

```

%_mprintto;
options notes nosource;
proc datasets lib=work nolist memtype=data kill; quit;
%put NOTE:
=====;
%put NOTE: Covance Study Number : 0000001063264;
%put NOTE: Client Protocol ID   : ZRHR-REXC-03-EU;
%put NOTE: Program Name        : t_pbios.sas;
%put NOTE: Purpose              : table of primary biomarkers and change
from baseline on Day 5 by sex;
%put NOTE: ;
%put NOTE: Input Data           : ADAM.ADBX ADAM.ADSL;
%put NOTE: Output               : t_15_2_3_5_1(pbios);
%put NOTE: Macros Called        : _MPRINTTO;
%put NOTE: ;
%put NOTE: Programmed by        : cvn_smulholl;
%put NOTE: Creation Date        : 2014-05-14;
%put NOTE: SAS Version          : 9.3;
%put NOTE: ;
%put NOTE: == Latest Run
=====;
%put NOTE: Run by                : &sysuserid;
%put NOTE: Date/Time             :
%sysfunc(putn(%sysfunc(date()),e8601da.))T%sysfunc(putn(%sysfunc(time()),
e86011z.));
%put NOTE: ;
%put NOTE: == Modification History
=====;
%put NOTE: Date      Initials  No. Reason;
%put NOTE: 15May2014    SM      1) Amend to drop absolute values and
amend variables labels;
%put NOTE:                                2) Amend format to include values >
100 for SD paramn=44;
%put NOTE:                                3) Amend format of pchg to ldp;
%put NOTE: 11Jun2014   JMH      4) Amended er-ror with merge and added
BLQ footnoes;
%put NOTE: 19Jun2014   JMH      5) Amedned parameter names to match
figures;
%put NOTE: 19Jun2014   JMH      6) Amended BLQ footnote;
%put NOTE: 23Jun2014   JMH      7) Amended in line with ADBX update;
%put NOTE: 24Jun2014   JMH      8) Amended in line with formatting
updates;
%put NOTE: 01Aug2014   JMH      9) Amended in line with format
updates;
%put NOTE: 05Aug2014   JMH      10) Removed BLOQ counts for COHb;
%put NOTE: 18Sep2014   JR       11) Amended baseline footnote;
%put NOTE: 25Sep2014   JR       12) Amedned bloq percent calc;
%put NOTE: 03Oct2014   JMH      13) Added in BLQ row;
%put NOTE: ;
%put NOTE:
=====;
options notes source source2 nofullstimer validvarname=upcase missing='
';
ods _all_ close;

```

```

ods listing;

*=====;
* START OF PROGRAM CODE                                     ;
*=====;

%let tflno=T_15_02_03_05_01(pbios);

%let TFL_Part=%scan(&_SASPROGRAMFILE,-3,%str(/));

data _null_;
    tmp="%TFL_Part";
    if tmp not in ("dev" "qc") then call symput("TFL_Part", "prod");
    call symput('TFLpath', compress("&_SASPROGRAMFILE",""));
run;

*****;
* read in data ;
*****;

/*Use ADSL to get N values for column headers*/
data adsl;
    set adam.adsl(where=(fasfl='Y'));
run;

proc sort data=adsl nodupkey out=adsl1;
    by trt01an trt01a subjid;
run;

proc freq data=adsl1(where=(not missing(trt01an))) noprint;
    table trt01an*trt01a*sexc/ out =tot(drop=percent
rename=(count=total));
run;

data tot2;
    set tot;
    call symput('trt' ||
substr(sexc,1,1)||compress(put(trt01an,best.), compress(total));
run;

/*Bring in appropriate data from ADBX*/
data adbx1;
    set adam.adbx(where=(anl02fl='Y' and fasfl='Y' and avisit='Day 5'
and paramcd in ('CARBXHGB' 'UMHBMCRE' 'U3HPMCRE' 'USPMACRE')));
    /*if paramcd='U3HPMCRE' then paramn=paramn+30;*/ * move up order for
output; /* 7) JMH 23Jun2014 */
    if paramcd='CARBXHGB' and atpt ne '08:00-10:00 PM' then delete; *
specific time point required;
run;

data adbx;
    set adbx1;
run;

```

```

data adbx_orig;
    set adbx;
    statval=aval;
    type='abs';
    output;
    statval=pchg;
    type='pchg';
    output;
run;

proc sort data=adbx_orig;
    by paramn param type trtan trta sexc AVALU; /* 7) JMH 23Jun2014 */
run;

proc means data=adbx_orig noprint;
    var statval;
    by paramn param type trtan trta sexc AVALU; /* 7) JMH 23Jun2014 */
    output out=results02 n=n1 mean=mean1 std=std1 median=median1 min=min1
max=max1 q1=q1 q3=q3 lclm=lci1 uclm=uci1;
run;

data results03;
    set results02;
    attrib meansd length=$20.
            minmax length=$20.
            n      length=$20.
            median length=$20.
            quart  ci length=$20.;

    n = left(compress(put(n1,8.)));
    * differing DP per biomarker ;
    IF TYPE='abs' THEN DO; /* 3) SM 15May2014 */
/* 9) START JMH 24Jun2014 */
        /*if paramn=50 then do;*/ * 3-HPMA as integer;
/*      if not missing(median1) then median =
left(compress(put(median1,8.1))); */
/*      if not missing(mean1) and not missing(std1) then meansd =
left(compress(put(mean1,8.1))) || ' (' ||
left(compress(put(0.01*ceil(std1/0.01),8.2))) || ')'; */
/*      if not missing(min1) and not missing(max1) then minmax =
left(compress(put(min1,8.))) || ', ' || left(compress(put(max1,8.)));*/
/*      if not missing(lci1) and not missing(uci1) then ci =
strip(put(0.1*floor(lci1/0.1),8.1)) || ', ' ||
strip(put(0.1*ceil(uci1/0.1),8.1)); */
/*      if not missing(q1) and not missing(q3) then quart =
strip(strip(put(0.1*FLOOR(q1/0.1),8.1)) || ', ' ||
strip(put(0.1*CEIL(q3/0.1),8.1))); /* 7) JMH 24Jun2014 */ */
/*      end;*/
        else if paramn=2 then do; * COHb as ldp;
            if not missing(median1) then median =
left(compress(put(ROUND(median1,0.01),8.2)));

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        if not missing(mean1) and not missing(std1) then meansd =
left(compress(put(ROUND(mean1,0.01),8.2))) || ' (' ||
left(compress(put(0.001*ceil(std1/0.001),8.3))) || ')';
        if not missing(min1) and not missing(max1) then minmax =
left(compress(put(ROUND(min1,0.1),8.1))) || ', ' ||
left(compress(put(ROUND(max1,0.1),8.1)));
        if not missing(lcil) and not missing(ucil) then ci =
strip(put(0.01*floor(lcil/0.01),8.2)) || ', ' ||
strip(put(0.01*ceil(ucil/0.01),8.2));
        if not missing(q1) and not missing(q3) then quart =
strip(strip(put(0.01*FLOOR(q1/0.01),8.2)) || ', ' ||
strip(put(0.01*CEIL(q3/0.01),8.2)));
/*      end;*/
        /*else if paramn=44 then do;*/ * MHBMA as 3dp;
/*      if not missing(median1) then median =
left(compress(put(median1,8.4))); */
/*      if not missing(mean1) and not missing(std1) then meansd =
left(compress(put(mean1,8.4))) || ' (' ||
left(compress(put(0.00001*ceil(std1/0.00001),8.5))) || ')'; */
/*      if not missing(min1) and not missing(max1) then minmax =
left(compress(put(min1,8.3))) || ', ' || left(compress(put(max1,8.3)));*/
/*      if not missing(lcil) and not missing(ucil) then ci =
strip(put(0.0001*floor(lcil/0.0001),8.4)) || ', ' ||
strip(put(0.0001*ceil(ucil/0.0001),8.4)); */
/*      if not missing(q1) and not missing(q3) then quart =
strip(strip(put(0.0001*FLOOR(q1/0.0001),8.4)) || ', ' ||
strip(put(0.0001*CEIL(q3/0.0001),8.4))); */
/*      end;*/
        /*else if paramn=63 then do;*/ * SPMA as 4dp;
/*      if not missing(median1) then median =
left(compress(put(median1,8.5))); */
/*      if not missing(mean1) and not missing(std1) then meansd =
left(compress(put(mean1,8.5))) || ' (' ||
left(compress(put(0.000001*ceil(std1/0.000001),8.6))) || ')'; */
/*      if not missing(min1) and not missing(max1) then minmax =
left(compress(put(min1,8.4))) || ', ' || left(compress(put(max1,8.4)));*/
/*      if not missing(lcil) and not missing(ucil) then ci =
strip(put(0.00001*floor(lcil/0.00001),8.5)) || ', ' ||
strip(put(0.00001*ceil(ucil/0.00001),8.5)); */
/*      if not missing(q1) and not missing(q3) then quart =
strip(strip(put(0.00001*FLOOR(q1/0.00001),8.5)) || ', ' ||
strip(put(0.00001*CEIL(q3/0.00001),8.5))); */
/*      end;*/
END; /* 3) sm 15May2014 */
ELSE IF TYPE='pch' THEN DO; /* 3) START OF BLOCK SM 15May2014 */
        if not missing(median1) then median =
left(compress(put(ROUND(median1,0.01),8.2)));
        if not missing(mean1) and not missing(std1) then meansd =
left(compress(put(ROUND(mean1,0.01),8.2))) || ' (' ||
left(compress(put(0.001*ceil(std1/0.001),8.3))) || ')';
        if not missing(min1) and not missing(max1) then minmax =
left(compress(put(ROUND(min1,0.1),8.1))) || ', ' ||
left(compress(put(ROUND(max1,0.1),8.1)));

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        if not missing(lcil) and not missing(ucil) then ci =
strip(put(0.01*floor(lcil/0.01),8.2)) || ', ' ||
strip(put(0.01*ceil(ucil/0.01),8.2));
        if not missing(q1) and not missing(q3) then quart =
strip(strip(put(0.01*FLOOR(q1/0.01),8.2)) || ', ' ||
strip(put(0.01*CEIL(q3/0.01),8.2)));
        END;
/* 8) END JMH 24Jun2014 */
        drop /*n1*/ mean1 std1 median1 min1 max1 q1 q3 ucil lcil ; /* 12) JR
25Sep2014 */
run;

```

```

/*Obtain subjects with values BLOQ*/
data adbx_blq;
    set adbx;
    where bloqfl='Y';
    statval=aval;
    type='abs';
    output;
    statsval=pchg;
    type='pch';
    output;
run;

```

```

proc freq data=adbx_blq noprint;
    table paramn*param*type*trtan*trta*sexc/ out =blq(drop=percent);
run;

```

```

%macro outrtf(blankn=, halfblnk=);

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%if &halfblnk=N %then %let halfblnk=;
%else %if &halfblnk=Y %then %let halfblnk=\~;

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%let dsid=%sysfunc(open(blq));
%let nsum=%sysfunc(attrn(&dsid.,nobs));
%let rc=%sysfunc(close(&dsid.));

```

```

%put "Check " &nsum.;

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%if &nsum. lt 1 %then %do;
    proc sort data=adbx nodupkey out=tpts(keep=paramn param trtan
trta sexc);
        by paramn param trtan trta sexc;
    run;

    data blq1;
        set tpts;
        attrib blq length=$50.;
        blq='0';
    run;

```

```

%end;

%else %do;
  /* 4) start JMH 11Jun2014 */
  /*DATA ADSL_BLO_ABS;*/
  /* SET TOT;*/
  /* ATTRIB PARAM LENGTH=$200.*/
  /* PARAMN LENGTH=8.*/
  /* TYPE LENGTH=$3.*/
  /* RENAME TRT01AN=TRTAN;*/
  /* RENAME TRT01A=TRTA;*/
  /* TYPE='abs';*/
  /**/
  /* PARAMN=2;*/
  /* PARAM='Carboxyhemoglobin (%)';*/
  /* OUTPUT;*/
  /*PARAMN=45**/*44;*/ /* 7) JMH 23Jun2014 */
  /*PARAM=**/*'Monohydroxybutenyl Mercapturic Acid (ng/mg
creat)' 'Monohydroxybutenyl Mercapturic Acid (pg/mg creat)';*/ /* 7) JMH
23Jun2014 */
  /* OUTPUT;*/
  /*PARAMN=19**/*50;*/ /* 7) JMH 23Jun2014 */
  /* PARAM='3-hydroxypropylmercapturic Acid (ng/mg creat)';*/
  /* OUTPUT;*/
  /* PARAMN=6663;*/ /* 7) JMH 23Jun2014 */
  /* PARAM='S-phenylmercapturic Acid (ng/mg creat)' 'S-phenylmercapturic
Acid (pg/mg creat)';*/ /* 7) JMH 23Jun2014 */
  /* OUTPUT;*/
  /*RUN;*/
  /**/
  /*DATA ADSL_BLO_PCH;*/
  /* SET TOT;*/
  /* ATTRIB PARAM LENGTH=$200.*/
  /* PARAMN LENGTH=8.*/
  /* TYPE LENGTH=$3.*/
  /* RENAME TRT01AN=TRTAN;*/
  /* RENAME TRT01A=TRTA;*/
  /* TYPE='pch';*/
  /**/
  /* PARAMN=2;*/
  /* PARAM='Carboxyhemoglobin (%)';*/
  /* OUTPUT;*/
  /* PARAMN=4544;*/ /* 7) JMH 23Jun2014 */
  /* PARAM='Monohydroxybutenyl Mercapturic Acid (ng/mg
creat)' 'Monohydroxybutenyl Mercapturic Acid (pg/mg creat)';*/ /* 7) JMH
23Jun2014 */
  /* OUTPUT;*/
  /* PARAMN=1950;*/ /* 7) JMH 23Jun2014 */
  /* PARAM='3-hydroxypropylmercapturic Acid (ng/mg creat)';*/
  /* OUTPUT;*/
  /* PARAMN=6663;*/ /* 7) JMH 23Jun2014 */
  /* PARAM='S-phenylmercapturic Acid (ng/mg creat)' 'S-phenylmercapturic
Acid (pg/mg creat)';*/ /* 7) JMH 23Jun2014 */
  /* OUTPUT;*/

```

```

/*RUN;*/
/**/
/*PROC SORT DATA=ADSL_BLK_ABS; BY TYPE TRTAN TRTA PARAMN PARAM SEXC;
RUN;*/
/*PROC SORT DATA=ADSL_BLK_PCH; BY TYPE TRTAN TRTA PARAMN PARAM SEXC;
RUN;*/
/**/
/*DATA ADSL_BLK;*/
/*    MERGE ADSL_BLK_ABS ADSL_BLK_PCH;*/
/*    BY TYPE TRTAN TRTA PARAMN PARAM SEXC;*/
/*RUN;*/
/**/
/*PROC SORT DATA=ADSL_BLK; BY TRTAN TRTA SEXC; RUN;*/
/**/
/*DATA TOT3;*/
/*    SET TOT;*/
/*    RENAME TRT01AN=TRTAN;*/
/*    RENAME TRT01A=TRTA;*/
/*RUN;*/
/**/
/*DATA TOT_BLK;*/
/*    MERGE ADSL_BLK(IN=A) TOT3(IN=B);*/
/*    BY TRTAN TRTA SEXC;*/
/*RUN;*/
/**/
/*PROC SORT DATA=BLQ; BY TRTAN TRTA TYPE PARAMN PARAM SEXC; RUN;*/
/*PROC SORT DATA=TOT_BLK; BY TRTAN TRTA TYPE PARAMN PARAM SEXC; RUN;*/
/* 4) end JMH 11Jun2014 */
/* start 12) JR 25Sep2014 */
    PROC SORT DATA=ADBX_ORIG NODUPKEY OUT=TPTS(KEEP=TYPE SEXC PARAMN
PARAM AVISITN AVISIT ATPTN ATPT TRTAN TRTA);
        BY TRTAN TRTA TYPE AVISITN AVISIT SEXC PARAMN PARAM ATPTN
ATPT;
    RUN;

    DATA BLQTOTS;
        SET RESULTS03(RENAME=(N1=TOTAL));
        KEEP TYPE TR: SEXC PARAMN PARAM TOTAL;
    RUN;

    PROC SORT DATA=BLQTOTS; BY TRTAN TRTA TYPE PARAMN PARAM SEXC; RUN;
    PROC SORT DATA=TPTS; BY TRTAN TRTA TYPE PARAMN PARAM SEXC; RUN;

    DATA TOT_BLK;
        MERGE TPTS BLQTOTS;
        BY TRTAN TRTA TYPE PARAMN PARAM SEXC;
    RUN;

    PROC SORT DATA=TOT_BLK;
        BY TRTAN TRTA TYPE PARAMN PARAM SEXC;
    RUN;
    PROC SORT DATA=BLQ;
        BY TRTAN TRTA TYPE PARAMN PARAM SEXC;
    RUN;

```

```

/* end 12) JR 25Sep2014 */
    data blq1;
        attrib blq length=$50.;
        merge blq(in=a) tot_BLQ(IN=B);
        /*by trtan trta TYPE paramn PARAM SEXC;*/ /* 4) JMH
11Jun2014 */
        BY TRTAN TRTA TYPE PARAMN PARAM SEXC; /* 12) JR
25Sep2014 */
        if not a then do;
            count=0;
        end;
        IF TOTAL NE 0 THEN percent1=count/total*100; /* 12) JR
25Sep2014 */
        ELSE PERCENT=0; /* 12) JR 25Sep2014 */
        PERCENT=ROUND(PERCENT1,0.1); /* 4) JMH 11Jun2014 */

        if count=0 then blq='0';
        else if percent=100 then blq= put(count,3.)||' (100%)';
        else blq=put(count,3.)||'
('||put(percent,4.1/3.*/)||'%)'; /* 4) JMH 11Jun2014 */

        run;
    %end;

proc sort data=results03;
    by trtan trta TYPE paramn PARAM sexc; /* 4) JMH 11Jun2014 */
run;

proc sort data=blq1;
    by trtan trta TYPE paramn PARAM sexc; /* 4) JMH 11Jun2014 */
run;

data results04;
    merge results03 blq1;
    by trtan trta TYPE paramn PARAM sexc; /* 4) JMH 11Jun2014 */

    *columns;
    color=substr(sexc,1,1)||compress(put(trtan,best.));
run;

proc sort data=results04;
    by paramn param type sexc AVALU; /* 7) JMH 23Jun2014 */
run;

proc transpose data=results04 out=results05 prefix=_ name=varname;
    by paramn param type AVALU; /* 7) JMH 23Jun2014 */
    var n meansd median minmax ci quart blq;
    id color;
    idlabel trta;
run;

data results06;
    set results05;

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attrib stat variable length = $100.;

if type='pch'/*'abs'*/ then do; /* 1) SM 15May2014 */
    if paramn=2 then variable='Evening COHb (%)';
/*
    else variable=trim(param);*/
        ELSE IF PARAMN=19 THEN VARIABLE='3-HPMA Urinary
Concentration Adjusted for Creatinine' || ' (' || left(strip(avalu)) ||
')'; /* 7) JMH 23Jun2014 */
        ELSE IF PARAMN=45 THEN VARIABLE='MHBMA Urinary
Concentration Adjusted for Creatinine' || ' (' || left(strip(avalu)) ||
')'; /* 7) JMH 23Jun2014 */
        ELSE IF PARAMN=66 THEN VARIABLE='S-PMA Urinary
Concentration Adjusted for Creatinine' || ' (' || left(strip(avalu)) ||
')'; /* 7) JMH 23Jun2014 */
    end;
    ELSE IF TYPE='abs' THEN DELETE; /* 1) SM 15May2014 */
/*else if type='pch' then do; 1) SM 15May2014
    if paramn=2 then variable='%Change from Baseline in Evening COHb
(%)';
    else variable='%Change from Baseline in
'||trim(scan(param,1,'(')) || ' (%)';
end; */

if varname='N' then do;
    statord=1;
    stat='n';
end;
    else if varname='BLQ' then do;
    statord=2;
    stat='BLOQ - n (%)';
    end;
    else if varname='GMEANCV' then do;
    statord=8;
    stat='GMean (CV%)';
    end;
else if varname='CI' then do;
    statord=4;
    stat='95% CI';
end;
else if varname='MEDIAN' then do;
    statord=5;
    stat='Median';
end;
else if varname='QUART' then do;
    statord=6;
    stat='Q25, Q75';
end;
else if varname='MINMAX' then do;
    statord=7;
    stat='Min, Max';
end;
else if varname='MEANS'D then do;
    statord=3;
    stat='Mean (SD)';

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        end;
        drop varname;
run;

data results07;
    set results06;

    if stat='N' then do;
        if missing(_1) then _1='0';
        if missing(_2) then _2='0';
        if missing(_3) then _3='0';
    end;

    /* 4) start JMH 11Jun2014 */
        ATTRIB BLQVAL LENGTH=$50.;
        IF PARAMN=45/*44*/ THEN BLQVAL='0.100 ng/mL'; /* 7) JMH
23Jun2014 */
        IF PARAMN=19/*50*/ THEN BLQVAL='20.0 ng/mL'; /* 7) JMH
23Jun2014 */
        IF PARAMN=66/*63*/ THEN BLQVAL='0.0250 ng/mL'; /* 7) JMH
23Jun2014 */
    /* 4) end JMH 11Jun2014 */

    /* 5) start JMH 19Jun2014 */ /* 7) JMH 23Jun2014 */
    /*         IF PARAMN=44 THEN VARIABLE='MHBMA Urinary Concentration
Adjusted for Creatinine (ng/mg creat)';*/
    /*         ELSE IF PARAMN=50 THEN VARIABLE='3-HPMA Urinary Concentration
Adjusted for Creatinine (ng/mg creat)';*/
    /*         ELSE IF PARAMN=63 THEN VARIABLE='S-PMA Urinary Concentration
Adjusted for Creatinine (ng/mg creat)';*/
    /* 5) end JMH 19Jun2014 */

        /*IF PARAMN=2 AND STATORD=2 THEN DELETE;*/ /* 10) JMH
05Aug2014 */ /* 13) JMH 03Oct2014 */
run;

data labels;
set results07;
    attrib _M1 label = "Male$(N=&trtm1)"
           _M2 label = "Male$(N=&trtm2)"
           _M3 label = "Male$(N=&trtm3)"
           _F1 label = "Female$(N=&trtf1)"
           _F2 label = "Female$(N=&trtf2)"
           _F3 label = "Female$(N=&trtf3)";

                                flag=1;

run;

proc sql noprint;
    create table table.T_15_02_03_05_01 as
        select paramn, variable, type, statord, stat, _M1, _F1, _M2, _F2,
        _M3, _F3

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        from labels
        order by paramn, type, statord;
quit;

proc sort data=labels;
    by paramn type statord;
run;

data paging;
    set labels;
    by paramn type statord;
    if first.type then ln=1; /*Amend to look presentable, and avoid page
overflows*/
    else ln+1;
    if ln=1 then page+1;
    call symput("page",compress(put(page,best.)));
run;

options number nodate orientation=landscape papersize=&p_pgsz missing='
';
ods escapechar='$';
%let linetop = \brdrt\brdrs\brdrw30;  * needs to be 1.5pt so calculated
in twips (1/20 pt) ;
%let linebot = \brdrb\brdrs\brdrw30;

ods path stdlib.tl06324 (read) ;
ods results off;
ods rtf toc_data
file="/cvn/projects/prj/data/000000106324/TFL/&TFL_Part./&tflno..rtf"
style=tl06324 startpage=yes headery=1440 footery=1440 ;
ods noproctitle;

%let count=0;

%do i=1 %to &page;

%do j=1 %to 2;  * split output as unable to fit all 3 on one page;

%let mxpage=%eval(&page*2);

%let count=%eval(&count+1);

title ;
footnote;
%let wd=0;
%LET blq=0; /* 4) JMH 11Jun2014 */

data comp;
    set paging end=eof;
    where page=&i;
    CALL SYMPUT("blqval",LEFT(STRIP(BLQVAL))); /* 4) JMH 11Jun2014 */

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        IF MISSING(BLQVAL) THEN CALL SYMPUT('blq',1); /* 4) JMH 11Jun2014
*/

        /* Amend title as needed */
        _firtitl="Table 15.2.3.5.1 Descriptive Statistics of % Change from
Baseline in Primary Biomarkers on Day 5 by Sex - FAS";
        _upcas=(length("Path: &TFLpath.")-
length(compress("Path:&TFLpath.",'ABCDEFGHIJKLMNOPQRSTUVWXYZ')))/2;
        len=&blankn.-length("(page &i of &page)");
        if eof then do;
            call symput('_FSRTITL', trim(left(_firtitl)));
            call symput('_blankn', compress(put(len,best.)));
        end;

        drop _firtitl _upcas len;
run;

ods proclabel = ' ';
ods listing close;

* most set up in template others below;
* title arial 12pt bold with 12pt paragraph space below;
* all headers to be arial 11pt bold;
* data arial 10pt;
* headers to be central, text values left aligned and numeric centered
around decimal point;
proc report data = comp missing headline headskip missing nowd split =
'$' %if &i=1 %then %do; contents=' ' %end; %else %do; contents='' %end;;
    column flag page paramn type variable statord stat
    %if &j=1 %then %do; ("THS 2.2&linebot." _m1 _f1) ("CC&linebot." _m2
    _f2); %end;
    %if &j=2 %then %do; ("SA&linebot." _m3 _f3); %end;

    define flag          / order order = internal noprint;
    define page          / order order = internal noprint;
    define paramn        / order order=internal noprint;
    define type          / order order=internal noprint;
    define variable      / group style={just=left cellwidth=3.5cm}
style(header)={just=center} "Variable";
    define statord       / order order = internal noprint;
    define stat          / display style={just=left cellwidth=1.5cm}
style(header)={just=center} "Statistic";
    %if &j=1 %then %do;
        define _m1       / display style={just=CENTER/*d*/
cellwidth=1.2cm} style(header)={just=center}; /* 8) JMH 24Jun2014 */
        define _f1       / display style={just=CENTER/*d*/
cellwidth=1.2cm} style(header)={just=center};
        define _m2       / display style={just=CENTER/*d*/
cellwidth=1.2cm} style(header)={just=center};
        define _f2       / display style={just=CENTER/*d*/
cellwidth=1.2cm} style(header)={just=center};
    %end;
    %if &j=2 %then %do;

```

```

define _m3          / display style={just=CENTER/*d*/
cellwidth=1.2cm} style(header)={just=center};
define _f3          / display style={just=CENTER/*d*/
cellwidth=1.2cm} style(header)={just=center}; /* 8) JMH 24Jun2014 */
%end;

break before flag / page %if &i=1 %then %do;
contents="&_fsrtitl" %end; %else %do; contents='' %end;;

break after page / page;

compute after variable;
    line " ";
endcomp;

compute before page / style={protectspecialchars=off};;
    line "&linetop";
endcomp;

/*      compute after page/style={just=left cellwidth=5cm
protectspecialchars=off};*/ /* 9) JMH 01Aug2014 */
/*      line "&linebot" ;*/
/*      endcomp;*/

    compute before _page_ / style={just=left protectspecialchars=off};
        line "\b\fs24\sa24&_FSRTITL." ; * \b = bold, \fs24 is font
size 12pt, \sa24 is space after 12pt;
        line "&linebot";
    endcomp;

    compute after _page_ / style={just=left protectspecialchars=off
PRETEXT="&LINETOP."}; /* 9) JMH 01Aug2014 */
/*      line 'Note: Arithmetic mean, SD and 95% confidence interval
(CI) of the mean are reported.';*/ /* 8) JMH 24Jun2014 */
        line 'Note: CC = Conventional cigarettes; SA = Smoking
abstinence; THS = Tobacco Heating System.';
        line 'Note: Percentages are based on the number of subjects
indicated in the column header (N).';
line "Note: Baseline is the last assessment prior to first product use in
CC/THS 2.2 arms on Day 1 or last assessment prior to 06:29 AM in SA arm
on Day 1."; /* 11) JR 18Sep2014 */
/*      line "Note: Baseline is defined as the last assessment prior
to 06:29 AM on Day 1.";*/
        %if &nsum. ge 1 and &blq. ne 1 %then %do;
            /*line 'Note: LOQ = XX %';*/ /*Update this value if
required*/
                /*LINE "Note: LOQ = &blqval";*/ /* 4) JMH 11Jun2014 */
                /*LINE "Note: BLOQ = &blqval";*/ /* 6) JMH 19Jun2014 */
                LINE "Note: BLOQ = number of observations imputed using half
limit of quantification (&blqval)."; /* 9) JMH 01Aug2014 */
        %end;
        line ' ';
        line 'Appendix 15.3.3.1';

```

```

        line "Path: &TFLpath." &_blankn.*"\~\~" "(Page &count of
&mxpage)";
        line "Program Run: &sysdate  &sysuserid  Program Status:
&status";
        endcomp;
run;
%end;
%end;
ods rtf close;
ods results on;
ods path sashelp.tmplmst (read);

%mend ;

%outrtf(blankn=70, halfblnk=N);
ods listing;
proc printto print = "&table./T_15_02_03_05.lst" new;
run;

proc contents data = table.T_15_02_03_05 varnum;
run;
ods listing close;
proc printto ; run;
*=====;
* END OF PROGRAM CODE ;
*=====;

```