

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

```
*Covance Study ID   : 000000106331
```

```
*Program Name       : t_co_pp.sas
```

```
*Purpose            : Descriptive Statistics of Exhaled CO (ppm) - PP Set
```

Table 15.2.4.6.1

```
*Input Data         : adam.adsl, ADAM.adbx
```

```
*Output Data        : tflds.T_15_02_04_06_01
```

```
*Macros Called       : %m_printto, %m_logchk, %trt, %mmeans, %mfinp, %outrtf
```

```
*Programmed by      : L.Ma
```

```
*Creation Date       : 2015-05-05
```

```
*=====
```

```
*Modification History
```

```
*Date    Initials  No. Reason;
```

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

```
options notes nosource;
```

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

```
options notes source source2 nofullstimer validvarname=upcase missing=' ';
```

```
ods _all_ close;
```

```
ods listing;
```

```
%m_printto;
```

```
/*Macro to get N values from adam.adsl for column headers for each period per Mock*/
```

```

%macro trt(pfl= );

proc sql;

    %global trt1 trt2 trt3;

    select count(distinct usubjid) into: trt1 from adam.adsl(where=(trt01pn = 4 and &pfl.));

    select count(distinct usubjid) into: trt2 from adam.adsl(where=(trt01pn = 5 and &pfl.));

    select count(distinct usubjid) into: trt3 from adam.adsl(where=(trt01pn = 3 and &pfl.));

quit;

%mend trt;

%trt(pfl=(PPROT4FL='Y'));

/*macro for general mean stats(n mean std median min max Q25 Q75 lclm uclm)for each period per
mock;*/

%macro mmeans(pfl=, prd=, prd1=, class=, var=, out=);

/*get N values for column headers for each period*/

%trt(pfl=&pfl.);

/*Bring in data from ADBX for Exhaled CO - PP set per Mock*/

data adbx1;

    set adam.adbx;

    where anl02fl='Y' AND PARCAT1 = 'BIOMARKERS' AND PARAMCD = 'CO' AND LBSPEC = 'EXPIRED
AIR'

        AND &prd.;

    if          trtpn=4 then trt=1;

    else if trtpn=5 then trt=2;

    else if trtpn=3 then trt=3;

run;

```

```

data adbx;

    set adbx1;

    if ablfl='Y' then avisit='Baseline';

    *According to 5/8/2015 4:04 PM (and 6/3/2015)email from John;

    *for avisit=Baseline and atpt=DAY 0 - WITHIN 15 MIN PRIOR TO SMOKING and avisit=Baseline
and atpt=DAY 1 - WITHIN 15 MIN PRIOR TO SMOKING

    should combined for one by basetype number part =(1). also changed the atptn and avisitn for
the order purpose on the table per mock;

    if avisit="Baseline" and atpt="DAY 0 - WITHIN 15 MIN PRIOR TO SMOKING" then do;
atpt="BASELINE - WITHIN 15 MIN PRIOR TO SMOKING"; atptn=1.1; avisitn=100; end;

    if avisit="Baseline" and atpt="DAY 1 - WITHIN 15 MIN PRIOR TO SMOKING" then do;
atpt="BASELINE - WITHIN 15 MIN PRIOR TO SMOKING"; atptn=1.1; avisitn=100; end;

    if avisit="Baseline" and atpt="DAY 1 - 08:00 - 09:30" then do; atpt="BASELINE - 08:00 - 09:30";
atptn=1.11; avisitn=100; end;

    if avisit="Day 1" and atpt="DAY 1 - WITHIN 15 MIN PRIOR TO SMOKING" then delete;

    bstype=substr(basetype, 21, 1);

    if avisit not in &prd1. then delete;

run;

proc means data=adbx noprint nway;

    var &var.;

    class &class. bstype trt;

    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 results04;

set results02;

attrib meansd length=$20.

        minmax length=$20.

        n    length=$20.

        miss length=$20.

        median length=$20.

        quart aci length=$20.;

n = left(compress(put(n1,8.)));

    *for <missing, n(%)>;

    if trt=1 then do;

                                *format missing cell to 0 per John email on 8-5-2015;

                                if &trt1.=n1 then miss="0";

                                else miss=strip(put((&trt1.-n1), 8.)) || '(' || strip(put(((&trt1.-
n1)*100)/&trt1., 8.1)) || ")";

                                end;

        else if trt=2 then do;

                                if &trt2.=n1 then miss="0";

                                else miss=strip(put((&trt2.-n1), 8.)) || '(' || strip(put(((&trt2.-
n1)*100)/&trt2., 8.1)) || ")";

                                end;

        else if trt=3 then do;

                                if &trt3.=n1 then miss="0";

                                else miss=strip(put((&trt3.-n1), 8.)) || '(' || strip(put(((&trt3.-
n1)*100)/&trt3., 8.1)) || ")";

                                end;

```

```

    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(min1,8.1))) || ', ' ||
left(compress(put(max1,8.1)));

    if not missing(lci1) and not missing(uci1) then aci = strip(put(0.01*floor(lci1/0.01),8.2)) || ', ' ||
strip(put(0.01*ceil(uci1/0.01),8.2));

    if not missing(q1) and not missing(q3) then quart = strip(strip(put(round(q1, 0.01),8.2)) || ', ' ||
strip(put(round(q3, 0.01),8.2)));

    drop n1 mean1 std1 median1 min1 max1 q1 q3 uci1 lci1 ;

```

```
run;
```

```
proc transpose data=results04 out=&out prefix=r name=varname;
```

```
by &class. bstype;
```

```
var n miss meansd median minmax aci quart;
```

```
id trt;
```

```
run;
```

```
data &out.;
```

```
set &out.;
```

```
length stat $200;
```

```
if upcase(varname)='N' then do; statord=1; stat='n'; end;
```

```
if upcase(varname)='MISS' then do; statord=2; stat='Missing, n (%)'; end;
```

```
if upcase(varname)='MEDIAN' then do; statord=7; stat='Median'; end;
```

```
if upcase(varname)='QUART' then do; statord=8; stat='Q25, Q75'; end;
```

```
if upcase(varname)='MINMAX' then do; statord=9; stat='Min, Max'; end;
```

```

        if upcase(varname)='MEANSD' then do; statord=10; stat='Mean (SD)'; end;

        if upcase(varname)='ACI'          then do; statord=11; stat='95% CI of Mean'; end;

run;

%mend mmeans;

%mmeans(pfl=(PPROT1FL='Y'), prd=(PPROT1FL='Y' and avisit in ('Day 0' 'Day 1' 'Day 2' 'Day 3' 'Day 4' 'Day
5' 'Day 6/Discharge Confinement')), prd1=('Baseline' 'Day 1' 'Day 2' 'Day 3' 'Day 4' 'Day 5' 'Day
6/Discharge Confinement'), class=avisitn avisit atptn atpt, var=aval, out=out_p1);

%mmeans(pfl=(PPROT2FL='Y'), prd=(PPROT2FL='Y' and avisit in ('Day 0' 'Day 1' 'Day 30')),
prd1=('Baseline' 'Day 30'), class=avisitn avisit atptn atpt, var=aval, out=out_p2);

%mmeans(pfl=(PPROT3FL='Y'), prd=(PPROT3FL='Y' and avisit in ('Day 0' 'Day 1' 'Day 60')),
prd1=('Baseline' 'Day 60'), class=avisitn avisit atptn atpt, var=aval, out=out_p3);

%mmeans(pfl=(PPROT4FL='Y'), prd=(PPROT4FL='Y' and avisit in ('Day 0' 'Day 1' 'Day 90')),
prd1=('Baseline' 'Day 90'), class=avisitn avisit atptn atpt, var=aval, out=out_p4);

%mmeans(pfl=(PPROT1FL='Y'), prd=(PPROT1FL='Y' and avisit in ('Day 0' 'Day 1' 'Day 2' 'Day 3' 'Day 4' 'Day
5' 'Day 6/Discharge Confinement')), prd1=('Baseline' 'Day 1' 'Day 2' 'Day 3' 'Day 4' 'Day 5' 'Day
6/Discharge Confinement'), class=avisitn avisit atptn atpt, var=pchg, out=out_c1);

%mmeans(pfl=(PPROT2FL='Y'), prd=(PPROT2FL='Y' and avisit in ('Day 0' 'Day 1' 'Day 30' )),
prd1=('Baseline' 'Day 30'), class=avisitn avisit atptn atpt, var=pchg, out=out_c2);

%mmeans(pfl=(PPROT3FL='Y'), prd=(PPROT3FL='Y' and avisit in ('Day 0' 'Day 1' 'Day 60' )),
prd1=('Baseline' 'Day 60'), class=avisitn avisit atptn atpt, var=pchg, out=out_c3);

%mmeans(pfl=(PPROT4FL='Y'), prd=(PPROT4FL='Y' and avisit in ('Day 0' 'Day 1' 'Day 90' )),
prd1=('Baseline' 'Day 90'), class=avisitn avisit atptn atpt, var=pchg, out=out_c4);

/*macro for Geometric Mean per mock;*/

%macro mmeans(prd=, prd1=, class=, var=, out=);

/*Bring in data from ADBX for Blood COHb - PP Set for each period per Mock*/

```

```

data adbx1;

    set adam.adbx;

    where anl02fl='Y' AND PARCAT1 = 'BIOMARKERS' AND PARAMCD = 'CO' AND LBSPEC = 'EXPIRED
AIR'

    AND &prd.;

    if          trtpn=4 then trt=1;

    else if trtpn=5 then trt=2;

    else if trtpn=3 then trt=3;

run;

```

```

data adbx;

    set adbx1;

    if ablfl='Y' then avisit='Baseline';

    *According to the email from John on 5/8/2015 4:04 PM (and 6/3/2015);

    *for avisit=Baseline and atpt=DAY 0 - WITHIN 15 MIN PRIOR TO SMOKING and avisit=Baseline
and atpt=DAY 1 - WITHIN 15 MIN PRIOR TO SMOKING

    should combined for one by basetype number part =(1). also changed the atptn and avisitn for
the order purpose on the table per mock;

    if avisit="Baseline" and atpt="DAY 0 - WITHIN 15 MIN PRIOR TO SMOKING" then do;
atpt="BASELINE - WITHIN 15 MIN PRIOR TO SMOKING"; atptn=1.1; avisitn=100; end;

    if avisit="Baseline" and atpt="DAY 1 - WITHIN 15 MIN PRIOR TO SMOKING" then do;
atpt="BASELINE - WITHIN 15 MIN PRIOR TO SMOKING"; atptn=1.1; avisitn=100; end;

    if avisit="Baseline" and atpt="DAY 1 - 08:00 - 09:30" then do; atpt="BASELINE - 08:00 - 09:30";
atptn=1.11; avisitn=100; end;

    if avisit="Day 1" and atpt="DAY 1 - WITHIN 15 MIN PRIOR TO SMOKING" then delete;

    if aval ne 0 and aval ne . then logaval=log(aval);

    bstype=substr(basetype, 21, 1);

```

```

        if avisit not in &prd1. then delete;

run;

proc means data=adbx noprint nway;

    var &var.;

    class &class. bstype trt;

        output out=results02 mean=mean std=std1 lclm=lci1 uclm=uci1;

run;

```

*need check aval=0;

*per John email on Tuesday, May 19, 2015 11:02 AM:

CO and Ames data from ADBX sometimes have AVAL=0 – in those cases, please report the Geometric Mean

and 95% CI as NC if for a given treatment group at least one value is AVAL=0 (because you cannot take the log of 0).

Add a footnote to table as noted below from 04 example.;

```

proc freq data=adbx(where=(aval=0));

    tables trt*avisitn*avisit*atpt*atptn*aval/noprint out=aval0(drop=percent count aval) ;

run;

```

```

data fl0;

    set aval0;

    flg0='Y';

run;

proc sort data=fl0;

```



```

        by avisitn avisit atptn atpt trt;

run;

data res0;

    merge results02(in=a) fl0;

    by avisitn avisit atptn atpt trt;

    if a;

run;

data results03;

    set res0;

    gmean1=exp(mean);

    gmean=left(compress(put(round(gmean1,0.01), 8.2)));

    gcv=compress(put(0.001*ceil((sqrt(exp(std1*std1)-1)*100)/0.001),8.3));

    glci=exp(lci1);

    guci=exp(uci1);

    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)) || ', '
|| strip(put(0.01*ceil(guci/0.01),8.2)));

    if flg0='Y' then do; gmeancv='NC'; ci='NC'; end;

run;

proc transpose data=results03 out=&out. prefix=r name=varname;

    by &class bstype;

    var gmeancv ci;

```

```

id trt;

run;

data &out.;

    set &out.;

    length stat $200;

    if upcase(varname)='GMEANCV' then do; statord=5; stat='Geometric Mean (CV%)'; end;

    if upcase(varname)='CI' then do; statord=6; stat='95% CI of Geometric Mean'; end;

run;

%mend mmeans;

%mmeans(prd=(PPROT1FL='Y' and avisit in ('Day 0' 'Day 1' 'Day 2' 'Day 3' 'Day 4' 'Day 5' 'Day 6/Discharge
Confinement')), prd1=('Baseline' 'Day 1' 'Day 2' 'Day 3' 'Day 4' 'Day 5' 'Day 6/Discharge Confinement'),
class=avisitn avisit atptn atpt, var=logaval, out=out_g1);

%mmeans(prd=(PPROT2FL='Y' and avisit in ('Day 0' 'Day 1' 'Day 30')), prd1=('Baseline' 'Day 30'),
class=avisitn avisit atptn atpt, var=logaval, out=out_g2);

%mmeans(prd=(PPROT3FL='Y' and avisit in ('Day 0' 'Day 1' 'Day 60')), prd1=('Baseline' 'Day 60'),
class=avisitn avisit atptn atpt, var=logaval, out=out_g3);

%mmeans(prd=(PPROT4FL='Y' and avisit in ('Day 0' 'Day 1' 'Day 90')), prd1=('Baseline' 'Day 90'),
class=avisitn avisit atptn atpt, var=logaval, out=out_g4);

*check data for BLOQ/ALOQ ;

*per Jh email at Wed 7/1/2015 9:34 AM ---- we only need to present BLOQ as a line item if there are
BLOQ values for a given parameter/timepoint;

```

```
proc freq data=adam.adbx(where=(anl02fl='Y' AND PARCAT1 = 'BIOMARKERS' AND PARAMCD = 'CO'  
AND LBSPEC = 'EXPIRED AIR' AND AQLFL='Y' ));
```

```
table AVALC;
```

```
run;
```

```
*no data for BLOQ values so no need to present BLOQ n(%) row.;
```

```
/*macro to set together for each period ;*/
```

```
%macro mfinp(dsn=, dsng=, dsnc=, dsngc=, out=);
```

```
data dsn1;
```

```
set &dsn.(in=p) &dsng.(in=g) ;
```

```
run;
```

```
proc sort data=dsn1 out=ds1;
```

```
by avisitn avisit bstype atptn atpt statord stat varname;
```

```
run;
```

```
*delete baseline part for Change column per mockup;
```

```
data dsnc;
```

```
set &dsnc.;
```

```
if avisit="Baseline" then delete;
```

```
run;
```

```
proc sort data=dsnc out=ds2;
```

```
by avisitn avisit bstype atptn atpt statord stat varname;
```

```
run;
```

data &out.;

retain avisitn avisit atptn statord tp stat r1 c1 r2 c2 r3 c3 statord bstype;

merge ds1(in=a) ds2(in=c rename=(r1=c1 r2=c2 r3=c3));

by avisitn avisit bstype atptn atpt statord stat varname;

if a;

*format avisit/tp per mock; /*follow JH email on Tue 4/28/2015 10:50 AM*/

tp=atpt;

if substr(tp,6,3)='-' then substr(tp,6,3)=' ';

if avisit="Baseline" then do;

if index(tp,'DAY 0,') then tp='BASELINE, ' || tranwrd(tp,'DAY 0,');

else if index(tp,'BASELINE - WITHIN 15 MIN PRIOR TO SMOKING') then
tp=tranwrd(tp,'BASELINE - WITHIN 15 MIN PRIOR TO SMOKING','Baseline, Within 15 Min Prior To
Smoking'); /*follow john email on Mon 7/6/2015 11:01 AM*/

else if index(tp,'BASELINE -') then tp=tranwrd(tp,'BASELINE -','BASELINE, ');

end;

else do;

if index(tp,'WITHIN 15 MIN PRIOR TO SMOKING') then tp=tranwrd(tp,'WITHIN 15 MIN
PRIOR TO SMOKING',' Within 15 Min Prior To Smoking'); /*follow john email on Mon 7/6/2015 11:01
AM*/

end;

if avisit="Day 6/Discharge Confinement" then tp="DAY 6, DISCHARGE CONFINEMENT";

***delete <missing, n(%)> if no missing n data for the row;

if stat="Missing, n (%)" and r1="0" and r2="0" and r3="0" and c1="0" and c2="0" and c3="0"
then delete;

```

else if stat="Missing, n (%)" and avisit="Baseline" and r1="0" and r2="0" and r3="0" then
delete;

else if stat="Missing, n (%)" and avisit="Baseline" and index(tp,"Within 15 Min Prior To
Smoking")>0 and r1="0" and r2="0" and r3="" then delete;

else if stat="Missing, n (%)" and avisit="Baseline" and index(tp,"08:00 - 09:30")>0 and r1="" and
r2="" and r3="0" then delete;

else if stat="Missing, n (%)" and index(tp,"Within 15 Min Prior To Smoking")>0 and r1="0" and
c1="0" and r2="0" and c2="0" and r3="" and c3="" then delete;

else if stat="Missing, n (%)" and index(tp,"08:00 - 09:30")>0 and r1="" and c1="" and r2="" and
c2="" and r3="0" and c3="0" then delete;

tp=propcase(tp);

keep avisitn avisit atptn atpt bstype statord tp stat r1 c1 r2 c2 r3 c3;

run;

%mend;

%mfinp(dsn=out_p1, dsng=out_g1, dsnc=out_c1, out=finalp1);

%mfinp(dsn=out_p2, dsng=out_g2, dsnc=out_c2, out=finalp2);

%mfinp(dsn=out_p3, dsng=out_g3, dsnc=out_c3, out=finalp3);

%mfinp(dsn=out_p4, dsng=out_g4, dsnc=out_c4, out=finalp4);

/*create final dataset per mock;*/

data final;

    set finalp1(in=p1) finalp2(in=p2) finalp3(in=p3) finalp4(in=p4) ;

    if p1 then period="1";

    if p2 then period="2";

    if p3 then period="3";

```

```

        if p4 then period="4";
run;

*****
*create new page for each timepoint for report ;
*****

proc sql;

    create table page as

    select distinct period, avisitn, atptn, tp

    from final

    order by period, avisitn, atptn, tp;

quit;

data page1;

    set page;

    by period avisitn atptn tp;

    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.avisitn=b.avisitn and a.tp = b.tp and a.period=b.period and a.atptn=b.atptn

order by period, page, avisitn, avisit, atptn, statord;

quit;

data final_page(rename=(r1=THSm c1=THSm_chg r2=mCC c2=mCC_chg r3=SA c3=SA_chg));

set final_page end=last;

by period page avisitn atptn statord;

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

run;

/*output report data; */

%let tflno=T_15_02_04_06_01;

data tflds.&tflno(keep=avisitn avisit atpt tp stat THSm mCC SA THSm_chg mCC_chg SA_chg statord
period page);

set final_page;

run;

*****
,

*create output report ;

*****
,

/*get N for each period for column header*/

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;
```

```
options number nodate orientation=landscape 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;
```

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



```
%let title1 = %str(Table 15.2.4.6.1 Descriptive Statistics of Exhaled CO (ppm) - PP Set);
```

```
%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", ""));
```

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

```
run;
```

```
%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 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;

            if _n_ =1 then

                do;

                    call symput('title2', "Product Use Time Period: Period " || Period );

                    *create trt1/trt2/trt3 N for each period for column header;

                        if period="1" then do;

                                                                    call
symput('trt1', strip(put(&N1THS., best.)));

                                                                    call
symput('trt2', strip(put(&N1MCC., best.)));

                                                                    call
symput('trt3', strip(put(&N1SAA., best.)));

                                                                    end;

                        else if period="2" then do;

                                                                    call
symput('trt1', strip(put(&N2THS., best.)));

                                                                    call
symput('trt2', strip(put(&N2MCC., best.)));

                                                                    call
symput('trt3', strip(put(&N2SAA., best.)));

                                                                    end;

                        else if period="3" then do;

                                                                    call
symput('trt1', strip(put(&N3THS., best.)));

                                                                    call
symput('trt2', strip(put(&N3MCC., best.)));

```

```

call
symput('trt3', strip(put(&N3SAA., best.)));

end;

else if period="4" then do;

call

symput('trt1', strip(put(&N4THS., best.)));

call

symput('trt2', strip(put(&N4MCC., best.)));

call

symput('trt3', strip(put(&N4SAA., best.)));

end;

end;

/* Amend title as needed */

_firtitl="&title1.";

_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 listing close;

```

```
proc report data = comp headline headskip nowd split = '$' %if &i=1 %then %do; contents=' '
%end; %else %do; contents="" %end;;;
```

```
column tp stat ("THSm2.2$(N=&trt1)&linebot" THSm THSm_chg )
```

```
("mCC$(N=&trt2)&linebot" mCC mCC_chg)
```

```
("SA$(N=&trt3)&linebot" SA SA_chg);
```

```
define tp      /"Timepoint" order order=internal style={just=left cellwidth=0.9cm}
style(header)={just=left} ;
```

```
define stat    /"Statistic" display style={just=left cellwidth=1.9cm}
style(header)={just=left} ;
```

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

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

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

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

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

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

```
compute after tp;
```

```
line " ";
```

```
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 "\b\fs24\sa24&title2." ;

        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: * % Change from baseline, where baseline is defined as the last
assessment prior to first randomized product use in mCC / THSm2.2 arms or the last assessment prior to
10AM on Day 1 in the SA arm.';

        line 'Note: NC = Not Calculated.';

        line ' ';

        line 'Appendix 15.3.3.2';

        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;

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

```

```
ods listing;
```

```
%m_logchk;
```

```
/****** END OF FILE t_co_pp.sas *****/
```