

```

%_mprintto;
options notes nosource;
proc datasets lib=work nolist memtype=data kill; quit;
%put NOTE:
=====;
%put NOTE: Covance Study Number : 000000106324;
%put NOTE: Client Protocol ID   : ZRHR-REXC-03-EU;
%put NOTE: Program Name        : t_uquant2.sas;
%put NOTE: Purpose              : table decriptive stats of 3-HPMA ;
%put NOTE: ;
%put NOTE: Input Data           : ADAM.ADBX ADAM.ADSL;
%put NOTE: Output               : t_15_2_4_4(3hpm);
%put NOTE: Macros Called        : _MPRINTTO;
%put NOTE: ;
%put NOTE: Programmed by        : cvn_aobyrne;
%put NOTE: Creation Date        : 2014-05-15;
%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: 21May2014  AOB        1) Decimal places amended;
%put NOTE: 21May2014  AOB        2) Footnote added;
%put NOTE: 21May2014  AOB        3) BLQ statistic added;
%put NOTE: 21May2014  AOB        4) Title amended;
%put NOTE: 21May2014  AOB        5) Output filename amended;
%put NOTE: 21May2014  AOB        6) Output split over two pages;
%put NOTE: 09Jun2014  JR         7) Amended page numbering and errors in
log;
%put NOTE: 11Jun2014  JR         8) Amended units;
%put NOTE: 11Jun2014  JR         9) Amended errors/blq footnote;
%put NOTE: 19Jun2014  JMH        10) Amended label of Geometric CI and
added footnote;
%put NOTE: 19Jun2014  JMH        11) Amended BLOQ footnote;
%put NOTE: 24Jun2014  JMH        12) Amended in line with formatting
updates;
%put NOTE: 24Jun2014  JMH        13) Amedned stats;
%put NOTE: 01Aug2014  JMH        14) Amended in line with formatting
updates;
%put NOTE: 05Aug2014  JMH        15) Amended BLOQ count format;
%put NOTE: 18Sep2014  JMH        16) Amended stats;
%put NOTE: 18Sep2014  JR         17) Amended baseline footnote;
%put NOTE: 19Sep2014  KB         18) Amended geometric 95 percent CI
stats;
%put NOTE: 19Sep2014  KB         19) Amended standard deviation
rounding;

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%put NOTE: 25Sep2014    JR                20) Amended calculation of BLOQ
percent;
%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_04_04(uquant);*/
%let tflno=T_15_02_04_04(3hpma);/* 5)  AOB 21May2014 */

%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/ out =tot(drop=percent rename=(count=total));
run;

data tot2;
    set tot;
    call symput('trt' || 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 paramcd
in('U3HPM24U')));

run;

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```

/* start 7) JR 09Jun2014 */ /* 8) JR 11Jun2014 */
/*PROC SORT DATA=ADBX1 NODUPKEY OUT=ADBXVIS;*/
/*    BY TRTAN TRTA AVISITN AVISIT SUBJID;*/
/*RUN;*/
/**/
/*PROC FREQ DATA=ADBXVIS(WHERE=(NOT MISSING(TRTAN))) NOPRINT; */
/*    TABLE TRTAN*TRTA*AVISITN*AVISIT/ OUT =TOTVIS(DROP=PERCENT
RENAME=(COUNT=TOTAL));*/
/*RUN;*/
/* end 7) JR 09Jun2014 */

data adbx;
    set adbx1;
    IF ABLFL='Y' THEN DO; AVISIT='Baseline'; AVISITN=100; END; /* 14)
JMH 01Aug2014 */
    IF AVISIT NE 'Baseline' AND AVISITN LT 101 THEN DELETE; /* 14) JMH
01Aug2014 */
    IF INDEX(AVALU, 'µg') THEN AVALU = '\u956 g';
    CALL SYMPUT("AVALU",LEFT(STRIP(AVALU))); /* 8) JR 11Jun2014 */
run;

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

proc sort data=adbx_orig;
    by type trtan trta avisitn avisit atptn atpt;
run;

proc means data=adbx_orig noprint;
    var statval;
    by type trtan trta avisitn avisit atptn atpt;
    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=$30.
            minmax length=$20.
            n        length=$20.
            median length=$20.
            quart   aci length=$20.;

    n = left(compress(put(n1,8.)));
    * differing DP per biomarker ;

```

```

* COHb as ldp;
  if not missing(median1) then median =
left(compress(put(median1,/*8.1*/ /*9.1*/9.2))); /* 13) JMH 24Jun2014
*/
  if not missing(mean1) and not missing(std1) then meansd =
left(compress(put(ROUND(mean1,0.01),/*8.1*/ /*9.1*/9.2))) || ' (' ||
left(compress(put(/*0.0001*ceil(std1/0.0001)*0.001*ceil(std1/0.001),/*8.
2*/ /*9.3*/8.3))) || ')';/* 1) AOB 21May2014 */ /* 13) JMH 24Jun2014 */
/* 16) JMH 18Sep2014 */ /* 19) KB 19Sep2014 */
  if not missing(min1) and not missing(max1) then minmax =
left(compress(put(min1,8.))) || ', ' || left(compress(put(max1,8.)));
  if not missing(lcil) and not missing(ucil) then aci =
strip(put(0.01*floor(lcil/0.01),/*8.2*/ 9.2)) || ', ' ||
strip(put(0.01*ceil(ucil/0.01),/*8.2*/ 9.2)); /* 1) AOB 21May2014 */
/*if not missing(q1) and not missing(q3) then quart =
strip(strip(put(0.01*FLOOR(q1/0.01),/*8.2*/ /*9.2)) || ', ' ||
strip(put(0.01*CEIL(q3/0.01),/*8.2*/ /*9.2)));/* 1) AOB 21May2014 */
/* 12) JMH 24Jun2014 */
  IF NOT MISSING(Q1) AND NOT MISSING(Q3) THEN QUART =
STRIP(PUT(0.01*FLOOR(Q1*100),10.2)) || ', ' ||
STRIP(PUT(0.01*CEIL(Q3*100),10.2)); /* 16) JMH 18Sep2014 */

/* drop n1 mean1 std1 median1 min1 max1 q1 q3 ucil lcil ;*/
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 type*trtan*trta*avisitn*avisit*atptn*atpt/ out
=blq(drop=percent);
run;

```

```

%macro outrtf(blankn=, halfblnk=);

```

```

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

```

```

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

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%let rc=%sysfunc(close(&dsid.));

%put "Check " &nsum.;

%if &nsum. lt 1 %then %do;
    proc sort data=adbx_orig nodupkey out=tpts(keep=type avisitn
avisit atptn atpt trtan trta);
        by trtan trta type avisitn avisit atptn atpt;
    run;

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

%end;

/*%else %do;*/
/*    PROC SORT DATA= BLQ; *//* 7) JR 09Jun2014 */
/*        BY TRTAN TRTA AVISITN AVISIT; */
/*    RUN;*/

/*        data blq1;*/
/*            attrib blq length=$50.;*/
/*            /*merge blq(in=a) tot TOTVIS;*/ /* 7) JR 09Jun2014 */
/*            /*by trtan trta avisitn avisit atptn atpt;*/ /* 7) JR
09Jun2014 */
/*                if not a then do;*/
/*                    count=0;*/
/*                end;*/
/*                percent=count/total*100;*/
/*                */
/*                if count=0 then blq='0';*/
/*                else if percent=100 then blq= put(count,3.)||'
(100%)';*/
/*                else blq=put(count,3.)||' ('||put(percent,3.)||'%)';*/
/*            run;*/
/*%end;*/
%else %do;
    /* Start 9) JR 11Jun2014 */
    /*DATA ADSL_BQ_ABS;*/
    /*    SET TOT;*/
    /*    ATTRIB AVISIT LENGTH=$40.*/
    /*                AVISITN LENGTH=8.*/
    /*                TYPE LENGTH=$3.*/
    /*    RENAME TRT01AN=TRTAN;*/
    /*    RENAME TRT01A=TRTA;*/
    /*    TYPE='abs';*/

    /*    AVISITN=99;*/ /* 14) JMH 01Aug2014 */
    /*    AVISIT='Day -1';*/
    /*    OUTPUT;*/
    /*    AVISITN=100;*/
    /*    AVISIT='Baseline'*/ /*'Day 0';*/ /* 14) JMH 01Aug2014 */

```

```

/*      OUTPUT;*/
/*      AVISITN=101;*/
/*      AVISIT='Day 1';*/
/*      OUTPUT;*/
/*      AVISITN=102;*/
/*      AVISIT='Day 2';*/
/*      OUTPUT;*/
/*      AVISITN=103;*/
/*      AVISIT='Day 3';*/
/*      OUTPUT;*/
/*      AVISITN=104;*/
/*      AVISIT='Day 4';*/
/*      OUTPUT;*/
/*      AVISITN=105;*/
/*      AVISIT='Day 5';*/
/*      OUTPUT;*/
/*RUN;*/
/**/
/*DATA ADSL_BLO_PCH;*/
/*      SET TOT;*/
/*      ATTRIB AVISIT LENGTH=$40.*/
/*              AVISITN LENGTH=8.*/
/*              TYPE LENGTH=$3.;*/
/*      RENAME TRT01AN=TRTAN;*/
/*      RENAME TRT01A=TRTA;*/
/*      TYPE='pch';*/

/*      AVISITN=99;*/ /* 14) JMH 01Aug2014 */
/*      AVISIT='Day -1';*/
/*      OUTPUT;*/
/*      AVISITN=100;*/
/*      AVISIT='Baseline'*/ /*'Day 0';*/ /* 14) JMH 01Aug2014 */
/*      OUTPUT;*/
/*      AVISITN=101;*/
/*      AVISIT='Day 1';*/
/*      OUTPUT;*/
/*      AVISITN=102;*/
/*      AVISIT='Day 2';*/
/*      OUTPUT;*/
/*      AVISITN=103;*/
/*      AVISIT='Day 3';*/
/*      OUTPUT;*/
/*      AVISITN=104;*/
/*      AVISIT='Day 4';*/
/*      OUTPUT;*/
/*      AVISITN=105;*/
/*      AVISIT='Day 5';*/
/*      OUTPUT;*/
/*RUN;*/
/**/
/*DATA ADSL_BLO;*/
/*      MERGE ADSL_BLO_ABS ADSL_BLO_PCH;*/
/*      BY TYPE TRTAN TRTA AVISITN AVISIT;*/
/*RUN;*/

```

```

/**/
/*PROC SORT DATA=ADSL_BLQ; BY TRTAN TRTA; RUN;*/
/**/
/*DATA TOT3;*/
/*    SET TOT;*/
/*    RENAME TRT01AN=TRTAN;*/
/*    RENAME TRT01A=TRTA;*/
/*RUN;*/
/**/
/*DATA TOT_BLQ;*/
/*    MERGE ADSL_BLQ(IN=A) TOT3(IN=B);*/
/*    BY TRTAN TRTA;*/
/*RUN;*/
/**/
/*PROC SORT DATA=TOT_BLQ; BY TRTAN TRTA TYPE AVISITN AVISIT; RUN;*/
/*PROC SORT DATA=BLQ; BY TRTAN TRTA TYPE AVISITN AVISIT; RUN;*/

/* START 20) JR 25Sep2014 */
    PROC SORT DATA=ADBX_ORIG NODUPKEY OUT=TPTS(KEEP=TYPE AVISITN AVISIT
ATPTN ATPT TRTAN TRTA);
        BY TRTAN TRTA TYPE AVISITN AVISIT ATPTN ATPT;
    RUN;

    DATA BLQTOTS;
        SET RESULTS03(RENAME=(N1=TOTAL));
        KEEP TYPE TR: AVISIT: ATPT: TOTAL;
    RUN;

    PROC SORT DATA=BLQTOTS; BY TRTAN TRTA TYPE AVISITN AVISIT; RUN;
    PROC SORT DATA=TPTS; BY TRTAN TRTA TYPE AVISITN AVISIT; RUN;

    DATA TOT_BLQ;
        MERGE TPTS BLQTOTS;
        BY TRTAN TRTA TYPE AVISITN AVISIT;
    RUN;

    PROC SORT DATA=TOT_BLQ;
        BY TRTAN TRTA TYPE AVISITN AVISIT ATPTN ATPT;
    RUN;
    PROC SORT DATA=BLQ;
        BY TRTAN TRTA TYPE AVISITN AVISIT ATPTN ATPT;
    RUN;
/* END 20) JR 25Sep2014 */
data blq1;
    attrib blq length=$50.;
    merge blq(in=a) /*tot*/TOT_BLQ; /* 9) JR 11Jun2014 */
    by trtan trta TYPE avisitn avisit /*atptn atpt*/; /* 9)
JR 11Jun2014 */
    if not a then do;
        count=0;
    end;
    IF TOTAL NE 0 THEN percent1=count/total*100; /* 20) JR
25Sep2014 */
    ELSE PERCENT=0;

```

```

        PERCENT=ROUND(PERCENT1,0.1); /* 9) JR 10Jun2014 */

        if count=0 then blq='0';
        else if percent=100 then blq= put(count,3.)||' (100%>';
        else blq=put(count,3.)||'
('||put(percent,5.1/*3.1*//*3.*//)||'%'); /* 9) JR 11Jun2014 */ /* 15)
JMH 05Aug2014 */
        run;
    %end;

/*Obtain the geometric mean*/

data gmean;
    set adbx_orig(where=(type='abs'));
    statvall=statval;
    ln_statvall=log(statvall);
run;

proc means data=gmean noprint;
    output out=gmean1 mean=mean std=std1 lclm=lci1 uclm=uci1;
    var ln_statvall;
    by trtan trta type avisitn avisit atptn atpt;
run;

data gmean2;
    set gmean1;
    gmean1=exp(mean);
    gmean=left(compress(put(gmean1,/*8.1*/ 9.2/*1*/)));/* 1) AOB 21May2014
*/ /* 13) JMH 24Jun2014 */
    gcv=compress(put(0.01*ceil((sqrt(exp(std1*std1)-1)*100)/0.01),/*8.2*/
9.2)); /* 1) AOB 21May2014 */
    glci=exp(lci1);
    guci=exp(uci1);
    keep type trtan trta avisitn avisit atptn atpt gmean gcv glci guci
std1;
run;

/*Combine the Gmean and BLQ with other stats*/
proc sort data=results03;
    by trtan trta type avisitn avisit atptn atpt;
run;

proc sort data=blq1;
    by trtan trta type avisitn avisit atptn atpt;
run;

data results04;
    merge results03 gmean2 blq1;
    attrib gmeancv length=$30.;
    by trtan trta type avisitn avisit /*atptn atpt*/;
    if not missing(gcv) then gmeancv=left(trim(gmean)) || ' (' ||
left(trim(gcv))||'%';
    else gmeancv=left(trim(gmean));

```



```

/*      if not missing(glci) and not missing(guci) then ci =
strip(strip(put(0.01*floor(glci/0.01),*//*8.2*/ /*9.1)) || ', ' ||
strip(put(0.01*ceil(guci/0.01),*//*8.2*/ /*9.1)));*/ /* 1)  AOB 21May2014
*/

```

```

      IF NOT MISSING(GLCI) AND NOT MISSING(GUCI) THEN CI =
STRIP(STRIP(PUT(0.01*FLOOR(GLCI/0.01),8.2)) || ', ' ||
STRIP(PUT(0.01*CEIL(GUCI/0.01),8.2))); /* 18) KB 19Sep2014 */
run;

```

```

proc sort data=results04;
  by trtan trta type avisitn avisit atptn atpt;
run;

```

```

proc sort data=blq1;
  by trtan trta type avisitn avisit atptn atpt;
run;

```

```

data results05;
  merge results04 blq1;
  by trtan trta type avisitn avisit atptn atpt;

```

```

      IF TYPE = 'pch' THEN BLQ = '';
      if type='abs' then aci='';
run;

```

```

proc sort data=results05;
  by type avisitn avisit atptn atpt;
run;

```

```

proc transpose data=results05(where=(type='abs')) out=results06 prefix=r
name=varname;
  by avisitn avisit atptn atpt;
  var n meansd median minmax aci quart blq gmeancv ci;
  id trtan;
  idlabel trta;
run;

```

```

proc transpose data=results05(where=(type='pch' and avisitn>100))
out=results06c prefix=c name=varname;
  by avisitn avisit atptn atpt;
  var n meansd median minmax aci quart blq;
  id trtan;
  idlabel trta;
run;

```

```

proc sort data=results06;
  by avisitn avisit atptn atpt varname;
run;

```

```

proc sort data=results06c;
  by avisitn avisit atptn atpt varname;
run;

```

```

data results07;
  merge results06 results06c;
  by avisitn avisit atptn atpt varname;
  attrib stat variable length = $100.;
  varname=upcase(varname);

/*    if avisitn gt 104 then variable=compbl(avisit ||', '|| atpt);*/
/* else*/ variable=compbl(avisit);

  if varname='N' then do;
    statord=1;
    stat='n';
  end;
  else if varname='BLQ' then do;
    statord=2;
    stat='BLOQ - n (%)';
/*    delete;          *//* 3) AOB 21May2014 */
  end;
  else if varname='GMEANCV' then do;
    statord=3;
    stat='Geometric Mean (CV%)';
  end;
  else if varname='CI' then do;
    statord=4;
/*    stat='95% CI'; */
    STAT='Geometric 95% CI'; /* 10) JMH 19Jun2014 */ /* 12) JMH
24Jun2014 */
  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='MEANSD' then do;
    statord=8;
    stat='Mean (SD)';
  end;
  else if varname='ACI' then do;
    statord=9;
    stat='95% CI';
  end;
  drop varname;
run;

data results08;

```

```

set results07;

if stat='N' then do;
  * havent set changes to missing as not expected ;
  if missing(r1) then r1='0';
  if missing(r2) then r2='0';
  if missing(r3) then r3='0';
end;
run;

data labels;
set results08;
  attrib r1 r2 r3 label = "Raw$value"
         c1 c2 c3 label = '%$Change$(*)';

  if index(variable,'T0') then
variable=tranwrd(variable,'T0','T${suB 0}');

                                flag=1;
run;

proc sql noprint;
  create table table.T_15_02_04_04 as
  select avisitn, atpt, variable, statord, stat, r1, c1, r2, c2, r3,
c3
  from labels
  order by avisitn, atptn, statord;
quit;

proc sort data=labels;
  by avisitn atptn statord;
run;

data paging;
  set labels;
  by avisitn atptn statord;
  if (first.avisitn or first.atptn) or ln > 16 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_pgsize 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.tl106324 (read) ;
ods results off;

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```

ods rtf toc_data
file="/cvn/projects/prj/data/000000106324/TFL/&TFL_Part./&tflno..rtf"
style=t106324 startpage=yes headery=1440 footery=1440 ;
ods noproctitle;

/*%LET COUNT=0;*//* 6) AOB 21May2014 */

/*%do i=1 %to &page;*/

/* START 6) AOB 21May2014 */
/*%DO J=1 %TO 2;*/
/**/
/*%LET MXPAGE=%EVAL(&PAGE*2);*/
/**/
/*%LET COUNT=%EVAL(&COUNT+1);*/
/* END 6) AOB 21May2014 */

%do i=1 %to &page; /* 7) JR 09Jun2014 */

title ;
footnote;
%let wd=0;
%let subpage=2;

%do j=1 %to &subpage;

%let maxpage=%eval(&page*&subpage);

%let npage=%eval(&subpage*&i+&j-&subpage); * split output as unable to
fit all 3 on one page;

data comp;
    set paging end=eof;
    where page=&i;

    /* Amend title as needed */
/*      _firtitl="Table 15.2.4.4 Descriptive Statistics of Urinary Quantity
Excreted of 3-HPMA over 24 hours (units) - FAS";      */
/*      _FIRTITL="Table 15.2.4.4 Descriptive Statistics of Urinary Quantity
Excreted of 3-HPMA over 24 hours (ng) - FAS"; *//* 4) AOB 21May2014 */
      _FIRTITL="Table 15.2.4.4 Descriptive Statistics of Urinary Quantity
Excreted of 3-HPMA over 24 hours (&avalu) - FAS"; /* 8) JR 11Jun2014
*/
      _upcas=(length("Path: &TFLpath.")-
length(compress("Path:&TFLpath.", 'ABCDEFGHIJKLMNOPQRSTUVWXYZ')))/2;
/*      len=&blankn.-length("(page &i of &page)"); */
      len=&blankn.-length("(page &npage of &maxpage)");
      if eof then do;
          call symput('_FSRTITL', trim(left(_firtitl)));
          call symput('_blankn', compress(put(len,best.)));
      end;

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        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;;
/* START 6) AOB 21May2014 */

/*      column flag page avisitn atptn variable statord stat ("THS
2.2$(N=&trt1)&linebot" r1 c1)*/
/*      ("CC$(N=&trt2)&linebot" r2 c2) ("SA$(N=&trt3)&linebot" r3 c3); */

/*      define flag          / order order = internal noprint;*/
/*      define page          / order order = internal noprint;*/
/*      define avisitn       / order order=internal noprint;*/
/*      define atptn         / order order=internal noprint;*/
/*      define variable      / group style={just=left cellwidth=1.25cm}
style(header)={just=center} "Time-$point";*/
/*      define statord       / order order = internal noprint;*/
/*      define stat          / display style={just=left cellwidth=1.68cm}
style(header)={just=center} "Statistic";*/
/*      define r1            / display style={just=d cellwidth=1.4cm}
style(header)={just=center};*/
/*      define r2            / display style={just=d cellwidth=1.4cm}
style(header)={just=center};*/
/*      define r3            / display style={just=d cellwidth=1.4cm}
style(header)={just=center};*/
/*      define c1            / display style={just=d cellwidth=1.78cm}
style(header)={just=center};*/
/*      define c2            / display style={just=d cellwidth=1.78cm}
style(header)={just=center};*/
/*      define c3            / display style={just=d cellwidth=1.78cm}
style(header)={just=center};*/

        COLUMN FLAG PAGE AVISITN ATPTN VARIABLE STATORD STAT
        %IF &J=1 %THEN %DO; ("THS 2.2$(N=&TRT1)&LINEBOT." R1 C1)
("CC$(N=&TRT2)&LINEBOT." R2 C2); %END;
        %ELSE %IF &J=2 %THEN %DO; ("SA$(N=&TRT3)&LINEBOT." R3 C3); %END;

        DEFINE FLAG          / ORDER ORDER = INTERNAL NOPRINT;
        DEFINE PAGE          / ORDER ORDER = INTERNAL NOPRINT;
        DEFINE ATPTN         / ORDER ORDER=INTERNAL NOPRINT;
        DEFINE AVISITN       / ORDER ORDER=INTERNAL NOPRINT;
        DEFINE STATORD       / ORDER ORDER = INTERNAL NOPRINT;
        %if &j=1 %then %do;

```

```

        DEFINE VARIABLE          / GROUP STYLE={JUST=LEFT
CELLWIDTH=1.4/*1.25*/CM} STYLE(HEADER)={JUST=LEFT "Timepoint";
        DEFINE STAT              / DISPLAY STYLE={JUST=LEFT CELLWIDTH=2CM}
STYLE(HEADER)={JUST=LEFT "Statistic";
        DEFINE R1                 / DISPLAY STYLE={JUST=LEFT/*D*/
CELLWIDTH=1.2CM} STYLE(HEADER)={JUST=LEFT/* 12) JMH 24Jun2014 */
        DEFINE C1                 / DISPLAY STYLE={JUST=LEFT/*D*/ CELLWIDTH=1.5CM}
STYLE(HEADER)={JUST=LEFT/* 12) JMH 24Jun2014 */
        DEFINE R2                 / DISPLAY STYLE={JUST=LEFT/*D*/ CELLWIDTH=1.2CM}
STYLE(HEADER)={JUST=LEFT/* 12) JMH 24Jun2014 */
        DEFINE C2                 / DISPLAY STYLE={JUST=LEFT/*D*/ CELLWIDTH=1.5CM}
STYLE(HEADER)={JUST=LEFT/* 12) JMH 24Jun2014 */
        %END;
        %IF &J=2 %THEN %DO;
        DEFINE VARIABLE          / GROUP STYLE={JUST=LEFT CELLWIDTH=3CM}
STYLE(HEADER)={JUST=LEFT "Timepoint";
        DEFINE STAT              / DISPLAY STYLE={JUST=LEFT CELLWIDTH=3CM}
STYLE(HEADER)={JUST=LEFT "Statistic";
        DEFINE R3                 / DISPLAY STYLE={JUST=LEFT/*D*/ CELLWIDTH=3CM}
STYLE(HEADER)={JUST=LEFT/* 12) JMH 24Jun2014 */
        DEFINE C3                 / DISPLAY STYLE={JUST=LEFT/*D*/ CELLWIDTH=3CM}
STYLE(HEADER)={JUST=LEFT/* 12) JMH 24Jun2014 */
        %END;
/* END 6) AOB 21May2014 */

```

```

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};*//* 14) 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."}; /* 14) JMH 01Aug2014 */
        line 'Note: CC = Conventional cigarettes; SA = Smoking
abstinence; THS = Tobacco Heating System.';

```

```

/*LINE "Note: Geo 95% CI represents the 95% CI of the geometric
mean."*/ /* 10) JMH 19Jun2014 */
    LINE 'Note: Geometric: mean, CV% and 95% confidence interval
(CI) are reported.'; /* 12) JMH 24Jun2014 */
    line "Note: * % change from baseline, where 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."; /* 17) JR
18Sep2014 */
/*    line "Note: * % change from baseline, where baseline is
defined as the last assessment prior to 06:29 AM on Day 1."*/
    LINE "Note: Collection over 24 hours starting on the Day
stated in the table."/* 2) AOB 21May2014 */
    %if &nsum. ge 1 %then %do;
        /*line 'Note: LOQ = 20.0 ng/mL'*/ /*Update this value if
required*/ /* 9) JR 11Jun2014 */
        /*LINE 'Note: BLOQ = 20.0 ng/mL'*/ /* 11) JMH 19Jun2014 */
        LINE "Note: BLOQ = number of observations imputed using
half limit of quantification (20.0 ng/mL)."; /* 14) JMH 01Aug2014 */
    %end;
    line ' ';
    line 'Appendix 15.3.3.1';
/*    line "Path: &TFLpath." &_blankn.*"\~\~" "(Page &i of
&page)";*/
    line "Path: &TFLpath." &_blankn.*"\~\~" "(Page &npage of
&maxpage)"; /* 7) JR 09Jun2014 */
    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_04_04.lst" new;
run;

proc contents data = table.T_15_02_04_04 varnum;
run;
ods listing close;
proc printto ; run;
*=====;
* END OF PROGRAM CODE ;
*=====;

```