

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

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

```
| Program Name           : t_hba1c_fas.sas        |
```

```
| Purpose                : Program to 14.2.4.29.2  |
```

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

```
| Output Data            :T_14_02_04_29_02        |
```

```
| Macros Called          :                        |
```

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

```
| Date                   : 12MAY2015              |
```

```
|                        |
```

```
|=====
=====|
```

```
| Modification History    |
```

```
|-----|
```

```
| Modified by            :                        |
```

```
| Modification Date      :                        |
```

```
|                        |
```

```
| Modification Description :                      |
```

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

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

```
run;
```

```
%m_printto;
```

```
%macro table (paramcd= , tfl =, title = );
```

```
proc sql;
```

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

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

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

```
quit;
```

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

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

```
%let TFL_Part=%scan(&_amp;_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;
```

```
data adlb_1;
```

```
set adam.adlb;
```

```
where fasfl = "Y";
```

```
if paramcd in &paramcd and anl01fl = "Y";
```

```
run;
```

```
data adlb_2;
```

```
set adam.adlb;
```

```
if paramcd in &paramcd and anl01fl = "Y";
```

```
if ablfl = "Y" and fasfl = "Y";
```

```
avisitn = 10;
```

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

```
run;
```

```
data adlb;
```

```
set adlb_1 adlb_2;
```

```
if avisit ne 'Baseline' and avisitn lt 101 then delete;
```

```
run;
```

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

```
by trtpn trtp paramn param paramcd avisitn avisit atptn atpt;
```

```
run;
```

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

```
proc means data=adlb(where=(aval ne .)) noprint;
```

```
var aval;
```

```
by trtpn trtp paramn param paramcd 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_29_02_F*/
```

```
data figure;
```

```
set aval;
```

```
logf=0;
```

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

```
run;
```

```
/*end for figure dataset t_15_02_04_29_02_F*/
```

```
data aval1;
```

```
set aval(drop=paramcd trtp);
```

```
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 trtpn=5 then do;

if &n1mcc.=n

then missc="";

else

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

end;

run;

proc sort data=results03 out=aval1;

by paramn param avisitn avisit ;

run;

proc transpose data=aval1 out=aval_t prefix= trt_;

by paramn param 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 ;
```

```
run;
```

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

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

```
run;
```

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

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

```
run;
```

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

```
var pchg;
```

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

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

```
run;
```

```
data chg1;
```

```
set chg;
```

```
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 results04;

length missc $30;

set chg1;

```

```

if trtpn=3 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 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 then do;

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

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

end;

run;

proc sort data=results04 out=chg1;

by paramn param  avisitn avisit ;

run;

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

by paramn param  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 ;  
run;
```

```
proc sort data=chg_f;  
by paramn param avisitn avisit txtn txt;  
run;
```

```
proc sort data=aval_f;  
by paramn param avisitn avisit txtn txt;  
run;
```

```
data final;  
merge aval_f chg_f(drop=_name_);  
by paramn param avisitn avisit txtn txt;  
THS = &N1THS;  
mcc = &N1mcc;  
sa = &N1saa;  
if trt_3 = " " and trt_4 = " " and trt_5 = " " and chg_3 = " " and chg_4 = " " and chg_5 = " " then delete;
```

```
if txtn =2 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;
```

```
data page1;
set final;
by paramn avisitn;
obs = _n_;
page = ceil(obs/6);
/*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

order by paramn, avisitn, txtn;

quit;
```

```
data final_page;

set final_page end=last;

by paramn avisitn txtn;

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

run;
```

```
data tflds.&tfldn(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_29_02_F;

set figure;

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, halfblk=N);

%if &halfblk=N %then %let halfblk=;

%else %if &halfblk=Y %then %let halfblk=\~;


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="&title.";

_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.)));

        call symput('param', strip(param));

        call symput('N3', strip(put(sa, best.)));

        call symput('N4', strip(put(ths, best.)));

        call symput('N5', strip(put(mcc, 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 nowd split = '$' %if &i=1 %then %do; contents=' ' %end;
%else %do; contents="" %end;;;
```

```
column page paramn 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 txtn / order order = internal noprint;
```

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

```
define txt /"Statistic" display style={just=left cellwidth=1.9cm}
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=1.2cm}
style(header)={just=center};
```

```
define chg_4 /"% Change(*)" display style={just=c cellwidth=1.2cm}
style(header)={just=center};
```

```

define chg_5      /"% Change(*)" display style={just=c cellwidth=1.2cm}
style(header)={just=center};

```

```

compute after avisitn;

```

```

    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 " ";

    line "Parameter (units):&param";

    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 ' ';

```

```
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(blankn=36, halfblk=N);
```

```
ods listing;
```

```
%mend table;
```

```
%table (paramcd = ("HbA1C"), tfl = %nrstr(T_15_02_04_29_02),title = %str(Table 15.2.4.29.2 Descriptive  
Statistics of HbA1c (%%)- FAS));
```

```
%m_logchk2;
```