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/*=====
| Covance Study Number   : 000000106343      |
| Program Name           : f_hst_pp.sas       |
| Purpose                 : To create Figure 15.1.2.10      |
| Input Data              : tflds.T_15_02_04_60_F          |
| Output Data             : F_15_01_02_10          |
| Macros Called           :                      |
| Originally Performed by :Jyothsna Reddy          |
| Date                    : 28APR2015              |
|=====
| Modification History
|-----
| Modified by            :                      |
| Modification Date      :                      |
| Modification Description :                      |
+=====*/

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options notes source source2 nofullstimer validvarname=upcase missing=' ';
ods _all_ close;
ods listing;

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*=====;
* START OF PROGRAM CODE                      ;
*=====;
%m_printto;
%let tflno=F_15_01_02_10;

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

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/* Standard - leave this */

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

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%put &tflpath;

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options notes source source2 nofullstimer validvarname=upcase
nonumber nodate orientation=portrait missing=' ';
ods graphics on; /* As we are effectively using ODS graphics we need to ensure that it is turned on */
ods graphics / height=12cm width=16cm noborder; /* Removes border around the image */
ods path reset;
%include "/cvn/projects/prj/development/000000106343/dev/figures/figtplt.sas";
ods rtf toc_data file="/cvn/projects/prj/data/000000106343/TFL/dev/Tables/&tflno..rtf" style=t106343_g startpage=yes headery=1440 fo
otery=1440 ;

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ods exclude all;

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data gmean2;
length trtp $25;
set tflds.T_15_02_04_60_F;
if trtpN=5 then trtp="mCC";
if trtpN=4 then trtp="THSm2.2";
if trtpN=3 then trtp="SA";
if not missing(trtp);
    IF avisitn=100 THEN avisit1=0;
    IF avisitn=98 THEN avisit1=0;
    IF avisitn=10 THEN avisit1=0;
    IF avisitn=101 THEN avisit1=1;
    IF avisitn=102 THEN avisit1=2;
    IF avisitn=103 THEN avisit1=3;
    IF avisitn=104 THEN avisit1=4;
    IF avisitn=105 THEN avisit1=5;
    IF avisitn=130 THEN avisit1=6;
    IF avisitn=160 THEN avisit1=7;
    IF avisitn=190 THEN avisit1=8;
    tpt=avisit1;
    if apuper ne 1 and avisitn=10 then delete;

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run;

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proc sort;

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by paramn;

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run;

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/*Use a proc summary to find the maximum value of the Y axis which needs to be presented for the first plot*/

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proc summary data=gmean2;

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by paramn;
var uclm;
output out =axis1 max=max1;
run;
proc summary data=gmean2;
by paramn;
var lclm;
output out =axis2 min=min1;
run;
data maxaxis1;
merge axis1 axis2(drop=_type_ _freq_);
by paramn;
max2=(ceil(max1));
min2=(floor(min1));
/*Use mod 2 to ensure axis limit is an even number so the increment can be 2*/
if mod(max2,2)=0 then max2=max2;
else if mod(max2,2)=1 then max2=max2+1;

if min2>0 then do;
if mod(min2,2)=0 then min2=min2;
else if mod(min2,2)=1 then min2=min2-1;
end;
else min2=0;
inc1=ceil(max2/6);
inc=put(inc1,best.);
min=put(min2,best.);
max=put(max2,best.);

keep paramn max inc min;
run;
proc sort data=gmean2 out=par(keep=paramn) nodupkey;
by paramn;
run;

data par;
set par;
par=_n_;
run;

data adbx3;
merge gmean2 maxaxis1 par;
by paramn;
if par=1 then do;min="0";max="20";inc="2";end;
if par=2 then do;min="0";max="1000";inc="100";end;
if par=3 then do;min="0";max="80";inc="8";end;
if par=5 then do;min="0";max="40";inc="4";end;
if par=6 then do;min="0";max="50";inc="5";end;
if par=7 then do;min="0";max="70";inc="7";end;
if par=8 then do;min="0";max="450";inc="50";end;
if par=9 then do;min="0";max="40";inc="4";end;
if par=10 then do;min="0";max="500";inc="50";end;
if par=11 then do;min="0";max="4000";inc="400";end;
if par=12 then do;min="0";max="250";inc="25";end;
if par=13 then do;min="0";max="400";inc="40";end;
if par=14 then do;min="0";max="600";inc="60";end;
if par=16 then do;min="0";max="20";inc="2";end;
run;

PROC SQL;
CREATE TABLE ADBX3_X AS
SELECT PARAM,par, trtp, AVISIT, MEAN, LCLM, UCLM
FROM ADBX3;
QUIT;

PROC EXPORT
DATA=ADBX3_X
DBMS=XLSX
OUTFILE="/cvn/projects/prj/data/000000106343/TFL/dev/Tables/&tflno..xlsx"
REPLACE;
SHEET=Sheet1;

PROC FORMAT;
VALUE XAXIS
4.5='1'
9='2'

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13.5='3'
18='4'
22.5='5'
45='30'
67.5='60'
90='90'
0='Baseline'
;
RUN;

title;
footnote;
proc sort data=adbx3; by paramn par ; run;
data paging; /* paging is derived normally as with RTF type TFL */

    set adbx3 end=last;
page=1;
par1=put(par,2.);
if last=1 then call symput("maxpage", par1);

if trtpn=3 then trtord=3;
else if trtpn=4 then trtord=1;
else if trtpn=5 then trtord=2;

    if tpt=1 then newvis=4.5;
    else if tpt=2 then newvis=9;
    else if tpt=3 then newvis=13.5;
    else if tpt=4 then newvis=18;
    else if tpt=5 then newvis=22.5;
    else if tpt=6 then newvis=45;
    else if tpt=7 then newvis=67.5;
    else if tpt=8 then newvis=90;
    else newvis=tpt;

newval=strip(tranwrd(param,"(average over visit)", " "));

run;

%put &maxpage;

%macro graph();

%do i=1 %to 1; /* paging can either be done through a do loop or multiple macro calls */
    %do j=1 %to 17 %by 1;

        data plot1;
            set paging;
        where par=&j;
        run;
proc sql noprint;
select newval into:param trimmed
from plot1;
quit;
data plot;
set plot1;
where page = &i;
call symput("max1",max);
call symput("min1",min);
call symput("inc1",inc);

run;
%let maxpage=&maxpage;
proc template;
define statgraph splot ;
beginningraph ;
layout overlay / border=false
axisopts=(linearopts=(tickvalueelist=(0 4.5 9 13.5 18 22.5 45 67.5 90) TICKVALUEFITPOLICY=ROTATE )
label="Study Day")
yaxisopts=(linearopts=(tickvaluesequence=(start=0 end=&max1 increment=&inc1)
viewmin=0 viewmax=&max1)
label=" &param") cycleattrs=false;
seriesplot x=newvis y=mean / index=trtpn primary=true group=trtp display=(markers)
legendlabel="mean" name="series";
scatterplot x=newvis y=mean / index=trtpn group=trtp yerrorlower=lclm yerrorupper=uc1m
legendlabel="mean" name="scatter" ;
discretelegend "series";
endlayout;

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        endgraph;
    end;
run;

ods select all;

ODS ESCAPECHAR='^';
ODS RTF PREPAGE="^S={outputwidth=100% just=1 font_size=12pt font_weight=bold background=white foreground=black font_face=arial}^R/RT
F'\QL' Figure 15.1.2.10 HST Parameters Averaged Over the Visit Arithmetic Mean and 95% CI â€ PP Set";
ods rtf style=t106343_g;
proc sort data=plot; by trtord;run;

proc sgrender data=plot template=splot; /* applies the above template to the specified data */
FORMAT newvis XAXIS.;
run;

ODS RTF TEXT="^S={outputwidth=100% just=1 font_size=9pt background=white foreground=black font_face=arial}^R/RTF'\QL' Note: Baseline
is summarized using the baseline data from the PP Set for Period 1.";
ODS RTF TEXT="^S={outputwidth=100% just=1 font_size=9pt background=white foreground=black font_face=arial}^R/RTF'\QL' Note: mCC = Me
nthol conventional cigarettes; SA = Smoking abstinence; THSm2.2 = Tobacco Heating System 2.2 Menthol.";
ODS RTF TEXT="^S={outputwidth=100% just=1 font_size=9pt background=white foreground=black font_face=arial}^R/RTF'\QL' Note: Baseline
is the last assessment prior to first product use in mCC/THS 2.2 arms on Day 1 or last assessment prior to 10:00 AM in SA a

ODS RTF TEXT="^S={outputwidth=100% just=1 font_size=9pt background=white foreground=black font_face=arial}^R/RTF'\QL'";
ODS RTF TEXT="^S={outputwidth=100% just=1 font_size=9pt background=white foreground=black font_face=arial}^R/RTF'\QL' Appendix 15.2.
4.60";

%let tflprg=f_hst_pp;
ODS RTF TEXT="^S={outputwidth=100% just=1 font_size=9pt background=white foreground=black font_face=arial}^R/RTF'\QL' Study ID:ZRHM-
REXA-08-US Program: &tflprg..sas &sysdate Status: &status. (Page &j of &maxpage)";

%end;
%end;
%mend graph;
%graph;
ods _all_ close;
ods graphics / reset;
%m_logchk;

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