	CC	Day 4	-0.5534	0.1583	115	-3.50	0.0007	0.05
TRTAN*AVISITN	CC	Day 5	-0.3827	0.1617	115	-2.37	0.0196	0.05

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Psychological Reward Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Lower	Upper
TRTAN	THS 2.2		-1.3227	-0.9346
TRTAN	CC		-0.6743	-0.1359
TRTAN*AVISITN	THS 2.2	Day 1	-1.3069	-0.8869
TRTAN*AVISITN	THS 2.2	Day 2	-1.2173	-0.7487
TRTAN*AVISITN	THS 2.2	Day 3	-1.3445	-0.8905
TRTAN*AVISITN	THS 2.2	Day 4	-1.4238	-0.9706
TRTAN*AVISITN	THS 2.2	Day 5	-1.4800	-1.0172
TRTAN*AVISITN	CC	Day 1	-0.5865	-0.00328
TRTAN*AVISITN	CC	Day 2	-0.5617	0.08898
TRTAN*AVISITN	CC	Day 3	-0.8728	-0.2438
TRTAN*AVISITN	CC	Day 4	-0.8671	-0.2398
TRTAN*AVISITN	CC	Day 5	-0.7029	-0.06247

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Psychological Reward Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN	THS 2.2		CC		-0.7235	0.1678	115	-4.31	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	-0.1139	0.08660	115	-1.32	0.1910
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	0.02059	0.1013	115	0.20	0.8393
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	0.1003	0.09910	115	1.01	0.3136
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	0.1518	0.1034	115	1.47	0.1449
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	-0.8020	0.1817	115	-4.41	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	-0.8606	0.1957	115	-4.40	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	-0.5386	0.1911	115	-2.82	0.0057
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	-0.5435	0.1908	115	-2.85	0.0052
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	-0.7142	0.1936	115	-3.69	0.0003
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.1345	0.07575	115	1.78	0.0784
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.2142	0.09624	115	2.23	0.0280
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.2657	0.09945	115	2.67	0.0087
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	-0.6881	0.1891	115	-3.64	0.0004
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	-0.7466	0.2026	115	-3.68	0.0004
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	-0.4247	0.1982	115	-2.14	0.0343
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	-0.4296	0.1979	115	-2.17	0.0320



**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Psychological Reward Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN	THS 2.2		CC		0.05	-1.0559	-0.3912
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	0.05	-0.2855	0.05762
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	0.05	-0.1801	0.2212
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	0.05	-0.09599	0.2966
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	0.05	-0.05307	0.3566
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	0.05	-1.1618	-0.4422
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	0.05	-1.2482	-0.4729
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	0.05	-0.9172	-0.1600
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	0.05	-0.9214	-0.1656
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	0.05	-1.0976	-0.3308
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.05	-0.01554	0.2846
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.05	0.02359	0.4049
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.05	0.06868	0.4627
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	0.05	-1.0626	-0.3136
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	0.05	-1.1480	-0.3453
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	0.05	-0.8173	-0.03207
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	0.05	-0.8215	-0.03761

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Psychological Reward Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	-0.6003	0.2005	115	-2.99	0.0034
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	0.07971	0.07496	115	1.06	0.2898
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	0.1312	0.09802	115	1.34	0.1835
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	-0.8226	0.1868	115	-4.40	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	-0.8811	0.2005	115	-4.40	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	-0.5592	0.1960	115	-2.85	0.0051
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	-0.5641	0.1957	115	-2.88	0.0047
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	-0.7348	0.1984	115	-3.70	0.0003
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	0.05145	0.08509	115	0.60	0.5466
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	-0.9023	0.1867	115	-4.83	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	-0.9609	0.2004	115	-4.80	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	-0.6389	0.1959	115	-3.26	0.0015
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	-0.6438	0.1956	115	-3.29	0.0013
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	-0.8145	0.1983	115	-4.11	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	-0.9538	0.1882	115	-5.07	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	-1.0123	0.2018	115	-5.02	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	-0.6904	0.1973	115	-3.50	0.0007

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Psychological Reward Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	0.05	-0.9975	-0.2031
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	0.05	-0.06877	0.2282
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	0.05	-0.06299	0.3253
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	0.05	-1.1926	-0.4526
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	0.05	-1.2782	-0.4840
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	0.05	-0.9474	-0.1709
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	0.05	-0.9516	-0.1765
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	0.05	-1.1277	-0.3419
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	0.05	-0.1171	0.2200
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	0.05	-1.2721	-0.5326
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	0.05	-1.3577	-0.5640
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	0.05	-1.0269	-0.2509
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	0.05	-1.0311	-0.2564
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	0.05	-1.2072	-0.4218
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	0.05	-1.3265	-0.5811
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	0.05	-1.4119	-0.6127
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	0.05	-1.0812	-0.2995

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Psychological Reward Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	-0.6952	0.1970	115	-3.53	0.0006
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	-0.8660	0.1997	115	-4.34	<.0001
TRTAN*AVISITN	CC	Day 1	CC	Day 2	-0.05854	0.1202	115	-0.49	0.6272
TRTAN*AVISITN	CC	Day 1	CC	Day 3	0.2634	0.1402	115	1.88	0.0627
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.2585	0.1369	115	1.89	0.0615
TRTAN*AVISITN	CC	Day 1	CC	Day 5	0.08780	0.1429	115	0.61	0.5401
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.3220	0.1046	115	3.08	0.0026
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.3171	0.1330	115	2.38	0.0187
TRTAN*AVISITN	CC	Day 2	CC	Day 5	0.1463	0.1374	115	1.07	0.2890
TRTAN*AVISITN	CC	Day 3	CC	Day 4	-0.00488	0.1035	115	-0.05	0.9625
TRTAN*AVISITN	CC	Day 3	CC	Day 5	-0.1756	0.1352	115	-1.30	0.1967
TRTAN*AVISITN	CC	Day 4	CC	Day 5	-0.1707	0.1174	115	-1.45	0.1485

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Psychological Reward Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	0.05	-1.0854	-0.3051
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	0.05	-1.2614	-0.4705
TRTAN*AVISITN	CC	Day 1	CC	Day 2	0.05	-0.2967	0.1796
TRTAN*AVISITN	CC	Day 1	CC	Day 3	0.05	-0.01424	0.5411
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.05	-0.01271	0.5298
TRTAN*AVISITN	CC	Day 1	CC	Day 5	0.05	-0.1952	0.3708
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.05	0.1148	0.5291
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.05	0.05371	0.5804
TRTAN*AVISITN	CC	Day 2	CC	Day 5	0.05	-0.1258	0.4185
TRTAN*AVISITN	CC	Day 3	CC	Day 4	0.05	-0.2098	0.2001
TRTAN*AVISITN	CC	Day 3	CC	Day 5	0.05	-0.4435	0.09228
TRTAN*AVISITN	CC	Day 4	CC	Day 5	0.05	-0.4032	0.06175

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Smoking Satisfaction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Model Information

Data Set	WORK.ADQSPA
Dependent Variable	CHG
Covariance Structure	Unstructured
Subject Effect	SUBJIDN
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Between-Within

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Smoking Satisfaction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Class Level Information

Class	Levels	Values
SUBJIDN	120	1 4 8 11 14 16 20 21 22 25 29 30 31 34 35 37 38 39 42 44 53 55 57 60 64 66 67 69 72 74 80 83 85 87 88 90 93 105 106 107 110 112 117 118 121 122 126 129 130 134 136 139 140 147 148 149 152 153 155 156 160 162 167 170 177 181 183 187 189 190 191 192 193 195 196 198 200 202 204 206 210 216 220 224 228 229 230 232 234 241 244 255 256 262 264 272 276 277 278 279 281 282 283 285 287 291 296 298 300 301 307 308 313 315 316 318 320 321 322 328
SEXN	2	Male Female
UCPDGR1N	2	10-19 cig/day >19 cig/day
TRTAN	2	THS 2.2 CC



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**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Smoking Satisfaction Subscale  
Proc Mixed Procedure  
The where clause used on the dataset adam.adqspa: fasfl='Y'

## Class Level Information

Class	Levels	Values
AVISITN	5	Day 1 Day 2 Day 3 Day 4 Day 5

## Dimensions

Covariance Parameters	15
Columns in X	23
Columns in Z	0
Subjects	120
Max Obs Per Subject	5

## Number of Observations

Number of Observations Read	597
Number of Observations Used	597
Number of Observations Not Used	0



**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Smoking Satisfaction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	1940.30094694	
1	2	1450.95756254	0.00000038
2	1	1450.95749135	0.00000000

Convergence criteria met.

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(1,1)	SUBJIDN	1.4931
UN(2,1)	SUBJIDN	0.9969
UN(2,2)	SUBJIDN	1.3832
UN(3,1)	SUBJIDN	0.9427
UN(3,2)	SUBJIDN	1.1773
UN(3,3)	SUBJIDN	1.5773
UN(4,1)	SUBJIDN	0.8927

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Smoking Satisfaction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Covariance Parameter Estimates

Cov Parm	Subject	Estimate
UN(4,2)	SUBJIDN	1.0725
UN(4,3)	SUBJIDN	1.2529
UN(4,4)	SUBJIDN	1.4406
UN(5,1)	SUBJIDN	0.9884
UN(5,2)	SUBJIDN	0.9458
UN(5,3)	SUBJIDN	1.1857
UN(5,4)	SUBJIDN	1.2069
UN(5,5)	SUBJIDN	1.5584

## Fit Statistics

-2 Res Log Likelihood	1451.0
AIC (smaller is better)	1481.0
AICC (smaller is better)	1481.8
BIC (smaller is better)	1522.8

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Smoking Satisfaction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Null Model Likelihood Ratio Test

DF	Chi-Square	Pr > ChiSq
14	489.34	<.0001

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASE	1	115	11.04	0.0012
SEXN	1	115	0.57	0.4521
UCPDGR1N	1	115	1.15	0.2851
TRTAN	1	115	37.14	<.0001
AVISITN	4	115	3.87	0.0055
TRTAN*AVISITN	4	115	1.12	0.3501

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Smoking Satisfaction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha
TRTAN	THS 2.2		-1.5097	0.1209	115	-12.48	<.0001	0.05
TRTAN	CC		-0.2489	0.1677	115	-1.48	0.1406	0.05
TRTAN*AVISITN	THS 2.2	Day 1	-1.8090	0.1376	115	-13.15	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 2	-1.3685	0.1324	115	-10.33	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 3	-1.4990	0.1417	115	-10.58	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 4	-1.4294	0.1355	115	-10.55	<.0001	0.05
TRTAN*AVISITN	THS 2.2	Day 5	-1.4426	0.1410	115	-10.23	<.0001	0.05
TRTAN*AVISITN	CC	Day 1	-0.2699	0.1910	115	-1.41	0.1604	0.05
TRTAN*AVISITN	CC	Day 2	-0.1528	0.1838	115	-0.83	0.4076	0.05
TRTAN*AVISITN	CC	Day 3	-0.3162	0.1963	115	-1.61	0.1099	0.05
TRTAN*AVISITN	CC	Day 4	-0.3113	0.1876	115	-1.66	0.0997	0.05
TRTAN*AVISITN	CC	Day 5	-0.1943	0.1951	115	-1.00	0.3215	0.05

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Smoking Satisfaction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Lower	Upper
TRTAN	THS 2.2		-1.7493	-1.2702
TRTAN	CC		-0.5811	0.08335
TRTAN*AVISITN	THS 2.2	Day 1	-2.0815	-1.5365
TRTAN*AVISITN	THS 2.2	Day 2	-1.6308	-1.1062
TRTAN*AVISITN	THS 2.2	Day 3	-1.7797	-1.2183
TRTAN*AVISITN	THS 2.2	Day 4	-1.6978	-1.1610
TRTAN*AVISITN	THS 2.2	Day 5	-1.7219	-1.1633
TRTAN*AVISITN	CC	Day 1	-0.6482	0.1084
TRTAN*AVISITN	CC	Day 2	-0.5169	0.2114
TRTAN*AVISITN	CC	Day 3	-0.7050	0.07261
TRTAN*AVISITN	CC	Day 4	-0.6829	0.06028
TRTAN*AVISITN	CC	Day 5	-0.5807	0.1922

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Smoking Satisfaction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN	THS 2.2		CC		-1.2608	0.2069	115	-6.09	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	-0.4405	0.1057	115	-4.17	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	-0.3100	0.1229	115	-2.52	0.0130
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	-0.3796	0.1210	115	-3.14	0.0022
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	-0.3664	0.1172	115	-3.13	0.0022
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	-1.5391	0.2355	115	-6.54	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	-1.6562	0.2297	115	-7.21	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	-1.4928	0.2398	115	-6.23	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	-1.4977	0.2327	115	-6.44	<.0001
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	-1.6147	0.2388	115	-6.76	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.1305	0.08810	115	1.48	0.1413
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.06093	0.09322	115	0.65	0.5147
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.07412	0.1158	115	0.64	0.5236
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	-1.0986	0.2325	115	-4.73	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	-1.2157	0.2267	115	-5.36	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	-1.0523	0.2369	115	-4.44	<.0001
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	-1.0572	0.2297	115	-4.60	<.0001

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Smoking Satisfaction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN	THS 2.2		CC		0.05	-1.6706	-0.8510
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 2	0.05	-0.6499	-0.2311
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 3	0.05	-0.5533	-0.06665
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 4	0.05	-0.6192	-0.1400
TRTAN*AVISITN	THS 2.2	Day 1	THS 2.2	Day 5	0.05	-0.5985	-0.1343
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 1	0.05	-2.0056	-1.0727
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 2	0.05	-2.1112	-1.2012
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 3	0.05	-1.9678	-1.0178
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 4	0.05	-1.9587	-1.0367
TRTAN*AVISITN	THS 2.2	Day 1	CC	Day 5	0.05	-2.0878	-1.1417
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 3	0.05	-0.04400	0.3050
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 4	0.05	-0.1237	0.2456
TRTAN*AVISITN	THS 2.2	Day 2	THS 2.2	Day 5	0.05	-0.1554	0.3036
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 1	0.05	-1.5592	-0.6381
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 2	0.05	-1.6647	-0.7667
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 3	0.05	-1.5215	-0.5831
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 4	0.05	-1.5122	-0.6021

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Smoking Satisfaction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	-1.1742	0.2359	115	-4.98	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	-0.06958	0.08102	115	-0.86	0.3923
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	-0.05639	0.09892	115	-0.57	0.5697
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	-1.2291	0.2379	115	-5.17	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	-1.3462	0.2322	115	-5.80	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	-1.1828	0.2422	115	-4.88	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	-1.1877	0.2352	115	-5.05	<.0001
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	-1.3048	0.2412	115	-5.41	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	0.01319	0.08657	115	0.15	0.8792
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	-1.1596	0.2343	115	-4.95	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	-1.2766	0.2285	115	-5.59	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	-1.1132	0.2386	115	-4.67	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	-1.1181	0.2315	115	-4.83	<.0001
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	-1.2352	0.2376	115	-5.20	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	-1.1728	0.2375	115	-4.94	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	-1.2898	0.2318	115	-5.57	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	-1.1264	0.2418	115	-4.66	<.0001



**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Smoking Satisfaction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 2	CC	Day 5	0.05	-1.6415	-0.7070
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 4	0.05	-0.2301	0.09091
TRTAN*AVISITN	THS 2.2	Day 3	THS 2.2	Day 5	0.05	-0.2523	0.1395
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 1	0.05	-1.7004	-0.7579
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 2	0.05	-1.8062	-0.8863
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 3	0.05	-1.6625	-0.7031
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 4	0.05	-1.6536	-0.7218
TRTAN*AVISITN	THS 2.2	Day 3	CC	Day 5	0.05	-1.7826	-0.8269
TRTAN*AVISITN	THS 2.2	Day 4	THS 2.2	Day 5	0.05	-0.1583	0.1847
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 1	0.05	-1.6236	-0.6956
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 2	0.05	-1.7292	-0.8241
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 3	0.05	-1.5858	-0.6406
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 4	0.05	-1.5767	-0.6595
TRTAN*AVISITN	THS 2.2	Day 4	CC	Day 5	0.05	-1.7059	-0.7645
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 1	0.05	-1.6432	-0.7023
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 2	0.05	-1.7489	-0.8307
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 3	0.05	-1.6053	-0.6475

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Smoking Satisfaction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

Differences of Least Squares Means

Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Estimate	Standard Error	DF	t Value	Pr >  t
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	-1.1313	0.2348	115	-4.82	<.0001
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	-1.2484	0.2408	115	-5.18	<.0001
TRTAN*AVISITN	CC	Day 1	CC	Day 2	-0.1171	0.1467	115	-0.80	0.4266
TRTAN*AVISITN	CC	Day 1	CC	Day 3	0.04634	0.1700	115	0.27	0.7857
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.04146	0.1674	115	0.25	0.8048
TRTAN*AVISITN	CC	Day 1	CC	Day 5	-0.07561	0.1619	115	-0.47	0.6414
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.1634	0.1216	115	1.34	0.1815
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.1585	0.1287	115	1.23	0.2205
TRTAN*AVISITN	CC	Day 2	CC	Day 5	0.04146	0.1600	115	0.26	0.7960
TRTAN*AVISITN	CC	Day 3	CC	Day 4	-0.00488	0.1118	115	-0.04	0.9653
TRTAN*AVISITN	CC	Day 3	CC	Day 5	-0.1220	0.1365	115	-0.89	0.3737
TRTAN*AVISITN	CC	Day 4	CC	Day 5	-0.1171	0.1195	115	-0.98	0.3292

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Smoking Satisfaction Subscale

Proc Mixed Procedure

The where clause used on the dataset adam.adqspa: fasfl='Y'

## Differences of Least Squares Means

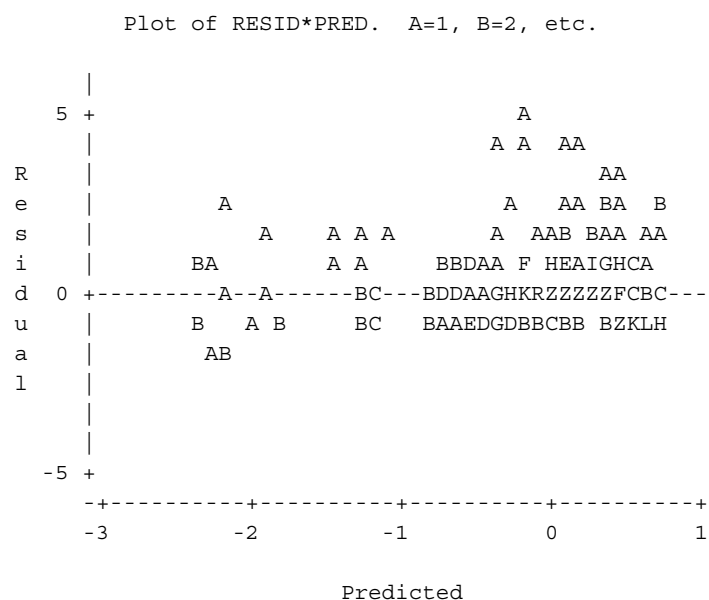
Effect	Actual Treatment (N)	Analysis Visit (N)	Actual Treatment (N)	Analysis Visit (N)	Alpha	Lower	Upper
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 4	0.05	-1.5963	-0.6663
TRTAN*AVISITN	THS 2.2	Day 5	CC	Day 5	0.05	-1.7254	-0.7714
TRTAN*AVISITN	CC	Day 1	CC	Day 2	0.05	-0.4077	0.1736
TRTAN*AVISITN	CC	Day 1	CC	Day 3	0.05	-0.2904	0.3831
TRTAN*AVISITN	CC	Day 1	CC	Day 4	0.05	-0.2900	0.3730
TRTAN*AVISITN	CC	Day 1	CC	Day 5	0.05	-0.3963	0.2451
TRTAN*AVISITN	CC	Day 2	CC	Day 3	0.05	-0.07739	0.4042
TRTAN*AVISITN	CC	Day 2	CC	Day 4	0.05	-0.09636	0.4134
TRTAN*AVISITN	CC	Day 2	CC	Day 5	0.05	-0.2755	0.3585
TRTAN*AVISITN	CC	Day 3	CC	Day 4	0.05	-0.2263	0.2165
TRTAN*AVISITN	CC	Day 3	CC	Day 5	0.05	-0.3924	0.1485
TRTAN*AVISITN	CC	Day 4	CC	Day 5	0.05	-0.3537	0.1196

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Aversion Subscale

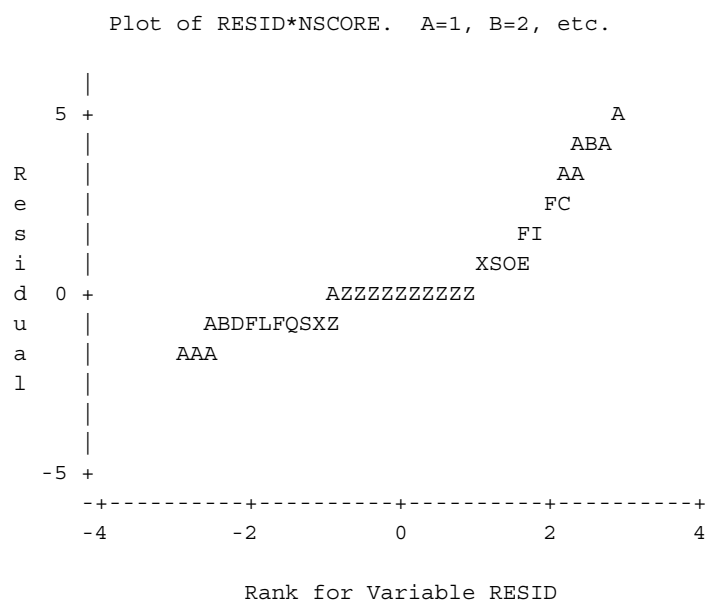
Residual Plots

The where clause used on the dataset adam.adqspa: fasfl='Y'



NOTE: 189 obs hidden.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



NOTE: 122 obs hidden.

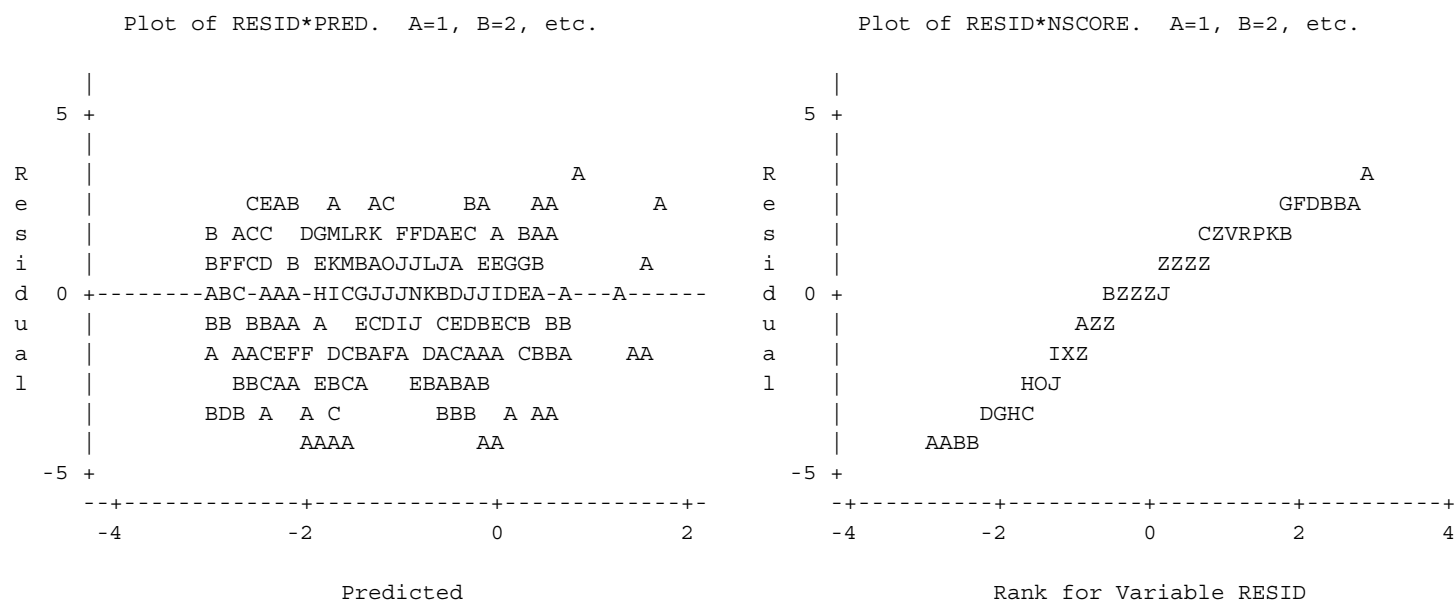
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**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Craving Reduction Subscale

Residual Plots

The where clause used on the dataset adam.adqspa: fasfl='Y'



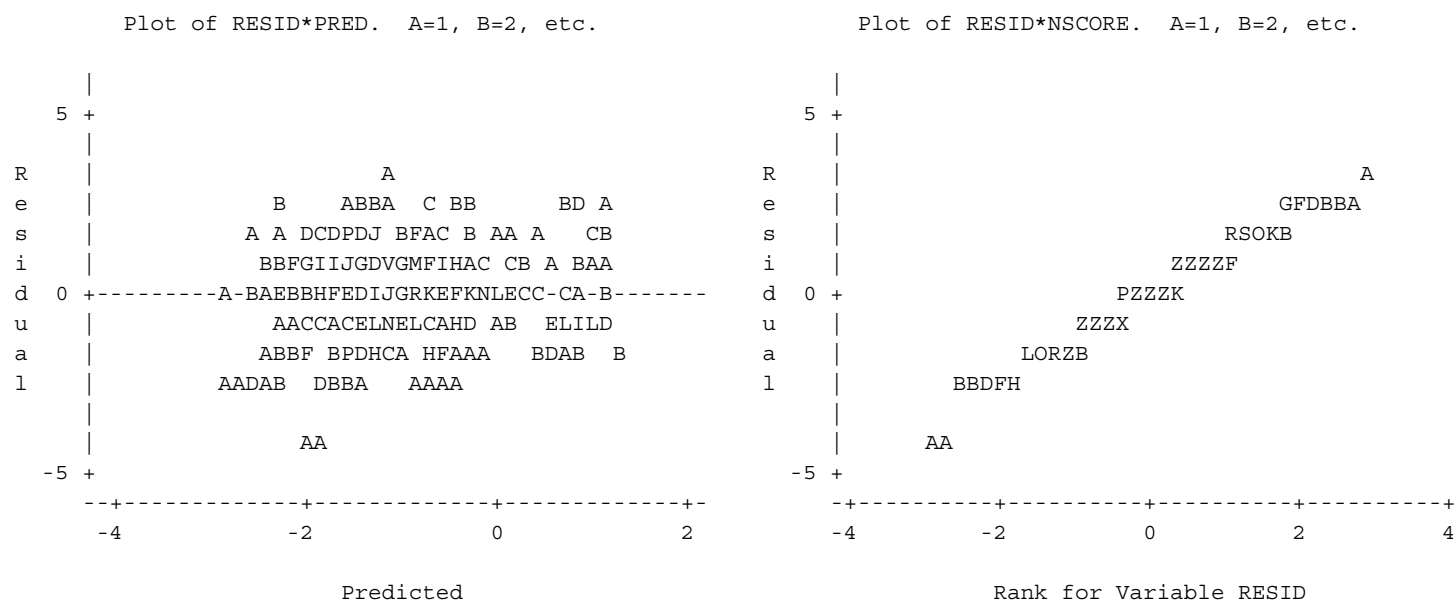
NOTE: 109 obs hidden.

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Enjoyment of Respiratory Tract Sensation Subscale

Residual Plots

The where clause used on the dataset adam.adqspa: fasfl='Y'



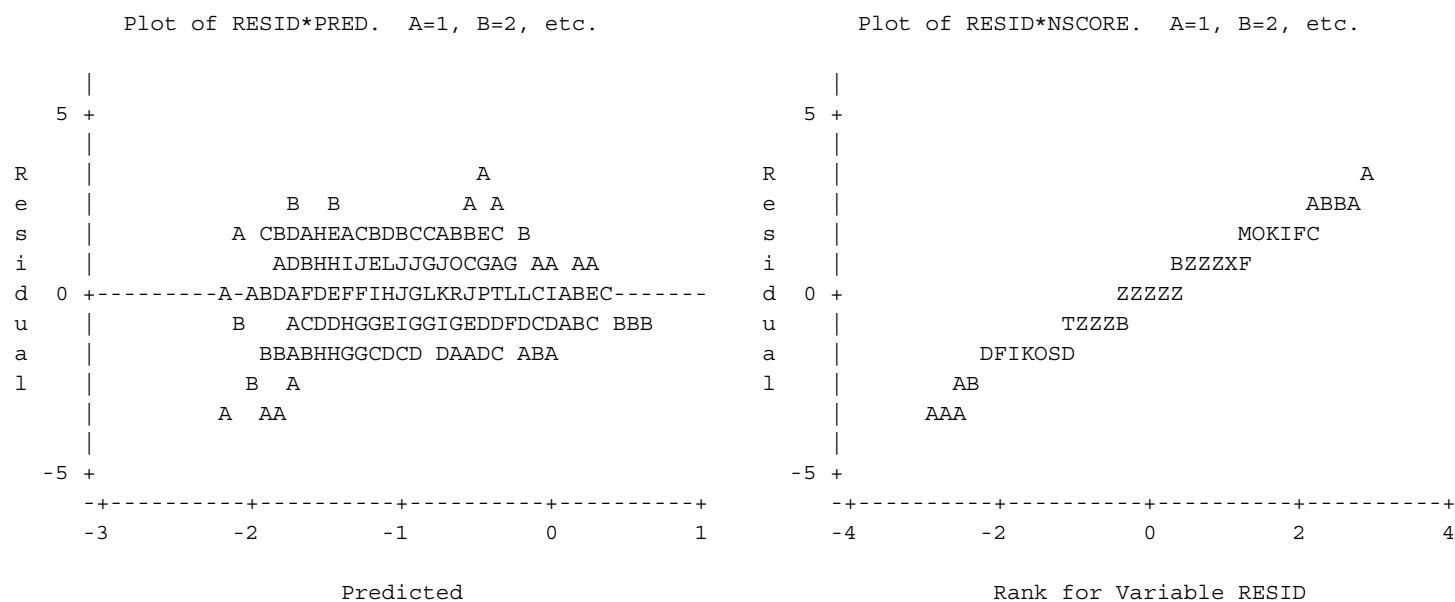
NOTE: 95 obs hidden.

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Psychological Reward Subscale

Residual Plots

The where clause used on the dataset adam.adqspa: fasfl='Y'



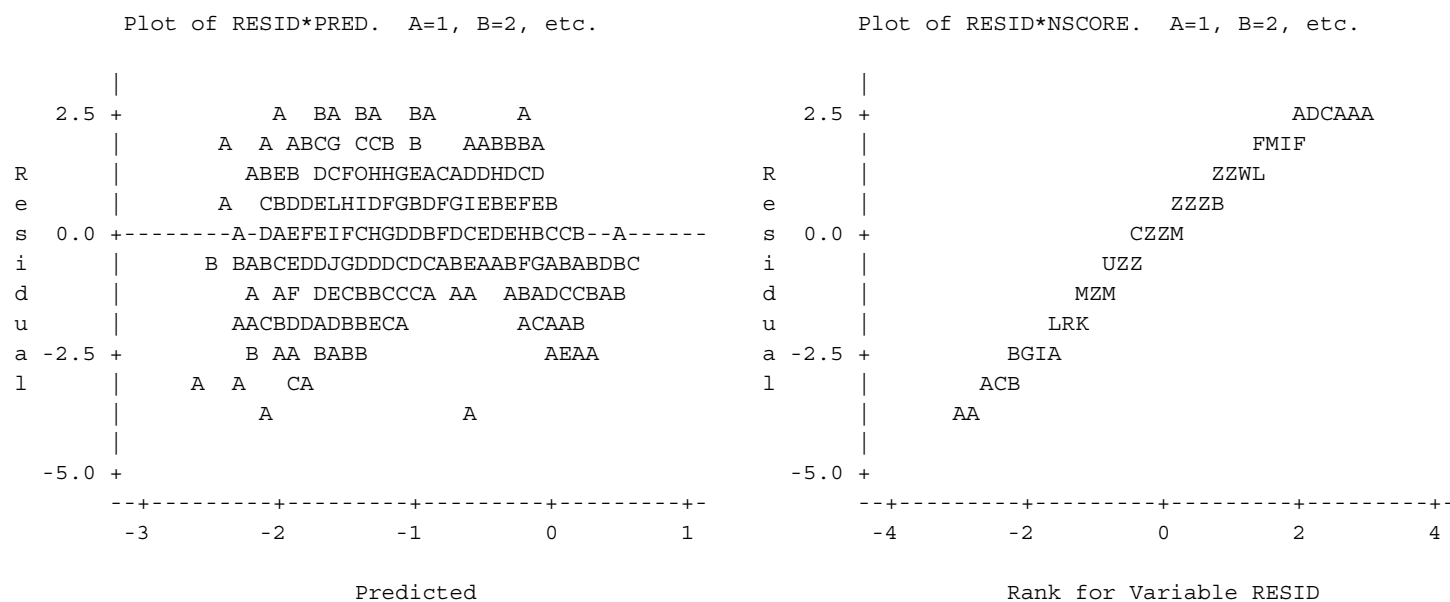
NOTE: 119 obs hidden.

**Listing 15.4.4.48 Analysis of Change from Baseline in MCEQ Questionnaire Subscales - FAS**

Variable: Smoking Satisfaction Subscale

Residual Plots

The where clause used on the dataset adam.adqspa: fasfl='Y'



NOTE: 124 obs hidden.





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**Listing 15.4.4.50 Analysis of CYP1A2 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP1A2 TYPE=Absolute -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	STATVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



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**Listing 15.4.4.50 Analysis of CYP1A2 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP1A2 TYPE=Absolute -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0



---

**Listing 15.4.4.50 Analysis of CYP1A2 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP1A2 TYPE=Absolute -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	157
Number of Observations Not Used	2

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.50 Analysis of CYP1A2 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP1A2 TYPE=Absolute -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      331.73

Fit Statistics

-2 Res Log Likelihood	1336.2
AIC (smaller is better)	1338.2
AICC (smaller is better)	1338.2
BIC (smaller is better)	1341.2

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.50 Analysis of CYP1A2 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP1A2 TYPE=Absolute -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASE	1	151	305.10	<.0001
TRTAN	2	151	48.89	<.0001
SEXC	1	151	2.79	0.0969
UCPDGR1	1	151	2.45	0.1196

**Listing 15.4.4.50 Analysis of CYP1A2 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP1A2 TYPE=Absolute -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	91.3533	2.0495	151	44.57	<.0001	0.05	87.3038	95.4027
TRTAN	CC	124.95	2.8814	151	43.37	<.0001	0.05	119.26	130.65
TRTAN	SA	93.3402	2.9557	151	31.58	<.0001	0.05	87.5004	99.1800
TRTAN	THS 2.2	91.3533	2.0495	151	44.57	<.0001	0.05	87.3038	95.4027
TRTAN	CC	124.95	2.8814	151	43.37	<.0001	0.05	119.26	130.65
TRTAN	SA	93.3402	2.9557	151	31.58	<.0001	0.05	87.5004	99.1800

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.50 Analysis of CYP1A2 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP1A2 TYPE=Absolute -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	-1.9869	3.5970	151	-0.55	0.5815	0.05	-9.0938	5.1200
TRTAN	CC	SA	31.6131	4.1282	151	7.66	<.0001	0.05	23.4567	39.7696
TRTAN	THS 2.2	CC	-33.6000	3.5361	151	-9.50	<.0001	0.05	-40.5867	-26.6134
TRTAN	SA	CC	-31.6131	4.1282	151	-7.66	<.0001	0.05	-39.7696	-23.4567

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.50 Analysis of CYP1A2 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP1A2 TYPE=Change from baseline -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	STATVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





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**Listing 15.4.4.50 Analysis of CYP1A2 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP1A2 TYPE=Change from baseline -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.50 Analysis of CYP1A2 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP1A2 TYPE=Change from baseline -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	157
Number of Observations Not Used	2

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.50 Analysis of CYP1A2 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP1A2 TYPE=Change from baseline -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      331.73

Fit Statistics

-2 Res Log Likelihood	1336.2
AIC (smaller is better)	1338.2
AICC (smaller is better)	1338.2
BIC (smaller is better)	1341.2

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.50 Analysis of CYP1A2 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP1A2 TYPE=Change from baseline -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASE	1	151	44.02	<.0001
TRTAN	2	151	48.89	<.0001
SEXC	1	151	2.79	0.0969
UCPDGR1	1	151	2.45	0.1196

**Listing 15.4.4.50 Analysis of CYP1A2 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP1A2 TYPE=Change from baseline -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	-20.8120	2.0495	151	-10.15	<.0001	0.05	-24.8615	-16.7625
TRTAN	CC	12.7880	2.8814	151	4.44	<.0001	0.05	7.0949	18.4812
TRTAN	SA	-18.8251	2.9557	151	-6.37	<.0001	0.05	-24.6649	-12.9853
TRTAN	THS 2.2	-20.8120	2.0495	151	-10.15	<.0001	0.05	-24.8615	-16.7625
TRTAN	CC	12.7880	2.8814	151	4.44	<.0001	0.05	7.0949	18.4812
TRTAN	SA	-18.8251	2.9557	151	-6.37	<.0001	0.05	-24.6649	-12.9853

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.50 Analysis of CYP1A2 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP1A2 TYPE=Change from baseline -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	-1.9869	3.5970	151	-0.55	0.5815	0.05	-9.0938	5.1200
TRTAN	CC	SA	31.6131	4.1282	151	7.66	<.0001	0.05	23.4567	39.7696
TRTAN	THS 2.2	CC	-33.6000	3.5361	151	-9.50	<.0001	0.05	-40.5867	-26.6134
TRTAN	SA	CC	-31.6131	4.1282	151	-7.66	<.0001	0.05	-39.7696	-23.4567

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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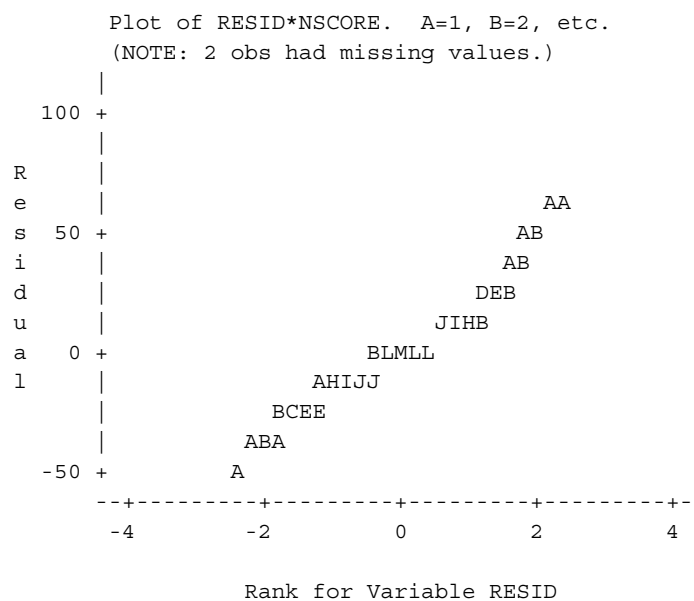
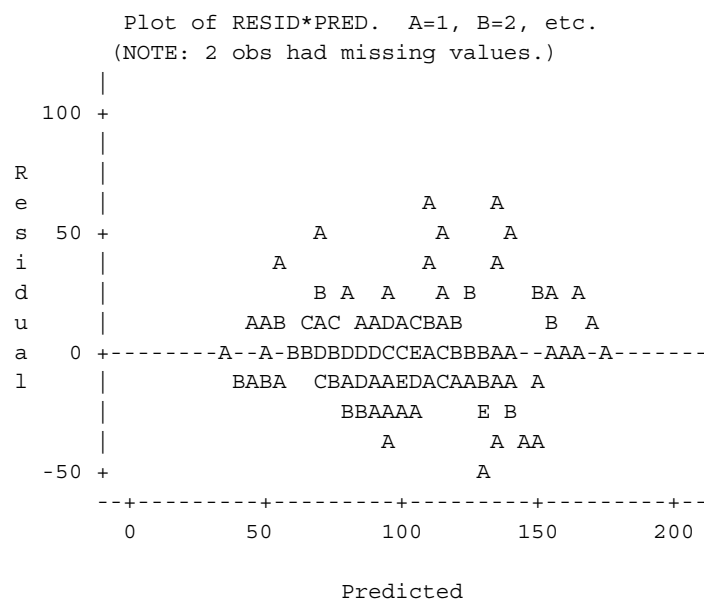
**Listing 15.4.4.50 Analysis of CYP1A2 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

----- Parameter Code=CYP1A2 TYPE=Absolute -----









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**Listing 15.4.4.52 Analysis of CYP2A6 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP2A6 TYPE=Absolute -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	STATVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



---

**Listing 15.4.4.52 Analysis of CYP2A6 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP2A6 TYPE=Absolute -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0



---

**Listing 15.4.4.52 Analysis of CYP2A6 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP2A6 TYPE=Absolute -----

## Dimensions

Subjects	1
Max Obs Per Subject	150

## Number of Observations

Number of Observations Read	150
Number of Observations Used	150
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.52 Analysis of CYP2A6 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP2A6 TYPE=Absolute -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      361.09

Fit Statistics

-2 Res Log Likelihood	1285.8
AIC (smaller is better)	1287.8
AICC (smaller is better)	1287.8
BIC (smaller is better)	1290.7

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.52 Analysis of CYP2A6 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP2A6 TYPE=Absolute -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASE	1	144	38.67	<.0001
TRTAN	2	144	184.01	<.0001
SEXC	1	144	8.01	0.0053
UCPDGR1	1	144	0.02	0.8929

**Listing 15.4.4.52 Analysis of CYP2A6 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP2A6 TYPE=Absolute -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	26.6302	2.1382	144	12.45	<.0001	0.05	22.4039	30.8565
TRTAN	CC	26.1522	2.9846	144	8.76	<.0001	0.05	20.2529	32.0515
TRTAN	SA	102.13	3.5221	144	29.00	<.0001	0.05	95.1693	109.09
TRTAN	THS 2.2	26.6302	2.1382	144	12.45	<.0001	0.05	22.4039	30.8565
TRTAN	CC	26.1522	2.9846	144	8.76	<.0001	0.05	20.2529	32.0515
TRTAN	SA	102.13	3.5221	144	29.00	<.0001	0.05	95.1693	109.09

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.52 Analysis of CYP2A6 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP2A6 TYPE=Absolute -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	-75.5007	4.1248	144	-18.30	<.0001	0.05	-83.6537	-67.3477
TRTAN	CC	SA	-75.9787	4.6493	144	-16.34	<.0001	0.05	-85.1685	-66.7890
TRTAN	THS 2.2	CC	0.4780	3.6700	144	0.13	0.8966	0.05	-6.7761	7.7321
TRTAN	SA	CC	75.9787	4.6493	144	16.34	<.0001	0.05	66.7890	85.1685

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.52 Analysis of CYP2A6 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP2A6 TYPE=Change from baseline -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	STATVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





---

**Listing 15.4.4.52 Analysis of CYP2A6 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP2A6 TYPE=Change from baseline -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.52 Analysis of CYP2A6 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP2A6 TYPE=Change from baseline -----

## Dimensions

Subjects	1
Max Obs Per Subject	150

## Number of Observations

Number of Observations Read	150
Number of Observations Used	150
Number of Observations Not Used	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.52 Analysis of CYP2A6 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP2A6 TYPE=Change from baseline -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      361.09

Fit Statistics

-2 Res Log Likelihood	1285.8
AIC (smaller is better)	1287.8
AICC (smaller is better)	1287.8
BIC (smaller is better)	1290.7

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.52 Analysis of CYP2A6 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP2A6 TYPE=Change from baseline -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASE	1	144	9.81	0.0021
TRTAN	2	144	184.01	<.0001
SEXC	1	144	8.01	0.0053
UCPDGR1	1	144	0.02	0.8929

**Listing 15.4.4.52 Analysis of CYP2A6 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP2A6 TYPE=Change from baseline -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	-14.8579	2.1382	144	-6.95	<.0001	0.05	-19.0841	-10.6316
TRTAN	CC	-15.3359	2.9846	144	-5.14	<.0001	0.05	-21.2352	-9.4366
TRTAN	SA	60.6428	3.5221	144	17.22	<.0001	0.05	53.6812	67.6045
TRTAN	THS 2.2	-14.8579	2.1382	144	-6.95	<.0001	0.05	-19.0841	-10.6316
TRTAN	CC	-15.3359	2.9846	144	-5.14	<.0001	0.05	-21.2352	-9.4366
TRTAN	SA	60.6428	3.5221	144	17.22	<.0001	0.05	53.6812	67.6045

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.52 Analysis of CYP2A6 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=CYP2A6 TYPE=Change from baseline -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	-75.5007	4.1248	144	-18.30	<.0001	0.05	-83.6537	-67.3477
TRTAN	CC	SA	-75.9787	4.6493	144	-16.34	<.0001	0.05	-85.1685	-66.7890
TRTAN	THS 2.2	CC	0.4780	3.6700	144	0.13	0.8966	0.05	-6.7761	7.7321
TRTAN	SA	CC	75.9787	4.6493	144	16.34	<.0001	0.05	66.7890	85.1685

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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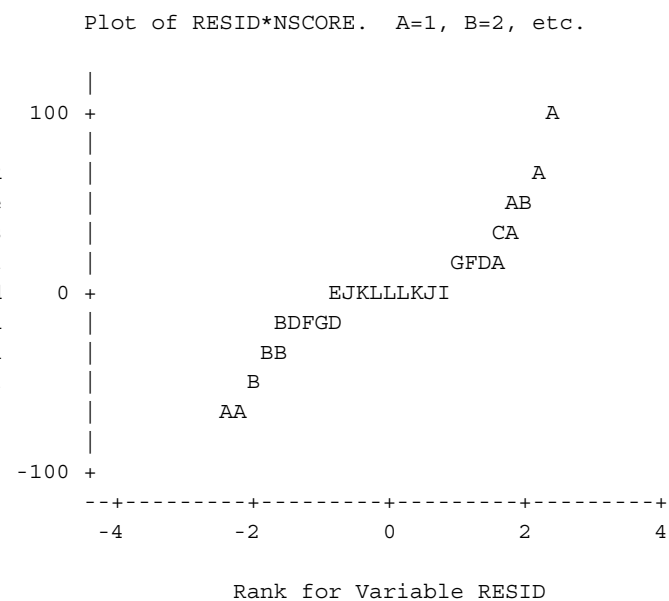
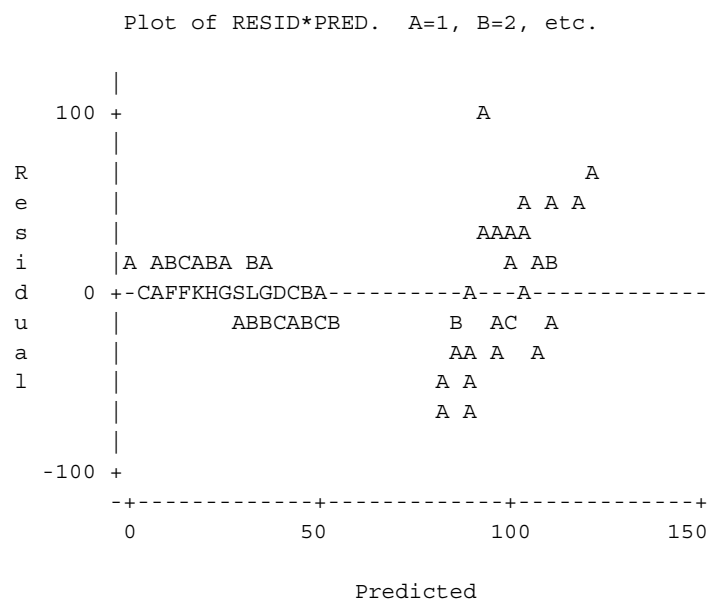
**Listing 15.4.4.52 Analysis of CYP2A6 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

----- Parameter Code=CYP2A6 TYPE=Absolute -----



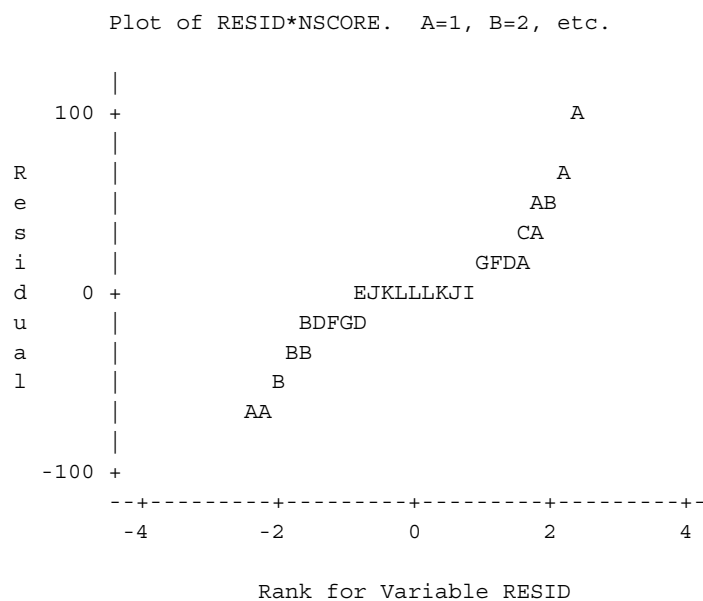
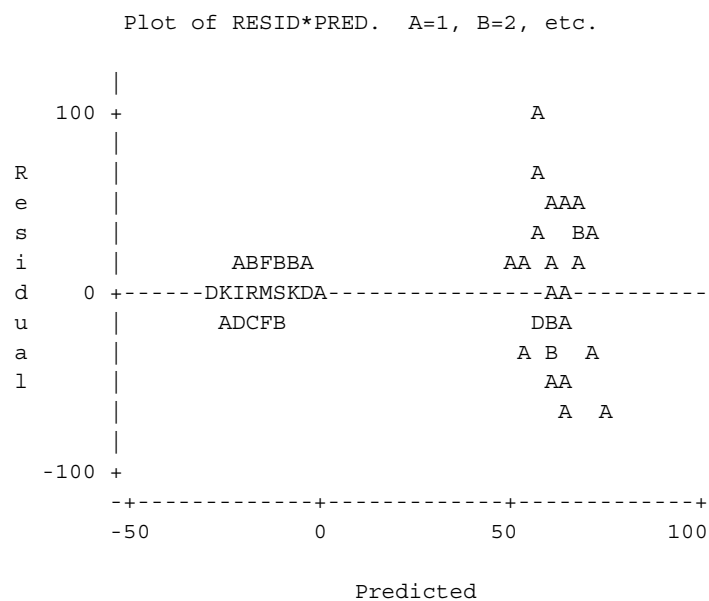
**Listing 15.4.4.52 Analysis of CYP2A6 Activity (%) on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

----- Parameter Code=CYP2A6 TYPE=Change from baseline -----







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**Listing 15.4.4.53 Analysis of Urinary 8-epi-PGF2 Alpha on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UPGF224U Analysis Value Unit=ng -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.53 Analysis of Urinary 8-epi-PGF2 Alpha on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UPGF224U Analysis Value Unit=ng -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0



---

**Listing 15.4.4.53 Analysis of Urinary 8-epi-PGF2 Alpha on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UPGF224U Analysis Value Unit=ng -----

Dimensions

Subjects	1
Max Obs Per Subject	159

Number of Observations

Number of Observations Read	159
Number of Observations Used	153
Number of Observations Not Used	6

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.53 Analysis of Urinary 8-epi-PGF2 Alpha on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UPGF224U Analysis Value Unit=ng -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.07755

Fit Statistics

-2 Res Log Likelihood	62.9
AIC (smaller is better)	64.9
AICC (smaller is better)	65.0
BIC (smaller is better)	67.9

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.53 Analysis of Urinary 8-epi-PGF2 Alpha on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UPGF224U Analysis Value Unit=ng -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	147	132.84	<.0001
TRTAN	2	147	4.48	0.0130
SEXC	1	147	13.47	0.0003
UCPDGR1	1	147	0.12	0.7306

**Listing 15.4.4.53 Analysis of Urinary 8-epi-PGF2 Alpha on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UPGF224U Analysis Value Unit=ng -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.8016	0.03142	147	184.63	<.0001	0.05	5.7395	5.8637
TRTAN	CC	5.8853	0.04359	147	135.01	<.0001	0.05	5.7992	5.9715
TRTAN	SA	5.9706	0.04852	147	123.06	<.0001	0.05	5.8748	6.0665
TRTAN	THS 2.2	5.8016	0.03142	147	184.63	<.0001	0.05	5.7395	5.8637
TRTAN	CC	5.8853	0.04359	147	135.01	<.0001	0.05	5.7992	5.9715
TRTAN	SA	5.9706	0.04852	147	123.06	<.0001	0.05	5.8748	6.0665

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.53 Analysis of Urinary 8-epi-PGF2 Alpha on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UPGF224U Analysis Value Unit=ng -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	-0.1691	0.05788	147	-2.92	0.0040	0.05	-0.2834	-0.05468
TRTAN	CC	SA	-0.08529	0.06516	147	-1.31	0.1926	0.05	-0.2141	0.04348
TRTAN	THS 2.2	CC	-0.08377	0.05386	147	-1.56	0.1220	0.05	-0.1902	0.02267
TRTAN	SA	CC	0.08529	0.06516	147	1.31	0.1926	0.05	-0.04348	0.2141

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.53 Analysis of Urinary 8-epi-PGF2 Alpha on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UPGF2CRE Analysis Value Unit=pg/mg creat -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





---

**Listing 15.4.4.53 Analysis of Urinary 8-epi-PGF2 Alpha on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UPGF2CRE Analysis Value Unit=pg/mg creat -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.53 Analysis of Urinary 8-epi-PGF2 Alpha on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UPGF2CRE Analysis Value Unit=pg/mg creat -----

Dimensions

Subjects	1
Max Obs Per Subject	159

Number of Observations

Number of Observations Read	159
Number of Observations Used	153
Number of Observations Not Used	6

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.53 Analysis of Urinary 8-epi-PGF2 Alpha on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UPGF2CRE Analysis Value Unit=pg/mg creat -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.04319

Fit Statistics

-2 Res Log Likelihood	-23.2
AIC (smaller is better)	-21.2
AICC (smaller is better)	-21.1
BIC (smaller is better)	-18.2

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.53 Analysis of Urinary 8-epi-PGF2 Alpha on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UPGF2CRE Analysis Value Unit=pg/mg creat -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	147	180.21	<.0001
TRTAN	2	147	2.08	0.1291
SEXC	1	147	0.11	0.7412
UCPDGR1	1	147	1.94	0.1657

**Listing 15.4.4.53 Analysis of Urinary 8-epi-PGF2 Alpha on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UPGF2CRE Analysis Value Unit=pg/mg creat -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.4400	0.02345	147	231.96	<.0001	0.05	5.3937	5.4864
TRTAN	CC	5.4977	0.03263	147	168.50	<.0001	0.05	5.4332	5.5622
TRTAN	SA	5.5191	0.03619	147	152.52	<.0001	0.05	5.4476	5.5906
TRTAN	THS 2.2	5.4400	0.02345	147	231.96	<.0001	0.05	5.3937	5.4864
TRTAN	CC	5.4977	0.03263	147	168.50	<.0001	0.05	5.4332	5.5622
TRTAN	SA	5.5191	0.03619	147	152.52	<.0001	0.05	5.4476	5.5906

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.53 Analysis of Urinary 8-epi-PGF2 Alpha on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UPGF2CRE Analysis Value Unit=pg/mg creat -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	-0.07908	0.04313	147	-1.83	0.0687	0.05	-0.1643	0.006155
TRTAN	CC	SA	-0.02143	0.04871	147	-0.44	0.6606	0.05	-0.1177	0.07483
TRTAN	THS 2.2	CC	-0.05765	0.04033	147	-1.43	0.1550	0.05	-0.1373	0.02205
TRTAN	SA	CC	0.02143	0.04871	147	0.44	0.6606	0.05	-0.07483	0.1177

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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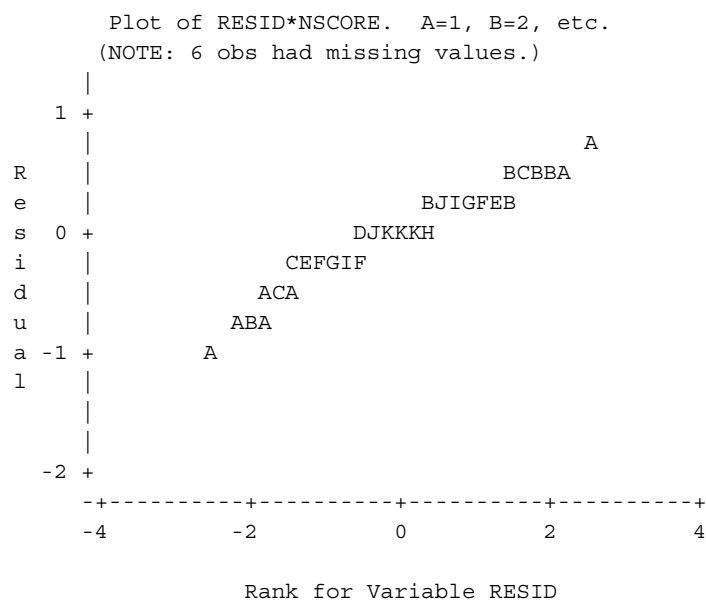
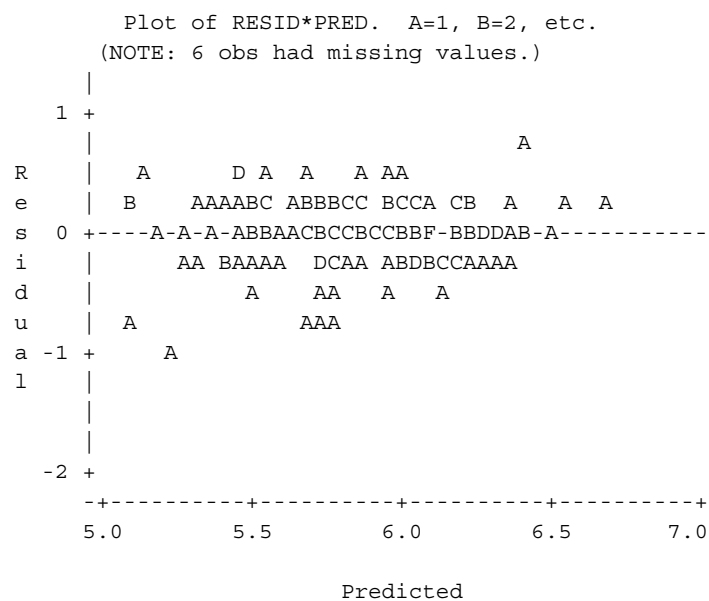
**Listing 15.4.4.53 Analysis of Urinary 8-epi-PGF2 Alpha on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

----- Parameter Code=UPGF224U -----



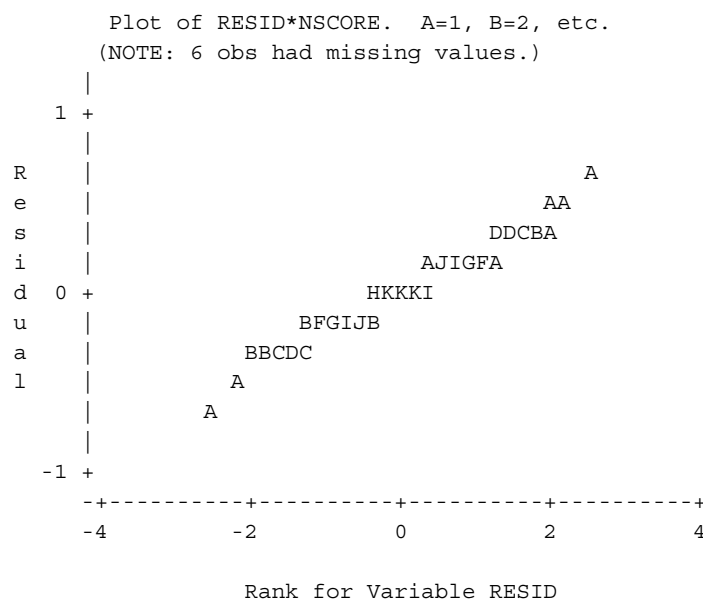
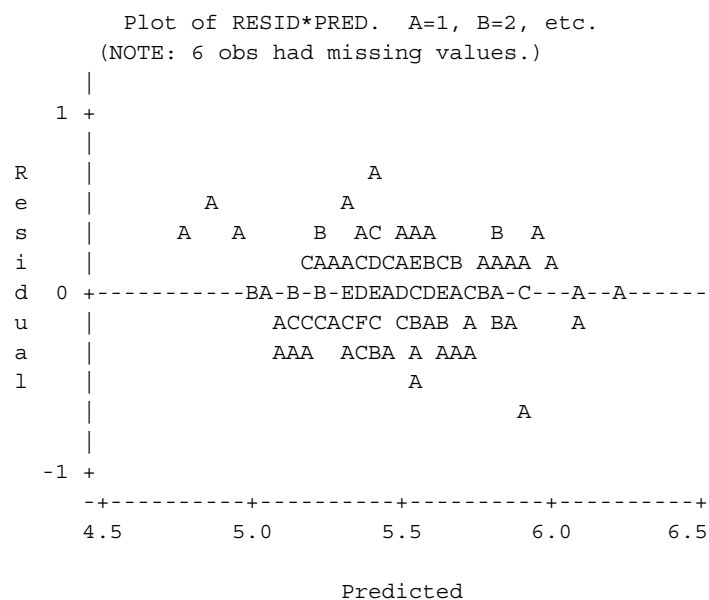
**Listing 15.4.4.53 Analysis of Urinary 8-epi-PGF2 Alpha on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

----- Parameter Code=UPGF2CRE -----



Path: /cvn/projects/prj/development/000000106324/dev/tables/tl\_anlsecondbio.sas  
Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.55 Analysis of Urinary 11-DTX-B2 on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UTXB224U Analysis Value Unit=ng -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



---

**Listing 15.4.4.55 Analysis of Urinary 11-DTX-B2 on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UTXB224U Analysis Value Unit=ng -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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---

**Listing 15.4.4.55 Analysis of Urinary 11-DTX-B2 on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UTXB224U Analysis Value Unit=ng -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	152
Number of Observations Not Used	7

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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---

**Listing 15.4.4.55 Analysis of Urinary 11-DTX-B2 on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UTXB224U Analysis Value Unit=ng -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.08004

Fit Statistics

-2 Res Log Likelihood	67.6
AIC (smaller is better)	69.6
AICC (smaller is better)	69.6
BIC (smaller is better)	72.6

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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---

**Listing 15.4.4.55 Analysis of Urinary 11-DTX-B2 on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UTXB224U Analysis Value Unit=ng -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	146	86.40	<.0001
TRTAN	2	146	8.24	0.0004
SEXC	1	146	3.49	0.0637
UCPDGR1	1	146	1.20	0.2749

**Listing 15.4.4.55 Analysis of Urinary 11-DTX-B2 on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UTXB224U Analysis Value Unit=ng -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	6.5898	0.03209	146	205.38	<.0001	0.05	6.5264	6.6532
TRTAN	CC	6.7973	0.04484	146	151.60	<.0001	0.05	6.7087	6.8859
TRTAN	SA	6.5755	0.04960	146	132.58	<.0001	0.05	6.4775	6.6735
TRTAN	THS 2.2	6.5898	0.03209	146	205.38	<.0001	0.05	6.5264	6.6532
TRTAN	CC	6.7973	0.04484	146	151.60	<.0001	0.05	6.7087	6.8859
TRTAN	SA	6.5755	0.04960	146	132.58	<.0001	0.05	6.4775	6.6735

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.55 Analysis of Urinary 11-DTX-B2 on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UTXB224U Analysis Value Unit=ng -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.01427	0.05946	146	0.24	0.8107	0.05	-0.1032	0.1318
TRTAN	CC	SA	0.2218	0.06659	146	3.33	0.0011	0.05	0.09020	0.3534
TRTAN	THS 2.2	CC	-0.2075	0.05536	146	-3.75	0.0003	0.05	-0.3169	-0.09812
TRTAN	SA	CC	-0.2218	0.06659	146	-3.33	0.0011	0.05	-0.3534	-0.09020

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.55 Analysis of Urinary 11-DTX-B2 on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UTXB2CRE Analysis Value Unit=pg/mg creat -----

## Model Information

Data Set	WORK.ADBX
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual





---

**Listing 15.4.4.55 Analysis of Urinary 11-DTX-B2 on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UTXB2CRE Analysis Value Unit=pg/mg creat -----

## Class Level Information

Class	Levels	Values
TRTAN	3	THS 2.2 CC SA
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	9
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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---

**Listing 15.4.4.55 Analysis of Urinary 11-DTX-B2 on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UTXB2CRE Analysis Value Unit=pg/mg creat -----

## Dimensions

Subjects	1
Max Obs Per Subject	159

## Number of Observations

Number of Observations Read	159
Number of Observations Used	152
Number of Observations Not Used	7

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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---

**Listing 15.4.4.55 Analysis of Urinary 11-DTX-B2 on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UTXB2CRE Analysis Value Unit=pg/mg creat -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.04096

Fit Statistics

-2 Res Log Likelihood	-30.3
AIC (smaller is better)	-28.3
AICC (smaller is better)	-28.2
BIC (smaller is better)	-25.3

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.55 Analysis of Urinary 11-DTX-B2 on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UTXB2CRE Analysis Value Unit=pg/mg creat -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	146	167.22	<.0001
TRTAN	2	146	18.00	<.0001
SEXC	1	146	30.94	<.0001
UCPDGR1	1	146	0.03	0.8630

**Listing 15.4.4.55 Analysis of Urinary 11-DTX-B2 on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UTXB2CRE Analysis Value Unit=pg/mg creat -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	6.2266	0.02294	146	271.43	<.0001	0.05	6.1812	6.2719
TRTAN	CC	6.4054	0.03215	146	199.22	<.0001	0.05	6.3418	6.4689
TRTAN	SA	6.1306	0.03540	146	173.19	<.0001	0.05	6.0607	6.2006
TRTAN	THS 2.2	6.2266	0.02294	146	271.43	<.0001	0.05	6.1812	6.2719
TRTAN	CC	6.4054	0.03215	146	199.22	<.0001	0.05	6.3418	6.4689
TRTAN	SA	6.1306	0.03540	146	173.19	<.0001	0.05	6.0607	6.2006

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.55 Analysis of Urinary 11-DTX-B2 on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

----- Parameter Code=UTXB2CRE Analysis Value Unit=pg/mg creat -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	SA	0.09594	0.04240	146	2.26	0.0251	0.05	0.01213	0.1797
TRTAN	CC	SA	0.2747	0.04760	146	5.77	<.0001	0.05	0.1807	0.3688
TRTAN	THS 2.2	CC	-0.1788	0.03972	146	-4.50	<.0001	0.05	-0.2573	-0.1003
TRTAN	SA	CC	-0.2747	0.04760	146	-5.77	<.0001	0.05	-0.3688	-0.1807

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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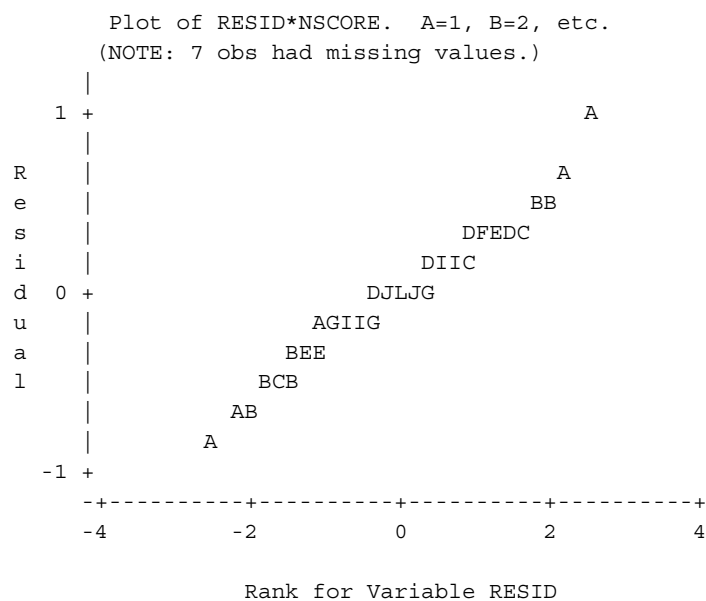
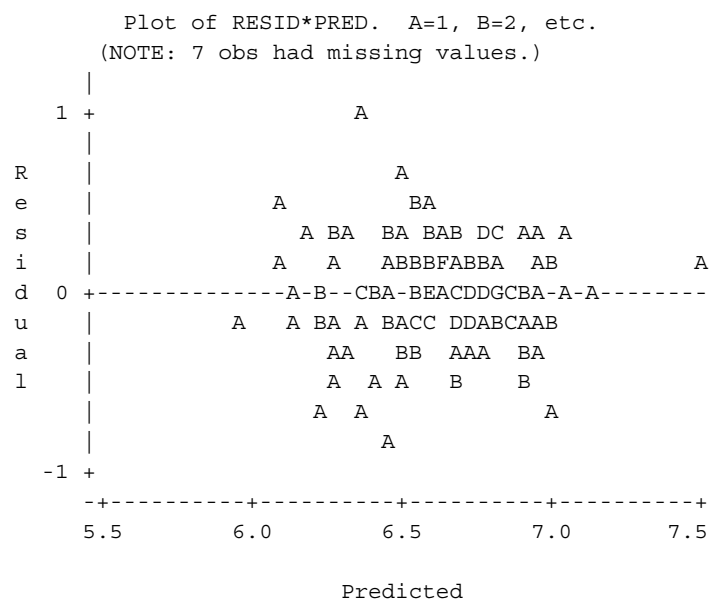
**Listing 15.4.4.55 Analysis of Urinary 11-DTX-B2 on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

----- Parameter Code=UTXB224U -----



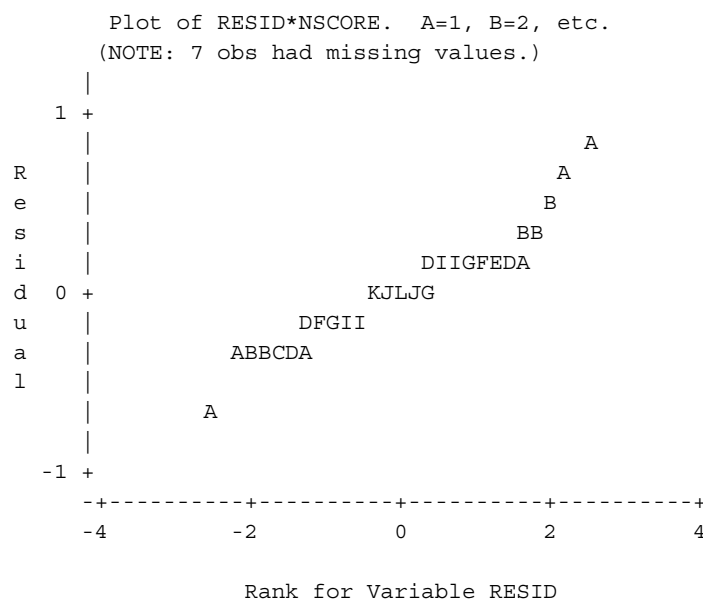
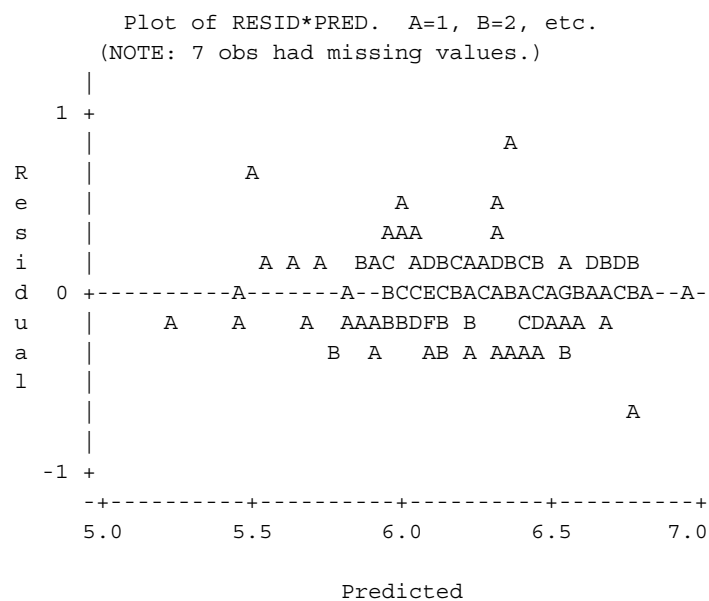
**Listing 15.4.4.55 Analysis of Urinary 11-DTX-B2 on Day 5 - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Residual Plots

----- Parameter Code=UTXB2CRE -----







---

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

```
Proc GLM Procedure
Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)
THS 2.2
The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'
```

Number of Observations Read	79
Number of Observations Used	79

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)

THS 2.2

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL      Analysis Value

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	16717.6161	16717.6161	2.38	0.1272
Error	77	541571.7438	7033.3993		
Corrected Total	78	558289.3600			

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)

THS 2.2

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL      Analysis Value

R-Square	Coeff Var	Root MSE	AVAL Mean
0.029944	33.66808	83.86536	249.0946

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEQ	1	16717.61611	16717.61611	2.38	0.1272

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)

THS 2.2

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEQ	1	16717.61611	16717.61611	2.38	0.1272

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	215.0390265	24.02022728	8.95	<.0001
NEQ	2.8410908	1.84281005	1.54	0.1272

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

```
Proc GLM Procedure
Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)
CC
The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'
```

Number of Observations Read	41
Number of Observations Used	41

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)

CC

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	29521.3688	29521.3688	6.66	0.0137
Error	39	172909.5352	4433.5778		
Corrected Total	40	202430.9040			

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)

CC

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

R-Square	Coeff Var	Root MSE	AVAL Mean
0.145834	27.49201	66.58512	242.1980

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEQ	1	29521.36878	29521.36878	6.66	0.0137

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)

CC

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEQ	1	29521.36878	29521.36878	6.66	0.0137

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	176.5657692	27.47833699	6.43	<.0001
NEQ	6.1858148	2.39720864	2.58	0.0137

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

```
Proc GLM Procedure
Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)
SA
The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'
```

Number of Observations Read	39
Number of Observations Used	39

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)

SA

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	42955.5662	42955.5662	4.62	0.0381
Error	37	343719.3026	9289.7109		
Corrected Total	38	386674.8688			

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)

SA

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL      Analysis Value

R-Square	Coeff Var	Root MSE	AVAL Mean
0.111090	37.10535	96.38315	259.7554

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEQ	1	42955.56622	42955.56622	4.62	0.0381

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)

SA

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEQ	1	42955.56622	42955.56622	4.62	0.0381

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	181.1785045	39.6670875	4.57	<.0001
NEQ	507.1218842	235.8325393	2.15	0.0381

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

```
Proc GLM Procedure
  Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)
  THS 2.2
  The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'
```

Number of Observations Read	79
Number of Observations Used	79

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)

THS 2.2

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	563301.802	563301.802	29.23	<.0001
Error	77	1483897.517	19271.396		
Corrected Total	78	2047199.319			

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

```
Proc GLM Procedure
  Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)
  THS 2.2
  The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL    Analysis Value

      R-Square      Coeff Var      Root MSE      AVAL Mean
      0.275157      37.18027      138.8215      373.3739

Source              DF          Type I SS      Mean Square      F Value      Pr > F
NEQ                  1      563301.8016      563301.8016      29.23      <.0001
```

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)

THS 2.2

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEQ	1	563301.8016	563301.8016	29.23	<.0001

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	198.8284100	35.86410468	5.54	<.0001
NEQ	9.6756803	1.78964765	5.41	<.0001

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

```
Proc GLM Procedure
  Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)
  CC
The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'
```

Number of Observations Read	41
Number of Observations Used	41

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)

CC

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	216542.5464	216542.5464	19.22	<.0001
Error	39	439374.1446	11266.0037		
Corrected Total	40	655916.6910			

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)

CC

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL      Analysis Value

R-Square	Coeff Var	Root MSE	AVAL Mean
0.330137	28.49998	106.1414	372.4264

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEQ	1	216542.5464	216542.5464	19.22	<.0001

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

```
Proc GLM Procedure
  Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)
  CC
  The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL    Analysis Value

Source              DF      Type III SS      Mean Square      F Value      Pr > F

NEQ                  1      216542.5464      216542.5464      19.22      <.0001

Parameter              Estimate      Standard Error      t Value      Pr > |t|

Intercept             222.2338702      38.05771016      5.84      <.0001
NEQ                   9.0946695      2.07443698      4.38      <.0001

Program Run: 31OCT14  cvn_ahedge  Program Status: FINAL      (Page 20 of 84)
```



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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

```
Proc GLM Procedure
  Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)
  SA
The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'
```

Number of Observations Read	39
Number of Observations Used	39

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 21 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)

SA

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	509278.592	509278.592	22.32	<.0001
Error	37	844320.401	22819.470		
Corrected Total	38	1353598.993			

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 22 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)

SA

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL      Analysis Value

R-Square	Coeff Var	Root MSE	AVAL Mean
0.376240	36.36876	151.0611	415.3597

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEQ	1	509278.5923	509278.5923	22.32	<.0001

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 23 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

```
Proc GLM Procedure
  Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)
  SA
  The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL    Analysis Value

Source              DF      Type III SS      Mean Square      F Value      Pr > F

NEQ                  1      509278.5923      509278.5923      22.32      <.0001

Parameter              Estimate      Standard Error      t Value      Pr > |t|

Intercept              211.2124610      49.5228574      4.26      0.0001
NEQ                     795.4388054      168.3766417      4.72      <.0001

Program Run: 31OCT14  cvn_ahedge  Program Status: FINAL      (Page 24 of 84)
```





---

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

THS 2.2

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Number of Observations Read 79

Number of Observations Used 79

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 25 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

THS 2.2

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL      Analysis Value

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	304500.798	304500.798	12.15	0.0008
Error	77	1929485.086	25058.248		
Corrected Total	78	2233985.884			

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 26 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

THS 2.2

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL      Analysis Value

R-Square	Coeff Var	Root MSE	AVAL Mean
0.136304	28.76200	158.2980	550.3720

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEQ	1	304500.7985	304500.7985	12.15	0.0008

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 27 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

THS 2.2

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEQ	1	304500.7985	304500.7985	12.15	0.0008

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	405.0286288	45.33877970	8.93	<.0001
NEQ	12.1252905	3.47835005	3.49	0.0008

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 28 of 84)



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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

CC

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Number of Observations Read 41

Number of Observations Used 41

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 29 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

CC

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	584146.524	584146.524	9.99	0.0030
Error	39	2280823.103	58482.644		
Corrected Total	40	2864969.627			

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 30 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

CC

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

R-Square	Coeff Var	Root MSE	AVAL Mean
0.203893	38.88876	241.8318	621.8554

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEQ	1	584146.5241	584146.5241	9.99	0.0030

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 31 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

CC

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEQ	1	584146.5241	584146.5241	9.99	0.0030

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	329.9043720	99.79913461	3.31	0.0020
NEQ	27.5162701	8.70647112	3.16	0.0030

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

SA

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Number of Observations Read 39

Number of Observations Used 39

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 33 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

SA

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL      Analysis Value

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	87014.655	87014.655	2.40	0.1302
Error	37	1343865.789	36320.697		
Corrected Total	38	1430880.444			

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 34 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

SA

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL      Analysis Value

R-Square	Coeff Var	Root MSE	AVAL Mean
0.060812	40.23745	190.5799	473.6381

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEQ	1	87014.65537	87014.65537	2.40	0.1302

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 35 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

SA

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEQ	1	87014.65537	87014.65537	2.40	0.1302

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	585.4740228	78.4343500	7.46	<.0001
NEQ	-721.7700062	466.3153541	-1.55	0.1302

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 36 of 84)



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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

```
Proc GLM Procedure
  Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)
  THS 2.2
  The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'
```

Number of Observations Read	79
Number of Observations Used	79

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 37 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)

THS 2.2

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	1729650.970	1729650.970	36.58	<.0001
Error	77	3640478.432	47278.941		
Corrected Total	78	5370129.402			

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 38 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)

THS 2.2

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL      Analysis Value

R-Square	Coeff Var	Root MSE	AVAL Mean
0.322087	27.22149	217.4372	798.7705

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEQ	1	1729650.970	1729650.970	36.58	<.0001

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 39 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)

THS 2.2

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEQ	1	1729650.970	1729650.970	36.58	<.0001

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	492.9142235	56.17424843	8.77	<.0001
NEQ	16.9547027	2.80314014	6.05	<.0001

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

```
Proc GLM Procedure
  Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)
  CC
The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'
```

Number of Observations Read	41
Number of Observations Used	41

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 41 of 84)



---

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)

CC

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL      Analysis Value

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	914081.203	914081.203	9.35	0.0040
Error	39	3812849.095	97765.361		
Corrected Total	40	4726930.298			

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 42 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)

CC

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

R-Square	Coeff Var	Root MSE	AVAL Mean
0.193377	34.45662	312.6745	907.4439

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEQ	1	914081.2031	914081.2031	9.35	0.0040

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 43 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)

CC

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEQ	1	914081.2031	914081.2031	9.35	0.0040

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	598.8629544	112.1115132	5.34	<.0001
NEQ	18.6856276	6.1109370	3.06	0.0040

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 44 of 84)



---

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

```
Proc GLM Procedure
  Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)
    SA
  The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'
```

Number of Observations Read	39
Number of Observations Used	39

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 45 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)

SA

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	5895.050	5895.050	0.07	0.7887
Error	37	2992713.043	80884.136		
Corrected Total	38	2998608.093			

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 46 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)

SA

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL      Analysis Value

R-Square	Coeff Var	Root MSE	AVAL Mean
0.001966	38.55890	284.4014	737.5765

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEQ	1	5895.050048	5895.050048	0.07	0.7887

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 47 of 84)

**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)

SA

The where clause used on the dataset adam.adbx: fasfl='Y' and anl02fl='Y'

Dependent Variable: AVAL Analysis Value

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEQ	1	5895.050048	5895.050048	0.07	0.7887

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	759.5404408	93.2362058	8.15	<.0001
NEQ	-85.5801044	317.0010786	-0.27	0.7887

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

(Page 48 of 84)



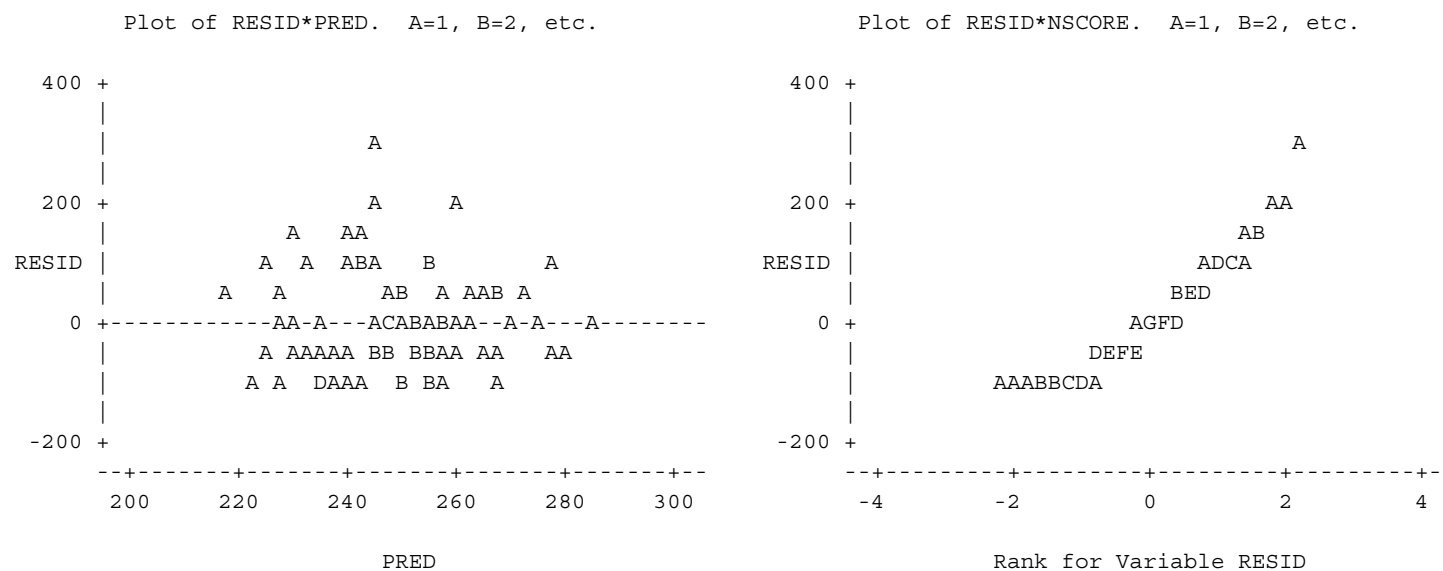
**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)

THS 2.2

Residual Plots



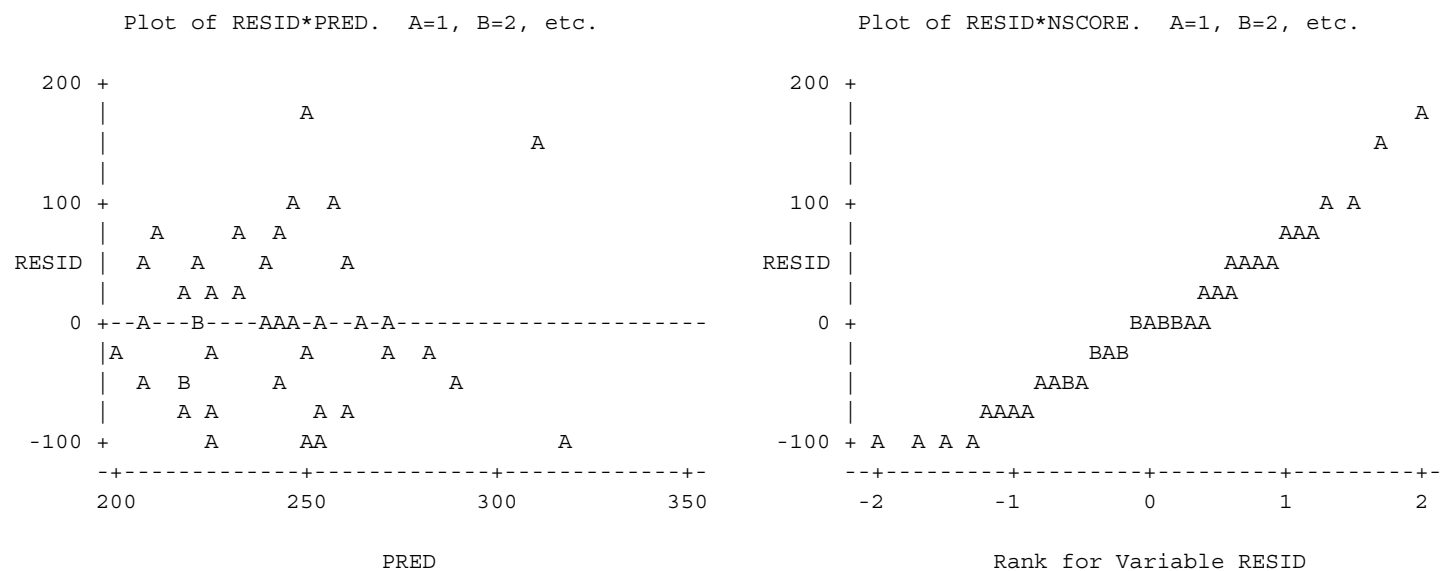
**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)

CC

Residual Plots



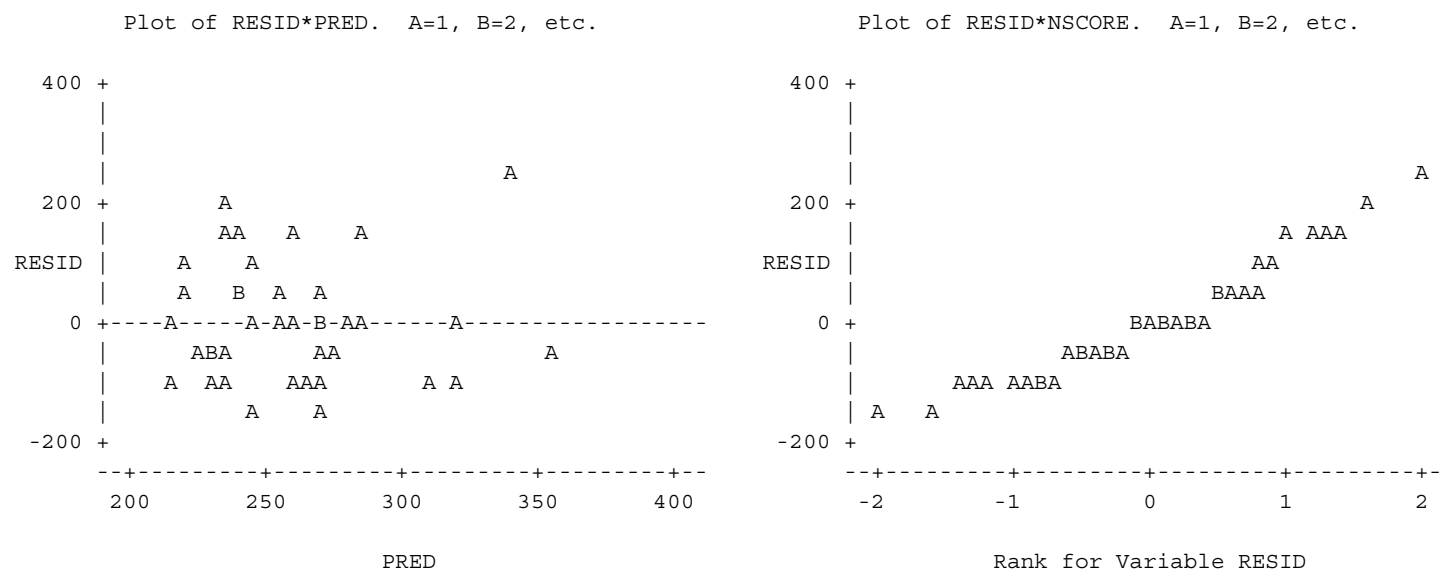
**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)

SA

Residual Plots



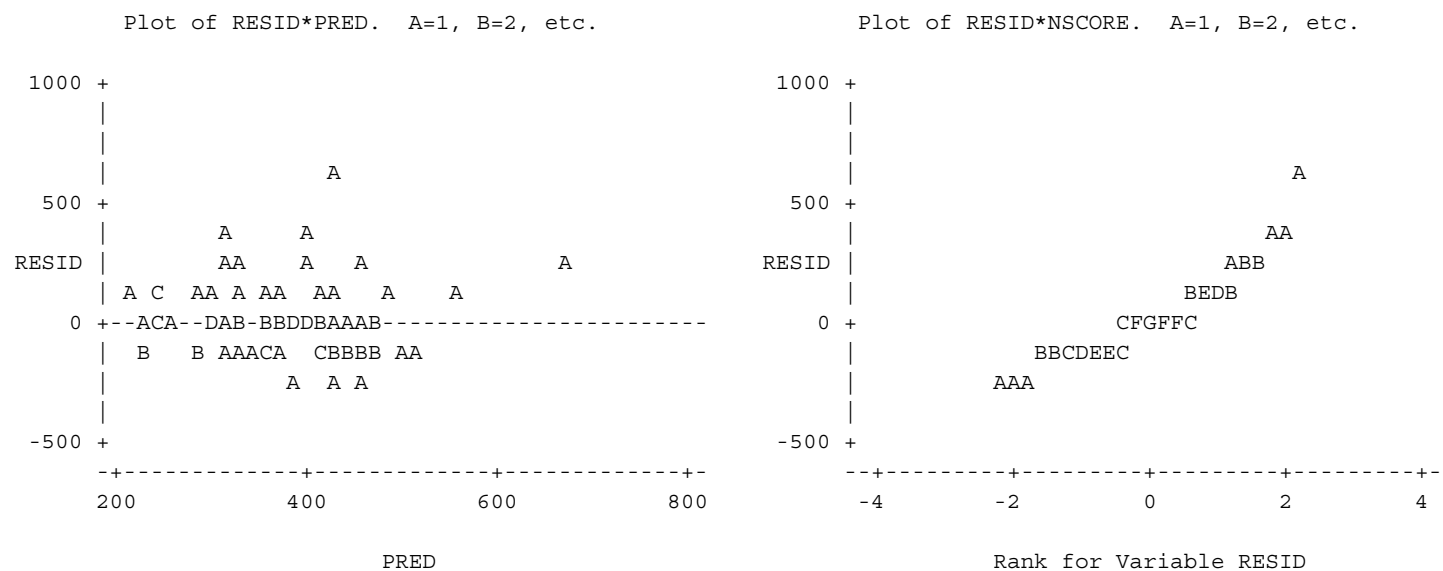
**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)

THS 2.2

Residual Plots



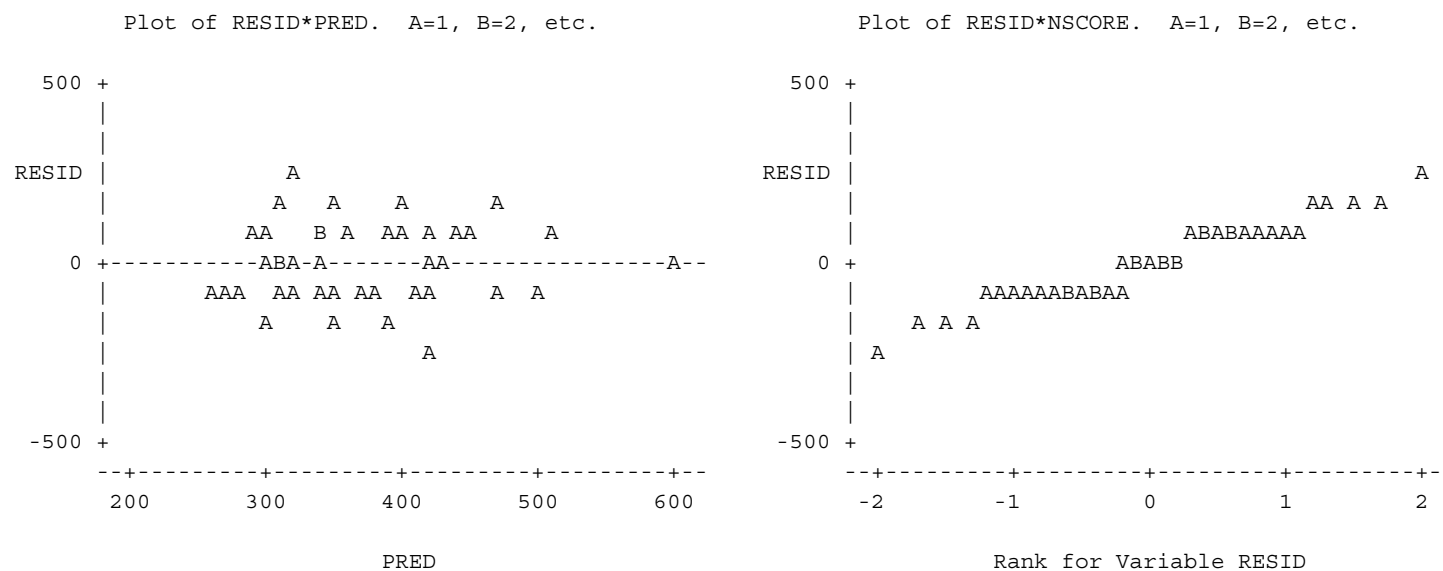
**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)

CC

Residual Plots



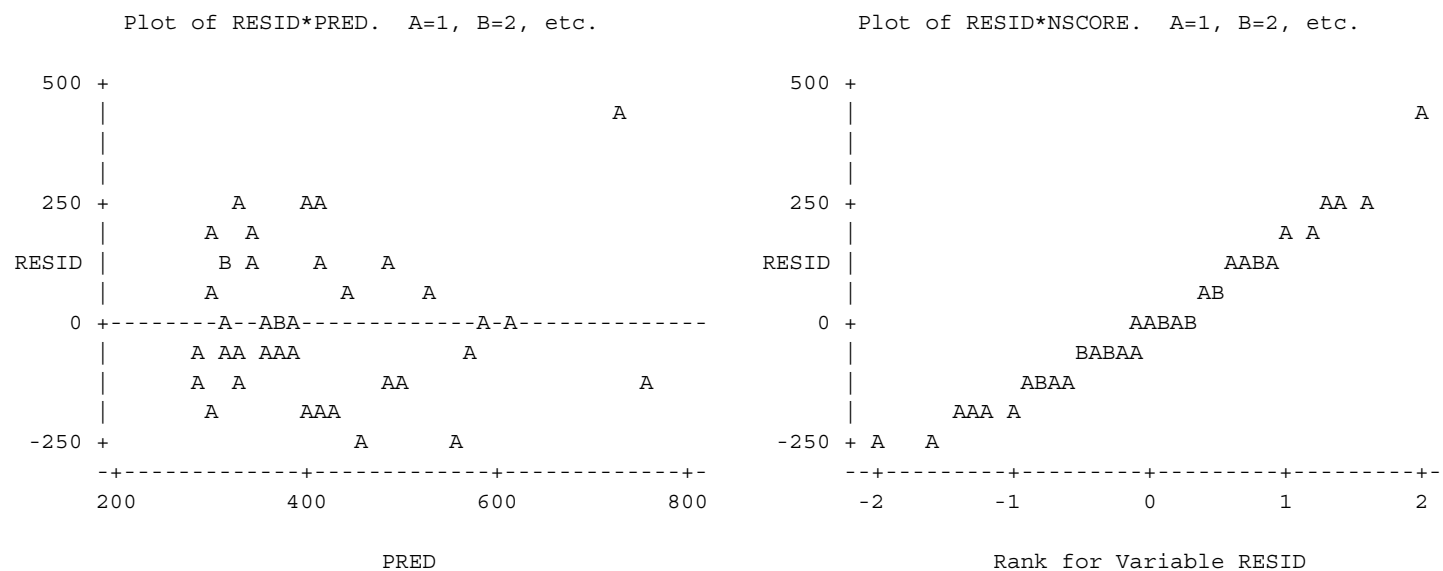
**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)

SA

Residual Plots



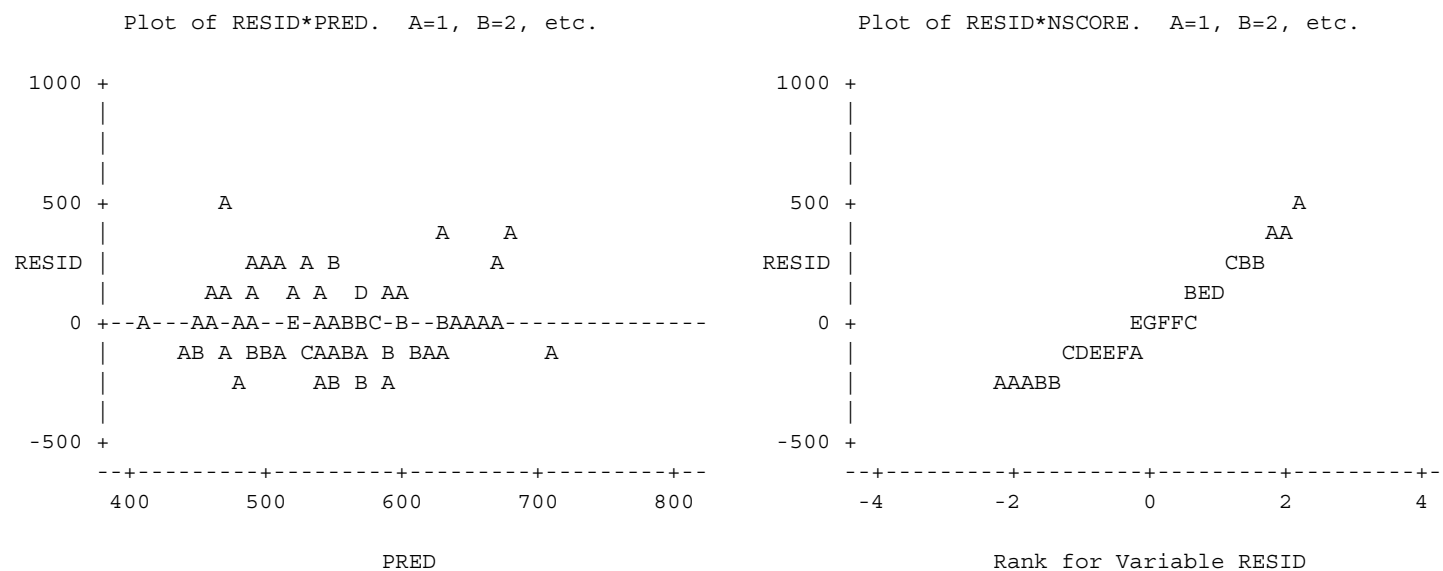
**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

THS 2.2

Residual Plots



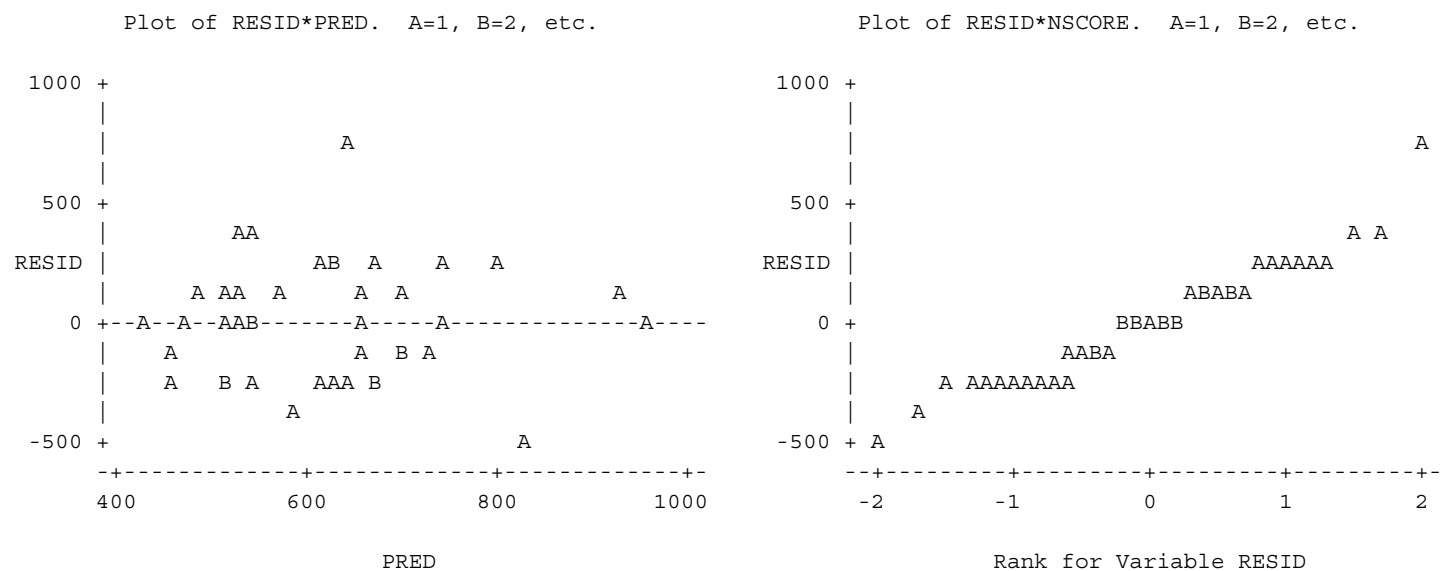
**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

CC

Residual Plots





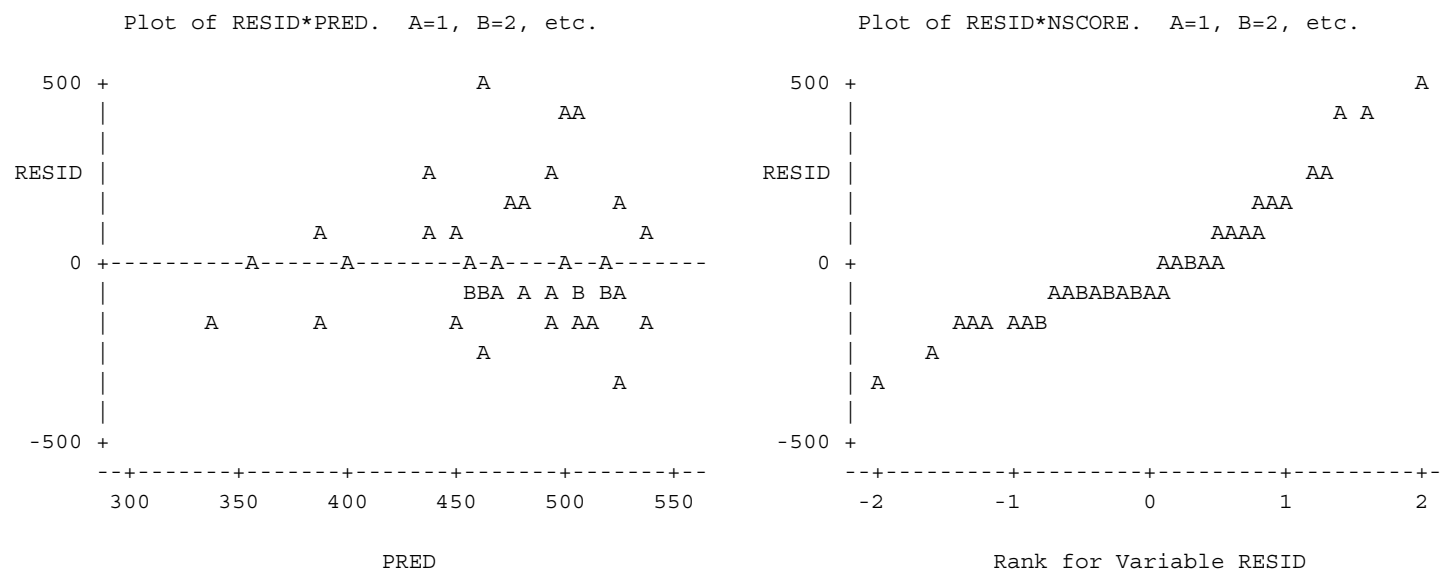
**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

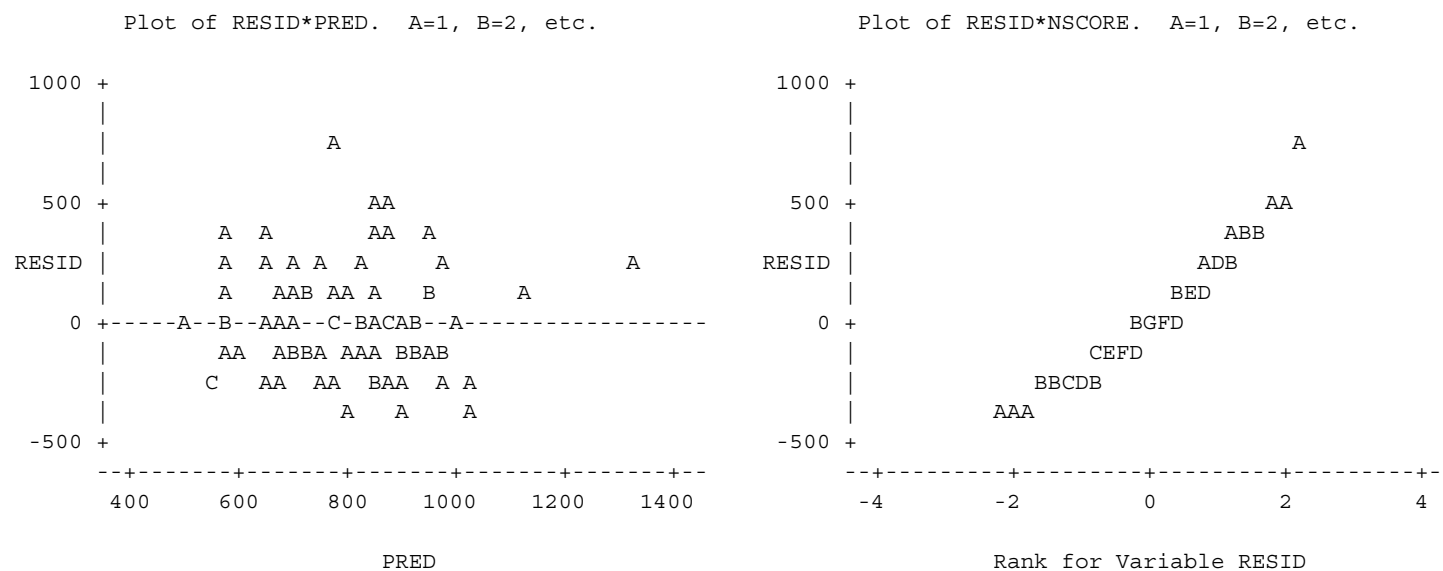
SA

Residual Plots



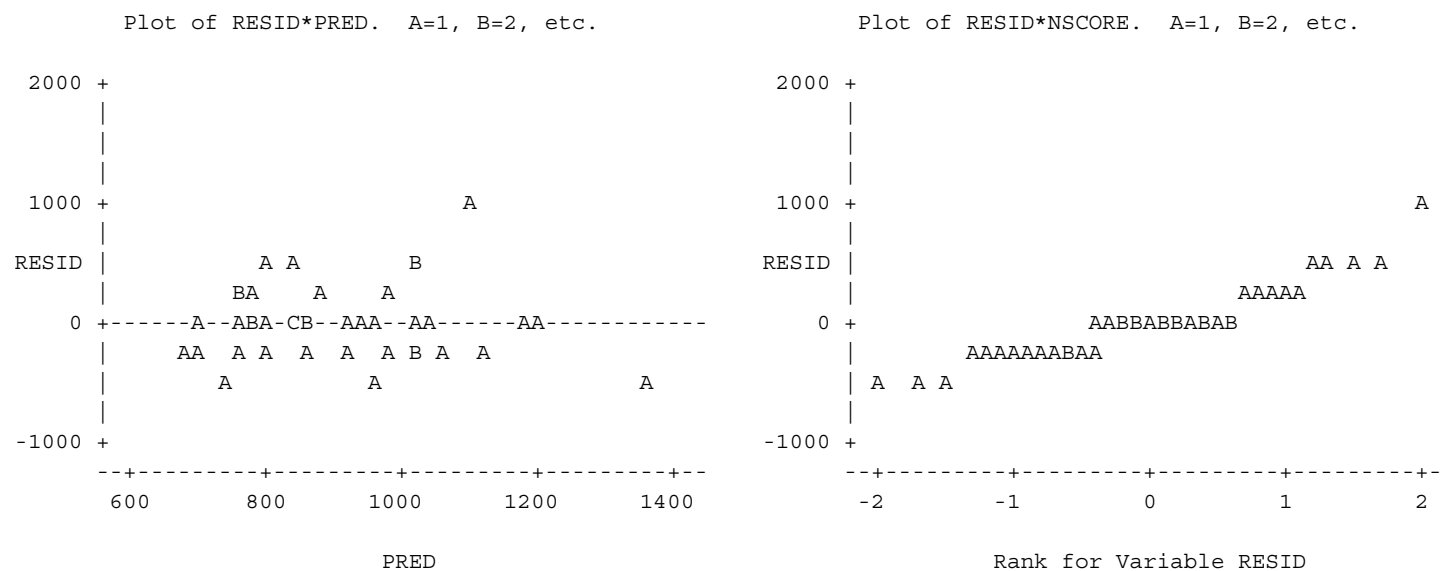
**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure  
Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)  
THS 2.2  
Residual Plots



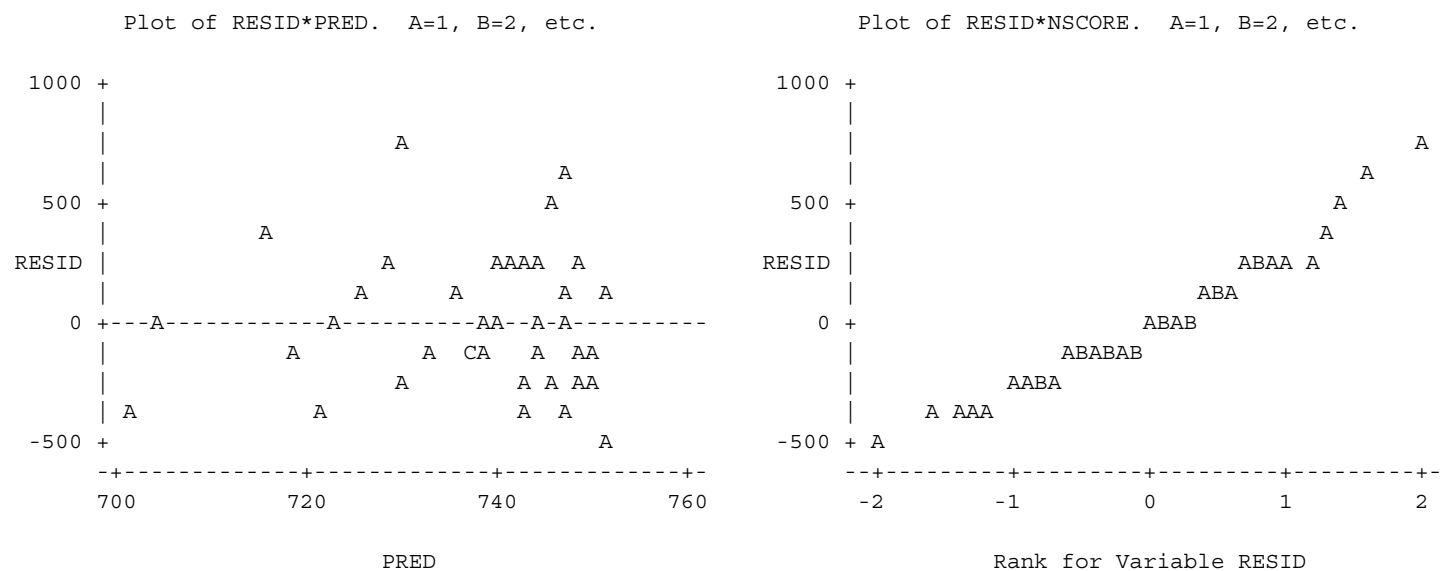
**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure  
Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)  
CC  
Residual Plots



**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure  
Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)  
SA  
Residual Plots





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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)

## Class Level Information

Class	Levels	Values
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TRTAN	2	THS 2.2 CC
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Number of Observations Read	120
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Number of Observations Used	120
-----------------------------	-----

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)

Dependent Variable: AVAL Analysis Value

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	47522.7804	15840.9268	2.57	0.0575
Error	116	714481.2790	6159.3214		
Corrected Total	119	762004.0594			

R-Square	Coeff Var	Root MSE	AVAL Mean
0.062366	31.80753	78.48134	246.7383

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTAN	1	1283.79546	1283.79546	0.21	0.6489
NEQ	1	39950.47777	39950.47777	6.49	0.0122
NEQ*TRTAN	1	6288.50713	6288.50713	1.02	0.3144

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)

Dependent Variable: AVAL Analysis Value

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTAN	1	5865.91426	5865.91426	0.95	0.3311
NEQ	1	45804.14521	45804.14521	7.44	0.0074
NEQ*TRTAN	1	6288.50713	6288.50713	1.02	0.3144

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	176.5657692 B	32.38767029	5.45	<.0001
TRTAN THS 2.2	38.4732573 B	39.42371386	0.98	0.3311
TRTAN CC	0.0000000 B			
NEQ	6.1858148 B	2.82549861	2.19	0.0306
NEQ*TRTAN THS 2.2	-3.3447240 B	3.31019012	-1.01	0.3144
NEQ*TRTAN CC	0.0000000 B			

NOTE: The X'X matrix has been found to be singular, and a generalized inverse was used to solve the normal equations. Terms whose estimates are followed by the letter 'B' are not uniquely estimable.

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure  
Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC

Number of Observations Read	120
Number of Observations Used	120

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)

Dependent Variable: AVAL Analysis Value

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	779868.582	259956.194	15.68	<.0001
Error	116	1923271.662	16579.928		
Corrected Total	119	2703140.244			

R-Square	Coeff Var	Root MSE	AVAL Mean
0.288505	34.51628	128.7631	373.0502

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTAN	1	24.2340	24.2340	0.00	0.9696
NEQ	1	779228.5262	779228.5262	47.00	<.0001
NEQ*TRTAN	1	615.8218	615.8218	0.04	0.8475

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)

Dependent Variable: AVAL      Analysis Value

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTAN	1	2804.9091	2804.9091	0.17	0.6816
NEQ	1	642734.0394	642734.0394	38.77	<.0001
NEQ*TRTAN	1	615.8218	615.8218	0.04	0.8475

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	222.2338702 B	46.16884724	4.81	<.0001
TRTAN THS 2.2	-23.4054602 B	56.90482713	-0.41	0.6816
TRTAN CC	0.0000000 B			
NEQ	9.0946695 B	2.51655613	3.61	0.0004
NEQ*TRTAN THS 2.2	0.5810109 B	3.01472733	0.19	0.8475
NEQ*TRTAN CC	0.0000000 B			

NOTE: The X'X matrix has been found to be singular, and a generalized inverse was used to solve the normal equations. Terms whose estimates are followed by the letter 'B' are not uniquely estimable.

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC

Number of Observations Read	120
Number of Observations Used	120

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

Dependent Variable: AVAL Analysis Value

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1026571.434	342190.478	9.43	<.0001
Error	116	4210308.189	36295.760		
Corrected Total	119	5236879.622			

R-Square	Coeff Var	Root MSE	AVAL Mean
0.196027	33.14474	190.5145	574.7955

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTAN	1	137924.1109	137924.1109	3.80	0.0537
NEQ	1	755491.6994	755491.6994	20.81	<.0001
NEQ*TRTAN	1	133155.6232	133155.6232	3.67	0.0579

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

Dependent Variable: AVAL Analysis Value

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTAN	1	22365.4774	22365.4774	0.62	0.4341
NEQ	1	883341.1761	883341.1761	24.34	<.0001
NEQ*TRTAN	1	133155.6232	133155.6232	3.67	0.0579

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	329.9043720 B	78.62148200	4.20	<.0001
TRTAN THS 2.2	75.1242568 B	95.70156734	0.78	0.4341
TRTAN CC	0.0000000 B			
NEQ	27.5162701 B	6.85893385	4.01	0.0001
NEQ*TRTAN THS 2.2	-15.3909796 B	8.03552867	-1.92	0.0579
NEQ*TRTAN CC	0.0000000 B			

NOTE: The X'X matrix has been found to be singular, and a generalized inverse was used to solve the normal equations. Terms whose estimates are followed by the letter 'B' are not uniquely estimable.

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure  
Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC

Number of Observations Read	120
Number of Observations Used	120

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)

Dependent Variable: AVAL Analysis Value

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	2962501.25	987500.42	15.37	<.0001
Error	116	7453327.53	64252.82		
Corrected Total	119	10415828.77			

R-Square	Coeff Var	Root MSE	AVAL Mean
0.284423	30.32435	253.4814	835.9006

Source	DF	Type I SS	Mean Square	F Value	Pr > F
TRTAN	1	318769.074	318769.074	4.96	0.0279
NEQ	1	2638266.508	2638266.508	41.06	<.0001
NEQ*TRTAN	1	5465.665	5465.665	0.09	0.7711

Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)

Dependent Variable: AVAL      Analysis Value

Source	DF	Type III SS	Mean Square	F Value	Pr > F
TRTAN	1	57474.598	57474.598	0.89	0.3462
NEQ	1	2317234.625	2317234.625	36.06	<.0001
NEQ*TRTAN	1	5465.665	5465.665	0.09	0.7711

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	598.8629544 B	90.8874289	6.59	<.0001
TRTAN THS 2.2	-105.9487310 B	112.0221478	-0.95	0.3462
TRTAN CC	0.0000000 B			
NEQ	18.6856276 B	4.9540617	3.77	0.0003
NEQ*TRTAN THS 2.2	-1.7309249 B	5.9347554	-0.29	0.7711
NEQ*TRTAN CC	0.0000000 B			

NOTE: The X'X matrix has been found to be singular, and a generalized inverse was used to solve the normal equations. Terms whose estimates are followed by the letter 'B' are not uniquely estimable.

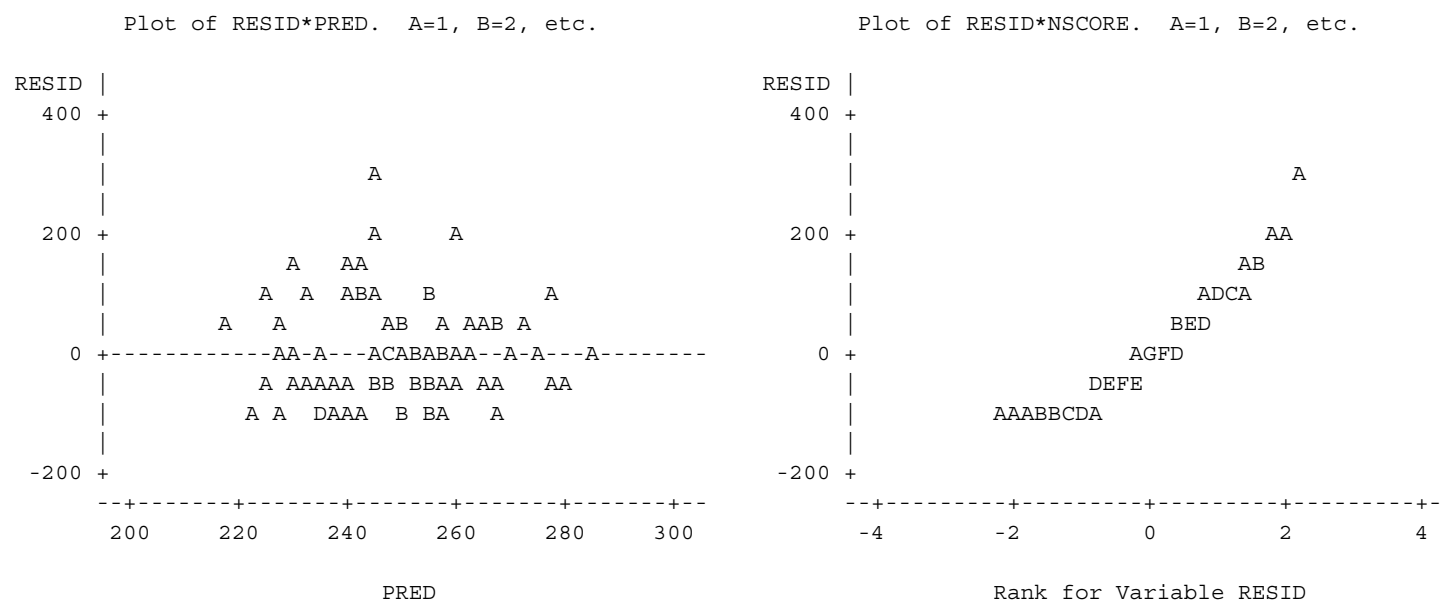
Program Run: 31OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure  
Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)  
Residual Plots

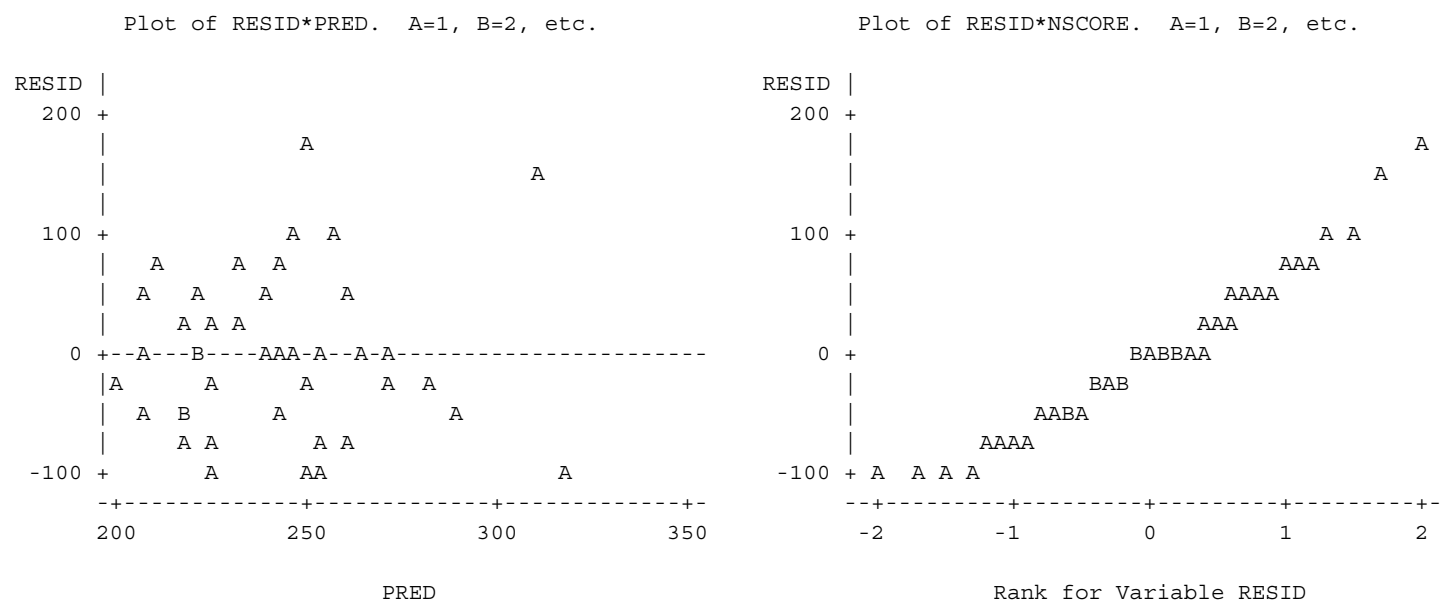


**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

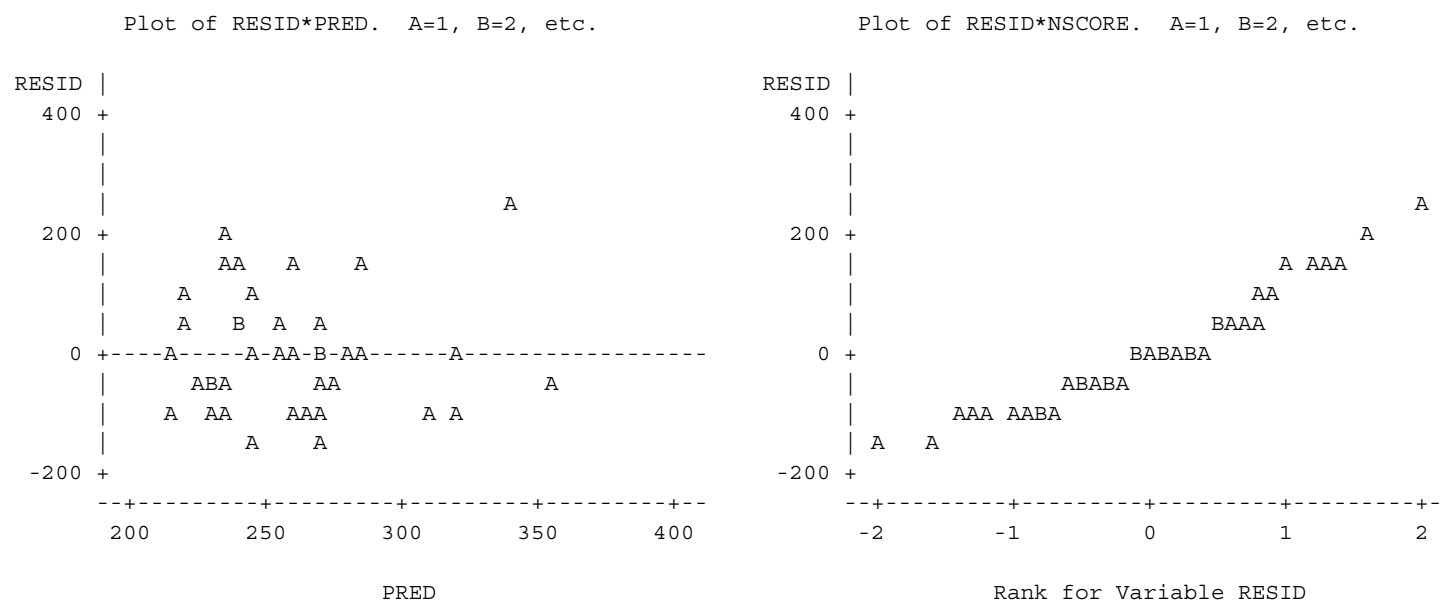
Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)

Residual Plots



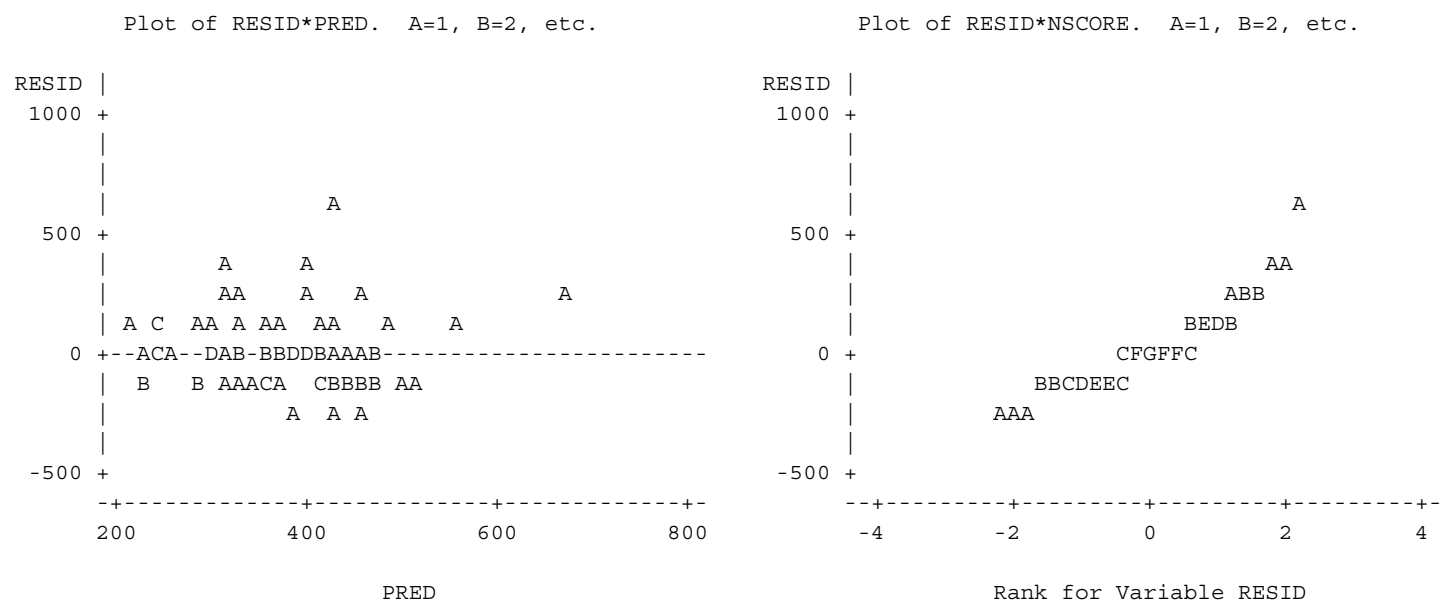
**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure  
Nicotine Equivalents (mg/g creat) vs. Prostaglandin F2 Alpha (pg/mg creat)  
Residual Plots



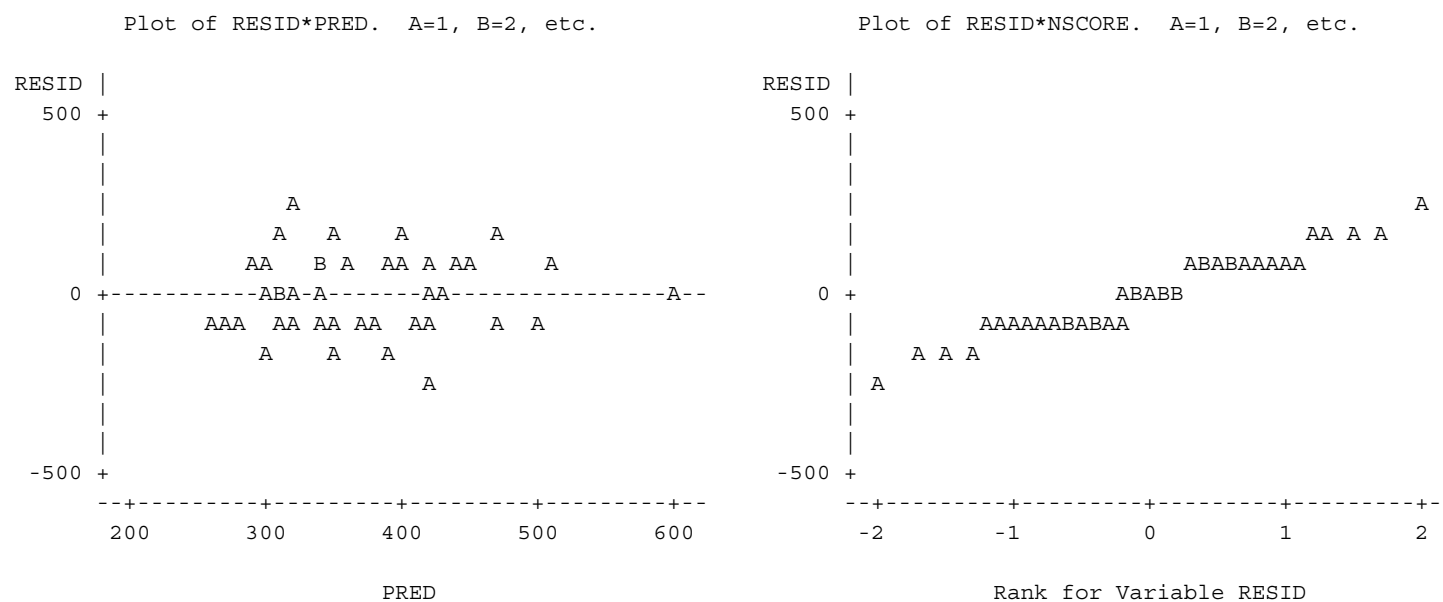
**Listing 15.4.457 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure  
Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)  
Residual Plots



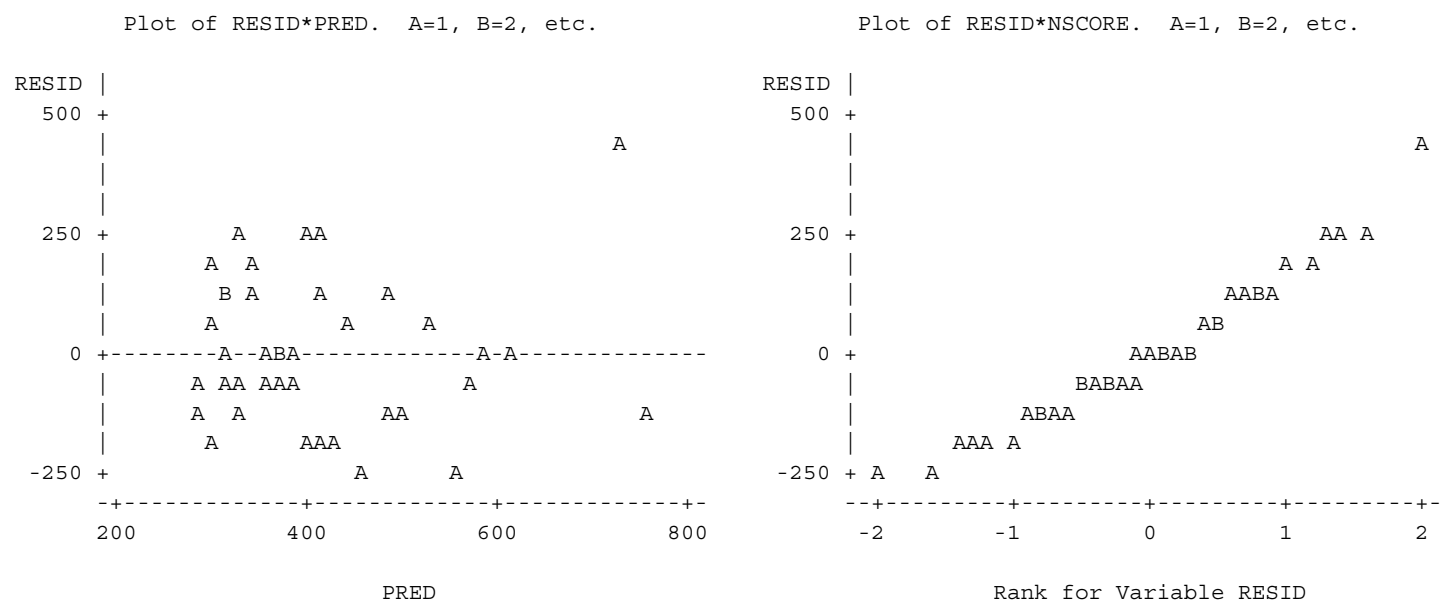
**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure  
Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)  
Residual Plots



**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure  
Nicotine Equivalents (mg) vs. Prostaglandin F2 Alpha (ng)  
Residual Plots

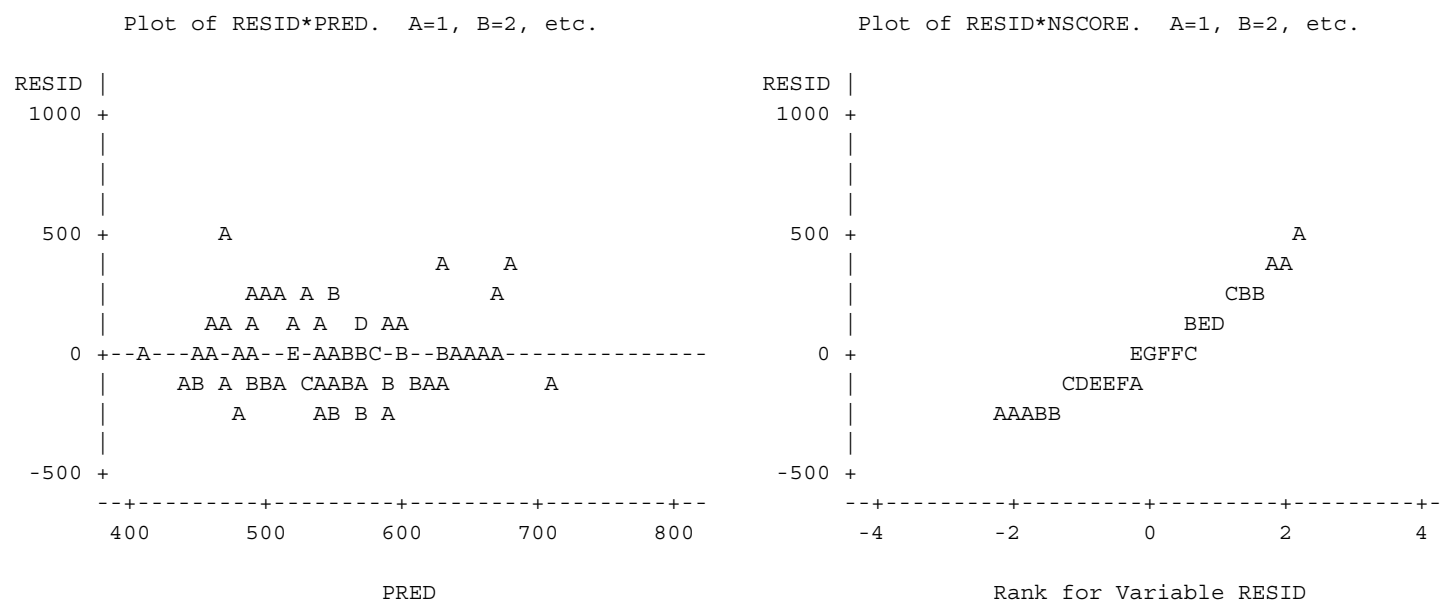


**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

Residual Plots

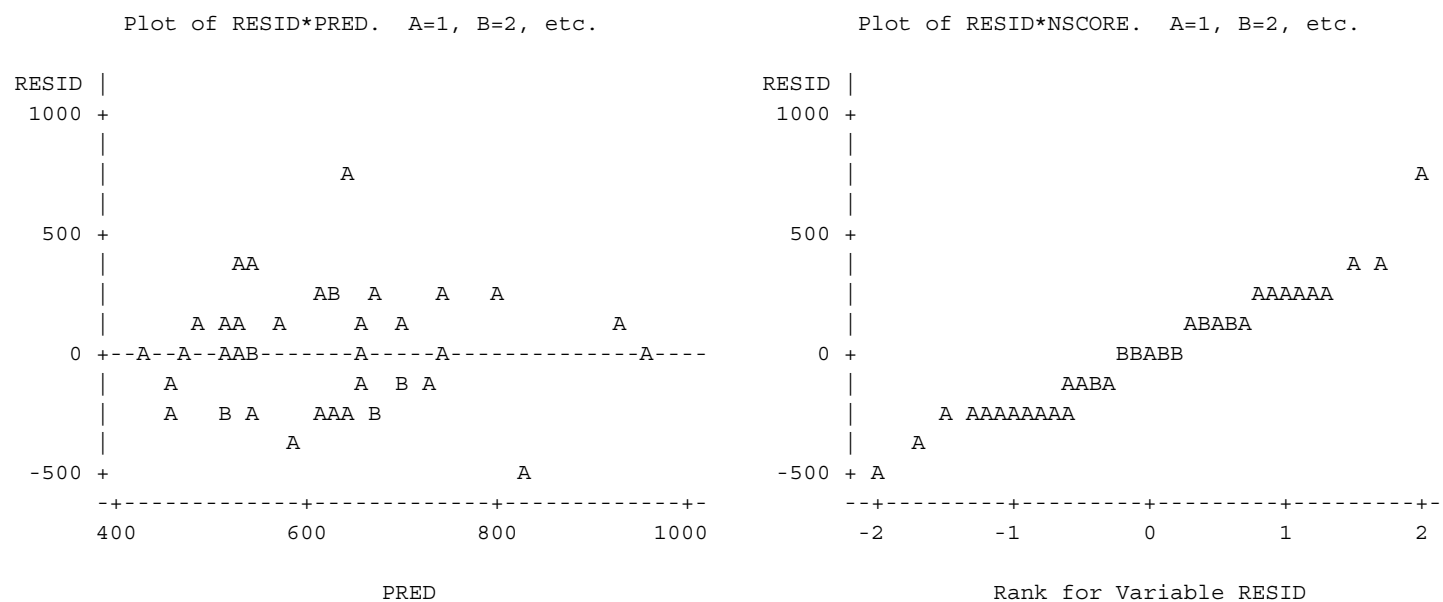


**Listing 15.4.457 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

Residual Plots



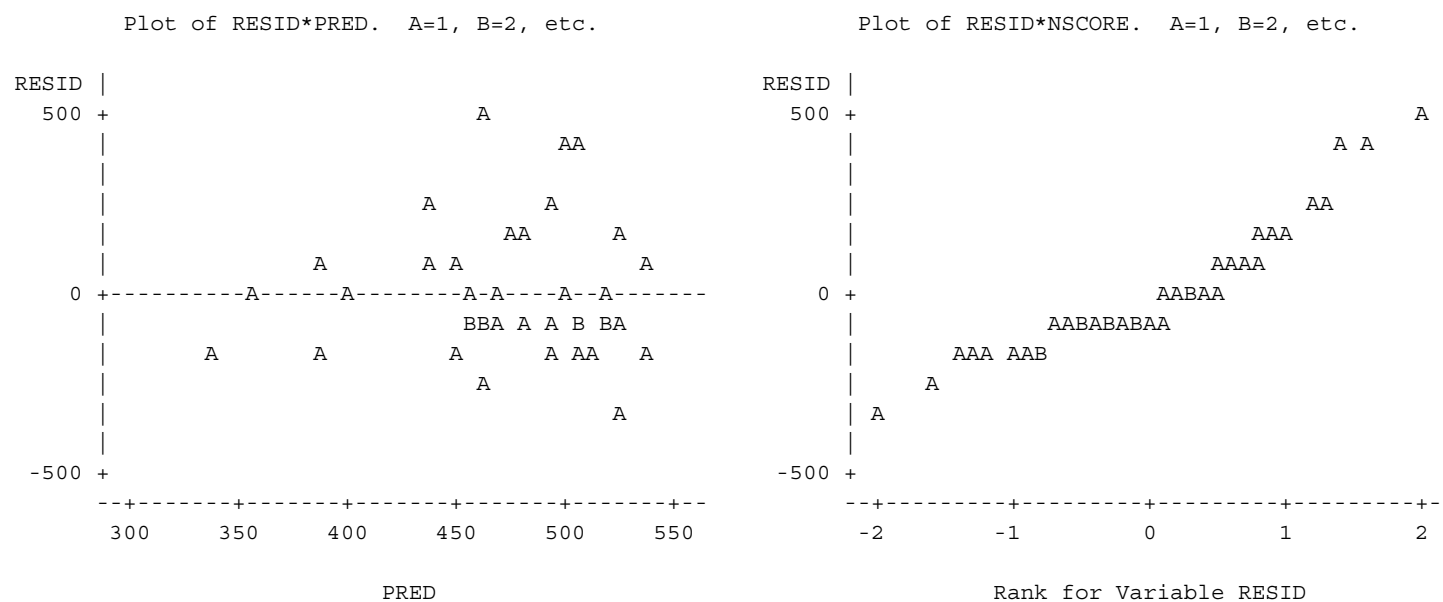


**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure

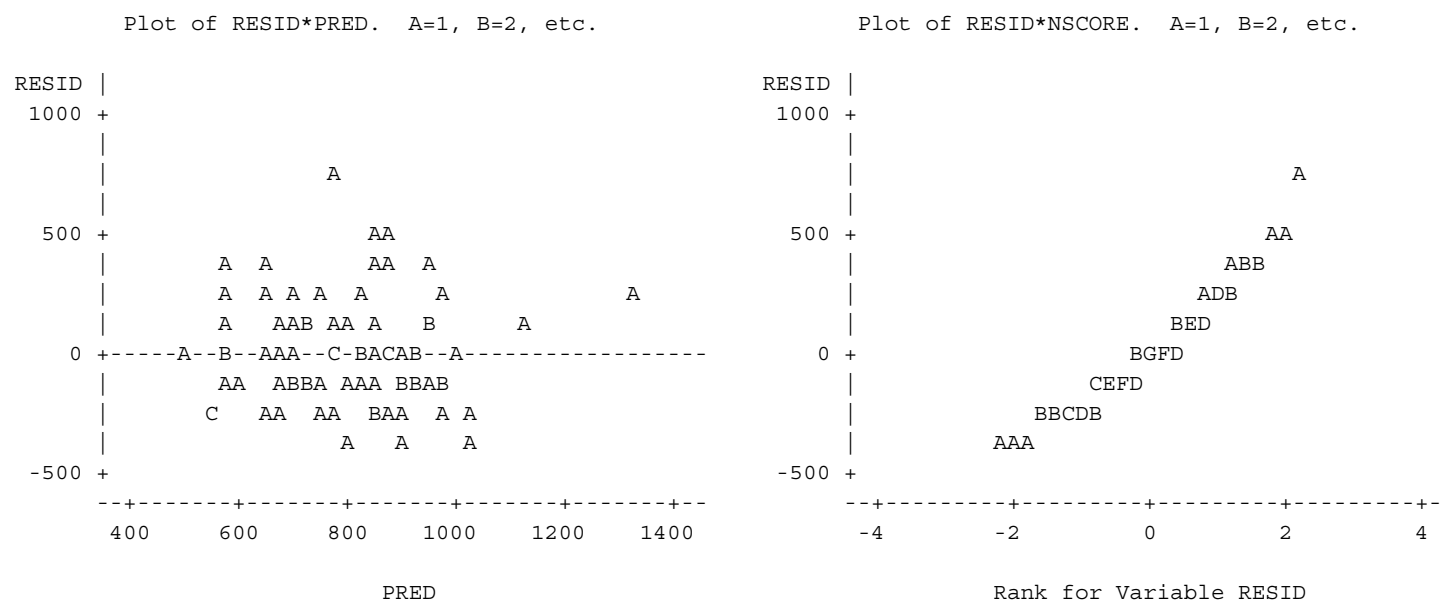
Nicotine Equivalents (mg/g creat) vs. 11-Dehydro-Thromboxane B2 (pg/mg creat)

Residual Plots



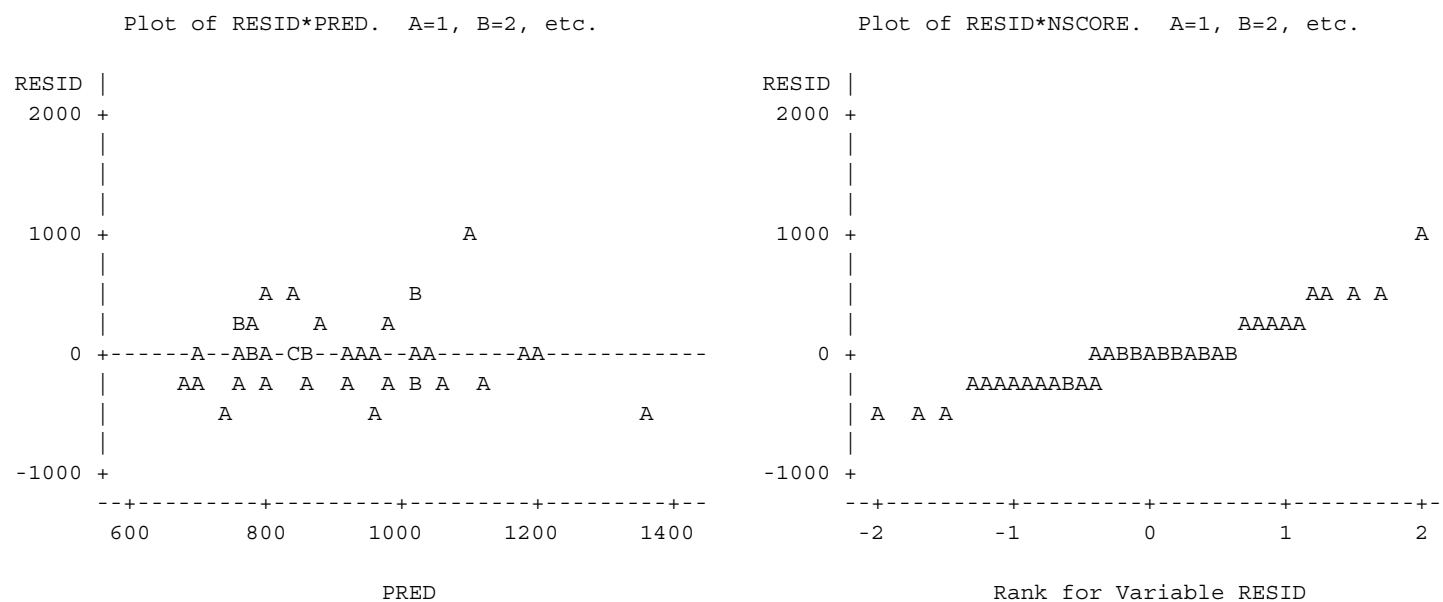
**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure  
Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)  
Residual Plots



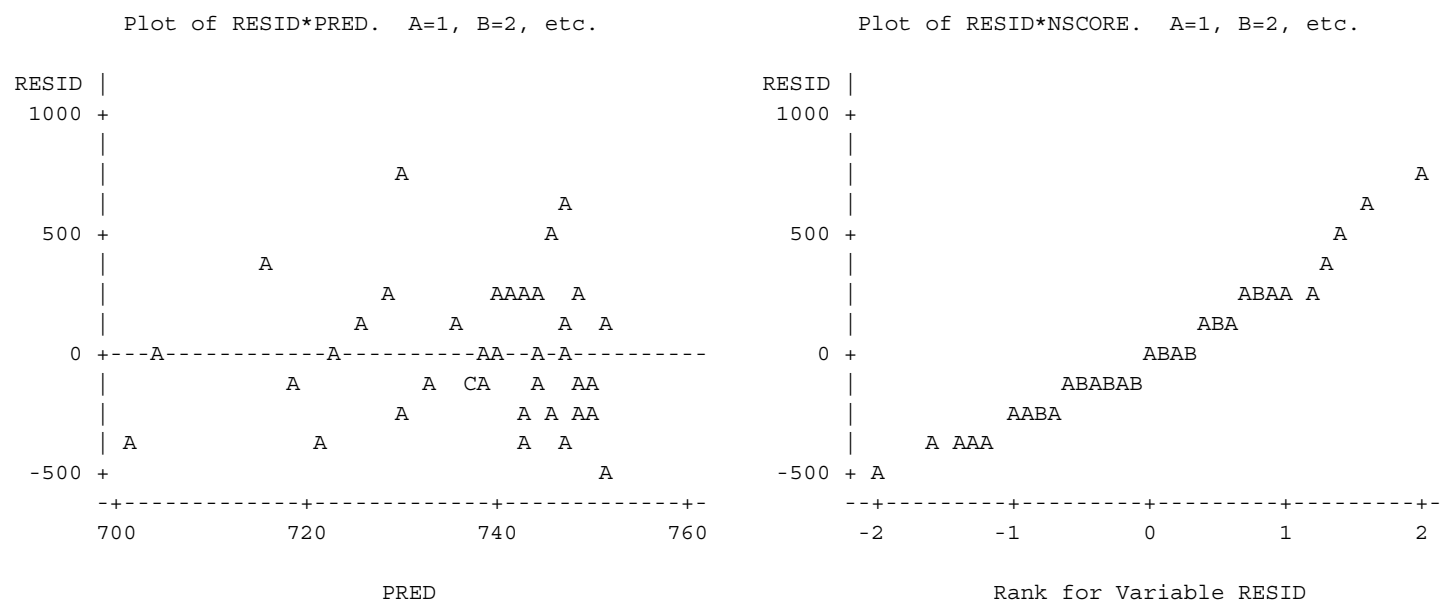
**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure  
Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)  
Residual Plots



**Listing 15.4.4.57 Statistical Analysis of Relationship Between NEQ and Risk Markers on Day 5 - FAS**

Proc GLM Procedure  
Nicotine Equivalents (mg) vs. 11-Dehydro-Thromboxane B2 (ng)  
Residual Plots





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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=50 Parameter=Total number of puffs (average over visit) Analysis Visit=Day 1 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=50 Parameter=Total number of puffs (average over visit) Analysis Visit=Day 1 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=50 Parameter=Total number of puffs (average over visit) Analysis Visit=Day 1 -----

## Dimensions

Subjects	1
Max Obs Per Subject	106

## Number of Observations

Number of Observations Read	106
Number of Observations Used	82
Number of Observations Not Used	24

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=50 Parameter=Total number of puffs (average over visit) Analysis Visit=Day 1 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.03361

Fit Statistics

-2 Res Log Likelihood	-28.0
AIC (smaller is better)	-26.0
AICC (smaller is better)	-25.9
BIC (smaller is better)	-23.6

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=50 Parameter=Total number of puffs (average over visit) Analysis Visit=Day 1 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	41.43	<.0001
TRTAN	1	77	0.45	0.5029
SEXC	1	77	0.14	0.7124
UCPDGR1	1	77	7.62	0.0072

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=50 Parameter=Total number of puffs (average over visit) Analysis Visit=Day 1 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	2.8053	0.02557	77	109.71	<.0001	0.05	2.7544	2.8562
TRTAN	CC	2.7751	0.03749	77	74.03	<.0001	0.05	2.7005	2.8498

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=50 Parameter=Total number of puffs (average over visit) Analysis Visit=Day 1 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.03019	0.04485	77	0.67	0.5029	0.05	-0.05911	0.1195

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=50 Parameter=Total number of puffs (average over visit) Analysis Visit=Day 4 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=50 Parameter=Total number of puffs (average over visit) Analysis Visit=Day 4 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=50 Parameter=Total number of puffs (average over visit) Analysis Visit=Day 4 -----

## Dimensions

Subjects	1
Max Obs Per Subject	105

## Number of Observations

Number of Observations Read	105
Number of Observations Used	82
Number of Observations Not Used	23

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=50 Parameter=Total number of puffs (average over visit) Analysis Visit=Day 4 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.02875

Fit Statistics

-2 Res Log Likelihood	-40.0
AIC (smaller is better)	-38.0
AICC (smaller is better)	-38.0
BIC (smaller is better)	-35.7

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=50 Parameter=Total number of puffs (average over visit) Analysis Visit=Day 4 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	45.09	<.0001
TRTAN	1	77	0.49	0.4873
SEXC	1	77	0.00	0.9557
UCPDGR1	1	77	5.11	0.0266



**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=50 Parameter=Total number of puffs (average over visit) Analysis Visit=Day 4 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	2.7762	0.02367	77	117.30	<.0001	0.05	2.7291	2.8233
TRTAN	CC	2.8052	0.03472	77	80.80	<.0001	0.05	2.7361	2.8744

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=50 Parameter=Total number of puffs (average over visit) Analysis Visit=Day 4 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.02901	0.04157	77	-0.70	0.4873	0.05	-0.1118	0.05377

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=51 Parameter=Total puff volume (mL) (average over visit) Analysis Visit=Day 1 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=51 Parameter=Total puff volume (mL) (average over visit) Analysis Visit=Day 1 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=51 Parameter=Total puff volume (mL) (average over visit) Analysis Visit=Day 1 -----

## Dimensions

Subjects	1
Max Obs Per Subject	106

## Number of Observations

Number of Observations Read	106
Number of Observations Used	82
Number of Observations Not Used	24

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=51 Parameter=Total puff volume (mL) (average over visit) Analysis Visit=Day 1 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.08985

Fit Statistics

-2 Res Log Likelihood	47.8
AIC (smaller is better)	49.8
AICC (smaller is better)	49.8
BIC (smaller is better)	52.1

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=51 Parameter=Total puff volume (mL) (average over visit) Analysis Visit=Day 1 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	35.10	<.0001
TRTAN	1	77	1.56	0.2156
SEXC	1	77	14.58	0.0003
UCPDGR1	1	77	2.08	0.1531

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=51 Parameter=Total puff volume (mL) (average over visit) Analysis Visit=Day 1 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	6.6420	0.04201	77	158.10	<.0001	0.05	6.5584	6.7257
TRTAN	CC	6.5510	0.06059	77	108.12	<.0001	0.05	6.4304	6.6717



**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=51 Parameter=Total puff volume (mL) (average over visit) Analysis Visit=Day 1 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.09102	0.07289	77	1.25	0.2156	0.05	-0.05413	0.2362

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=51 Parameter=Total puff volume (mL) (average over visit) Analysis Visit=Day 4 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=51 Parameter=Total puff volume (mL) (average over visit) Analysis Visit=Day 4 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=51 Parameter=Total puff volume (mL) (average over visit) Analysis Visit=Day 4 -----

## Dimensions

Subjects	1
Max Obs Per Subject	105

## Number of Observations

Number of Observations Read	105
Number of Observations Used	82
Number of Observations Not Used	23

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=51 Parameter=Total puff volume (mL) (average over visit) Analysis Visit=Day 4 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.07086

Fit Statistics

-2 Res Log Likelihood	29.5
AIC (smaller is better)	31.5
AICC (smaller is better)	31.6
BIC (smaller is better)	33.8

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=51 Parameter=Total puff volume (mL) (average over visit) Analysis Visit=Day 4 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	28.00	<.0001
TRTAN	1	77	0.63	0.4285
SEXC	1	77	10.83	0.0015
UCPDGR1	1	77	3.18	0.0785

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=51 Parameter=Total puff volume (mL) (average over visit) Analysis Visit=Day 4 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	6.6742	0.03718	77	179.53	<.0001	0.05	6.6002	6.7482
TRTAN	CC	6.6230	0.05369	77	123.36	<.0001	0.05	6.5161	6.7299

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=51 Parameter=Total puff volume (mL) (average over visit) Analysis Visit=Day 4 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.05123	0.06436	77	0.80	0.4285	0.05	-0.07693	0.1794

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=52 Parameter=Average puff volume (mL) (average over visit) Analysis Visit=Day 1 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=52 Parameter=Average puff volume (mL) (average over visit) Analysis Visit=Day 1 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0



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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=52 Parameter=Average puff volume (mL) (average over visit) Analysis Visit=Day 1 -----

Dimensions

Subjects	1
Max Obs Per Subject	106

Number of Observations

Number of Observations Read	106
Number of Observations Used	82
Number of Observations Not Used	24

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=52 Parameter=Average puff volume (mL) (average over visit) Analysis Visit=Day 1 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.05844

Fit Statistics

-2 Res Log Likelihood	14.9
AIC (smaller is better)	16.9
AICC (smaller is better)	17.0
BIC (smaller is better)	19.3

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=52 Parameter=Average puff volume (mL) (average over visit) Analysis Visit=Day 1 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	120.54	<.0001
TRTAN	1	77	0.07	0.7888
SEXC	1	77	13.66	0.0004
UCPDGR1	1	77	0.09	0.7622

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=52 Parameter=Average puff volume (mL) (average over visit) Analysis Visit=Day 1 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	3.8350	0.03354	77	114.33	<.0001	0.05	3.7682	3.9018
TRTAN	CC	3.8196	0.04814	77	79.35	<.0001	0.05	3.7238	3.9155

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=52 Parameter=Average puff volume (mL) (average over visit) Analysis Visit=Day 1 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.01537	0.05719	77	0.27	0.7888	0.05	-0.09850	0.1292

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=52 Parameter=Average puff volume (mL) (average over visit) Analysis Visit=Day 4 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=52 Parameter=Average puff volume (mL) (average over visit) Analysis Visit=Day 4 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=52 Parameter=Average puff volume (mL) (average over visit) Analysis Visit=Day 4 -----

Dimensions

Subjects	1
Max Obs Per Subject	105

Number of Observations

Number of Observations Read	105
Number of Observations Used	82
Number of Observations Not Used	23

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=52 Parameter=Average puff volume (mL) (average over visit) Analysis Visit=Day 4 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.04401

Fit Statistics

-2 Res Log Likelihood	-7.0
AIC (smaller is better)	-5.0
AICC (smaller is better)	-4.9
BIC (smaller is better)	-2.7

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=52 Parameter=Average puff volume (mL) (average over visit) Analysis Visit=Day 4 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	119.00	<.0001
TRTAN	1	77	1.16	0.2848
SEXC	1	77	11.04	0.0014
UCPDGR1	1	77	0.17	0.6807

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=52 Parameter=Average puff volume (mL) (average over visit) Analysis Visit=Day 4 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	3.9008	0.02909	77	134.08	<.0001	0.05	3.8429	3.9588
TRTAN	CC	3.8473	0.04182	77	92.00	<.0001	0.05	3.7640	3.9306

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=52 Parameter=Average puff volume (mL) (average over visit) Analysis Visit=Day 4 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.05353	0.04969	77	1.08	0.2848	0.05	-0.04542	0.1525

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=53 Parameter=Average puff duration (s) (average over visit) Analysis Visit=Day 1 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=53 Parameter=Average puff duration (s) (average over visit) Analysis Visit=Day 1 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=53 Parameter=Average puff duration (s) (average over visit) Analysis Visit=Day 1 -----

Dimensions

Subjects	1
Max Obs Per Subject	106

Number of Observations

Number of Observations Read	106
Number of Observations Used	82
Number of Observations Not Used	24

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=53 Parameter=Average puff duration (s) (average over visit) Analysis Visit=Day 1 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.03558

Fit Statistics

-2 Res Log Likelihood	-23.3
AIC (smaller is better)	-21.3
AICC (smaller is better)	-21.2
BIC (smaller is better)	-18.9

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=53 Parameter=Average puff duration (s) (average over visit) Analysis Visit=Day 1 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	162.83	<.0001
TRTAN	1	77	26.86	<.0001
SEXC	1	77	15.18	0.0002
UCPDGR1	1	77	0.59	0.4456

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=53 Parameter=Average puff duration (s) (average over visit) Analysis Visit=Day 1 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	0.6341	0.02618	77	24.22	<.0001	0.05	0.5820	0.6863
TRTAN	CC	0.4025	0.03755	77	10.72	<.0001	0.05	0.3277	0.4772

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=53 Parameter=Average puff duration (s) (average over visit) Analysis Visit=Day 1 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.2317	0.04470	77	5.18	<.0001	0.05	0.1427	0.3207

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=53 Parameter=Average puff duration (s) (average over visit) Analysis Visit=Day 4 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=53 Parameter=Average puff duration (s) (average over visit) Analysis Visit=Day 4 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0



---

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=53 Parameter=Average puff duration (s) (average over visit) Analysis Visit=Day 4 -----

Dimensions

Subjects	1
Max Obs Per Subject	105

Number of Observations

Number of Observations Read	105
Number of Observations Used	82
Number of Observations Not Used	23

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=53 Parameter=Average puff duration (s) (average over visit) Analysis Visit=Day 4 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.04068

Fit Statistics

-2 Res Log Likelihood	-13.0
AIC (smaller is better)	-11.0
AICC (smaller is better)	-10.9
BIC (smaller is better)	-8.6

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=53 Parameter=Average puff duration (s) (average over visit) Analysis Visit=Day 4 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	176.30	<.0001
TRTAN	1	77	34.20	<.0001
SEXC	1	77	9.61	0.0027
UCPDGR1	1	77	0.48	0.4897

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=53 Parameter=Average puff duration (s) (average over visit) Analysis Visit=Day 4 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	0.6807	0.02799	77	24.32	<.0001	0.05	0.6250	0.7364
TRTAN	CC	0.4012	0.04015	77	9.99	<.0001	0.05	0.3213	0.4812

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=53 Parameter=Average puff duration (s) (average over visit) Analysis Visit=Day 4 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.2795	0.04780	77	5.85	<.0001	0.05	0.1843	0.3747

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=54 Parameter=Total puff duration (s) (average over visit) Analysis Visit=Day 1 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=54 Parameter=Total puff duration (s) (average over visit) Analysis Visit=Day 1 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=54 Parameter=Total puff duration (s) (average over visit) Analysis Visit=Day 1 -----

## Dimensions

Subjects	1
Max Obs Per Subject	106

## Number of Observations

Number of Observations Read	106
Number of Observations Used	82
Number of Observations Not Used	24

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=54 Parameter=Total puff duration (s) (average over visit) Analysis Visit=Day 1 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.07011

Fit Statistics

-2 Res Log Likelihood	28.8
AIC (smaller is better)	30.8
AICC (smaller is better)	30.9
BIC (smaller is better)	33.1

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=54 Parameter=Total puff duration (s) (average over visit) Analysis Visit=Day 1 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	48.37	<.0001
TRTAN	1	77	23.47	<.0001
SEXC	1	77	9.05	0.0036
UCPDGR1	1	77	1.91	0.1715

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=54 Parameter=Total puff duration (s) (average over visit) Analysis Visit=Day 1 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	3.4517	0.03678	77	93.84	<.0001	0.05	3.3784	3.5249
TRTAN	CC	3.1435	0.05342	77	58.85	<.0001	0.05	3.0372	3.2499

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=54 Parameter=Total puff duration (s) (average over visit) Analysis Visit=Day 1 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.3081	0.06361	77	4.84	<.0001	0.05	0.1815	0.4348

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=54 Parameter=Total puff duration (s) (average over visit) Analysis Visit=Day 4 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=54 Parameter=Total puff duration (s) (average over visit) Analysis Visit=Day 4 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=54 Parameter=Total puff duration (s) (average over visit) Analysis Visit=Day 4 -----

## Dimensions

Subjects	1
Max Obs Per Subject	105

## Number of Observations

Number of Observations Read	105
Number of Observations Used	82
Number of Observations Not Used	23

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=54 Parameter=Total puff duration (s) (average over visit) Analysis Visit=Day 4 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.08585

Fit Statistics

-2 Res Log Likelihood	44.4
AIC (smaller is better)	46.4
AICC (smaller is better)	46.4
BIC (smaller is better)	48.7

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=54 Parameter=Total puff duration (s) (average over visit) Analysis Visit=Day 4 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	52.85	<.0001
TRTAN	1	77	20.26	<.0001
SEXC	1	77	7.28	0.0086
UCPDGR1	1	77	3.75	0.0565



**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=54 Parameter=Total puff duration (s) (average over visit) Analysis Visit=Day 4 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	3.4723	0.04072	77	85.27	<.0001	0.05	3.3912	3.5533
TRTAN	CC	3.1550	0.05915	77	53.34	<.0001	0.05	3.0372	3.2728

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=54 Parameter=Total puff duration (s) (average over visit) Analysis Visit=Day 4 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.3172	0.07048	77	4.50	<.0001	0.05	0.1769	0.4576

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=55 Parameter=Average flow (mL/s) (average over visit) Analysis Visit=Day 1 -----

## Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=55 Parameter=Average flow (mL/s) (average over visit) Analysis Visit=Day 1 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=55 Parameter=Average flow (mL/s) (average over visit) Analysis Visit=Day 1 -----

Dimensions

Subjects	1
Max Obs Per Subject	106

Number of Observations

Number of Observations Read	106
Number of Observations Used	82
Number of Observations Not Used	24

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=55 Parameter=Average flow (mL/s) (average over visit) Analysis Visit=Day 1 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.03461

Fit Statistics

-2 Res Log Likelihood	-25.8
AIC (smaller is better)	-23.8
AICC (smaller is better)	-23.7
BIC (smaller is better)	-21.4

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=55 Parameter=Average flow (mL/s) (average over visit) Analysis Visit=Day 1 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	102.02	<.0001
TRTAN	1	77	21.23	<.0001
SEXC	1	77	2.51	0.1170
UCPDGR1	1	77	0.17	0.6829

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=55 Parameter=Average flow (mL/s) (average over visit) Analysis Visit=Day 1 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	3.2381	0.02589	77	125.09	<.0001	0.05	3.1865	3.2896
TRTAN	CC	3.4409	0.03698	77	93.06	<.0001	0.05	3.3673	3.5146

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=55 Parameter=Average flow (mL/s) (average over visit) Analysis Visit=Day 1 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.2028	0.04402	77	-4.61	<.0001	0.05	-0.2905	-0.1152

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=55 Parameter=Average flow (mL/s) (average over visit) Analysis Visit=Day 4 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=55 Parameter=Average flow (mL/s) (average over visit) Analysis Visit=Day 4 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=55 Parameter=Average flow (mL/s) (average over visit) Analysis Visit=Day 4 -----

Dimensions

Subjects	1
Max Obs Per Subject	105

Number of Observations

Number of Observations Read	105
Number of Observations Used	82
Number of Observations Not Used	23

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=55 Parameter=Average flow (mL/s) (average over visit) Analysis Visit=Day 4 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.03885

Fit Statistics

-2 Res Log Likelihood	-17.0
AIC (smaller is better)	-15.0
AICC (smaller is better)	-15.0
BIC (smaller is better)	-12.7

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=55 Parameter=Average flow (mL/s) (average over visit) Analysis Visit=Day 4 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	58.07	<.0001
TRTAN	1	77	23.05	<.0001
SEXC	1	77	0.79	0.3764
UCPDGR1	1	77	0.15	0.6954

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=55 Parameter=Average flow (mL/s) (average over visit) Analysis Visit=Day 4 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	3.2572	0.02737	77	119.00	<.0001	0.05	3.2027	3.3117
TRTAN	CC	3.4809	0.03918	77	88.84	<.0001	0.05	3.4029	3.5589

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=55 Parameter=Average flow (mL/s) (average over visit) Analysis Visit=Day 4 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.2237	0.04660	77	-4.80	<.0001	0.05	-0.3165	-0.1309

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=56 Parameter=Average Peak flow (mL/s) (average over visit) Analysis Visit=Day 1 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=56 Parameter=Average Peak flow (mL/s) (average over visit) Analysis Visit=Day 1 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=56 Parameter=Average Peak flow (mL/s) (average over visit) Analysis Visit=Day 1 -----

Dimensions

Subjects	1
Max Obs Per Subject	106

Number of Observations

Number of Observations Read	106
Number of Observations Used	82
Number of Observations Not Used	24

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=56 Parameter=Average Peak flow (mL/s) (average over visit) Analysis Visit=Day 1 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.03368

Fit Statistics

-2 Res Log Likelihood	-27.7
AIC (smaller is better)	-25.7
AICC (smaller is better)	-25.7
BIC (smaller is better)	-23.4

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=56 Parameter=Average Peak flow (mL/s) (average over visit) Analysis Visit=Day 1 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	149.97	<.0001
TRTAN	1	77	19.13	<.0001
SEXC	1	77	2.53	0.1157
UCPDGR1	1	77	0.05	0.8160

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=56 Parameter=Average Peak flow (mL/s) (average over visit) Analysis Visit=Day 1 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	3.6670	0.02545	77	144.06	<.0001	0.05	3.6163	3.7177
TRTAN	CC	3.8581	0.03679	77	104.87	<.0001	0.05	3.7848	3.9313

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=56 Parameter=Average Peak flow (mL/s) (average over visit) Analysis Visit=Day 1 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.1911	0.04369	77	-4.37	<.0001	0.05	-0.2780	-0.1041

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=56 Parameter=Average Peak flow (mL/s) (average over visit) Analysis Visit=Day 4 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=56 Parameter=Average Peak flow (mL/s) (average over visit) Analysis Visit=Day 4 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=56 Parameter=Average Peak flow (mL/s) (average over visit) Analysis Visit=Day 4 -----

Dimensions

Subjects	1
Max Obs Per Subject	105

Number of Observations

Number of Observations Read	105
Number of Observations Used	82
Number of Observations Not Used	23

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=56 Parameter=Average Peak flow (mL/s) (average over visit) Analysis Visit=Day 4 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.03816

Fit Statistics

-2 Res Log Likelihood	-18.3
AIC (smaller is better)	-16.3
AICC (smaller is better)	-16.2
BIC (smaller is better)	-13.9

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=56 Parameter=Average Peak flow (mL/s) (average over visit) Analysis Visit=Day 4 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	83.91	<.0001
TRTAN	1	77	21.69	<.0001
SEXC	1	77	0.79	0.3768
UCPDGR1	1	77	0.01	0.9165

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=56 Parameter=Average Peak flow (mL/s) (average over visit) Analysis Visit=Day 4 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	3.6751	0.02712	77	135.51	<.0001	0.05	3.6211	3.7291
TRTAN	CC	3.8928	0.03928	77	99.10	<.0001	0.05	3.8146	3.9710

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=56 Parameter=Average Peak flow (mL/s) (average over visit) Analysis Visit=Day 4 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.2177	0.04674	77	-4.66	<.0001	0.05	-0.3108	-0.1246

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=57 Parameter=Total inter puff interval (s) (average over visit) Analysis Visit=Day 1 ---

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=57 Parameter=Total inter puff interval (s) (average over visit) Analysis Visit=Day 1 ---

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=57 Parameter=Total inter puff interval (s) (average over visit) Analysis Visit=Day 1 ---

## Dimensions

Subjects	1
Max Obs Per Subject	106

## Number of Observations

Number of Observations Read	106
Number of Observations Used	82
Number of Observations Not Used	24

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=57 Parameter=Total inter puff interval (s) (average over visit) Analysis Visit=Day 1 ---

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.06361

Fit Statistics

-2 Res Log Likelihood	21.1
AIC (smaller is better)	23.1
AICC (smaller is better)	23.2
BIC (smaller is better)	25.5

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=57 Parameter=Total inter puff interval (s) (average over visit) Analysis Visit=Day 1 ---

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	28.66	<.0001
TRTAN	1	77	25.66	<.0001
SEXC	1	77	2.22	0.1399
UCPDGR1	1	77	0.28	0.5994

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=57 Parameter=Total inter puff interval (s) (average over visit) Analysis Visit=Day 1 ---

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.1348	0.03535	77	145.28	<.0001	0.05	5.0644	5.2052
TRTAN	CC	5.4405	0.05030	77	108.15	<.0001	0.05	5.3403	5.5406

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=57 Parameter=Total inter puff interval (s) (average over visit) Analysis Visit=Day 1 ---

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.3057	0.06034	77	-5.07	<.0001	0.05	-0.4258	-0.1855

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=57 Parameter=Total inter puff interval (s) (average over visit) Analysis Visit=Day 4 ---

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=57 Parameter=Total inter puff interval (s) (average over visit) Analysis Visit=Day 4 ---

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=57 Parameter=Total inter puff interval (s) (average over visit) Analysis Visit=Day 4 ---

Dimensions

Subjects	1
Max Obs Per Subject	105

Number of Observations

Number of Observations Read	105
Number of Observations Used	82
Number of Observations Not Used	23

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=57 Parameter=Total inter puff interval (s) (average over visit) Analysis Visit=Day 4 ---

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.06537

Fit Statistics

-2 Res Log Likelihood	23.2
AIC (smaller is better)	25.2
AICC (smaller is better)	25.3
BIC (smaller is better)	27.6

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=57 Parameter=Total inter puff interval (s) (average over visit) Analysis Visit=Day 4 ---

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	27.77	<.0001
TRTAN	1	77	31.97	<.0001
SEXC	1	77	1.57	0.2135
UCPDGR1	1	77	0.05	0.8290

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=57 Parameter=Total inter puff interval (s) (average over visit) Analysis Visit=Day 4 ---

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.0711	0.03584	77	141.48	<.0001	0.05	4.9997	5.1425
TRTAN	CC	5.4171	0.05100	77	106.22	<.0001	0.05	5.3155	5.5186

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=57 Parameter=Total inter puff interval (s) (average over visit) Analysis Visit=Day 4 ---

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.3460	0.06119	77	-5.65	<.0001	0.05	-0.4678	-0.2241

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

-- Parameter (N)=58 Parameter=Average inter puff interval (s) (average over visit) Analysis Visit=Day 1 --

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

-- Parameter (N)=58 Parameter=Average inter puff interval (s) (average over visit) Analysis Visit=Day 1 --

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

-- Parameter (N)=58 Parameter=Average inter puff interval (s) (average over visit) Analysis Visit=Day 1 --

Dimensions

Subjects	1
Max Obs Per Subject	106

Number of Observations

Number of Observations Read	106
Number of Observations Used	82
Number of Observations Not Used	24

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

-- Parameter (N)=58 Parameter=Average inter puff interval (s) (average over visit) Analysis Visit=Day 1 --

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.08272

Fit Statistics

-2 Res Log Likelihood	42.0
AIC (smaller is better)	44.0
AICC (smaller is better)	44.1
BIC (smaller is better)	46.3

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

-- Parameter (N)=58 Parameter=Average inter puff interval (s) (average over visit) Analysis Visit=Day 1 --

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	66.47	<.0001
TRTAN	1	77	28.64	<.0001
SEXC	1	77	1.77	0.1872
UCPDGR1	1	77	5.81	0.0184

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

-- Parameter (N)=58 Parameter=Average inter puff interval (s) (average over visit) Analysis Visit=Day 1 --

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	2.3280	0.04058	77	57.37	<.0001	0.05	2.2472	2.4088
TRTAN	CC	2.7101	0.05892	77	46.00	<.0001	0.05	2.5928	2.8274

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

-- Parameter (N)=58 Parameter=Average inter puff interval (s) (average over visit) Analysis Visit=Day 1 --

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.3821	0.07139	77	-5.35	<.0001	0.05	-0.5242	-0.2399

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

-- Parameter (N)=58 Parameter=Average inter puff interval (s) (average over visit) Analysis Visit=Day 4 --

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

-- Parameter (N)=58 Parameter=Average inter puff interval (s) (average over visit) Analysis Visit=Day 4 --

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

-- Parameter (N)=58 Parameter=Average inter puff interval (s) (average over visit) Analysis Visit=Day 4 --

Dimensions

Subjects	1
Max Obs Per Subject	105

Number of Observations

Number of Observations Read	105
Number of Observations Used	82
Number of Observations Not Used	23

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

-- Parameter (N)=58 Parameter=Average inter puff interval (s) (average over visit) Analysis Visit=Day 4 --

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.06973

Fit Statistics

-2 Res Log Likelihood	28.8
AIC (smaller is better)	30.8
AICC (smaller is better)	30.9
BIC (smaller is better)	33.2

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

-- Parameter (N)=58 Parameter=Average inter puff interval (s) (average over visit) Analysis Visit=Day 4 --

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	89.34	<.0001
TRTAN	1	77	34.93	<.0001
SEXC	1	77	1.87	0.1759
UCPDGR1	1	77	3.15	0.0797



**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

-- Parameter (N)=58 Parameter=Average inter puff interval (s) (average over visit) Analysis Visit=Day 4 --

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	2.2871	0.03731	77	61.30	<.0001	0.05	2.2128	2.3614
TRTAN	CC	2.6753	0.05415	77	49.41	<.0001	0.05	2.5675	2.7831

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

-- Parameter (N)=58 Parameter=Average inter puff interval (s) (average over visit) Analysis Visit=Day 4 --

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.3882	0.06569	77	-5.91	<.0001	0.05	-0.5190	-0.2574

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=59 Parameter=Total smoking duration (s) (average over visit) Analysis Visit=Day 1 ----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=59 Parameter=Total smoking duration (s) (average over visit) Analysis Visit=Day 1 ----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=59 Parameter=Total smoking duration (s) (average over visit) Analysis Visit=Day 1 ----

Dimensions

Subjects	1
Max Obs Per Subject	106

Number of Observations

Number of Observations Read	106
Number of Observations Used	82
Number of Observations Not Used	24

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=59 Parameter=Total smoking duration (s) (average over visit) Analysis Visit=Day 1 ----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.04353

Fit Statistics

-2 Res Log Likelihood	-8.4
AIC (smaller is better)	-6.4
AICC (smaller is better)	-6.3
BIC (smaller is better)	-4.0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=59 Parameter=Total smoking duration (s) (average over visit) Analysis Visit=Day 1 ----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	24.04	<.0001
TRTAN	1	77	19.23	<.0001
SEXC	1	77	1.32	0.2544
UCPDGR1	1	77	0.23	0.6313

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=59 Parameter=Total smoking duration (s) (average over visit) Analysis Visit=Day 1 ----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.3243	0.02922	77	182.21	<.0001	0.05	5.2662	5.3825
TRTAN	CC	5.5426	0.04155	77	133.39	<.0001	0.05	5.4599	5.6254

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=59 Parameter=Total smoking duration (s) (average over visit) Analysis Visit=Day 1 ----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.2183	0.04978	77	-4.39	<.0001	0.05	-0.3174	-0.1192

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=59 Parameter=Total smoking duration (s) (average over visit) Analysis Visit=Day 4 ----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=59 Parameter=Total smoking duration (s) (average over visit) Analysis Visit=Day 4 ----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0



---

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=59 Parameter=Total smoking duration (s) (average over visit) Analysis Visit=Day 4 ----

## Dimensions

Subjects	1
Max Obs Per Subject	105

## Number of Observations

Number of Observations Read	105
Number of Observations Used	82
Number of Observations Not Used	23

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=59 Parameter=Total smoking duration (s) (average over visit) Analysis Visit=Day 4 ----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.05061

Fit Statistics

-2 Res Log Likelihood	3.3
AIC (smaller is better)	5.3
AICC (smaller is better)	5.3
BIC (smaller is better)	7.6

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=59 Parameter=Total smoking duration (s) (average over visit) Analysis Visit=Day 4 ----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	21.68	<.0001
TRTAN	1	77	22.21	<.0001
SEXC	1	77	0.66	0.4194
UCPDGR1	1	77	0.01	0.9276

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=59 Parameter=Total smoking duration (s) (average over visit) Analysis Visit=Day 4 ----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.2722	0.03151	77	167.30	<.0001	0.05	5.2094	5.3349
TRTAN	CC	5.5252	0.04481	77	123.31	<.0001	0.05	5.4360	5.6144

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=59 Parameter=Total smoking duration (s) (average over visit) Analysis Visit=Day 4 ----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.2530	0.05369	77	-4.71	<.0001	0.05	-0.3599	-0.1461

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=60 Parameter=Total work (mJ) (average over visit) Analysis Visit=Day 1 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=60 Parameter=Total work (mJ) (average over visit) Analysis Visit=Day 1 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=60 Parameter=Total work (mJ) (average over visit) Analysis Visit=Day 1 -----

## Dimensions

Subjects	1
Max Obs Per Subject	106

## Number of Observations

Number of Observations Read	106
Number of Observations Used	82
Number of Observations Not Used	24

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=60 Parameter=Total work (mJ) (average over visit) Analysis Visit=Day 1 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1824

Fit Statistics

-2 Res Log Likelihood	103.3
AIC (smaller is better)	105.3
AICC (smaller is better)	105.3
BIC (smaller is better)	107.6

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=60 Parameter=Total work (mJ) (average over visit) Analysis Visit=Day 1 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	82.97	<.0001
TRTAN	1	77	0.65	0.4240
SEXC	1	77	8.02	0.0059
UCPDGR1	1	77	0.79	0.3768

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=60 Parameter=Total work (mJ) (average over visit) Analysis Visit=Day 1 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	7.5166	0.05949	77	126.35	<.0001	0.05	7.3981	7.6351
TRTAN	CC	7.4354	0.08490	77	87.57	<.0001	0.05	7.2663	7.6045

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=60 Parameter=Total work (mJ) (average over visit) Analysis Visit=Day 1 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.08121	0.1010	77	0.80	0.4240	0.05	-0.1200	0.2824

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=60 Parameter=Total work (mJ) (average over visit) Analysis Visit=Day 4 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual



**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=60 Parameter=Total work (mJ) (average over visit) Analysis Visit=Day 4 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=60 Parameter=Total work (mJ) (average over visit) Analysis Visit=Day 4 -----

## Dimensions

Subjects	1
Max Obs Per Subject	105

## Number of Observations

Number of Observations Read	105
Number of Observations Used	82
Number of Observations Not Used	23

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=60 Parameter=Total work (mJ) (average over visit) Analysis Visit=Day 4 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1244

Fit Statistics

-2 Res Log Likelihood	73.7
AIC (smaller is better)	75.7
AICC (smaller is better)	75.8
BIC (smaller is better)	78.1

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=60 Parameter=Total work (mJ) (average over visit) Analysis Visit=Day 4 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	66.99	<.0001
TRTAN	1	77	0.00	0.9747
SEXC	1	77	5.51	0.0214
UCPDGR1	1	77	0.39	0.5359

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=60 Parameter=Total work (mJ) (average over visit) Analysis Visit=Day 4 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	7.5204	0.04901	77	153.44	<.0001	0.05	7.4228	7.6180
TRTAN	CC	7.5231	0.07014	77	107.26	<.0001	0.05	7.3834	7.6627

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=60 Parameter=Total work (mJ) (average over visit) Analysis Visit=Day 4 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.00265	0.08338	77	-0.03	0.9747	0.05	-0.1687	0.1634

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=61 Parameter=Average Work (mJ) (average over visit) Analysis Visit=Day 1 -----

## Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=61 Parameter=Average Work (mJ) (average over visit) Analysis Visit=Day 1 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=61 Parameter=Average Work (mJ) (average over visit) Analysis Visit=Day 1 -----

## Dimensions

Subjects	1
Max Obs Per Subject	106

## Number of Observations

Number of Observations Read	106
Number of Observations Used	82
Number of Observations Not Used	24

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=61 Parameter=Average Work (mJ) (average over visit) Analysis Visit=Day 1 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1546

Fit Statistics

-2 Res Log Likelihood	90.8
AIC (smaller is better)	92.8
AICC (smaller is better)	92.8
BIC (smaller is better)	95.1

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=61 Parameter=Average Work (mJ) (average over visit) Analysis Visit=Day 1 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	136.65	<.0001
TRTAN	1	77	0.17	0.6827
SEXC	1	77	5.20	0.0254
UCPDGR1	1	77	0.20	0.6547

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=61 Parameter=Average Work (mJ) (average over visit) Analysis Visit=Day 1 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	4.6948	0.05454	77	86.08	<.0001	0.05	4.5862	4.8034
TRTAN	CC	4.7332	0.07909	77	59.84	<.0001	0.05	4.5757	4.8907

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=61 Parameter=Average Work (mJ) (average over visit) Analysis Visit=Day 1 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.03841	0.09360	77	-0.41	0.6827	0.05	-0.2248	0.1480

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=61 Parameter=Average Work (mJ) (average over visit) Analysis Visit=Day 4 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=61 Parameter=Average Work (mJ) (average over visit) Analysis Visit=Day 4 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=61 Parameter=Average Work (mJ) (average over visit) Analysis Visit=Day 4 -----

Dimensions

Subjects	1
Max Obs Per Subject	105

Number of Observations

Number of Observations Read	105
Number of Observations Used	82
Number of Observations Not Used	23

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=61 Parameter=Average Work (mJ) (average over visit) Analysis Visit=Day 4 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1165

Fit Statistics

-2 Res Log Likelihood	68.8
AIC (smaller is better)	70.8
AICC (smaller is better)	70.9
BIC (smaller is better)	73.2

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=61 Parameter=Average Work (mJ) (average over visit) Analysis Visit=Day 4 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	114.10	<.0001
TRTAN	1	77	0.16	0.6878
SEXC	1	77	2.07	0.1538
UCPDGR1	1	77	0.34	0.5630

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=61 Parameter=Average Work (mJ) (average over visit) Analysis Visit=Day 4 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	4.7456	0.04734	77	100.24	<.0001	0.05	4.6513	4.8398
TRTAN	CC	4.7785	0.06898	77	69.27	<.0001	0.05	4.6412	4.9159

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=61 Parameter=Average Work (mJ) (average over visit) Analysis Visit=Day 4 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.03296	0.08173	77	-0.40	0.6878	0.05	-0.1957	0.1298

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=62 Parameter=Average pressure drop (mmWg) (average over visit) Analysis Visit=Day 1 ----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=62 Parameter=Average pressure drop (mmWg) (average over visit) Analysis Visit=Day 1 ----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=62 Parameter=Average pressure drop (mmWg) (average over visit) Analysis Visit=Day 1 ----

Dimensions

Subjects	1
Max Obs Per Subject	106

Number of Observations

Number of Observations Read	106
Number of Observations Used	82
Number of Observations Not Used	24

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=62 Parameter=Average pressure drop (mmWg) (average over visit) Analysis Visit=Day 1 ----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.05751

Fit Statistics

-2 Res Log Likelihood	13.8
AIC (smaller is better)	15.8
AICC (smaller is better)	15.8
BIC (smaller is better)	18.1

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=62 Parameter=Average pressure drop (mmWg) (average over visit) Analysis Visit=Day 1 ----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	102.73	<.0001
TRTAN	1	77	0.07	0.7976
SEXC	1	77	1.73	0.1921
UCPDGR1	1	77	0.08	0.7747

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=62 Parameter=Average pressure drop (mmWg) (average over visit) Analysis Visit=Day 1 ----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.3259	0.03329	77	159.97	<.0001	0.05	5.2596	5.3922
TRTAN	CC	5.3405	0.04793	77	111.43	<.0001	0.05	5.2451	5.4360

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=62 Parameter=Average pressure drop (mmWg) (average over visit) Analysis Visit=Day 1 ----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.01462	0.05680	77	-0.26	0.7976	0.05	-0.1277	0.09849

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=62 Parameter=Average pressure drop (mmWg) (average over visit) Analysis Visit=Day 4 ----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=62 Parameter=Average pressure drop (mmWg) (average over visit) Analysis Visit=Day 4 ----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=62 Parameter=Average pressure drop (mmWg) (average over visit) Analysis Visit=Day 4 ----

Dimensions

Subjects	1
Max Obs Per Subject	105

Number of Observations

Number of Observations Read	105
Number of Observations Used	82
Number of Observations Not Used	23

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=62 Parameter=Average pressure drop (mmWg) (average over visit) Analysis Visit=Day 4 ----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.05709

Fit Statistics

-2 Res Log Likelihood	13.1
AIC (smaller is better)	15.1
AICC (smaller is better)	15.2
BIC (smaller is better)	17.5

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=62 Parameter=Average pressure drop (mmWg) (average over visit) Analysis Visit=Day 4 ----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	100.29	<.0001
TRTAN	1	77	1.30	0.2576
SEXC	1	77	0.02	0.8785
UCPDGR1	1	77	1.86	0.1772



**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=62 Parameter=Average pressure drop (mmWg) (average over visit) Analysis Visit=Day 4 ----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.3127	0.03315	77	160.27	<.0001	0.05	5.2467	5.3787
TRTAN	CC	5.3774	0.04783	77	112.42	<.0001	0.05	5.2821	5.4726

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

--- Parameter (N)=62 Parameter=Average pressure drop (mmWg) (average over visit) Analysis Visit=Day 4 ----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.06467	0.05670	77	-1.14	0.2576	0.05	-0.1776	0.04824

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

- Parameter (N)=63 Parameter=Average Peak pressure drop (mmWg) (average over visit) Analysis Visit=Day 1 -

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

- Parameter (N)=63 Parameter=Average Peak pressure drop (mmWg) (average over visit) Analysis Visit=Day 1 -

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

- Parameter (N)=63 Parameter=Average Peak pressure drop (mmWg) (average over visit) Analysis Visit=Day 1 -

Dimensions

Subjects	1
Max Obs Per Subject	106

Number of Observations

Number of Observations Read	106
Number of Observations Used	82
Number of Observations Not Used	24

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

- Parameter (N)=63 Parameter=Average Peak pressure drop (mmWg) (average over visit) Analysis Visit=Day 1 -

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.06134

Fit Statistics

-2 Res Log Likelihood	18.9
AIC (smaller is better)	20.9
AICC (smaller is better)	21.0
BIC (smaller is better)	23.3

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

- Parameter (N)=63 Parameter=Average Peak pressure drop (mmWg) (average over visit) Analysis Visit=Day 1 -

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	133.25	<.0001
TRTAN	1	77	0.01	0.9123
SEXC	1	77	1.68	0.1989
UCPDGR1	1	77	0.19	0.6618

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

- Parameter (N)=63 Parameter=Average Peak pressure drop (mmWg) (average over visit) Analysis Visit=Day 1 -

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.8348	0.03437	77	169.78	<.0001	0.05	5.7663	5.9032
TRTAN	CC	5.8282	0.05020	77	116.09	<.0001	0.05	5.7282	5.9281

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

- Parameter (N)=63 Parameter=Average Peak pressure drop (mmWg) (average over visit) Analysis Visit=Day 1 -

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.006586	0.05957	77	0.11	0.9123	0.05	-0.1120	0.1252

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

- Parameter (N)=63 Parameter=Average Peak pressure drop (mmWg) (average over visit) Analysis Visit=Day 4 -

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

- Parameter (N)=63 Parameter=Average Peak pressure drop (mmWg) (average over visit) Analysis Visit=Day 4 -

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

- Parameter (N)=63 Parameter=Average Peak pressure drop (mmWg) (average over visit) Analysis Visit=Day 4 -

Dimensions

Subjects	1
Max Obs Per Subject	105

Number of Observations

Number of Observations Read	105
Number of Observations Used	82
Number of Observations Not Used	23

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

- Parameter (N)=63 Parameter=Average Peak pressure drop (mmWg) (average over visit) Analysis Visit=Day 4 -

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.06323

Fit Statistics

-2 Res Log Likelihood	21.2
AIC (smaller is better)	23.2
AICC (smaller is better)	23.2
BIC (smaller is better)	25.5

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

- Parameter (N)=63 Parameter=Average Peak pressure drop (mmWg) (average over visit) Analysis Visit=Day 4 -

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	113.72	<.0001
TRTAN	1	77	0.96	0.3292
SEXC	1	77	0.00	0.9733
UCPDGR1	1	77	1.14	0.2880

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

- Parameter (N)=63 Parameter=Average Peak pressure drop (mmWg) (average over visit) Analysis Visit=Day 4 -

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	5.8087	0.03493	77	166.30	<.0001	0.05	5.7392	5.8783
TRTAN	CC	5.8685	0.05118	77	114.66	<.0001	0.05	5.7666	5.9704

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

- Parameter (N)=63 Parameter=Average Peak pressure drop (mmWg) (average over visit) Analysis Visit=Day 4 -

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	-0.05974	0.06085	77	-0.98	0.3292	0.05	-0.1809	0.06142

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=64 Parameter=Smoking Intensity (mL/s) (average over visit) Analysis Visit=Day 1 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=64 Parameter=Smoking Intensity (mL/s) (average over visit) Analysis Visit=Day 1 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=64 Parameter=Smoking Intensity (mL/s) (average over visit) Analysis Visit=Day 1 -----

Dimensions

Subjects	1
Max Obs Per Subject	106

Number of Observations

Number of Observations Read	106
Number of Observations Used	82
Number of Observations Not Used	24

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=64 Parameter=Smoking Intensity (mL/s) (average over visit) Analysis Visit=Day 1 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1294

Fit Statistics

-2 Res Log Likelihood	76.7
AIC (smaller is better)	78.7
AICC (smaller is better)	78.7
BIC (smaller is better)	81.0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=64 Parameter=Smoking Intensity (mL/s) (average over visit) Analysis Visit=Day 1 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	63.89	<.0001
TRTAN	1	77	13.73	0.0004
SEXC	1	77	11.31	0.0012
UCPDGR1	1	77	2.98	0.0885

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=64 Parameter=Smoking Intensity (mL/s) (average over visit) Analysis Visit=Day 1 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	1.3772	0.05068	77	27.17	<.0001	0.05	1.2762	1.4781
TRTAN	CC	1.0532	0.07240	77	14.55	<.0001	0.05	0.9091	1.1974

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=64 Parameter=Smoking Intensity (mL/s) (average over visit) Analysis Visit=Day 1 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.3239	0.08743	77	3.70	0.0004	0.05	0.1498	0.4980

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=64 Parameter=Smoking Intensity (mL/s) (average over visit) Analysis Visit=Day 4 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=64 Parameter=Smoking Intensity (mL/s) (average over visit) Analysis Visit=Day 4 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0



---

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=64 Parameter=Smoking Intensity (mL/s) (average over visit) Analysis Visit=Day 4 -----

## Dimensions

Subjects	1
Max Obs Per Subject	105

## Number of Observations

Number of Observations Read	105
Number of Observations Used	82
Number of Observations Not Used	23

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=64 Parameter=Smoking Intensity (mL/s) (average over visit) Analysis Visit=Day 4 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.1080

Fit Statistics

-2 Res Log Likelihood	62.8
AIC (smaller is better)	64.8
AICC (smaller is better)	64.8
BIC (smaller is better)	67.1

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=64 Parameter=Smoking Intensity (mL/s) (average over visit) Analysis Visit=Day 4 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	59.56	<.0001
TRTAN	1	77	17.72	<.0001
SEXC	1	77	7.52	0.0076
UCPDGR1	1	77	1.74	0.1910

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=64 Parameter=Smoking Intensity (mL/s) (average over visit) Analysis Visit=Day 4 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	1.4720	0.04618	77	31.87	<.0001	0.05	1.3801	1.5640
TRTAN	CC	1.1369	0.06608	77	17.21	<.0001	0.05	1.0053	1.2684

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=64 Parameter=Smoking Intensity (mL/s) (average over visit) Analysis Visit=Day 4 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.3352	0.07962	77	4.21	<.0001	0.05	0.1766	0.4937

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=65 Parameter=Puffing Time Index (%) (average over visit) Analysis Visit=Day 1 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=65 Parameter=Puffing Time Index (%) (average over visit) Analysis Visit=Day 1 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=65 Parameter=Puffing Time Index (%) (average over visit) Analysis Visit=Day 1 -----

## Dimensions

Subjects	1
Max Obs Per Subject	106

## Number of Observations

Number of Observations Read	106
Number of Observations Used	82
Number of Observations Not Used	24

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=65 Parameter=Puffing Time Index (%) (average over visit) Analysis Visit=Day 1 -----

Covariance Parameter  
Estimates

Cov Parm Estimate

Residual 0.09774

Fit Statistics

-2 Res Log Likelihood	55.0
AIC (smaller is better)	57.0
AICC (smaller is better)	57.0
BIC (smaller is better)	59.3

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=65 Parameter=Puffing Time Index (%) (average over visit) Analysis Visit=Day 1 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	63.36	<.0001
TRTAN	1	77	45.56	<.0001
SEXC	1	77	9.54	0.0028
UCPDGR1	1	77	3.34	0.0715

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=65 Parameter=Puffing Time Index (%) (average over visit) Analysis Visit=Day 1 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	2.7773	0.04370	77	63.55	<.0001	0.05	2.6902	2.8643
TRTAN	CC	2.2678	0.06292	77	36.04	<.0001	0.05	2.1425	2.3930

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=65 Parameter=Puffing Time Index (%) (average over visit) Analysis Visit=Day 1 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.5095	0.07548	77	6.75	<.0001	0.05	0.3592	0.6598

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=65 Parameter=Puffing Time Index (%) (average over visit) Analysis Visit=Day 4 -----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=65 Parameter=Puffing Time Index (%) (average over visit) Analysis Visit=Day 4 -----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=65 Parameter=Puffing Time Index (%) (average over visit) Analysis Visit=Day 4 -----

## Dimensions

Subjects	1
Max Obs Per Subject	105

## Number of Observations

Number of Observations Read	105
Number of Observations Used	82
Number of Observations Not Used	23

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=65 Parameter=Puffing Time Index (%) (average over visit) Analysis Visit=Day 4 -----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.09852

Fit Statistics

-2 Res Log Likelihood	55.6
AIC (smaller is better)	57.6
AICC (smaller is better)	57.6
BIC (smaller is better)	59.9

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=65 Parameter=Puffing Time Index (%) (average over visit) Analysis Visit=Day 4 -----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	75.13	<.0001
TRTAN	1	77	56.39	<.0001
SEXC	1	77	5.50	0.0216
UCPDGR1	1	77	2.45	0.1220

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=65 Parameter=Puffing Time Index (%) (average over visit) Analysis Visit=Day 4 -----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	2.8647	0.04391	77	65.25	<.0001	0.05	2.7773	2.9522
TRTAN	CC	2.2950	0.06319	77	36.32	<.0001	0.05	2.1692	2.4208

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

----- Parameter (N)=65 Parameter=Puffing Time Index (%) (average over visit) Analysis Visit=Day 4 -----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.5697	0.07587	77	7.51	<.0001	0.05	0.4187	0.7208

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=66 Parameter=Puff Frequency (puffs/min) (average over visit) Analysis Visit=Day 1 ----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=66 Parameter=Puff Frequency (puffs/min) (average over visit) Analysis Visit=Day 1 ----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=66 Parameter=Puff Frequency (puffs/min) (average over visit) Analysis Visit=Day 1 ----

Dimensions

Subjects	1
Max Obs Per Subject	106

Number of Observations

Number of Observations Read	106
Number of Observations Used	82
Number of Observations Not Used	24

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=66 Parameter=Puff Frequency (puffs/min) (average over visit) Analysis Visit=Day 1 ----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.05488

Fit Statistics

-2 Res Log Likelihood	10.2
AIC (smaller is better)	12.2
AICC (smaller is better)	12.3
BIC (smaller is better)	14.6

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=66 Parameter=Puff Frequency (puffs/min) (average over visit) Analysis Visit=Day 1 ----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	79.22	<.0001
TRTAN	1	77	22.01	<.0001
SEXC	1	77	1.23	0.2703
UCPDGR1	1	77	8.33	0.0050

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=66 Parameter=Puff Frequency (puffs/min) (average over visit) Analysis Visit=Day 1 ----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	1.6262	0.03306	77	49.20	<.0001	0.05	1.5604	1.6920
TRTAN	CC	1.3537	0.04794	77	28.24	<.0001	0.05	1.2583	1.4492

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=66 Parameter=Puff Frequency (puffs/min) (average over visit) Analysis Visit=Day 1 ----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.2725	0.05808	77	4.69	<.0001	0.05	0.1568	0.3881

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=66 Parameter=Puff Frequency (puffs/min) (average over visit) Analysis Visit=Day 4 ----

Model Information

Data Set	WORK.ADXT
Dependent Variable	LOGAVAL
Covariance Structure	Diagonal
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Residual

**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=66 Parameter=Puff Frequency (puffs/min) (average over visit) Analysis Visit=Day 4 ----

## Class Level Information

Class	Levels	Values
TRTAN	2	THS 2.2 CC
SEXC	2	Female Male
UCPDGR1	2	10-19 cig/day >19 cig/day

## Dimensions

Covariance Parameters	1
Columns in X	8
Columns in Z	0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=66 Parameter=Puff Frequency (puffs/min) (average over visit) Analysis Visit=Day 4 ----

Dimensions

Subjects	1
Max Obs Per Subject	105

Number of Observations

Number of Observations Read	105
Number of Observations Used	82
Number of Observations Not Used	23

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=66 Parameter=Puff Frequency (puffs/min) (average over visit) Analysis Visit=Day 4 ----

Covariance Parameter  
Estimates

Cov Parm      Estimate

Residual      0.05170

Fit Statistics

-2 Res Log Likelihood	5.6
AIC (smaller is better)	7.6
AICC (smaller is better)	7.7
BIC (smaller is better)	10.0

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=66 Parameter=Puff Frequency (puffs/min) (average over visit) Analysis Visit=Day 4 ----

## Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
LOGBASE	1	77	96.03	<.0001
TRTAN	1	77	24.59	<.0001
SEXC	1	77	0.32	0.5724
UCPDGR1	1	77	2.35	0.1297

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=66 Parameter=Puff Frequency (puffs/min) (average over visit) Analysis Visit=Day 4 ----

Least Squares Means

Effect	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	1.6657	0.03212	77	51.85	<.0001	0.05	1.6017	1.7297
TRTAN	CC	1.3856	0.04657	77	29.75	<.0001	0.05	1.2928	1.4783

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure

The where clause used on the dataset adam.adxt: fasfl='Y' and anl02fl='Y'

---- Parameter (N)=66 Parameter=Puff Frequency (puffs/min) (average over visit) Analysis Visit=Day 4 ----

Differences of Least Squares Means

Effect	Actual Treatment (N)	Actual Treatment (N)	Estimate	Standard Error	DF	t Value	Pr >  t	Alpha	Lower	Upper
TRTAN	THS 2.2	CC	0.2801	0.05649	77	4.96	<.0001	0.05	0.1677	0.3926

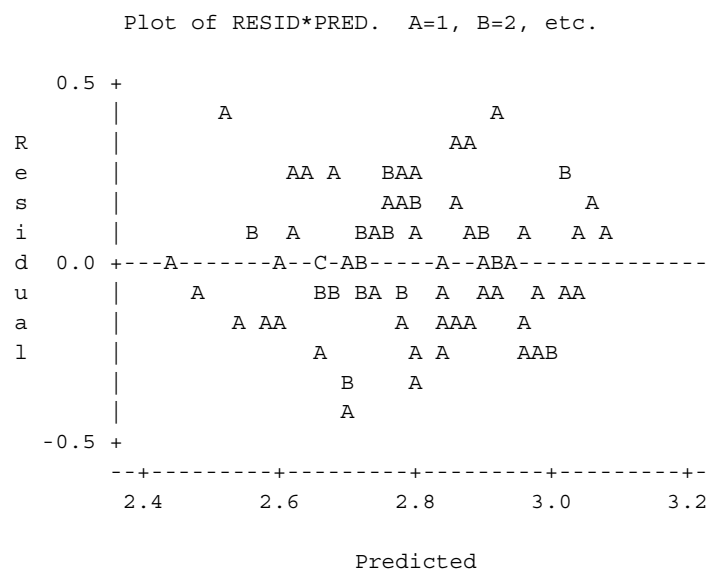
Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

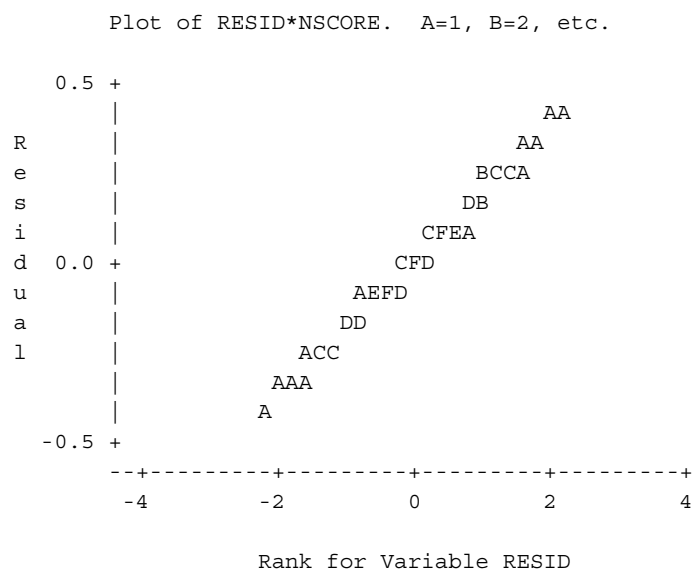
Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=50 Parameter=Total number of puffs (average over visit) Analysis Visit=Day 1 -----



NOTE: 24 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



NOTE: 24 obs had missing values.

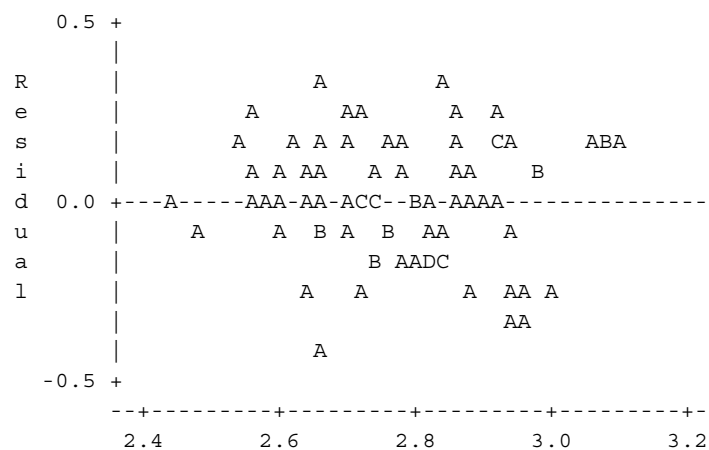
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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=50 Parameter=Total number of puffs (average over visit) Analysis Visit=Day 4 -----

Plot of RESID\*PRED. A=1, B=2, etc.



Predicted

NOTE: 23 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

Plot of RESID\*NSCORE. A=1, B=2, etc.



Rank for Variable RESID

NOTE: 23 obs had missing values.

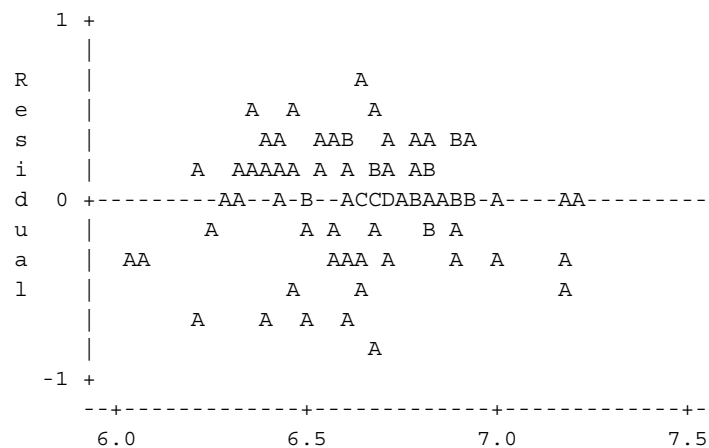
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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=51 Parameter=Total puff volume (mL) (average over visit) Analysis Visit=Day 1 -----

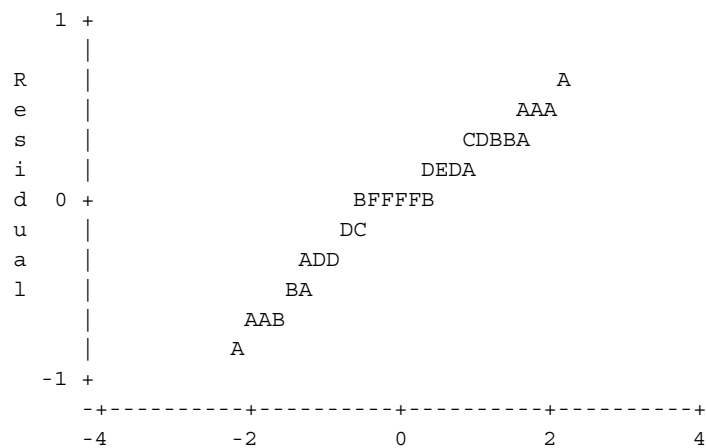
Plot of RESID\*PRED. A=1, B=2, etc.



Predicted

NOTE: 24 obs had missing values.

Plot of RESID\*NSCORE. A=1, B=2, etc.



Rank for Variable RESID

NOTE: 24 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

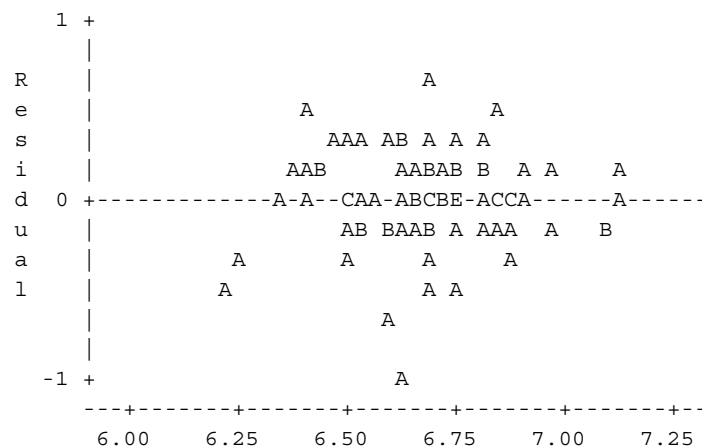
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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=51 Parameter=Total puff volume (mL) (average over visit) Analysis Visit=Day 4 -----

Plot of RESID\*PRED. A=1, B=2, etc.

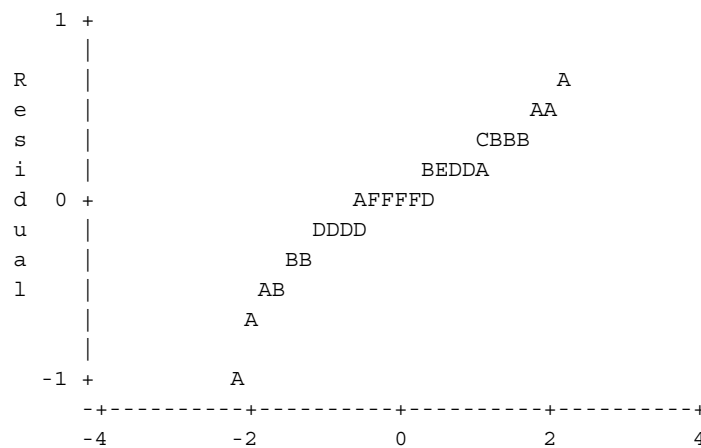


Predicted

NOTE: 23 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

Plot of RESID\*NSCORE. A=1, B=2, etc.



Rank for Variable RESID

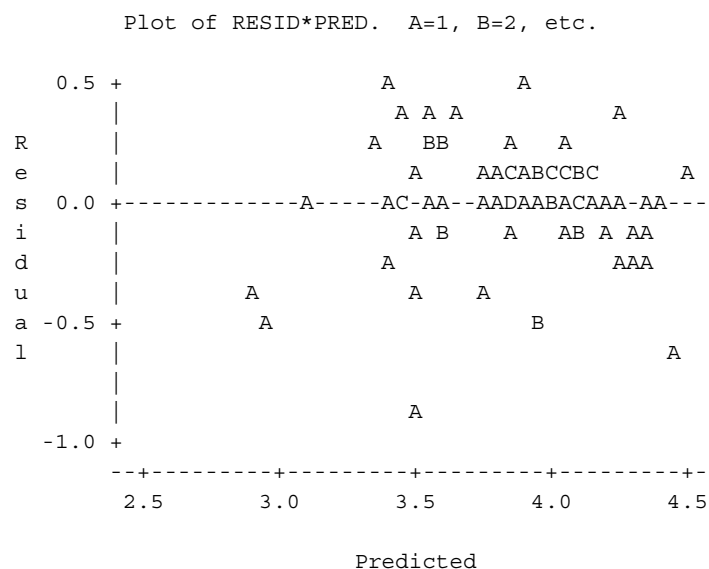
NOTE: 23 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

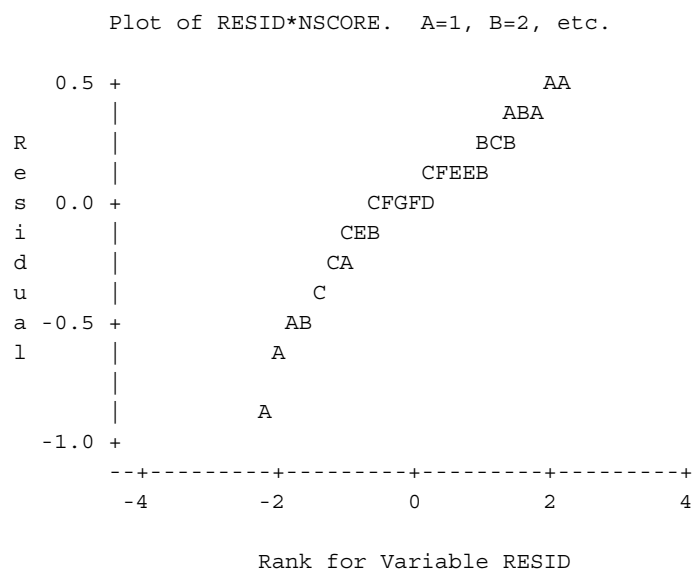
Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=52 Parameter=Average puff volume (mL) (average over visit) Analysis Visit=Day 1 -----



NOTE: 24 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



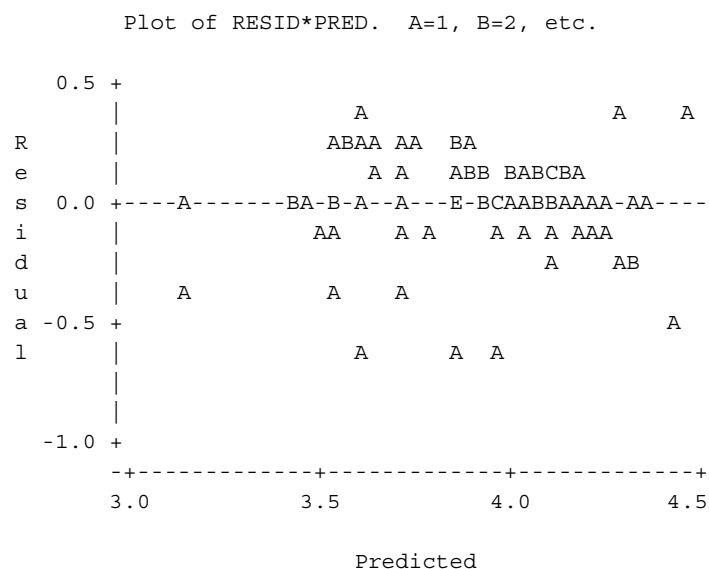
NOTE: 24 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

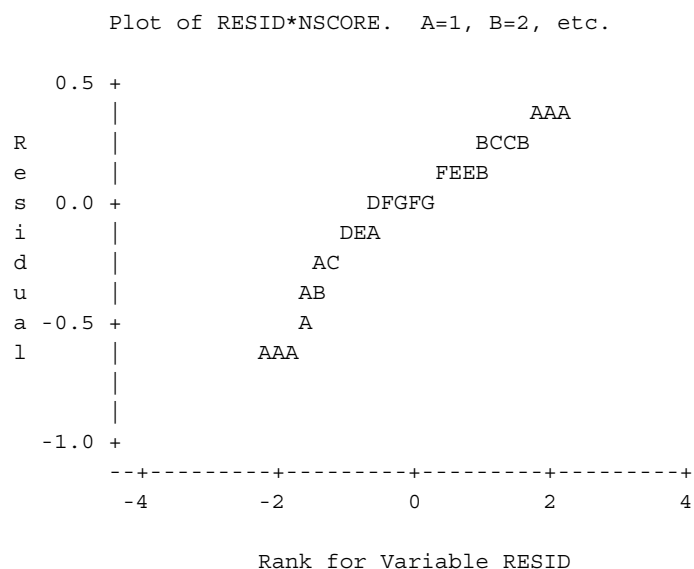
Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=52 Parameter=Average puff volume (mL) (average over visit) Analysis Visit=Day 4 -----



NOTE: 23 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



NOTE: 23 obs had missing values.

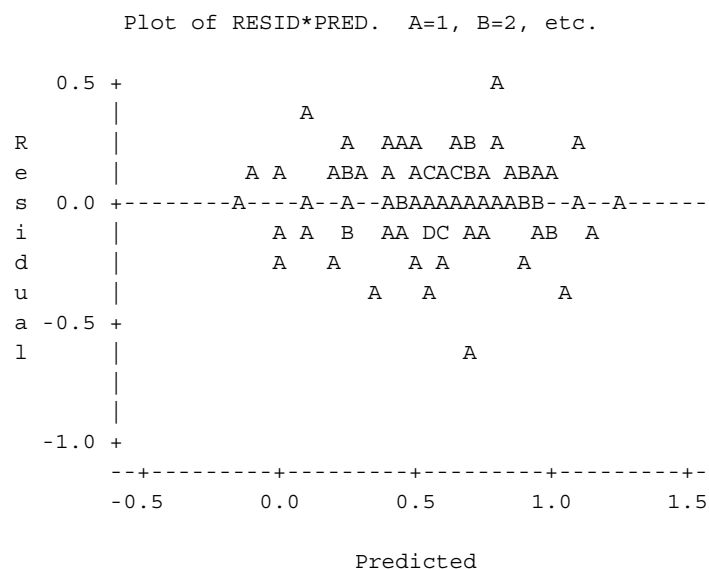
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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

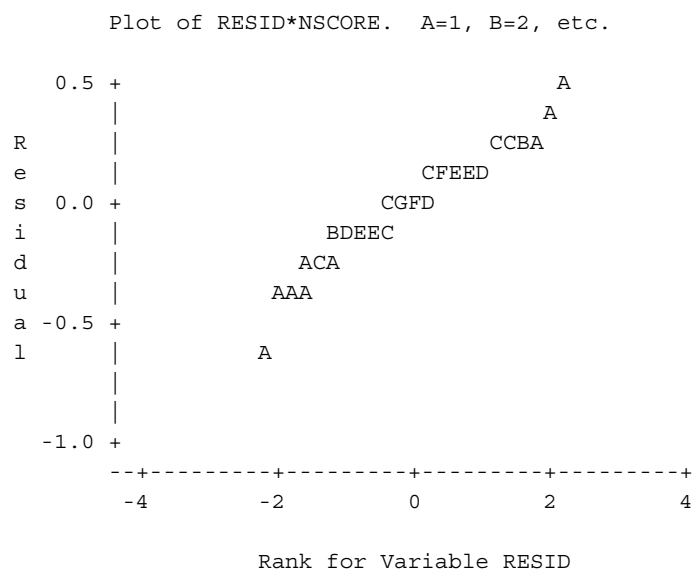
Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=53 Parameter=Average puff duration (s) (average over visit) Analysis Visit=Day 1 -----



NOTE: 24 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



NOTE: 24 obs had missing values.

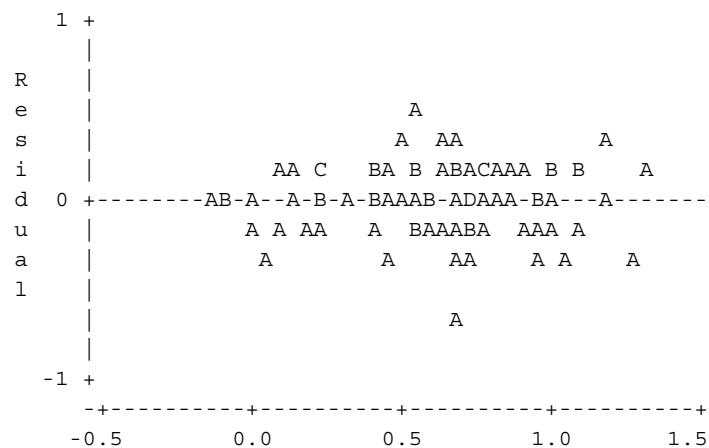
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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=53 Parameter=Average puff duration (s) (average over visit) Analysis Visit=Day 4 -----

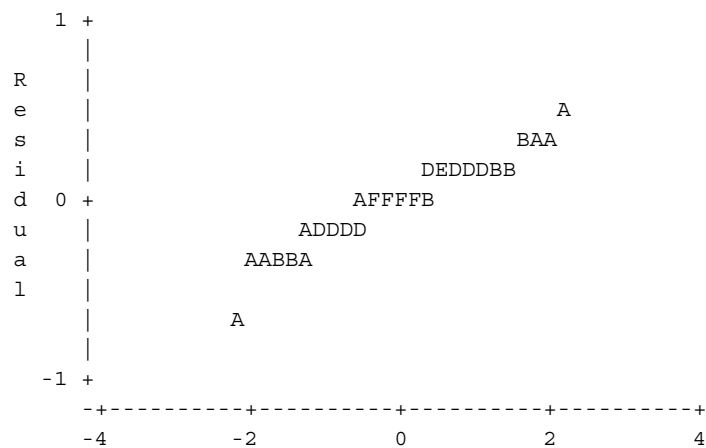
Plot of RESID\*PRED. A=1, B=2, etc.



NOTE: 23 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

Plot of RESID\*NSCORE. A=1, B=2, etc.



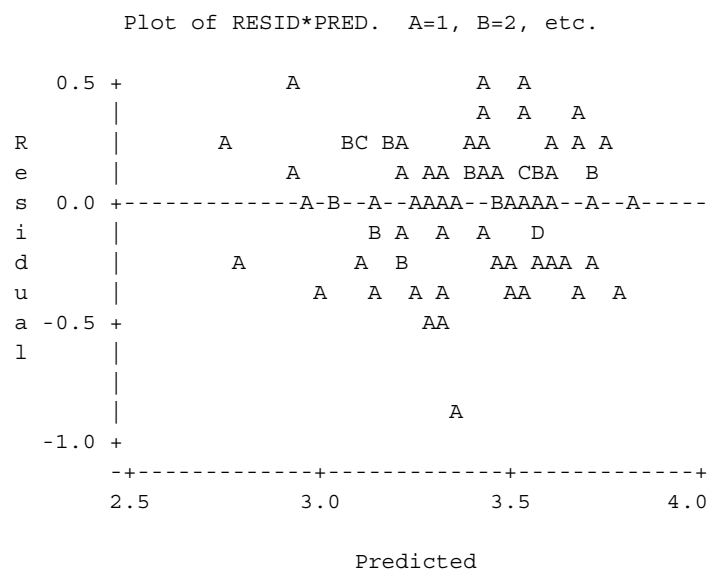
NOTE: 23 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

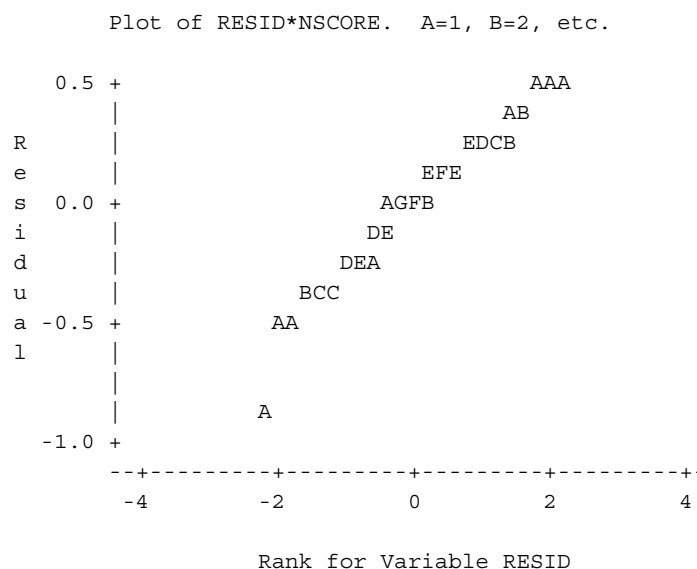
Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=54 Parameter=Total puff duration (s) (average over visit) Analysis Visit=Day 1 -----



NOTE: 24 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



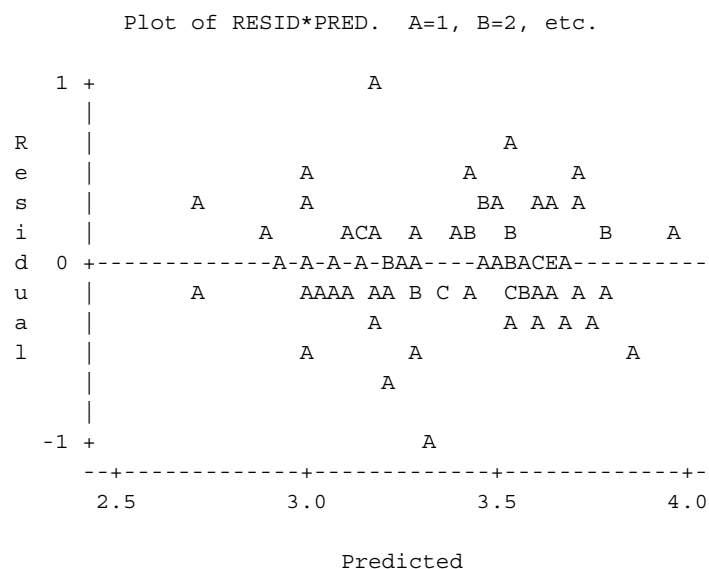
NOTE: 24 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

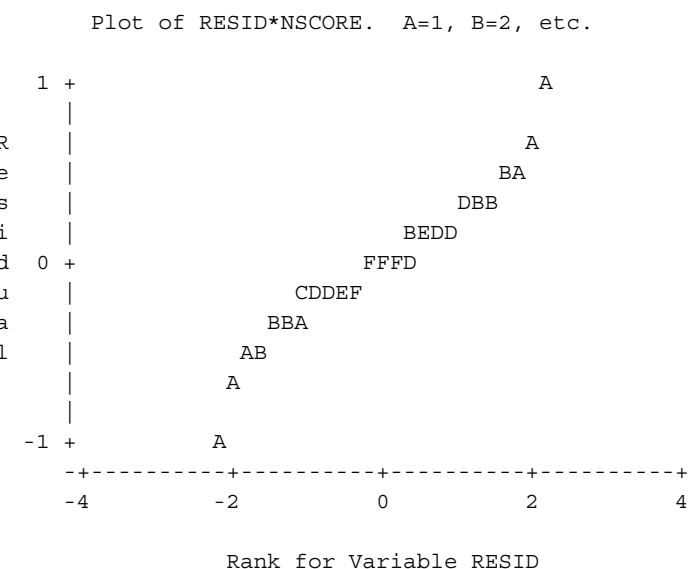
Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=54 Parameter=Total puff duration (s) (average over visit) Analysis Visit=Day 4 -----



NOTE: 23 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



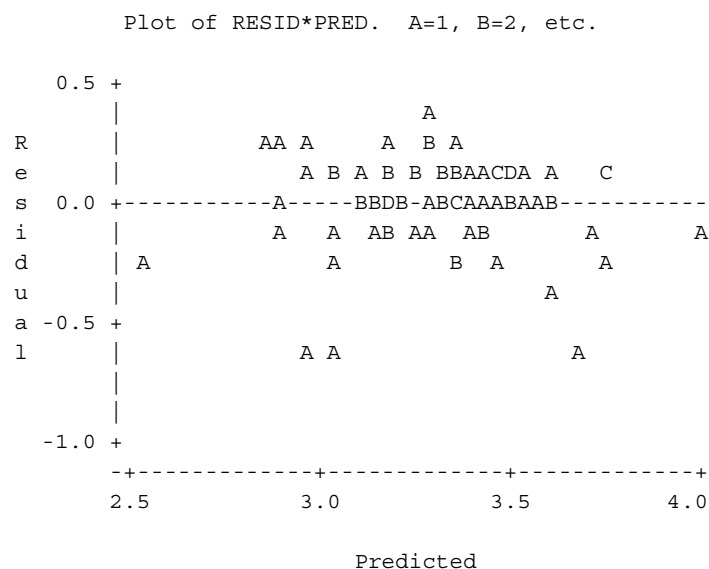
NOTE: 23 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

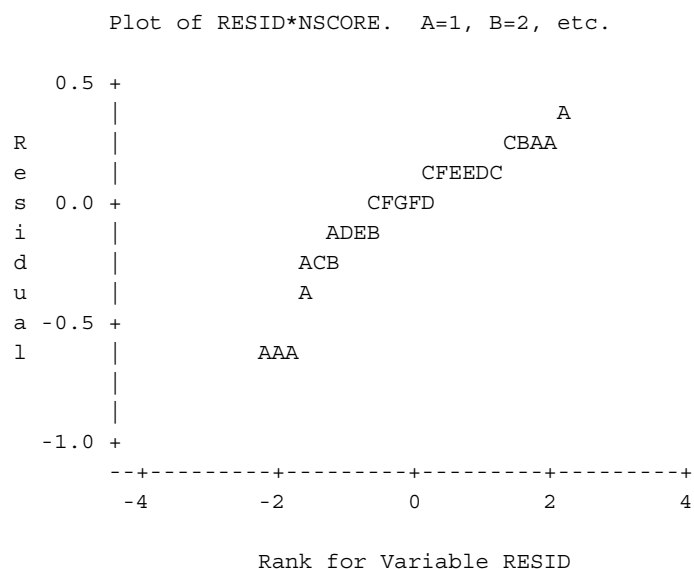
Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=55 Parameter=Average flow (mL/s) (average over visit) Analysis Visit=Day 1 -----



NOTE: 24 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



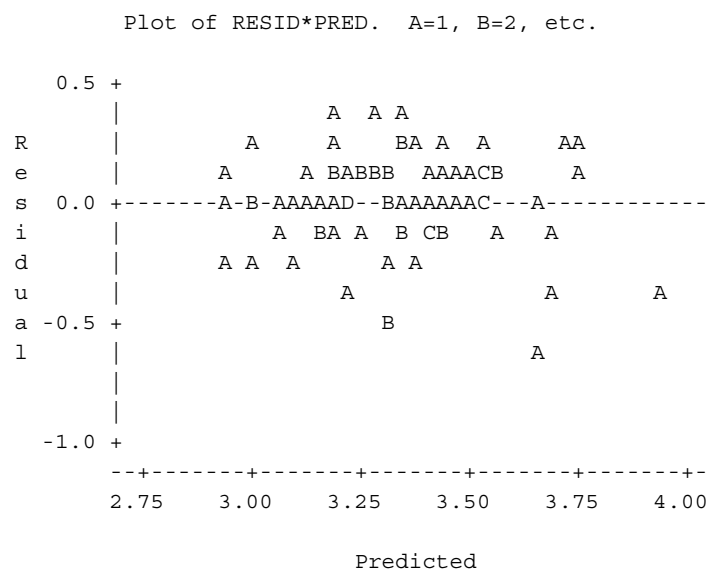
NOTE: 24 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

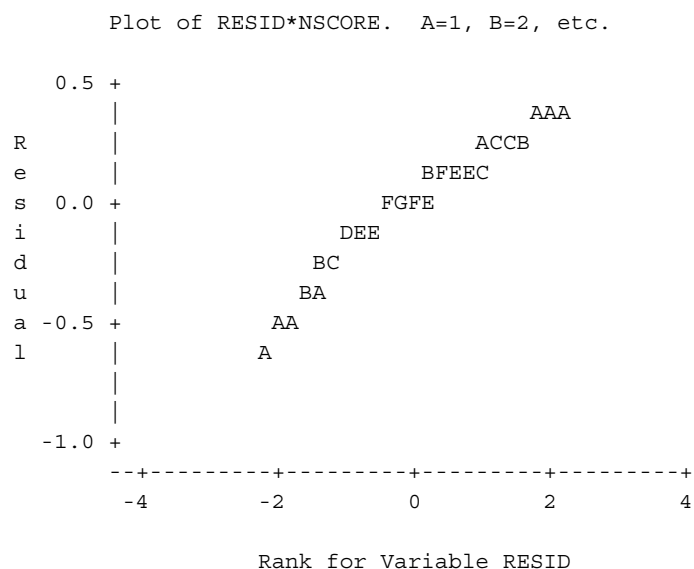
Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=55 Parameter=Average flow (mL/s) (average over visit) Analysis Visit=Day 4 -----



NOTE: 23 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



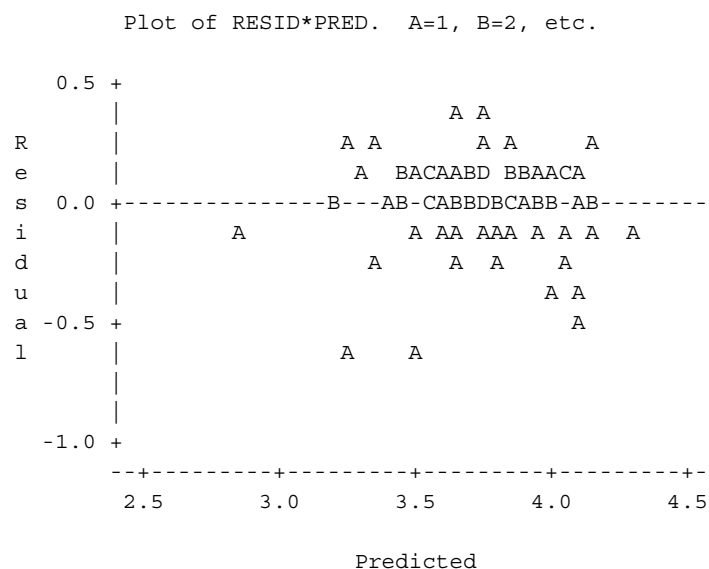
NOTE: 23 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

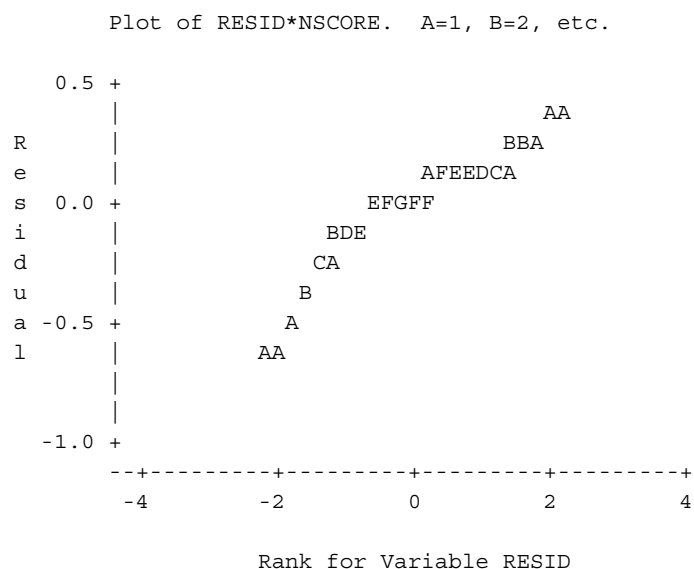
Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=56 Parameter=Average Peak flow (mL/s) (average over visit) Analysis Visit=Day 1 -----



NOTE: 24 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



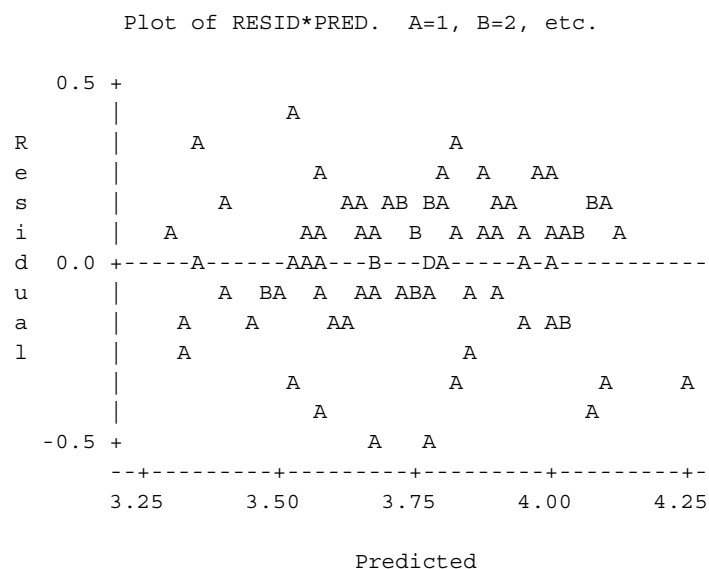
NOTE: 24 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

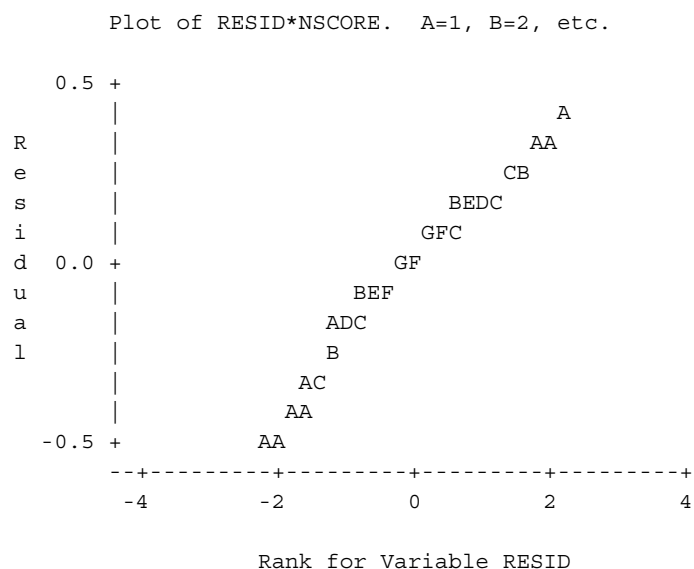
Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=56 Parameter=Average Peak flow (mL/s) (average over visit) Analysis Visit=Day 4 -----



NOTE: 23 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



NOTE: 23 obs had missing values.

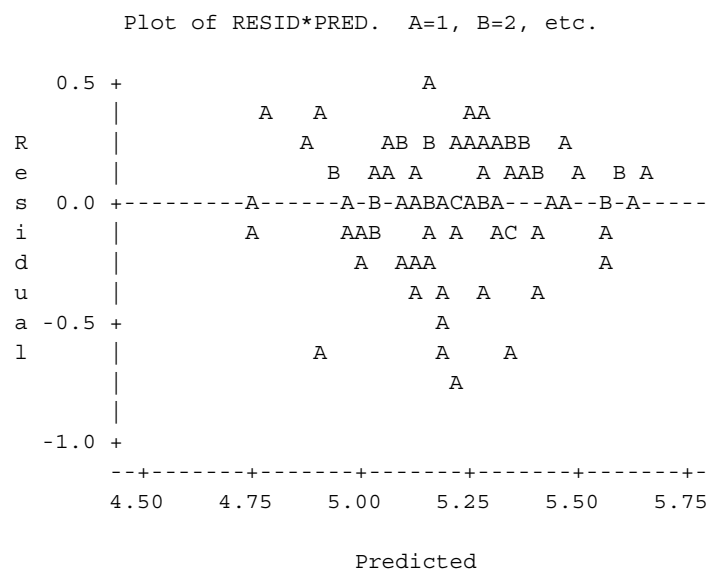
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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

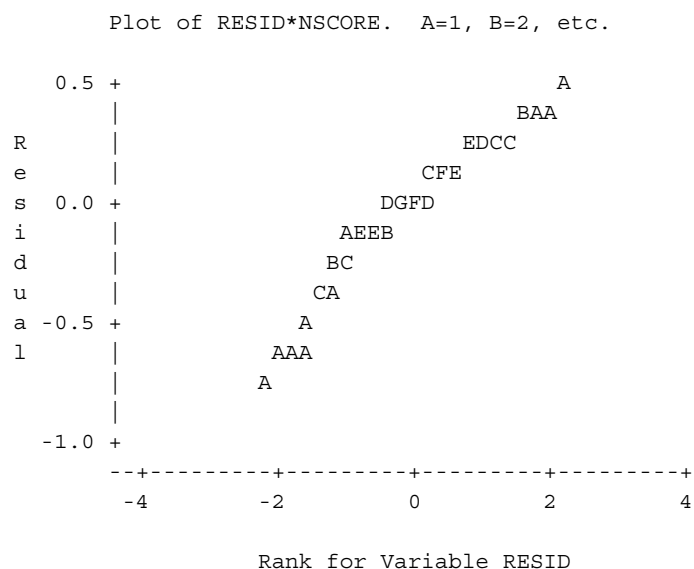
Proc Mixed Procedure  
Residual Plots

--- Parameter (N)=57 Parameter=Total inter puff interval (s) (average over visit) Analysis Visit=Day 1 ---



NOTE: 24 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



NOTE: 24 obs had missing values.

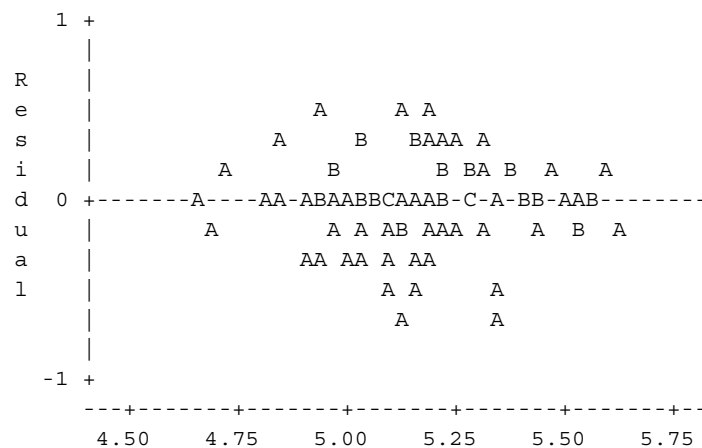
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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure  
Residual Plots

--- Parameter (N)=57 Parameter=Total inter puff interval (s) (average over visit) Analysis Visit=Day 4 ---

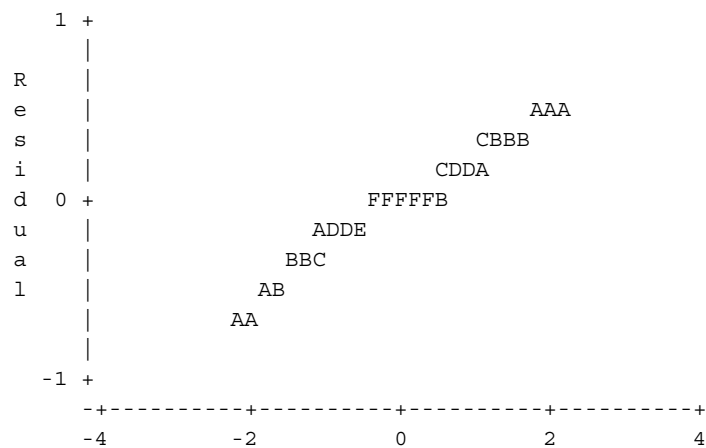
Plot of RESID\*PRED. A=1, B=2, etc.



NOTE: 23 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

Plot of RESID\*NSCORE. A=1, B=2, etc.



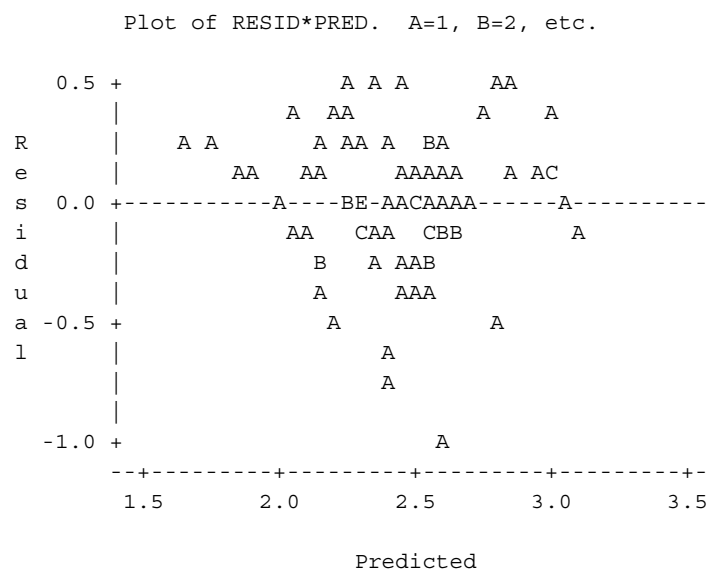
NOTE: 23 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

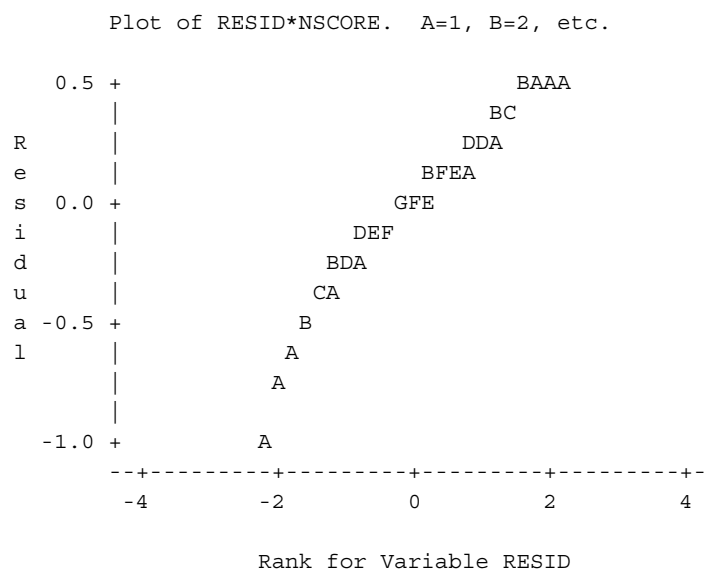
Proc Mixed Procedure  
Residual Plots

-- Parameter (N)=58 Parameter=Average inter puff interval (s) (average over visit) Analysis Visit=Day 1 --



NOTE: 24 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



NOTE: 24 obs had missing values.

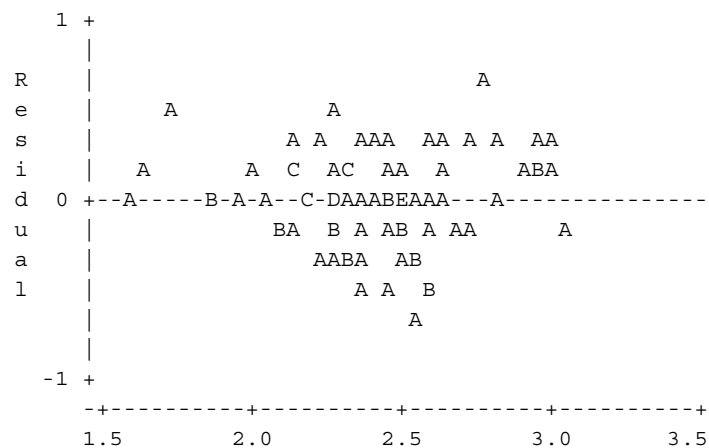
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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure  
Residual Plots

-- Parameter (N)=58 Parameter=Average inter puff interval (s) (average over visit) Analysis Visit=Day 4 --

Plot of RESID\*PRED. A=1, B=2, etc.

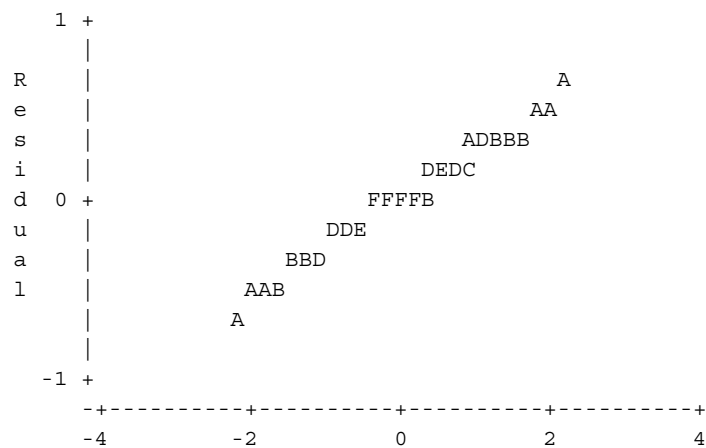


Predicted

NOTE: 23 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

Plot of RESID\*NSCORE. A=1, B=2, etc.



Rank for Variable RESID

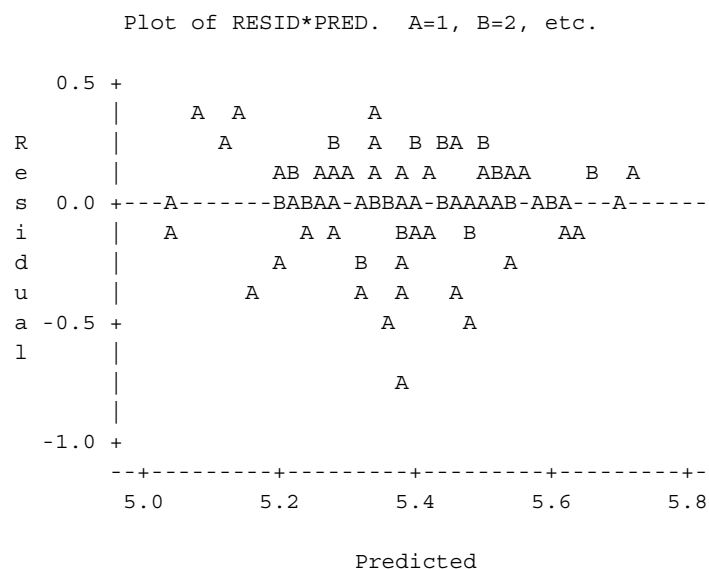
NOTE: 23 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

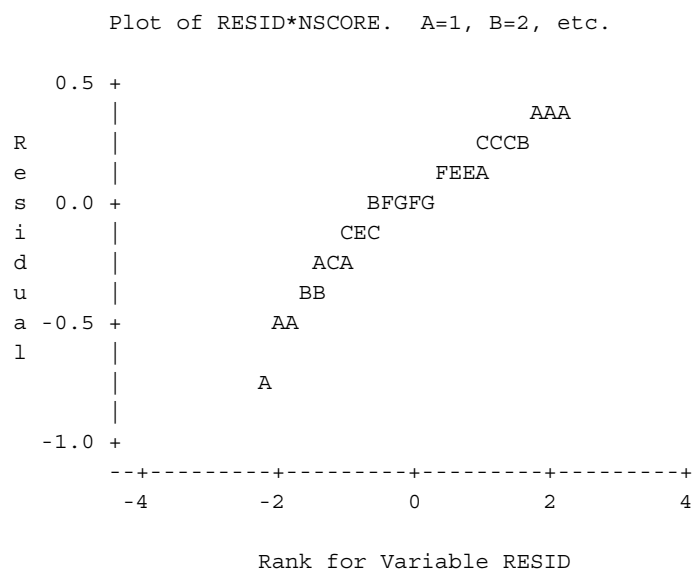
Proc Mixed Procedure  
Residual Plots

---- Parameter (N)=59 Parameter=Total smoking duration (s) (average over visit) Analysis Visit=Day 1 ----



NOTE: 24 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



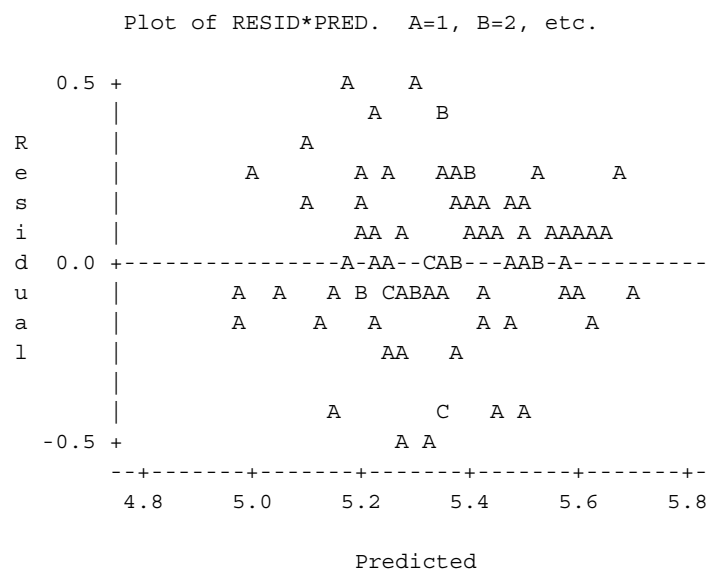
NOTE: 24 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

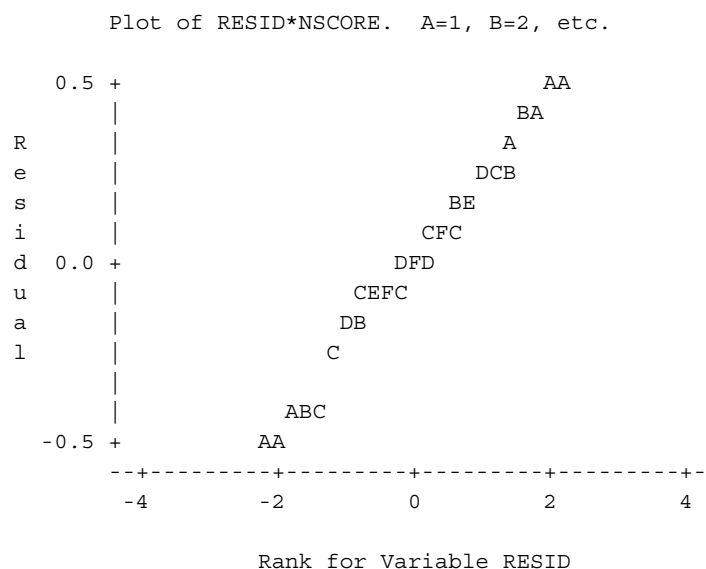
Proc Mixed Procedure  
Residual Plots

---- Parameter (N)=59 Parameter=Total smoking duration (s) (average over visit) Analysis Visit=Day 4 ----



NOTE: 23 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



NOTE: 23 obs had missing values.

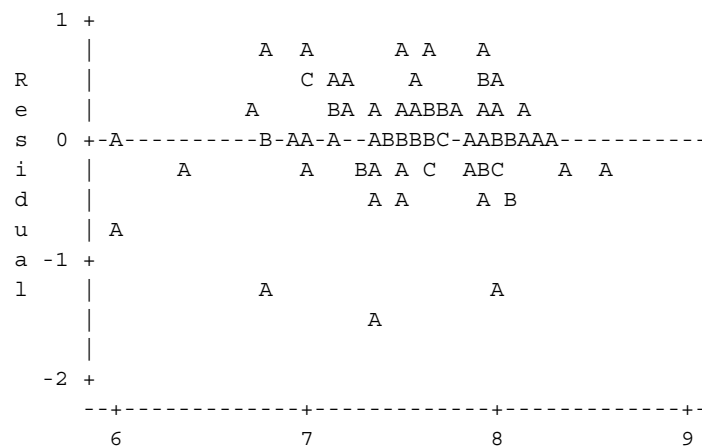
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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=60 Parameter=Total work (mJ) (average over visit) Analysis Visit=Day 1 -----

Plot of RESID\*PRED. A=1, B=2, etc.

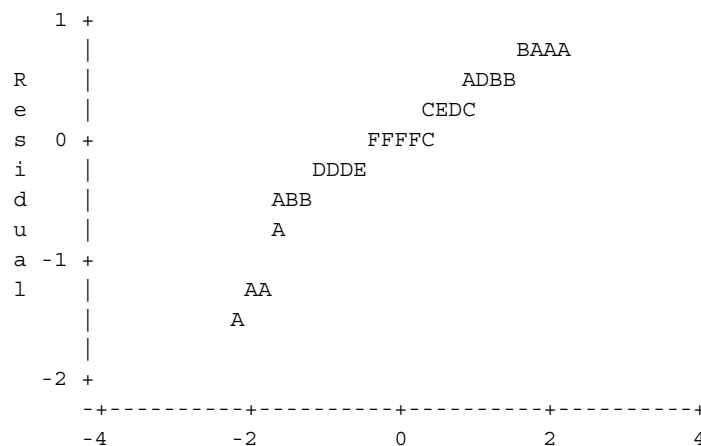


Predicted

NOTE: 24 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

Plot of RESID\*NSCORE. A=1, B=2, etc.



Rank for Variable RESID

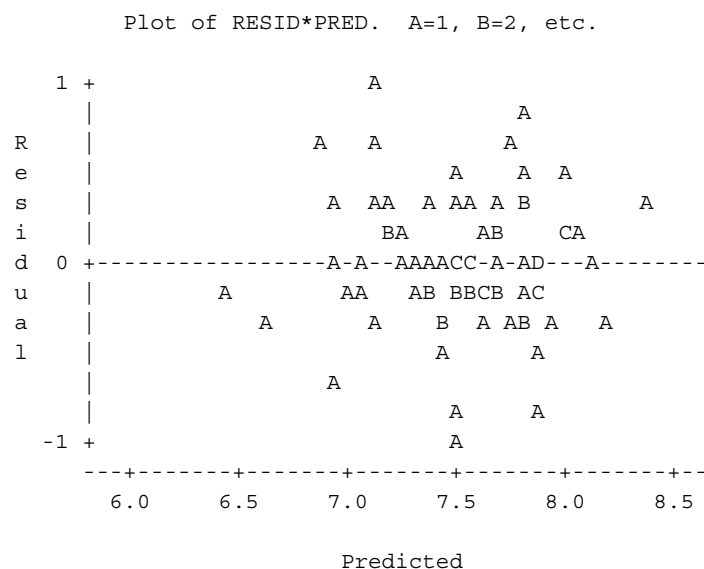
NOTE: 24 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

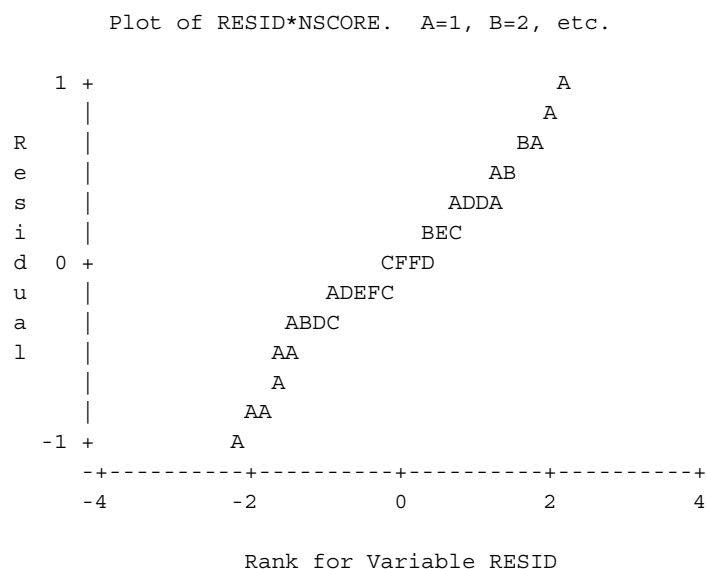
Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=60 Parameter=Total work (mJ) (average over visit) Analysis Visit=Day 4 -----



NOTE: 23 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



NOTE: 23 obs had missing values.

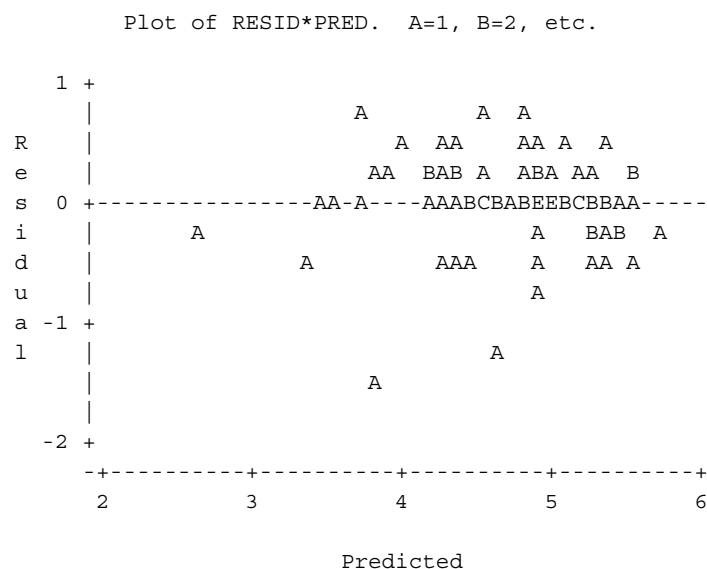
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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

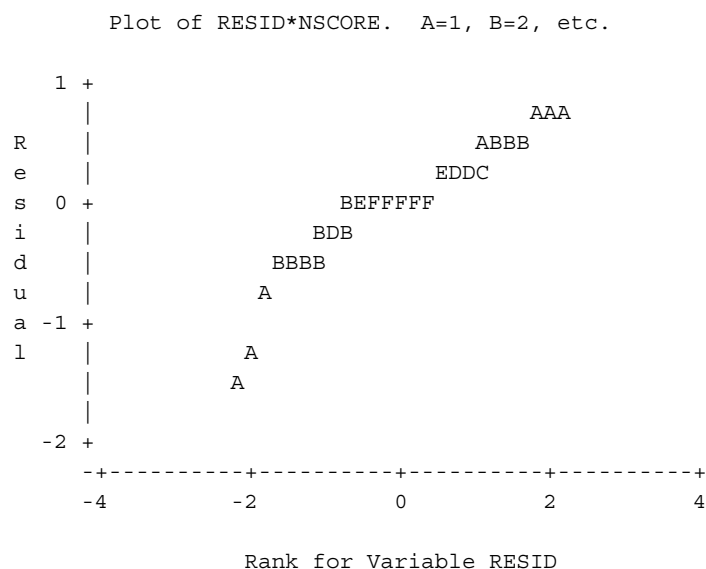
Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=61 Parameter=Average Work (mJ) (average over visit) Analysis Visit=Day 1 -----



NOTE: 24 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



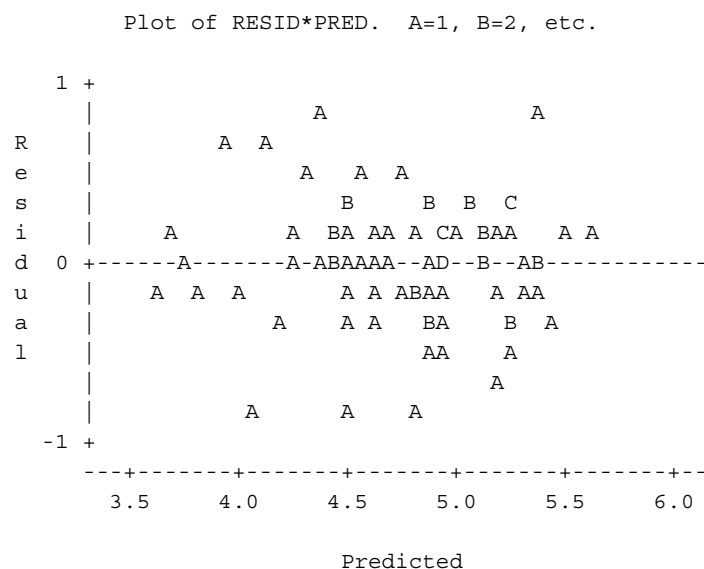
NOTE: 24 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

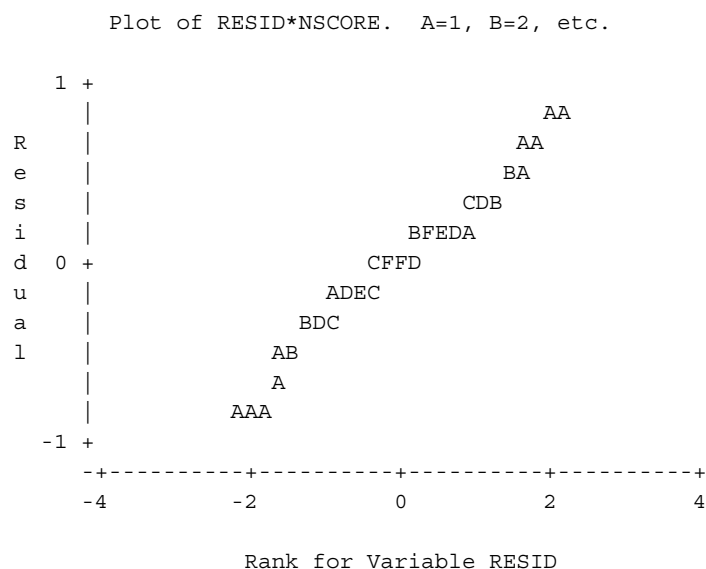
Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=61 Parameter=Average Work (mJ) (average over visit) Analysis Visit=Day 4 -----



NOTE: 23 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



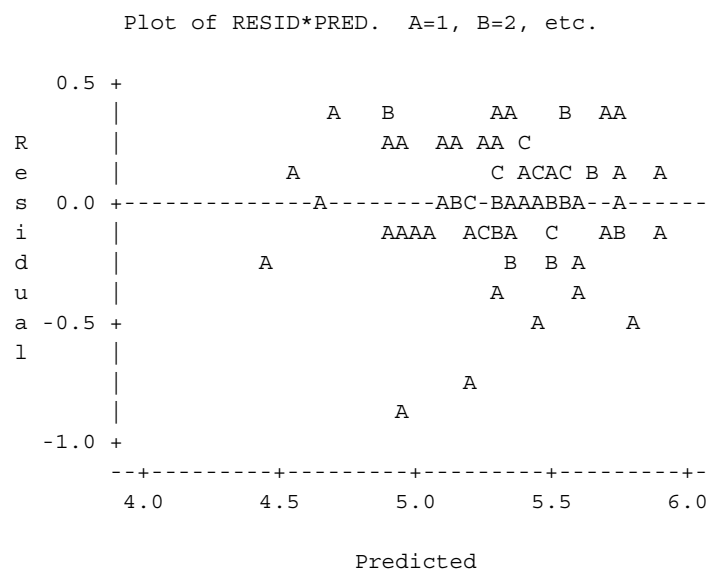
NOTE: 23 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

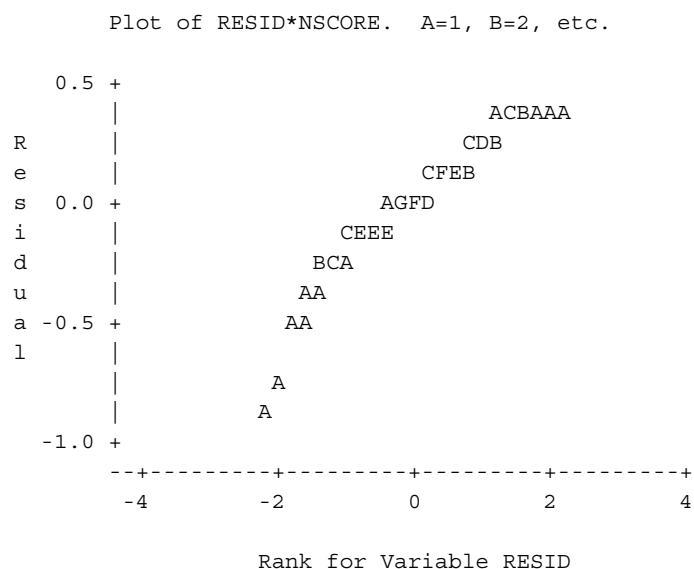
Proc Mixed Procedure  
Residual Plots

--- Parameter (N)=62 Parameter=Average pressure drop (mmWg) (average over visit) Analysis Visit=Day 1 ----



NOTE: 24 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



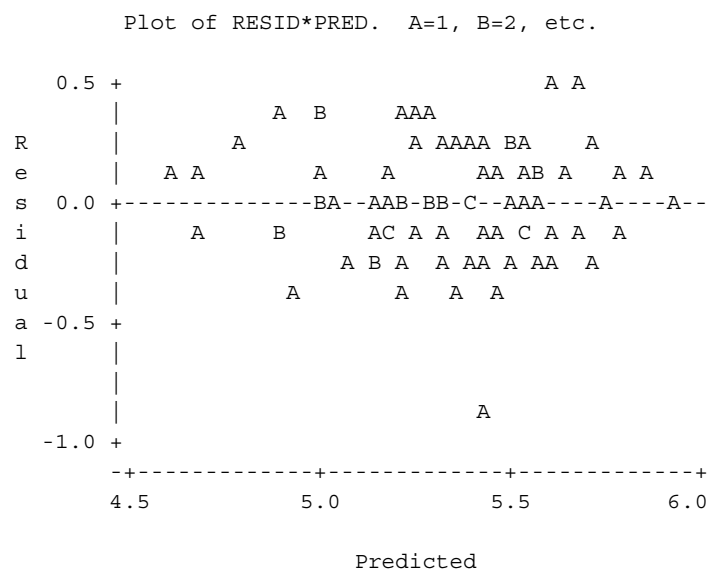
NOTE: 24 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

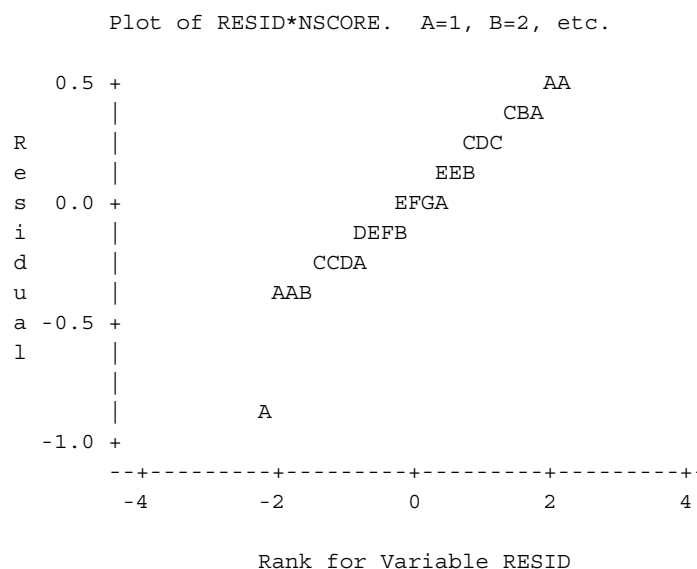
Proc Mixed Procedure  
Residual Plots

--- Parameter (N)=62 Parameter=Average pressure drop (mmWg) (average over visit) Analysis Visit=Day 4 ----



NOTE: 23 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



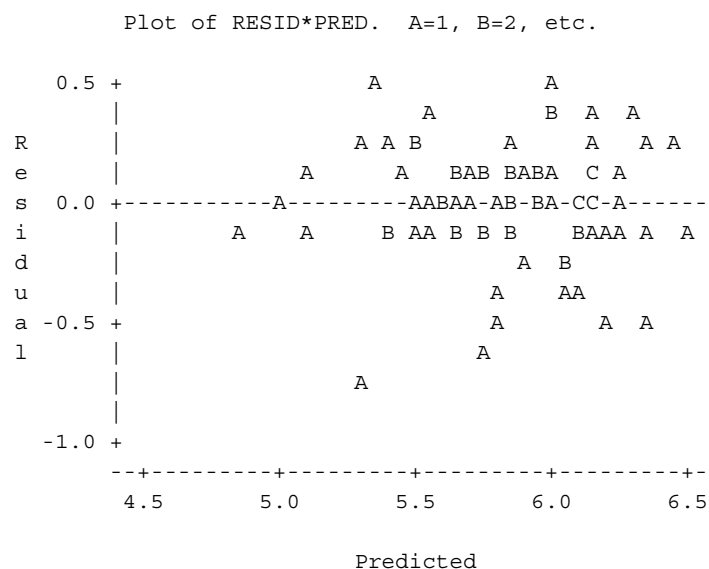
NOTE: 23 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

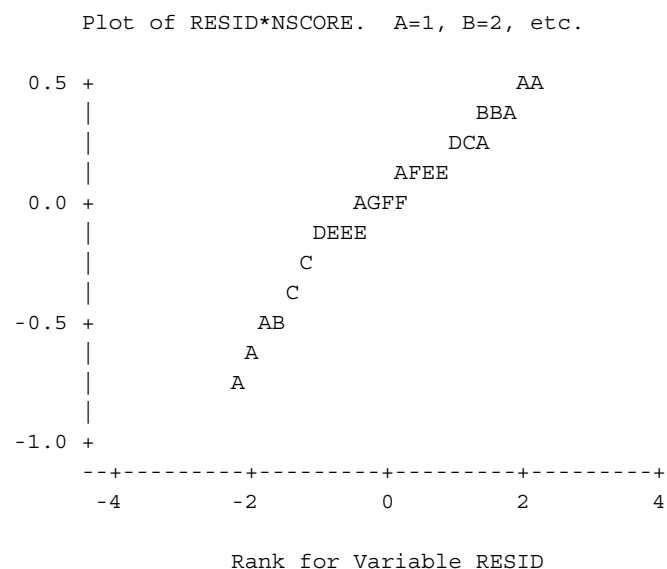
Proc Mixed Procedure  
Residual Plots

- Parameter (N)=63 Parameter=Average Peak pressure drop (mmWg) (average over visit) Analysis Visit=Day 1 -



NOTE: 24 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



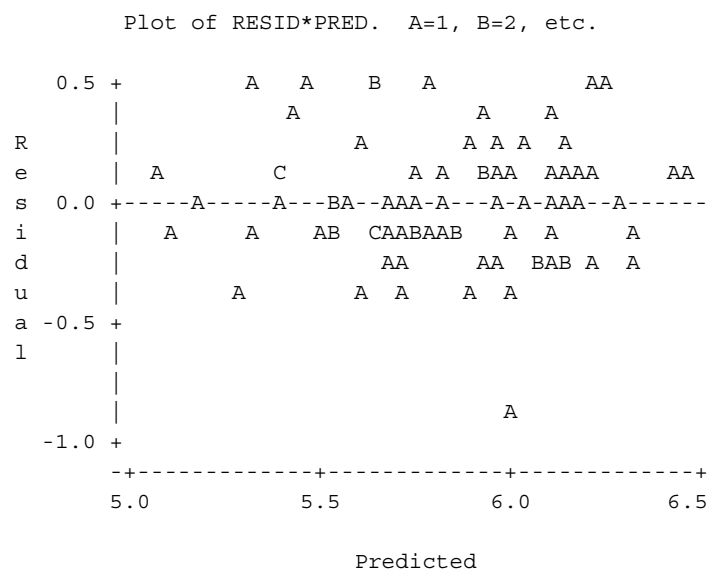
NOTE: 24 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

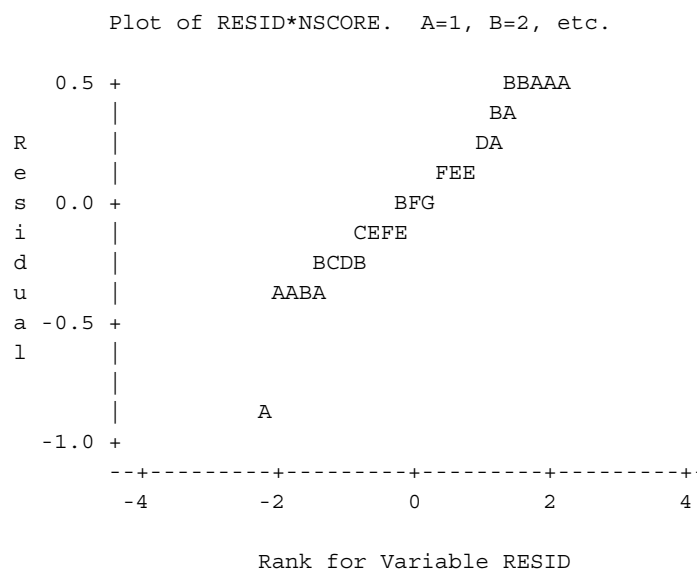
Proc Mixed Procedure  
Residual Plots

- Parameter (N)=63 Parameter=Average Peak pressure drop (mmWg) (average over visit) Analysis Visit=Day 4 -



NOTE: 23 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



NOTE: 23 obs had missing values.

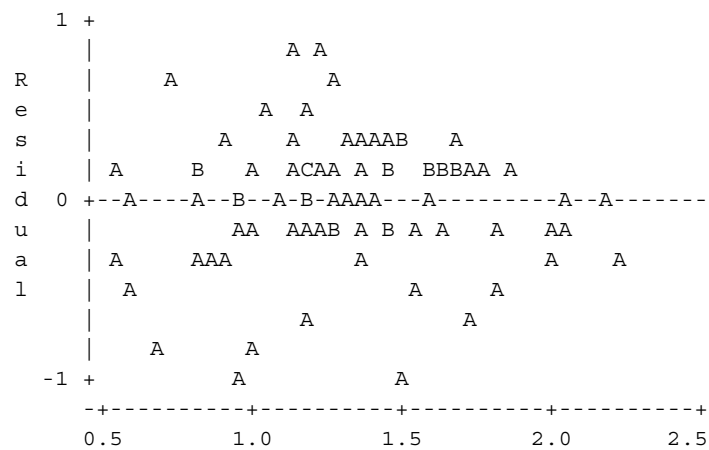
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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=64 Parameter=Smoking Intensity (mL/s) (average over visit) Analysis Visit=Day 1 -----

Plot of RESID\*PRED. A=1, B=2, etc.

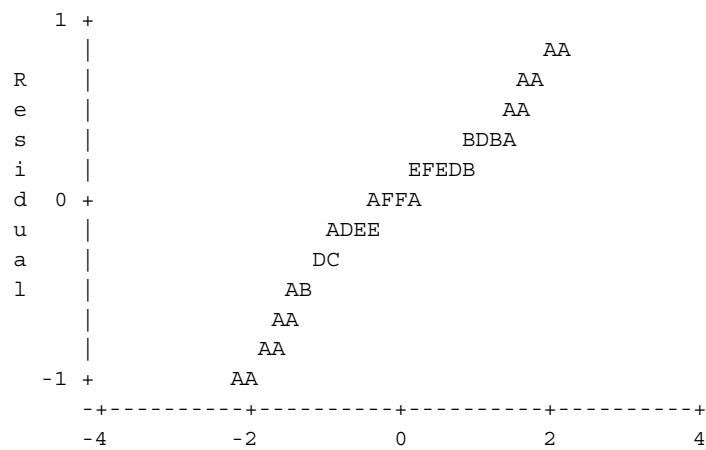


Predicted

NOTE: 24 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

Plot of RESID\*NSCORE. A=1, B=2, etc.



Rank for Variable RESID

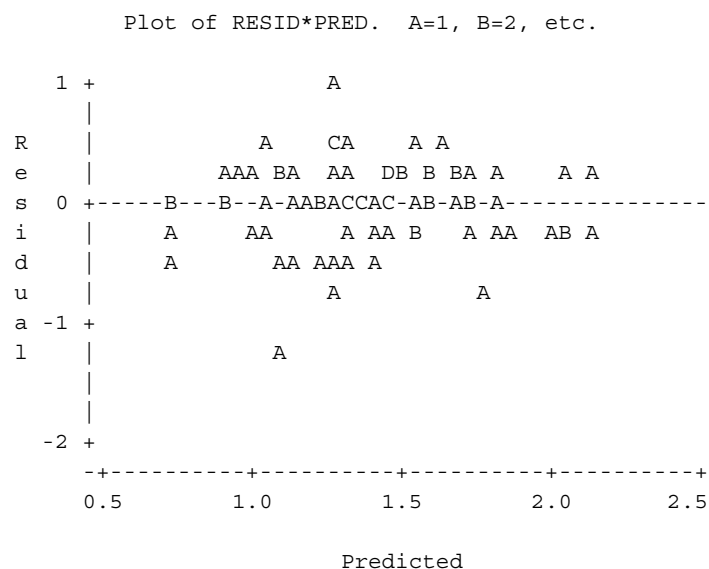
NOTE: 24 obs had missing values.

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

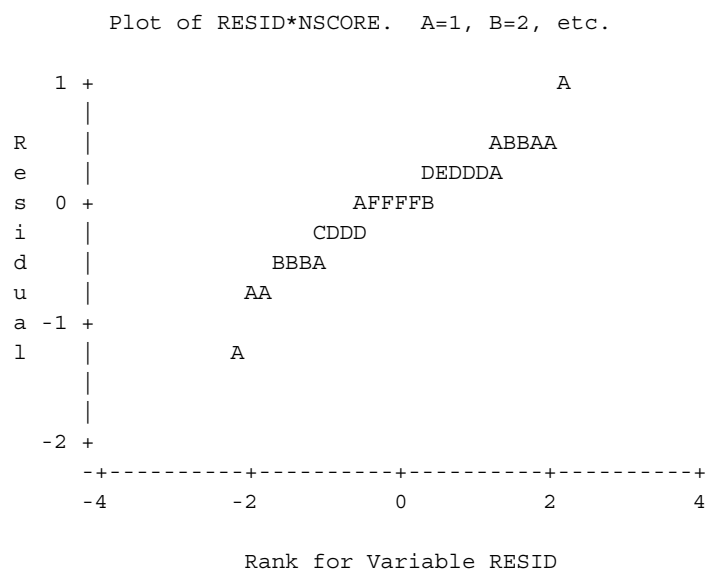
Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=64 Parameter=Smoking Intensity (mL/s) (average over visit) Analysis Visit=Day 4 -----



NOTE: 23 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



NOTE: 23 obs had missing values.

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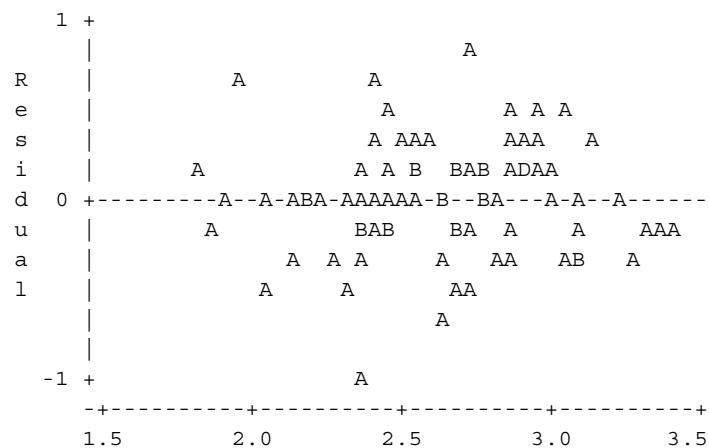


**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=65 Parameter=Puffing Time Index (%) (average over visit) Analysis Visit=Day 1 -----

Plot of RESID\*PRED. A=1, B=2, etc.



Predicted

NOTE: 24 obs had missing values.

Plot of RESID\*NSCORE. A=1, B=2, etc.



Rank for Variable RESID

NOTE: 24 obs had missing values.

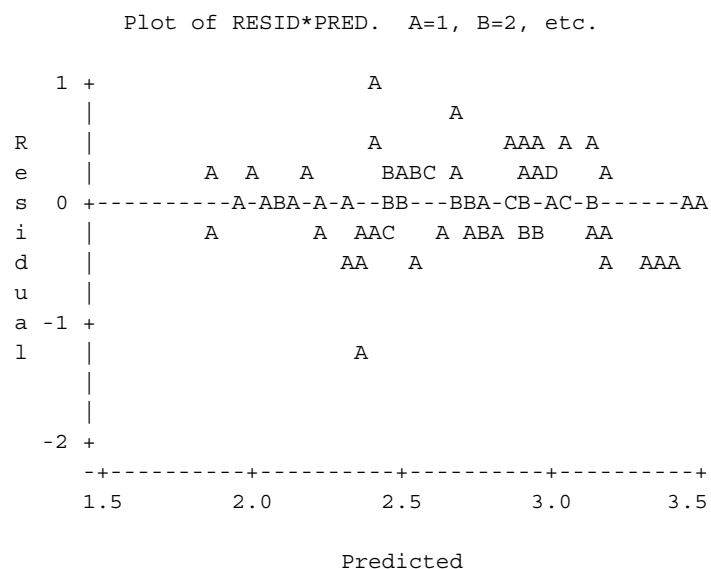
Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

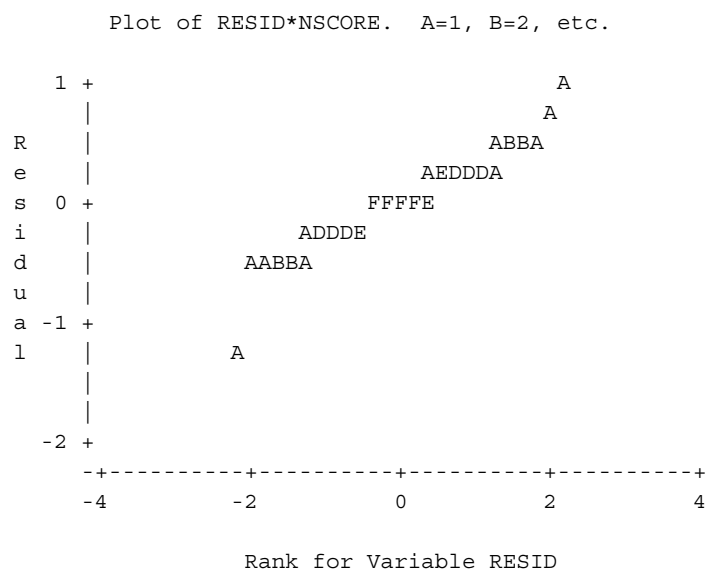
Proc Mixed Procedure  
Residual Plots

----- Parameter (N)=65 Parameter=Puffing Time Index (%) (average over visit) Analysis Visit=Day 4 -----



NOTE: 23 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL



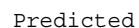
NOTE: 23 obs had missing values.

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Proc Mixed Procedure  
Residual Plots

---- Parameter (N)=66 Parameter=Puff Frequency (puffs/min) (average over visit) Analysis Visit=Day 1 ----

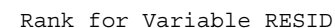
Plot of RESID\*PRED. A=1, B=2, etc.



NOTE: 24 obs had missing values.

Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

Plot of RESID\*NSCORE. A=1, B=2, etc.



NOTE: 24 obs had missing values.

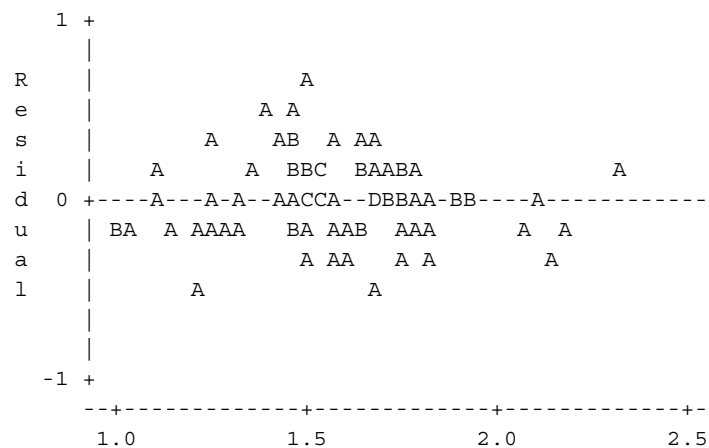
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**Listing 15.4.4.59 Analysis of HST Parameters (Averaged over all Cigarettes per Day) - FAS**

Proc Mixed Procedure  
Residual Plots

---- Parameter (N)=66 Parameter=Puff Frequency (puffs/min) (average over visit) Analysis Visit=Day 4 ----

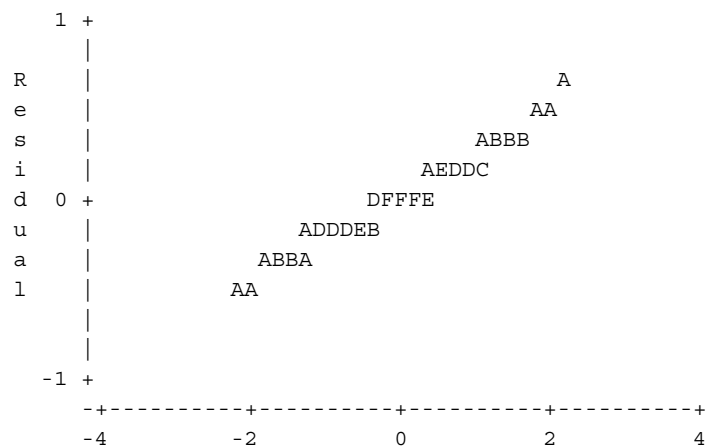
Plot of RESID\*PRED. A=1, B=2, etc.



Predicted

NOTE: 23 obs had missing values.

Plot of RESID\*NSCORE. A=1, B=2, etc.



Rank for Variable RESID

NOTE: 23 obs had missing values.

Path: /cvn/projects/prj/development/000000106324/dev/tables/tl\_anlhst.sas  
Program Run: 27OCT14 cvn\_ahedge Program Status: FINAL

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