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/*=====
| Covance Study Number      : 000000106343      |
| Program Name              : f_biomark_cp.sas    |
| Purpose                   : To create Figure 15.1.1.3 |
| Input Data                : tflds.t_15_02_04_01_03_f   tflds.t_15_02_04_02_03_f   |
|                           : tflds.t_15_02_04_03_03_f   tflds.t_15_02_04_04_03_f   tflds.t_15_02_04_05_03_f |
| Output Data               : F_15_01_01_03        |
| 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;

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%let tfldno=F_15_01_01_03;
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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;
/* Example of basic GTL syntax */
ods _all_ close;
/* Ensure ODS listing, html etc is turned off to prevent */
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;
/* please include styles template */
%include "/cvn/projects/prj/development/000000106343/dev/figures/figtplt.sas";

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ods rtf toc_data file="/cvn/projects/prj/data/000000106343/TFL/dev/Tables/&tfldno..rtf" style=t106343_g startpage=yes headery=1440 fo
otery=1440 ;

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ods exclude all;
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data adbx;
    set tflds.t_15_02_04_01_03_f
        tflds.t_15_02_04_02_03_f
        tflds.t_15_02_04_03_03_f
        tflds.t_15_02_04_04_03_f
        tflds.t_15_02_04_05_03_f;

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run;
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data gmean2;
    set adbx;
    attrib tpt format = best.;
    IF avisitn=10 THEN avisit1=0;
    IF avisitn=100 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;

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    IF avisitn=105 THEN avisit1=5;
    IF avisitn=130 THEN avisit1=6;
    IF avisitn=160 THEN avisit1=7;
    IF avisitn=190 THEN avisit1=8;

if PARAMCD eq "CARBXHGB" then par=4;
if PARAMCD eq "U1NACRE" then par=10;
if PARAMCD eq "U10HPCRE" then par=6;
if PARAMCD eq "U2NACRE" then par=11;
if PARAMCD eq "U3HPMCRE" then par=2;
if PARAMCD eq "U4ABPCRE" then par=9;
if PARAMCD eq "UCEMACRE" then par=13;
if PARAMCD eq "UHEMACRE" then par=14;
if PARAMCD eq "UHMPMCRE" then par=16;
if PARAMCD eq "UMHBMCRE" then par=1;
if PARAMCD eq "UNEQCRE" then par=18;
if PARAMCD eq "UNNALCRE" then par=5;
if PARAMCD eq "UNNNCRE" then par=7;
if PARAMCD eq "CO" then par=8;
if PARAMCD eq "UOTOLCRE" then par=12;
if PARAMCD eq "USBMACRE" then par=17;
if PARAMCD eq "USPMACRE" then par=3;
if PARAMCD eq "UBAPCRE" then par=15;

    gmean=mean;
    tpt=avisit1;

if paramcd="CO" and atpt not in ("Day 0, 20:00 - 21:30" "Day 2, 20:00 - 21:30" "Day 3, 20:00 - 21:30"
    "Day 4, 20:00 - 21:30" "Day 5, 20:00 - 21:30" "Day 1, 20:00 - 21:30")
    and avisitn in (100 101 102 103 104 105) then delete;
if paramcd="CARBXHGB" and atpt not in ("DAY 0 - 20:00 - 21:30" "DAY 1 - 20:00 - 21:30" "DAY 2 - 20:00 - 21:30"
    "DAY 3 - 20:00 - 21:30" "DAY 4 - 20:00 - 21:30" "DAY 5 - 20:00 - 21:30")
    and avisitn in (100 101 102 103 104 105) then delete;
if APUPER in (2 3 4) and avisitn in (100 10) then delete;
    keep param paramn par avalu trtpn trtp avisitn avisit gmean lclm uclm tpt;
run;

PROC SQL;
CREATE TABLE ADBX3_X AS
SELECT PARAM,paramn,par,avalu, trtp, AVISIT,avisitn, GMEAN, LCLM, UCLM
FROM gmean2;
QUIT;

data &tflno.;
    set adbx3_x;
run;

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

RUN;

title;
footnote;

data paging;
    set gmean2 end=last;
    page = 1;
    par1=put(par,8.);

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    if last then call symput("maxpage", par1);

if par=4 then do;    maxval=9; incr=1; end;
else if par=1 then do; maxval=2000; incr=200;end;
else if par=2 then do;    maxval=1000; incr= 100; end;
else if par=3 then do;    maxval=2400; incr=200; end;
else if par=5 then do;    maxval=300; incr=50; end;
else if par=6 then do; maxval=220; incr=20; end;
else if par=7 then do; maxval=10; incr=1; end;
else if par=8 then do; maxval=26; incr=1; end;
else if par=9 then do; maxval=16; incr=1; end;
else if par=10 then do; maxval=100; incr=10; end;
else if par=11 then do; maxval=26; incr=2; end;
else if par=12 then do; maxval=170; incr=30; end;
else if par=13 then do; maxval=130; incr=10; end;
else if par=14 then do; maxval=6000; incr=500; end;
else if par=15 then do; maxval=180; incr=30; end;
else if par=16 then do; maxval=400; incr=50; end;
else if par=17 then do; maxval=7000; incr=1000; end;
else if par=18 then do; maxval=11; incr=1; end;

incr1=put(incr,8.);
maxval1=put(maxval,8.);

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;

run;
proc sort out=check nodupkey; by par;run;
%put &maxpage;
options mprint mlogic symbolgen;
%macro graph();

%do i=1 %to 1; /* paging can either be done through a do loop or multiple macro calls */
    %do j=1 %to 5 %by 1;

        data plot1;
            set paging;
        where par=&j;
        parm=strip(param);
        drop param;
        rename parm=param;
        run;
proc sql noprint;
    select param into:param trimmed
        from plot1;
quit;
    data plot;
        set plot1;
        where page = &i;
        call symput("max1",compress(maxval1));
        call symput("incr",compress(incr1));

        run;
%let maxpage=&maxpage;
proc template;
    define statgraph splot;
        begingraph ;
            layout overlay / border=false
                xaxisopts=( tickvaluelist=(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=&incr) viewmin=0 viewmax=&max1)
                label="&param" ) cycleattrs=false;
                seriesplot x=newvis y=gmean / index=trtpn primary=true group=trtp display=(markers)
                    legendlabel="mean" name="series" ;
                scatterplot x=newvis y=gmean / index=trtpn group=trtp yerrorlower=lclm yerrorupper=uclm
                    legendlabel="mean" name="scatter" ;
            endgraph ;
    end;

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        discretelegend "series";
    endlayout;

    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/RTF'\QL' Figure 15.1.1.3 Biomarkers of Exposure Geometric Mean and 95% CI for the Primary Objective â€ Compliant Population";
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;

%if &j=4 %then %do;
    ODS RTF TEXT="^S={outputwidth=100% just=1 font_size=9pt background=white foreground=black font_face=arial}^R/RTF'\QL' Note: COHb
on Day 5 represents the evening sample collected.";
%end;
%if &j=6 %then %do;
    ODS RTF TEXT="^S={outputwidth=100% just=1 font_size=9pt background=white foreground=black font_face=arial}^R/RTF'\QL' Note: CO o
n Baseline and Days 1- 5 represent the evening sample collected.";
%end;

%let tflprg=f_biomark_cp;
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 Compliant Population 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.
4.1.3, 15.2.4.2.3, 15.2.4.3.3, 15.2.4.4.3, 15.2.4.5.3.";
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 5)";

%end;
%end;

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

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