

```
/*=====
=====*
```

```
| Covance Study Number   : 000000106343          |
```

```
| Program Name           : t_lab_pp.sas          |
```

```
| Purpose                 : Program to table 14.2.4.31.01 |
```

```
| Input Data              : ADAM.ADSL, ADAM.adlb
|
```

```
| Output Data             : T_14_02_04_31_01      |
```

```
| Macros Called           :                      |
```

```
| Originally Performed by :Sree Bikki            |
```

```
| Date                    : 19MAY2015            |
```

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|                          |
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```
| Modification History    |
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|-----|
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```
| Modified by            :                      |
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| Modification Date      :
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```
| Modification Description :                  |
```

```
+=====
=====*/
```

```
proc datasets lib=work kill memtype=data nolist;
```

```
run;
```

```
%m_printto;
```

```
%macro table (tfl =, title1 =, title2 =, title3 =);
```

```
proc sql;
```

```
select count(distinct usubjid) into: N1THS from adam.adsl(where=(trt01pn = 4 and pprot1fl = "Y"));
```

```
select count(distinct usubjid) into: N1MCC from adam.adsl(where=(trt01pn = 5 and pprot1fl = "Y"));
```

```
select count(distinct usubjid) into: N1SAA from adam.adsl(where=(trt01pn = 3 and pprot1fl = "Y"));
```

```
select count(distinct usubjid) into: N2THS from adam.adsl(where=(trt01pn = 4 and pprot2fl = "Y"));
```

```
select count(distinct usubjid) into: N2MCC from adam.adsl(where=(trt01pn = 5 and pprot2fl = "Y"));
```

```
select count(distinct usubjid) into: N2SAA from adam.adsl(where=(trt01pn = 3 and pprot2fl = "Y"));
```

```
select count(distinct usubjid) into: N3THS from adam.adsl(where=(trt01pn = 4 and pprot3fl = "Y"));
```

```
select count(distinct usubjid) into: N3MCC from adam.adsl(where=(trt01pn = 5 and pprot3fl = "Y"));
```

```
select count(distinct usubjid) into: N3SAA from adam.adsl(where=(trt01pn = 3 and pprot3fl = "Y"));
```

```
select count(distinct usubjid) into: N4THS from adam.adsl(where=(trt01pn = 4 and pprot4fl = "Y"));
```

```
select count(distinct usubjid) into: N4MCC from adam.adsl(where=(trt01pn = 5 and pprot4fl = "Y"));
```

```
select count(distinct usubjid) into: N4SAA from adam.adsl(where=(trt01pn = 3 and pprot4fl = "Y"));
```

```
quit;
```

```
%let tflno=&tfl.;
```

```
/* Standard - leave this */
```

```
%let TFL_Part=%scan(&_amp;_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", ""));
```

```
        call symput('TFLprg',reverse(scan(strip(reverse(compress("&_SASPROGRAMFILE", ""))),1,"/")));
```

```
run;
```

```
data adlb_1;
```

```
set adam.adlb;
```

```
where (pprot1fl = "Y" and 101<=avisitn <= 106) or (pprot2fl = "Y" and avisitn = 130) or (pprot3fl = "Y"  
and avisitn = 160) or (pprot4fl = "Y" and avisitn = 191);
```

```
if paramcd in ("WBC", "NEUT", "BASO", "EOS", "LYM", "MONO", "PLAT") and anl01fl = "Y";
```

```
run;
```

```
data adlb_2;
```

```
set adam.adlb;
```

```
if paramcd in ("WBC", "NEUT", "BASO", "EOS", "LYM", "MONO", "PLAT") and anl01fl = "Y";
```

```
if ablfl = "Y" and pprot1fl = "Y" then do;
```

```
    avisitn = 10;
```

```
    avisit = "Baseline";
```

```
    apuper = 1;
```

```
apuperc = "Period 1";  
output;  
end;  
if ablfl = "Y" and pprot2fl = "Y" then do;  
  avisitn = 10;  
  avisit = "Baseline";  
  apuper = 2;  
  apuperc = "Period 2";  
  output;  
end;  
if ablfl = "Y" and pprot3fl = "Y" then do;  
  avisitn = 10;  
  avisit = "Baseline";  
  apuper = 3;  
  apuperc = "Period 3";  
  output;  
end;  
if ablfl = "Y" and pprot4fl = "Y" then do;  
  avisitn = 10;  
  avisit = "Baseline";  
  apuper = 4;  
  apuperc = "Period 4";  
  output;  
end;  
run;
```

```
data adlb;
```

```
set adlb_1 adlb_2;
```

```
run;
```

```
proc sort data=adlb;
```

```
by trtpn trtp paramn param paramcd apuper apuperc avisitn avisit;
```

```
run;
```

```
/*GEOMEAN AN CI*/
```

```
data adlb_log;
```

```
set adlb(where= (paramcd = "PLAT"));
```

```
if aval ne . then logaval = log(aval);
```

```
run;
```

```
proc sort data=adlb_log;
```

```
by trtpn trtp paramn param paramcd apuper apuperc avisitn avisit ;
```

```
run;
```

```
proc means data=adlb_log noprint;
```

```
by trtpn trtp paramn param paramcd apuper apuperc avisitn avisit ;
```

```
output out=aval_log mean = mean std = std lclm = lclm uclm = uclm;
```

```
var logaval;
```

```
run;
```

```
data aval_log1;
```

```
set aval_log;
```

```
length geocv CIGM $50.;
```

```
    gmean1=exp(mean);
```

```
    glci=exp(lclm);
```

```
    guci=exp(uclm);
```

```
    gmean=left(compress(put(round(gmean1,0.1), 8.1)));
```

```
    gcv=compress(put(0.01*ceil((sqrt(exp(std*std)-1)*100)/0.01),8.2));
```

```
        if not missing(gcv) then geocv=left(trim(gmean)) || ' (' || left(trim(gcv)) || ')';
```

```
    else geocv=left(trim(gmean));
```

```
        if not missing(glci) and not missing(guci) then cigm = strip(strip(put(0.1*floor(glci/0.1),8.1)) || ' ', ' ' || strip(put(0.1*ceil(guci/0.1),8.1)));
```

```
else if glci ne . and guci = . then cigm = strip(put(0.1*floor(glci/0.1), 8.1)) || ", NA";
```

```
else if glci = . and guci ne . then cigm = "NA, " || strip(put(0.1*ceil(guci/0.1),8.1));
```

```
else if glci = . and guci = . then cigm = "NA, NA";
```

```
run;
```

```
/*for figure dataset t_15_02_04_31_01_F*/
```

```
data figure;
```

```
set aval_log1;
```

```

drop std _type__freq_ apuper apuperc;

logf=1;

mean = gmean1;

lclm = glci;

uclm = guci;

if apuper in (2,3,4) and avisitn=10 then delete;

keep avisit avisitn paramcd param paramn trtp trtpn mean lclm uclm logf;


run;


/*end for figure dataset t_15_02_04_31_01_F*/


proc sort data=aval_log1 ;

by paramn param apuper apuperc avisitn avisit ;

run;


proc transpose data=aval_log1 out=aval_log1_t prefix= trt_;

by paramn param apuper apuperc avisitn avisit ;

var geocv cigm;

id trtpn;

run;


/*Q25 Q75 MEdian*/

```

```

proc means data=adlb(where=(aval ne . and paramcd = "PLAT")) noprint;
var aval;
by trtpn paramn param apuper apuperc avisitn avisit ;
output out=aval_plat n=n mean = mean std = std median = median min = min max = max q1 = q1 q3 =
q3;
run;

```

```

data aval1_plat;
set aval_plat;
length median1 Q2575 Minmax n1 $50.;
median1 = strip(put(round(median, 0.01), 15.1));
q2575 = strip(put(round(q1, 0.01), 15.1)) || ", " || strip(put(round(q3, 0.01), 15.1));
minmax = strip(put(round(min, 0.1), 15.0)) || ", " || strip(put(round(max, 0.1), 15.0));
n1 = strip(put(n, best.));
run;

```

```

/**missing calculation*/

```

```

data results03_plat;
length missc $30;
set aval1_plat;
/*period 1*/

```

```

if trtpn=3 and apuper = 1 then do;

```



```

if &n1saa.=n then
missc="";

else
missc=strip(put((&n1saa.- n), 8.)) || ' (' || strip(put(((&n1saa.-n)*100)/&n1saa., 8.1)) || ")";

end;

else if trtpn=4 and apuper = 1 then do;

if &n1ths.=n then
missc="";

else
missc=strip(put((&n1ths.- n), 8.)) || ' (' || strip(put(((&n1ths.-n)*100)/&n1ths., 8.1)) || ")";

end;

else if trtpn=5 and apuper = 1 then do;

if &n1mcc.=n
then missc="";

else
missc=strip(put((&n1mcc.-n), 8.)) || ' (' || strip(put(((&n1mcc.-n)*100)/&n1mcc., 8.1)) || ")";

end;

/*period 2*/

if trtpn=3 and apuper = 2 then do;

if &n2saa.=n then
missc="";

else
missc=strip(put((&n2saa.- n), 8.)) || ' (' || strip(put(((&n2saa.-n)*100)/&n2saa., 8.1)) || ")";

end;

else if trtpn=4 and apuper = 2 then do;

if &n2ths.=n then
missc="";

```

```

else
missc=strip(put((&n2ths.- n), 8.)) || ' (' || strip(put(((&n2ths.-n)*100)/&n2ths., 8.1)) || ")";

end;

else if trtpn=5 and apuper = 2 then do;

if &n2mcc.=n

then missc="";

else
missc=strip(put((&n2mcc.-n), 8.)) || ' (' || strip(put(((&n2mcc.-n)*100)/&n2mcc., 8.1)) || ")";

end;

/*      period 3*/

if trtpn=3 and apuper = 3 then do;

if &n3saa.=n then

missc="";

else
missc=strip(put((&n3saa.-n), 8.)) || ' (' || strip(put(((&n3saa.-n)*100)/&n3saa., 8.1)) || ")";

end;

else if trtpn=4 and apuper =3 then do;

if &n3ths.=n then

missc="";

else
missc=strip(put((&n3ths.- n), 8.)) || ' (' || strip(put(((&n3ths.-n)*100)/&n3ths., 8.1)) || ")";

end;

else if trtpn=5 and apuper = 3 then do;

if &n3mcc.=n

then missc="";

else
missc=strip(put((&n3mcc.-n), 8.)) || ' (' || strip(put(((&n3mcc.-n)*100)/&n3mcc., 8.1)) || ")";

end;

```

```
/*period 4*/
```

```
if trtpn=3 and apuper =  
4 then do;
```

```
if &n4saa.=n then  
missc="";
```

```
else  
missc=strip(put((&n4saa.- n), 8.)) || ' (' || strip(put(((&n4saa.-n)*100)/&n4saa., 8.1)) || ")";
```

```
end;
```

```
else if trtpn=4 and apuper =4 then do;
```

```
if &n4ths.=n then  
missc="";
```

```
else  
missc=strip(put((&n4ths.- n), 8.)) || ' (' || strip(put(((&n4ths.-n)*100)/&n4ths., 8.1)) || ")";
```

```
end;
```

```
else if trtpn=5 and apuper = 4 then do;
```

```
if &n4mcc.=n  
then missc="";
```

```
else  
missc=strip(put((&n4mcc.-n), 8.)) || ' (' || strip(put(((&n4mcc.-n)*100)/&n4mcc., 8.1)) || ")";
```

```
end;
```

```
run;
```

```
proc sort data=results03_plat out=aval1_plat;
```

```
by paramn param apuper apuperc avisitn avisit ;
```

```
run;
```

```
proc transpose data=aval1_plat out=aval_plat_t prefix= trt_;  
by paramn param apuper apuperc avisitn avisit ;  
var n1 median1 q2575 minmax missc;  
id trtpn;  
run;
```

```
data aval_plat_t;  
length txt $200.;  
set aval_plat_t aval_log1_t;  
if upcase(_name_) = "N1" then do;  
txtn = 1;  
txt = "n";  
end;  
if upcase(_name_) = "MISSC" then do;  
txtn = 2;  
txt = "Missing, n (%)";  
end;  
else if upcase(_name_) = "MEDIAN1" then do;  
txtn = 5;  
txt = "Median";  
end;  
else if upcase(_name_) = "Q2575" then do;  
txtn = 6;  
txt = "Q25, Q75";
```

```

end;

else if upcase(_name_) = "MINMAX" then do;

txtn = 7;

txt = "Min, Max";

end;

else if upcase(_name_) = "GEOCV" then do;

txtn = 3;

txt = "Geometric Mean (CV%)";

end;

else if upcase(_name_) = "CIGM" then do;

txtn = 4;

txt = "95% CI of Geometric Mean";

end;

run;

```

```

proc means data=adlb(where=(aval ne . and paramcd ne "PLAT")) noprint;

var aval;

by trtpn trtp paramn param paramcd apuper apuperc avisitn avisit ;

output out=aval n =n mean = mean std = std median = median min = min max = max q1 = q1 q3 = q3 lclm
= lclm uclm = uclm;

run;

```

```

/*for figure dataset t_15_02_04_31_01_F*/

```

```

data figure1;

set aval;

drop std _type__freq_;

logf=0;

if apuper in (2,3,4) and avisitn=10 then delete;

keep trtp trtpn mean lclm uclm param paramcd paramn logf avisit avisitn;

run;

/*end for figure dataset t_15_02_04_31_01_F*/

/*data aval1;*/

/*set aval;*/

/*if lclm ne . then lclmx = 0.01*floor(100*lclm);*/

/*if uclm ne . then uclmx = 0.01*ceil(100*uclm);*/

/*length median1 Q2575 Minmax Meansd CIAM n1 $50.;*/

/*median1 = strip(put(round(median, 0.01), 15.1));*/

/*q2575 = strip(put(round(q1, 0.01), 15.1))||", "||strip(put(round(q3, 0.01), 15.1));*/

/*minmax = strip(put(round(min, 0.1), 15.0))||", "||strip(put(round(max, 0.1), 15.0));*/

/*if std ne . then meansd = strip(put(round(mean, 0.01), 15.1))||" ("||strip(put(round(std, 0.001), 16.2))||")";*/

/*else if std = . then meansd = strip(put(round(mean, 0.01), 15.1))||" (NA)";*/

/*if nmiss(lclmx, uclmx) = 0 then ciam = strip(put(lclmx, 15.1))||", "||strip(put(uclmx, 15.1));*/

/*else if lclmx ne . and uclmx = . then ciam = strip(put(lclmx, 15.1))||", NA";*/

/*else if lclmx = . and uclmx ne . then ciam = "NA, "||strip(put(uclmx, 15.1));*/

```

```

/*else if lclmx = . and uclmx = . then ciam = "NA, NA";*/

/*n1 = strip(put(n, best.));*/

/*run;*/

data aval1;

set aval;

if lclm ne . then lclmx = 0.01*floor(100*lclm);

if uclm ne . then uclmx = 0.01*ceil(100*uclm);

length median1 Q2575 Minmax Meansd CIAM n1 $50.;

median1 = strip(put(round(median, 0.0001), 15.3));

q2575 = strip(put(round(q1, 0.0001), 15.3))||", "||strip(put(round(q3, 0.0001), 15.3));

minmax = strip(put(round(min, 0.001), 15.2))||", "||strip(put(round(max, 0.001), 15.2));

if std ne . then meansd = strip(put(round(mean, 0.0001), 15.3))||" ("||strip(put(round(std, 0.00001),
16.4))||")";

else if std = . then meansd = strip(put(round(mean, 0.0001), 15.3))||" (NA)";

if nmiss(lclmx, uclmx) = 0 then ciam = strip(put(lclmx, 15.3))||", "||strip(put(uclmx, 15.3));

else if lclmx ne . and uclmx = . then ciam = strip(put(lclmx, 15.3))||", NA";

else if lclmx = . and uclmx ne . then ciam = "NA, "||strip(put(uclmx, 15.3));

else if lclmx = . and uclmx = . then ciam = "NA, NA";

n1 = strip(put(n, best.));

run;

data results03;

length missc $30;

```

```

set aval1;

/*period 1*/

if trtpn=3 and apuper = 1 then do;

if &n1saa.=n then

missc="";

else

missc=strip(put((&n1saa.- n), 8.)) || ' (' || strip(put(((&n1saa.-n)*100)/&n1saa., 8.1)) || ")";

end;

else if trtpn=4 and apuper = 1 then do;

if &n1ths.=n then

missc="";

else

missc=strip(put((&n1ths.- n), 8.)) || ' (' || strip(put(((&n1ths.-n)*100)/&n1ths., 8.1)) || ")";

end;

else if trtpn=5 and apuper = 1 then do;

if &n1mcc.=n

then missc="";

else

missc=strip(put((&n1mcc.-n), 8.)) || ' (' || strip(put(((&n1mcc.-n)*100)/&n1mcc., 8.1)) || ")";

end;

/*period 2*/

if trtpn=3 and apuper = 2 then do;

if &n2saa.=n then

missc="";

else

missc=strip(put((&n2saa.- n), 8.)) || ' (' || strip(put(((&n2saa.-n)*100)/&n2saa., 8.1)) || ")";

end;

```



```

else if trtpn=4 and apuper = 2 then do;
    if &n2ths.=n then
        missc="";
    else
        missc=strip(put((&n2ths.- n), 8.)) || ' (' || strip(put(((&n2ths.-n)*100)/&n2ths., 8.1)) || ")";
end;

else if trtpn=5 and apuper = 2 then do;
    if &n2mcc.=n
then missc="";
    else
        missc=strip(put((&n2mcc.-n), 8.)) || ' (' || strip(put(((&n2mcc.-n)*100)/&n2mcc., 8.1)) || ")";
end;

/*      period 3*/

if trtpn=3 and apuper = 3 then do;
    if &n3saa.=n then
        missc="";
    else
        missc=strip(put((&n3saa.-n), 8.)) || ' (' || strip(put(((&n3saa.-n)*100)/&n3saa., 8.1)) || ")";
end;

else if trtpn=4 and apuper = 3 then do;
    if &n3ths.=n then
        missc="";
    else
        missc=strip(put((&n3ths.- n), 8.)) || ' (' || strip(put(((&n3ths.-n)*100)/&n3ths., 8.1)) || ")";
end;

else if trtpn=5 and apuper = 3 then do;
    if &n3mcc.=n
then missc="";

```

```

else
missc=strip(put((&n3mcc.-n), 8.)) || ' (' || strip(put(((&n3mcc.-n)*100)/&n3mcc., 8.1)) || ")";

end;

/*period 4*/

if trtpn=3 and apuper =
4 then do;

if &n4saa.=n then

missc="";

else

missc=strip(put((&n4saa.- n), 8.)) || ' (' || strip(put(((&n4saa.-n)*100)/&n4saa., 8.1)) || ")";

end;

else if trtpn=4 and apuper =4 then do;

if &n4ths.=n then

missc="";

else

missc=strip(put((&n4ths.- n), 8.)) || ' (' || strip(put(((&n4ths.-n)*100)/&n4ths., 8.1)) || ")";

end;

else if trtpn=5 and apuper = 4 then do;

if &n4mcc.=n

then missc="";

else

missc=strip(put((&n4mcc.-n), 8.)) || ' (' || strip(put(((&n4mcc.-n)*100)/&n4mcc., 8.1)) || ")";

end;

run;

proc sort data=results03 out=aval1;

```

```
by paramn param apuper apuperc avisitn avisit ;  
run;
```

```
proc transpose data=aval1 out=aval_t prefix= trt_  
by paramn param apuper apuperc avisitn avisit ;  
var n1 median1 q2575 minmax meansd ciam missc;  
id trtpn;  
run;
```

```
data aval_t;  
length txt $200.;  
set aval_t;  
if upcase(_name_) = "N1" then do;  
txtn = 1;  
txt = "n";  
end;  
else if upcase(_name_) = "MISSC" then do;  
txtn = 2;  
txt = "Missing, n (%)";  
end;  
else if upcase(_name_) = "MEDIAN1" then do;  
txtn = 5;  
txt = "Median";  
end;
```

```
else if upcase(_name_) = "Q2575" then do;

txtn = 6;

txt = "Q25, Q75";

end;

else if upcase(_name_) = "MINMAX" then do;

txtn = 7;

txt = "Min, Max";

end;

else if upcase(_name_) = "MEANSD" then do;

txtn = 3;

txt = "Mean (SD)";

end;

else if upcase(_name_) = "CIAM" then do;

txtn = 4;

txt = "95% CI";

end;

run;
```

```
data aval_f;

set aval_t aval_plat_t ;

run;
```

```
proc sort data=aval_f;
```

```
by paramn param apuper apuperc avisitn avisit txtn txt;
```

```
run;
```

```
proc sort data=adlb;
```

```
by trtpn paramn param apuper apuperc avisitn avisit ;
```

```
run;
```

```
proc means data=adlb(where=(pchg ne . and ablfl ne "Y" and paramcd = "PLAT")) noprint;
```

```
var pchg;
```

```
by trtpn paramn param apuper apuperc avisitn avisit ;
```

```
output out=chgplat n =n mean = mean std = std median = median min = min max = max q1 = q1 q3 = q3
```

```
lclm = lclm uclm = uclm;
```

```
run;
```

```
data chg1plat;
```

```
length geocv cigm $50.;
```

```
set chgplat;
```

```
if lclm ne . then lclmx = 0.01*floor(100*lclm);
```

```
if uclm ne . then uclmx = 0.01*ceil(100*uclm);
```

```
length median1 Q2575 Minmax n1 $50.;
```

```
median1 = strip(put(round(median, 0.01), 15.1));
```

```
q2575 = strip(put(round(q1, 0.01), 15.1))||", "||strip(put(round(q3, 0.01), 15.1));
```

```
minmax = strip(put(round(min, 0.1), 15.0))||", "||strip(put(round(max, 0.1), 15.0));
```

```
n1 = strip(put(n, best.));
```

```
geocv = " ";
```

```
cigm = " ";
```

```
run;
```

```
/**missing calculation*/
```

```
data results04plat;
```

```
length missc $30;
```

```
set chg1plat;
```

```
/*period 1*/
```

```
if trtpn=3 and apuper = 1 then do;
```

```
if &n1saa.=n then
```

```
missc="";
```

```
else
```

```
missc=strip(put((&n1saa.- n), 8.)) || ' (' || strip(put(((&n1saa.-n)*100)/&n1saa., 8.1)) || ")";
```

```
end;
```

```
else if trtpn=4 and apuper = 1 then do;
```

```
if &n1ths.=n then
```

```
missc="";
```

```
else
```

```
missc=strip(put((&n1ths.- n), 8.)) || ' (' || strip(put(((&n1ths.-n)*100)/&n1ths., 8.1)) || ")";
```

```
end;
```

```
else if trtpn=5 and apuper = 1 then do;
```

```
if &n1mcc.=n
```

```
then missc="";
```

```
else
```

```
missc=strip(put((&n1mcc.-n), 8.)) || ' (' || strip(put(((&n1mcc.-n)*100)/&n1mcc., 8.1)) || ")";
```

```
end;
```

```
/*period 2*/
```

```
if trtpn=3 and apuper = 2 then do;
```

```
if &n2saa.=n then
```

```
missc="";
```

```
else
```

```
missc=strip(put((&n2saa.- n), 8.)) || ' (' || strip(put(((&n2saa.-n)*100)/&n2saa., 8.1)) || ")";
```

```
end;
```

```
else if trtpn=4 and apuper = 2 then do;
```

```
if &n2ths.=n then
```

```
missc="";
```

```
else
```

```
missc=strip(put((&n2ths.- n), 8.)) || ' (' || strip(put(((&n2ths.-n)*100)/&n2ths., 8.1)) || ")";
```

```
end;
```

```
else if trtpn=5 and apuper = 2 then do;
```

```
if &n2mcc.=n
```

```
then missc="";
```

```
else
```

```
missc=strip(put((&n2mcc.-n), 8.)) || ' (' || strip(put(((&n2mcc.-n)*100)/&n2mcc., 8.1)) || ")";
```

```
end;
```

```
/*      period 3*/
```

```
if trtpn=3 and apuper = 3 then do;
```

```
if &n3saa.=n then
```

```
missc="";
```

```
else
```

```
missc=strip(put((&n3saa.-n), 8.)) || ' (' || strip(put(((&n3saa.-n)*100)/&n3saa., 8.1)) || ")";
```

```
end;
```

```

else if trtpn=4 and apuper =3 then do;

                                if &n3ths.=n then

missc="";

                                else

missc=strip(put((&n3ths.- n), 8.)) || ' (' || strip(put(((&n3ths.-n)*100)/&n3ths., 8.1)) || ")";

                                end;

else if trtpn=5 and apuper = 3 then do;

                                if &n3mcc.=n

then missc="";

                                else

missc=strip(put((&n3mcc.-n), 8.)) || ' (' || strip(put(((&n3mcc.-n)*100)/&n3mcc., 8.1)) || ")";

                                end;

/*period 4*/

                                if trtpn=3 and apuper =

4 then do;

                                if &n4saa.=n then

missc="";

                                else

missc=strip(put((&n4saa.- n), 8.)) || ' (' || strip(put(((&n4saa.-n)*100)/&n4saa., 8.1)) || ")";

                                end;

else if trtpn=4 and apuper =4 then do;

                                if &n4ths.=n then

missc="";

                                else

missc=strip(put((&n4ths.- n), 8.)) || ' (' || strip(put(((&n4ths.-n)*100)/&n4ths., 8.1)) || ")";

                                end;

else if trtpn=5 and apuper = 4 then do;

```



```

if &n4mcc.=n
then missc="";

else
missc=strip(put((&n4mcc.-n), 8.)) || ' (' || strip(put(((&n4mcc.-n)*100)/&n4mcc., 8.1)) || ")";

end;

run;

proc sort data=results04plat out=chg1plat;

by paramn param apuper apuperc avisitn avisit ;

run;

proc transpose data=chg1plat out=chgplat_t prefix= chg_;

by paramn param apuper apuperc avisitn avisit ;

var n1 median1 q2575 minmax geocv cigm missc;

id trtpn;

run;

data chgplat_t;

length txt $200.;

set chgplat_t;

if upcase(_name_) = "N1" then do;

txtn = 1;

txt = "n";

end;

```

```
else if upcase(_name_) = "MISSC" then do;

txtn = 2;

txt = "Missing, n (%)";

end;

else if upcase(_name_) = "MEDIAN1" then do;

txtn = 5;

txt = "Median";

end;

else if upcase(_name_) = "Q2575" then do;

txtn = 6;

txt = "Q25, Q75";

end;

else if upcase(_name_) = "MINMAX" then do;

txtn = 7;

txt = "Min, Max";

end;

else if upcase(_name_) = "GEOCV" then do;

txtn =3;

txt = "Geometric Mean (CV%)";

end;

else if upcase(_name_) = "CIGM" then do;

txtn = 4;

txt = "95% CI of Geometric Mean";

end;

run;
```

```

proc means data=adlb(where=(pchg ne . and ablfl ne "Y" and paramcd ^= "PLAT")) noprint;

var pchg;

by trtpn paramn param apuper apuperc avisitn avisit ;

output out=chg1 n =n mean = mean std = std median = median min = min max = max q1 = q1 q3 = q3
lclm = lclm uclm = uclm;

run;

/*data chg1;*/

/*set chg1;*/

/*if lclm ne . then lclmx = 0.01*floor(100*lclm);*/

/*if uclm ne . then uclmx = 0.01*ceil(100*uclm);*/

/*length median1 Q2575 Minmax Meansd CIAM n1 $50.;*/

/*median1 = strip(put(round(median, 0.01), 15.1));*/

/*q2575 = strip(put(round(q1, 0.01), 15.1))||", "||strip(put(round(q3, 0.01), 15.1));*/

/*minmax = strip(put(round(min, 0.1), 15.0))||", "||strip(put(round(max, 0.1), 15.0));*/

/*if std ne . then meansd = strip(put(round(mean, 0.01), 15.1))||" ("||strip(put(round(std, 0.001),
16.2))||")";*/

/*else if std = . then meansd = strip(put(round(mean, 0.01), 15.1))||" (NA)";*/

/*if nmiss(lclmx, uclmx) = 0 then ciam = strip(put(lclmx, 15.1))||", "||strip(put(uclmx, 15.1));*/

/*else if lclmx ne . and uclmx = . then ciam = strip(put(lclmx, 15.1))||", NA";*/

/*else if lclmx = . and uclmx ne . then ciam = "NA, "||strip(put(uclmx, 15.1));*/

/*else if lclmx = . and uclmx = . then ciam = "NA, NA";*/

/*n1 = strip(put(n, best.));*/

/*run;*/

```

```

data chg1;

set chg1;

if lclm ne . then lclmx = 0.01*floor(100*lclm);

if uclm ne . then uclmx = 0.01*ceil(100*uclm);

length median1 Q2575 Minmax Meansd CIAM n1 $50.;

median1 = strip(put(round(median, 0.0001), 15.3));

q2575 = strip(put(round(q1, 0.0001), 15.3))||", "||strip(put(round(q3, 0.0001), 15.3));

minmax = strip(put(round(min, 0.001), 15.2))||", "||strip(put(round(max, 0.001), 15.2));

if std ne . then meansd = strip(put(round(mean, 0.0001), 15.3))||" ("||strip(put(round(std, 0.00001),
16.4))||")";

else if std = . then meansd = strip(put(round(mean, 0.0001), 15.3))||" (NA)";

if nmiss(lclmx, uclmx) = 0 then ciam = strip(put(lclmx, 15.3))||", "||strip(put(uclmx, 15.3));

else if lclmx ne . and uclmx = . then ciam = strip(put(lclmx, 15.3))||", NA";

else if lclmx = . and uclmx ne . then ciam = "NA, "||strip(put(uclmx, 15.3));

else if lclmx = . and uclmx = . then ciam = "NA, NA";

n1 = strip(put(n, best.));

run;

```

```

/**missing calculation*/

```

```

data results04;

length miscc $30;

set chg1;

/*period 1*/

```

```

if trtpn=3 and apuper = 1 then do;

```

```

if &n1saa.=n then
missc="";

else
missc=strip(put((&n1saa.- n), 8.)) || ' (' || strip(put(((&n1saa.-n)*100)/&n1saa., 8.1)) || ")";

end;

else if trtpn=4 and apuper = 1 then do;

if &n1ths.=n then
missc="";

else
missc=strip(put((&n1ths.- n), 8.)) || ' (' || strip(put(((&n1ths.-n)*100)/&n1ths., 8.1)) || ")";

end;

else if trtpn=5 and apuper = 1 then do;

if &n1mcc.=n
then missc="";

else
missc=strip(put((&n1mcc.-n), 8.)) || ' (' || strip(put(((&n1mcc.-n)*100)/&n1mcc., 8.1)) || ")";

end;

/*period 2*/

if trtpn=3 and apuper = 2 then do;

if &n2saa.=n then
missc="";

else
missc=strip(put((&n2saa.- n), 8.)) || ' (' || strip(put(((&n2saa.-n)*100)/&n2saa., 8.1)) || ")";

end;

else if trtpn=4 and apuper = 2 then do;

if &n2ths.=n then
missc="";

```

```

else
missc=strip(put((&n2ths.- n), 8.)) || ' (' || strip(put(((&n2ths.-n)*100)/&n2ths., 8.1)) || ")";

end;

else if trtpn=5 and apuper = 2 then do;

if &n2mcc.=n

then missc="";

else
missc=strip(put((&n2mcc.-n), 8.)) || ' (' || strip(put(((&n2mcc.-n)*100)/&n2mcc., 8.1)) || ")";

end;

/*      period 3*/

if trtpn=3 and apuper = 3 then do;

if &n3saa.=n then

missc="";

else
missc=strip(put((&n3saa.-n), 8.)) || ' (' || strip(put(((&n3saa.-n)*100)/&n3saa., 8.1)) || ")";

end;

else if trtpn=4 and apuper =3 then do;

if &n3ths.=n then

missc="";

else
missc=strip(put((&n3ths.- n), 8.)) || ' (' || strip(put(((&n3ths.-n)*100)/&n3ths., 8.1)) || ")";

end;

else if trtpn=5 and apuper = 3 then do;

if &n3mcc.=n

then missc="";

else
missc=strip(put((&n3mcc.-n), 8.)) || ' (' || strip(put(((&n3mcc.-n)*100)/&n3mcc., 8.1)) || ")";

end;

```

```

/*period 4*/

if trtpn=3 and apuper =
4 then do;

if &n4saa.=n then

missc="";

else
missc=strip(put((&n4saa.- n), 8.)) || ' (' || strip(put(((&n4saa.-n)*100)/&n4saa., 8.1)) || ")";

end;

else if trtpn=4 and apuper =4 then do;

if &n4ths.=n then

missc="";

else
missc=strip(put((&n4ths.- n), 8.)) || ' (' || strip(put(((&n4ths.-n)*100)/&n4ths., 8.1)) || ")";

end;

else if trtpn=5 and apuper = 4 then do;

if &n4mcc.=n

then missc="";

else
missc=strip(put((&n4mcc.-n), 8.)) || ' (' || strip(put(((&n4mcc.-n)*100)/&n4mcc., 8.1)) || ")";

end;

run;

/*end missing calculation*/

proc sort data=results04 out=chg1;

```

```
by paramn param apuper apuperc avisitn avisit ;
```

```
run;
```

```
proc transpose data=chg1 out=chg_t prefix= chg_;
```

```
by paramn param apuper apuperc avisitn avisit ;
```

```
var n1 median1 q2575 minmax meansd ciam missc;
```

```
id trtpn;
```

```
run;
```

```
data chg_t;
```

```
length txt $200.;
```

```
set chg_t;
```

```
if upcase(_name_) = "N1" then do;
```

```
txtn = 1;
```

```
txt = "n";
```

```
end;
```

```
else if upcase(_name_) = "MISSC" then do;
```

```
txtn = 2;
```

```
txt = "Missing, n (%)";
```

```
end;
```

```
else if upcase(_name_) = "MEDIAN1" then do;
```

```
txtn = 5;
```

```
txt = "Median";
```

```
end;
```

```
else if upcase(_name_) = "Q2575" then do;
```



```
txtn = 6;

txt = "Q25, Q75";

end;

else if upcase(_name_) = "MINMAX" then do;

txtn = 7;

txt = "Min, Max";

end;

else if upcase(_name_) = "MEANSD" then do;

txtn =3;

txt = "Mean (SD)";

end;

else if upcase(_name_) = "CIAM" then do;

txtn = 4;

txt = "95% CI";

end;

run;
```

```
data chg_f;

set chg_t chgplat_t ;

run;
```

```
proc sort data=chg_f;

by paramn param apuper apuperc avisitn avisit txtn txt;
```

```
run;
```

```
proc sort data=aval_f;
```

```
by paramn param apuper apuperc avisitn avisit txtn txt;
```

```
run;
```

```
data final;
```

```
length period $200.;
```

```
merge aval_f chg_f(drop=_name_);
```

```
by paramn param apuper apuperc avisitn avisit txtn txt;
```

```
if apuper = 1 then do;
```

```
period = "Period 1";
```

```
THS = &N1THS;
```

```
mcc = &N1mcc;
```

```
sa = &N1saa;
```

```
end;
```

```
else if apuper = 2 then do;
```

```
period = "Period 2";
```

```
ths = &n2ths;
```

```
mcc = &n2mcc;
```

```
sa = &n2saa;
```

```
end;
```

```
else if apuper = 3 then do;
```

```
period = "Period 3";
```

```
ths = &n3ths;
```

```

mcc = &n3mcc;

sa = &n3saa;

end;

else if apuper = 4 then do;

period = "Period 4";

ths = &n4ths;

mcc = &n4mcc;

sa = &n4saa;

end;

if trt_3 = " " and trt_4 = " " and trt_5 = " " and chg_3 = " " and chg_4 = " " and chg_5 = " " then delete;

if txtn =2 and trt_3^= " " or trt_4^= " " or trt_5^= " " then do;

if trt_3 = " " then trt_3 = "0";

if trt_4 = " " then trt_4 = "0";

if trt_5 = " " then trt_5 = "0";

end;

if txtn =2 and avisitn ne 10 then do;

if chg_3 = " " then chg_3 = "0";

if chg_4 = " " then chg_4 = "0";

if chg_5 = " " then chg_5 = "0";

end;

run;

```

```

proc sql;

```

```
create table page as  
select distinct apuper, apuperc, paramn, avisitn  
from final  
order by paramn, apuper, avisitn;  
quit;
```

```
data page1;  
set page;  
by paramn apuper avisitn;  
if _n_ = 0 then page = 0;  
page+ 1;  
run;
```

```
proc sql;  
create table final_page as  
select distinct a.*, b.page  
from final as a  
left join page1 as b  
on a.paramn = b.paramn and a.avisitn = b.avisitn and a.apuper = b.apuper  
order by paramn, apuper, avisitn, txtn;  
quit;
```

```
data final_page;  
set final_page end=last;
```

```
by paramn apuper avisitn txtn;
```

```
if last then call symputx("page", page);
```

```
run;
```

```
data tflds.&tflno(keep=txt txtn avisitn avisit paramn param trt_3 trt_4 trt_5 chg_3 chg_4 chg_5);
```

```
set final_page;
```

```
run;
```

```
data tflds.t_15_02_04_31_01_F;
```

```
set figure figure1;
```

```
run;
```

```
%put &page;
```

```
/* Standard - leave this */
```

```
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;
```

```
/* Standard - macro for paging */
```

```
%macro outrtf(blankn=130, halfblnk=N);
```

```
%if &halfblnk=N %then %let halfblnk=;
```

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

```

ods path stdlib.t106343 (read) ;

ods results off;

ods rtf toc_data/* contents*/
file="/cvn/projects/prj/data/000000106343/TFL/&TFL_Part./Tables/&tflno..rtf" style=t106343
startpage=yes headery=1440 footery=1440 ;

ods noproctitle;

%do i=1 %to &page;

title ;

footnote;

%let wd=0;

ods proclabel = ' ';

data comp;

    set final_page end=eof;

    where page=&i;

    /* Amend title as needed */

        _firtitl="&title1.";

        _firtit2="&title2.";

        _firtit3="&title3.";

    _upcas=(length("Path: &TFLpath.")-
length(compress("Path:&TFLpath.",'ABCDEFGHIJKLMNOPQRSTUVWXYZ')))/2;

    len=&blankn.-length("(page &i of &page)");

    if eof then do;

        call symput('_FSRTITL1', trim(left(_firtitl)));

```

```

        call symput('_FSRTITL2', trim(left(_firtit2)));
        call symput('_FSRTITL3', trim(left(_firtit3)));
        call symput('_blankn', compress(put(len,best.)));
        call symput('period', strip(apuperc));
        call symput('param', strip(param));
        call symput('N3', strip(put(sa, best.)));
        call symput('N4', strip(put(th, best.)));
        call symput('N5', strip(put(mcc, best.)));

    end;

    drop _firtitl _firtit2 _firtit3 _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 nowd split = '$' %if &i=1 %then %do; contents=' ' %end;
%else %do; contents="" %end;;;

```

```

column page paramn apuper avisitn avisit txtn txt ("THSm2.2$(N=&N4)$&linebot" trt_4 chg_4 )
("mCC$(N=&N5)$&linebot" trt_5 chg_5)

```

```

("SA$(N=&N3)$&linebot" trt_3 chg_3);

```

```

define paramn          / order order = internal noprint;

```

```

define page           / order order = internal noprint;

```

```

define avisitn        / order order = internal noprint;

```

```

define apuper         / order order = internal noprint;

```

```

define txtn / order order = internal noprint;

```

```

define avisit          /"Timepoint" order order=internal style={just=left cellwidth=1.9cm}
style(header)={just=left} ;

```

```

define txt             /"Statistic" display style={just=left cellwidth=0.9cm}
style(header)={just=left} ;

```

```

define trt_3           /"Value" display style={JUST=c cellwidth=1.2cm}
style(header)={just=center} ;

```

```

define trt_4           /"Value" display style={just=c cellwidth=1.2cm}
style(header)={just=center} ;

```

```

define trt_5           /"Value" display style={just=c cellwidth=1.2cm}
style(header)={just=center};

```

```

define chg_3           /"% Change(*)" display style={JUST=c cellwidth=1cm}
style(header)={just=center};

```

```

define chg_4           /"% Change(*)" display style={just=c cellwidth=1cm}
style(header)={just=center};

```

```

define chg_5           /"% Change(*)" display style={just=c cellwidth=1cm}
style(header)={just=center};

```

```

compute after avisitn;

```



```

        line " ";
    endcomp;

    compute before _page_ / style={just=left protectspecialchars=off};

    line "\b\fs24\sa24&_FSRTITL1." ; * \b = bold, \fs24 is font size 12pt, \sa24 is space after 12pt;

    line "\b\fs24\sa24&_FSRTITL2." ; * \b = bold, \fs24 is font size 12pt, \sa24 is space after
12pt;

    line "\b\fs24\sa24&_FSRTITL3." ; * \b = bold, \fs24 is font size 12pt, \sa24 is space after 12pt;

    line " ";

    line "Parameter (units):&param";

    LINE "Product Use Time Period: &period";

    line "&linebot";

    endcomp;

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

    line 'Note: mCC = Menthol Conventional cigarettes; SA = Smoking abstinence; THSm2.2
= Tobacco Heating System 2.2 Menthol.';

    line 'Note: Percentages are based on the number of subjects indicated in the column
header (N).';

    LINE 'Note: * % Change from baseline, where baseline is defined as the last assessment
prior to first randomized product use in mCC / THS 2.2 Menthol arms or the last assessment prior to
10AM on Day 1 in the SA arm.';

    line ' ';

    %if &tfl ne T_15_02_04_31_01 %then %do;

    line 'Appendix 15.3.6.6';

    %end;

```

```

%else %do;

line 'Appendix 15.3.6.7';

%end;

                line "Study ID:ZRHM-REXA-08-US   Program:&TFLprg   Status: &status"
&_blankn.*"\~\~" "&sysdate" &_blankn.*"\~\~" "(Page &i of &page)";

                endcomp;

run;

%end;

ods rtf close;

ods results on;

ods path sashelp.tmplmst (read);


%mend ;


%outrtf(blankn=36, halfblank=N);

ods listing;


%mend table;

%table (tfl = %str(T_15_02_04_31_01),title1 = %str(Tables 15.2.4.31.1 Descriptive Statistics of Total WBC
Counts (GI/L), Neutrophils Counts (GI/L), Basophils Counts),

title2 = %str((GI/L),Eosinophils Counts(GI/L), Lymphocytes  Counts (GI/L), Monocytes Counts (GI/L) and
Platelet),

title3 = %str(Counts (GI/L) - PP Set));


%m_logchk2;

```