

```

%_mprintto;
options notes nosource;
proc datasets lib=work nolist memtype=data kill; quit;
/* Standard - leave this */
%let TFL_Part=%scan(&_SASPROGRAMFILE,-3,%str(/));

/* Standard - leave this */
data _null_;
    tmp="%TFL_Part";
    if tmp not in ("dev" "qc") then call symput("TFL_Part", "prod");
    call symput('TFLpath', compress("&_SASPROGRAMFILE",""));
run;
%put NOTE:
=====;
%put NOTE: Covance Study Number : 000000106326;
%put NOTE: Client Protocol ID   : ZRHM-PK-05-JP;
%put NOTE: Program Name        : t_anlpl.sas;
%put NOTE: Purpose              : table and figure of primary PK data by
sex and nicotine data;
%put NOTE: ;
%put NOTE: Input Data           : ADAM.ADPP;
%put NOTE: Output               : T_15_02_03_03(PK) ;
%put NOTE: Macros Called        : _MPRINTTO;
%put NOTE: ;
%put NOTE: Programmed by        : cvn_ahall;
%put NOTE: Creation Date        : 2014-02-06;
%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: 08Aug2014  AMH         1) Update to PK02 format;
%put NOTE: 11Aug2014  AMH         2) Ammend Tmax paramter label;
%put NOTE: ;
%put NOTE:
=====;
options notes source source2 nofullstimer validvarname=upcase missing=' '
NOQUOTELNMAX/*turn off warnings about quoted strings to long*/;;
ods _all_ close;
ods listing;
/*formats macro and appendix output macros*/
%include
"/cvn/projects/prj/development/000000106326/dev/adhoc/TMPLTMIX.sas";
/*treatment and parameter formats to display text rather than numbers for
listing*/

data params;

```

```

set adam.adpp;
  if paramcd='AUCIFO' then param=tranwrd(param,'(0-inf)', '{sub(0-
inf)})');
  else if paramcd='AUCINT' then param=tranwrd(param,"(0-t)", "{sub(0-
t)})");
  else if paramcd='TMAX' then
param=tranwrd(strip(tranwrd(param,'max', '{sub max}'))/|||'
[1] '*/', 'T', 't'); /* 2) AMH 11Aug2014 */
  else if paramcd='LAMZHL' then param=tranwrd(param,'1/2', '{sub
1/2}');
  else if paramcd='CMAX' then param=tranwrd(param,'max', '{sub max}');
  else if paramcd='AUCLST' then param=tranwrd(param,'(0-
last)', '{sub(0-last)})');
run;

%fmt(datain=PARAMS, start=paramn, label=param, name=param);

/* Calculate totals for products */

data adsl;
  set adam.adsl(where=(pprotfl='Y'));
  if analgrln=1 then do;
    if index(trt01a,'THS 2.2') or index(trt02a,'THS 2.2') then
colord=1;
    output;
    if index(trt01a,'CC') or index(trt02a,'CC') then colord=2;
    output;
  end;
  else if analgrln=2 then do;
    if index(trt01a,'THS 2.2') or index(trt02a,'THS 2.2') then
colord=1;
    output;
    if index(trt01a,'NRT') or index(trt02a,'NRT') then colord=2;
    output;
  end;
  else if missing(analgrln) then delete;
run;

proc sort data=adsl nodupkey out=adsl1;
  by analgrln analgrl colord subjid;
run;

proc freq data=adsl1(where=(not missing(colord))) noprint;
  table analgrln*analgrl*colord/ out =totals2(drop=percent
rename=(count=total));
run;

data _null_;
  set totals2;
  call
symput('tot'||strip(put(colord,best.))||strip(put(analgrln,best.)),strip(
put(total,best.)));
run;

```

```

data var1;
    set table.T_15_02_03_1;
    IF ORD=2 THEN STAT='Geometric LS Mean (CV%)`{SUPER 1}';
run;

data tmax1;
    set table.T_15_02_04_1;
    where paramn=6;
run;

data all2;
    set table.T_15_02_04_2;
    where paramn in (1,2,6);
    drop label;
run;

data allout;
    set var1 tmax1 all2;
run;

proc sort data=allout; by analgr1n tmax paramn ord; run;

/* Standard - macro for paging */
%macro outrtf(blankn=68, halfblnk=N, ref=);

/* treatment column headers and footnotes */
/*group 1*/
%let col11=THS 2.2 Menthol#(N=&tot11);
%let col21=mCC#(N=&tot21);
%let col31=THS 2.2 Menthol:mCC#Ratio (%);
%let foot1=%str(mCC = menthol conventional cigarettes);
%let foot11=mCC;

/*group 2*/
%let col12=THS 2.2 Menthol#(N=&tot12);
%let col22=NRT gum#(N=&tot22);
%let col32=THS 2.2 Menthol#:NRT gum Ratio (%);
%let foot2=%str(NRT gum = Nicotine Replacement Therapy gum);
%let foot12=NRT gum;

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

/* Standard - just change the number to match the listing you're working
on. Also change the letters in the*/
/* bracket, eg ccb = current cigarette brands. Make sure to do this at
the top of the code too. */

    %let tflno=T_15_02_03_03(PK);

/* Standard - leave this */

```

```

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

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

/*page numbers*/
data paging;
    set allout;
    by analgrln TMAX paramn;
    retain page count;
    if first.paramn then count + 1;
    if count>3 or first.analgrln OR FIRST.TMAX then do; page+1;
    count=1;
    end;
    if last.analgrln then call symput("tpage",compress(put(page,best.)));
run;

/* Standard - leave this */
options number nodate orientation=landscape papersize=&p_pgsz missing='
' NOQUOTELNMAX/*turn off warnings about quoted strings too long*/;
ods escapechar='`';
%let linetop = \brdrt\brdrs\brdrw30; * needs to be 1.5pt so calculated
in twips (1/20 pt) ;
%let linebot = \brdrb\brdrs\brdrw30;
%let linebot2 = \brdrb\brdrs\brdrw15;

ods path stdlib.tl06326 (read) ;
ods results off;
ods rtf toc_data/* contents*/
file="/cvn/projects/prj/data/000000106326/TFL/&TFL_Part./&tflno..rtf"
style=tl06326 startpage=yes headery=1440 footery=1440 ;
ods noproctitle;

%do i=1 %to &tpage;

ODS PROCLABEL = ' ';
title ;
footnote;
%let wd=0;

data comp;
    set paging end=eof;
    by paramn ord;
    where page=&i;
    if tmax=1 and analgrln=1 then call symput('col31', 'THS 2.2 Menthol
- mCC#(min) ');

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        if tmax=1 and analgrln=2 then call symput('col32', 'THS 2.2 Menthol
- NRT#gum (min)');
        flag=1;
        call symput('grp',compress(put(analgrln,best.)));
        /* Amend title as needed */
        _firtitl="Table 15.2.3.3 Analysis of Pharmacokinetic Parameters
of Nicotine C`{SUB max}, AUC`{SUB (0-last)}, t`{SUB max} - PK
Population"; /* 2) AMH 27May2014 */
        _upcas=(length(_firtitl)-
length(compress(_firtitl,'ABCDEFGHIJKLMNOPQRSTUVWXYZ')))/2;
        len=&blankn.-length("(Page &i of &tpage)");
        if eof then do;
            call symput('_FSRTITL', trim(left(_firtitl)));
            call symput('_blankn', compress(put(len,best.)));
        end;
        drop _firtitl _upcas len;
run;

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;
/* Update with your variables as needed */
proc report data = comp headline headskip missing nowd spanrows split =
'#'
%IF &I=1 %THEN %DO; CONTENTS=' ' %END; %ELSE %DO; CONTENTS='' %END;;
        column flag page paramn ord stat ("Group-&grp PK &linebot." col1
col2 col3);

```

```

        define flag / order noprint;
                define page / order order = internal noprint;
                define paramn / group order=internal style={just=left
cellwidth=2.5cm} "Variable" format=param.;
                define ord / order order=internal noprint;
                define stat / display style={just=left cellwidth=3cm}
"Statistic";
                define col1 / display style={just=c cellwidth=3cm}
style(header)={just=center} "&&col1&grp";
                define col2 / display style={just=c cellwidth=3cm}
style(header)={just=center} "&&col2&grp";
                define col3 / display style={just=c cellwidth=3cm}
style(header)={just=center} "&&col3&grp";

        break after page / page;

        break before flag / page %IF &I=1 %THEN %DO;
                CONTENTS="&_FSRTITL" %END; %ELSE %DO; CONTENTS='' %END;;

        compute before page / style={protectspecialchars=off};

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        line "&linetop";
    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 paramn;
        line " ";
    endcomp;

    compute after _page_ / style={just=left protectspecialchars=off
pretext="&linetop."};

    line "Note: &&foot&grp; THS = Tobacco Heating System.";
LINE 'Note: 1: Geometric LS Mean and 95% CI are the adjusted geometric
least squares means based on an ANOVA model. Geometrical CV% of the ratio
is estimated only for the ratio. Precision is the largest difference
between the 95% CI bounds and the mean';
LINE "Note: 2: 95% CI are estimated only for the median difference based
on the Hodges-Lehmann estimate.";
line "";
    line "Appendix &ref.";
        line "Path: &TFLpath." &_blankn.*"\~\~" "(Page &i of
&tpage)";
        line "Program Run: &sysdate &sysuserid Program Status:
&status";
    endcomp;

run;
%end;
ods rtf close;
ods results on;
ods path reset;

%mend ;

%outrtf(blankn=70, halfblnk=Y, ref=%str(15.2.3.1, 15.2.4.1 and
15.2.4.2));

proc printto ; run;
*=====;
* END OF PROGRAM CODE ;
*=====;

%MACRO COMMENT;

```

```

data var1;
    set table.T_15_02_03_1;
run;

data tmax1;
    set table.T_15_02_04_1;
    where paramn=6;
run;

data all2;
    set table.T_15_02_04_2;
    where paramn in (1,2,6);
    drop label;
run;

data allout;
    set var1 tmax1 all2;
run;

proc sort data=allout; by analgr1n paramn ord; run;

/* Standard - macro for paging */
%macro outrtf(blankn=68, halfblnk=N, ref=);

/* treatment column headers and footnotes */
/* treatment column headers and footnotes */
/*group 1*/
%let col11=THS 2.2 Menthol#(N=&tot11);
%let col21=mCC#(N=&tot21);
%let col31=THS 2.2 Menthol:mCC#Ratio (%);
%let foot1=%str(mCC = Menthol conventional cigarettes);
%let foot11=mCC;

/*group 2*/
%let col12=THS 2.2 Menthol#(N=&tot12);
%let col22=NRT gum#(N=&tot22);
%let col32=THS 2.2 Menthol#:NRT gum Ratio (%);
%let foot2=%str(NRT gum = Nicotine replacement therapy gum);
%let foot12=NRT gum;

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

/* Standard - just change the number to match the listing you're working
on. Also change the letters in the*/
/* bracket, eg ccb = current cigarette brands. Make sure to do this at
the top of the code too. */

    %let tflno=T_15_02_03_03(PK);

/* Standard - leave this */
%let TFL_Part=%scan(&_SASPROGRAMFILE,-3,%str(/));

```

```

/* Standard - leave this */
data _null_;
    tmp="&TFL_Part";
    if tmp not in ("dev" "qc") then call symput("TFL_Part", "prod");
    call symput('TFLpath', compress("&_SASPROGRAMFILE",""));
run;

/*page numbers*/
data paging;
    set allout;
    by analgrln paramn;
    retain page count;
    if first.paramn then count + 1;
    if count>3 or first.analgrln then do; page+1;
    count=1;
    end;
    if last.analgrln then call symput("tpage",compress(put(page,best.)));
run;

/* Standard - leave this */
options number nodate orientation=landscape papersize=&p_pgsz missing='
' NOQUOTELNMAX/*turn off warnings about quoted strings too long*/;
ods escapechar=' ';
%let linetop = \brdrt\brdrs\brdrw30; * needs to be 1.5pt so calculated
in twips (1/20 pt) ;
%let linebot = \brdrb\brdrs\brdrw30;
%let linebot2 = \brdrb\brdrs\brdrw15;

ods path stdlib.tl06326 (read) ;
ods results off;
ods rtf toc_data/* contents*/
file="/cvn/projects/prj/data/000000106326/TFL/&TFL_Part./&tflno..rtf"
style=tl06326 startpage=yes headery=1440 footery=1440 ;
ods noproctitle;

%do i=1 %to &tpage;

ODS PROCLABEL = ' ';
title ;
footnote;
%let wd=0;

data comp;
    set paging end=eof;
    by paramn ord;
    where page=&i;
    flag=1;
    call symput('grp',compress(put(analgrln,best.)));
    /* Amend title as needed */

```



```

        _firtitl="Table 15.2.3.3 Analysis of Pharmacokinetic Parameters
of Nicotine C`{SUB max}, AUC`{SUB (0-last)}, t`{SUB max} - PK
Population";
        _upcas=(length(_firtitl)-
length(compress(_firtitl,'ABCDEFGHIJKLMNOPQRSTUVWXYZ')))/2;
        len=&blankn.-length("(Page &i of &tpage)");
        if eof then do;
            call symput('_FSRTITL', trim(left(_firtitl)));
            call symput('_blankn', compress(put(len,best.)));
        end;
        drop _firtitl _upcas len;
run;

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;
/* Update with your variables as needed */
proc report data = comp headline headskip missing nowd spanrows split =
'#'
%IF &I=1 %THEN %DO; CONTENTS=' ' %END; %ELSE %DO; CONTENTS='' %END;;
    column flag page paramn ord stat ("Group-&grp PK &linebot." col1
col2 col3);

    define flag / order noprint;
        define page          / order order = internal noprint;
        define paramn        / group order=internal style={just=left
cellwidth=2.5cm} "Variable" format=param.;
        define ord           / order order=internal noprint;
        define stat          / display style={just=left cellwidth=3cm}
"Statistic";
        define col1          / display style={just=d cellwidth=3cm}
style(header)={just=center} "&&col1&grp";
        define col2          / display style={just=d cellwidth=3cm}
style(header)={just=center} "&&col2&grp";
        define col3          / display style={just=d cellwidth=3cm}
style(header)={just=center} "&&col3&grp";

    break after page / page;

    break before flag / page %IF &I=1 %THEN %DO;
        CONTENTS="&_FSRTITL" %END; %ELSE %DO; CONTENTS='' %END;;

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

    compute after _page_ / style={just=left protectspecialchars=off
pretext="&linetop."};
    line 'Note: GMean and 95%CI are the adjusted geometric least
squares means and confidence intervals from an ANOVA model conducted on
log-transformed data with sequence, subject within sequence, period and
product exposure as fixed effect factors. Geometrical CV% of the ratio is
estimated from the model residual mean square error.';
    line "Note: &&foot&grp; THS = Tobacco Heating System.";
    line "[1] For t`{SUB max} the medians for each product and the
median difference and 95% confidence interval between THS 2.2 Menthol and
&&foot1&grp is reported. The 95% CI is based on the Hodges-Lehmann
estimate.";
    line "";
    line "Appendix &ref.";
    line "Path: &TFLpath." &_blankn.*"\~\~" "(Page &i of
&tpage)";
    line "Program Run: &sysdate &sysuserid Program Status:
&status";
    endcomp;

run;
%end;
ods rtf close;
ods results on;
ods path reset;

%mend ;

%outrtf(blankn=70, halfblnk=Y, ref=%str(15.4.3.1, 15.4.4.1 and
15.4.4.2));

proc printto ; run;
*=====;
* END OF PROGRAM CODE ;
*=====;
%MEND;

```