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%_mprintto;
options notes nosource;
proc datasets lib=work nolist memtype=data kill; quit;
%put NOTE:
=====;
%put NOTE: Covance Study Number : 000000106326;
%put NOTE: Client Protocol ID   : ZRHM-PK-05-JP;
%put NOTE: Program Name        : t_cohbcat.sas;
%put NOTE: Purpose              : table of blood cohb categorical
measurements;
%put NOTE: ;
%put NOTE: Input Data           : ADAM.adbx;
%put NOTE: Output               : t_15_2_4_8_2(cohb);
%put NOTE: Macros Called        : _MPRINTTO;
%put NOTE: ;
%put NOTE: Programmed by        : cvn_aobyrne;
%put NOTE: Creation Date        : 2014-08-08;
%put NOTE: SAS Version          : 9.3;
%put NOTE: ;
%put NOTE: == Latest Run
=====;
%put NOTE: Run by                : &sysuserid;
%put NOTE: Date/Time             :
%sysfunc(putn(%sysfunc(date()),e8601da.))T%sysfunc(putn(%sysfunc(time()),
e86011z.));
%put NOTE: ;
%put NOTE: == Modification History
=====;
%put NOTE: Date      Initials   No. Reason;
%put NOTE: 11Aug2014  AOB        1) Row added for T0 + 60 min COHb <=
2%;
%put NOTE: ;
%put NOTE:
=====;
options notes source source2 nofullstimer validvarname=upcase missing='
';
ods _all_ close;
ods listing;
*=====;
* START OF PROGRAM CODE                                     ;
*=====;

%let tflno=T_15_02_04_08_02(cohb);

%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", ""));
run;

*****;
* read in data ;

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*****;

data adsl;
  set adam.adsl(where=(pprotfl='Y'));
  if analgrln=1 then do;
    if index(trt01a,'THS 2.2') or index(trt02a,'THS 2.2') then
trtord=4;
    output;
    if index(trt01a,'mCC') or index(trt02a,'mCC') then trtord=5;
    output;
  end;
  else if analgrln=2 then do;
    if index(trt01a,'THS 2.2') or index(trt02a,'THS 2.2') then
trtord=10;
    output;
    if index(trt01a,'NRT') or index(trt02a,'NRT') then trtord=7;
    output;
  end;
  else if missing(analgrln) then delete;
run;

proc sort data=adsl nodupkey out=adsl1;
  by analgrln analgr1 trtord subjid;
run;

proc freq data=adsl1(where=(not missing(trtord))) noprint;
  table analgrln*analgr1*trtord/ out =tot(drop=percent
rename=(count=total));
run;

data tot2;
  set tot;
  call symput('trt' || compress(put(trtord,best.)), compress(total));
run;

/*Bring in appropriate data from adbx*/
data adbx;
  set adam.adbx(where=(anl02fl='Y' and pprotfl='Y' and
paramcd='CARBXHGB'));
run;

/* Calculate totals for products */
proc sort data=adbx out=totals nodupkey;
  by subjidn trtan trta;
run;

proc freq data=totals noprint;
  tables analgrln*analgr1*trtan*trta / out=totals2(drop=percent
rename=(count=total));
run;

data totals3;
  set totals2;

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        if analgr1n=2 and trtan=4 then trtan=10;

run;

proc sort data=totals3;
    by analgr1n analgr1 trtan trta;
run;

/* Back to data */
data adbx_orig;
    set adbx;
    format stat $30.;

    statval=aval;

    if avalcat1='<=2' then do;
        stat='COHb <= 2% - n (%)';
        statord=1;
    end;
    else if avalcat1='>2' then do;
        stat='COHb > 2% - n (%)';
        statord=2;
    end;
    else if missing(avalcat1) then do;
        stat='<Missing> n (%)';
        statord=3;
    end;
run;

proc sort data=adbx_orig;
    by analgr1n analgr1 trtan trta atptn atpt statord stat;
run;

proc freq data=adbx_orig noprint;
    tables analgr1n*analgr1*trtan*trta*atptn*atpt*statord*stat /
out=results01(drop=percent);
run;

data results02;
    set results01;

    if analgr1n=2 and trtan=4 then trtan=10;
run;

proc sort data=results02;
    by analgr1n analgr1 trtan trta;
run;

data results03 miss;
    merge results02 totals3;
    by analgr1n analgr1 trtan trta;
    output results03;
    if statord=1 then tcount=count;
    retain tcount;

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        if statord=2 then tcount=sum(count,tcount);
        missing=total-tcount;
        if statord=2 and missing>0 then do;
        retain atptn atpt;
        stat='<Missing> n (%)';
        statord=3;
        count=missing;
        output miss;
        end;
run;

data results04;
    set results03 miss;
    format result $30.;

    percent=count/total*100;

    if count lt 10 then count1='
||left(compress(put(count,8.)))';
    else if count ge 10 then
count1=left(compress(put(count,8.)));

    if percent=100 then percent1='(100 %)';
    else if percent ge 10 and percent lt 100 then percent1='(
||left(compress(put(percent,8.1)))||'%)';
    else if percent lt 10 then percent1='(
||left(compress(put(percent,8.1)))||'%)';

    if trtan in(4 5) then trtan=trtan-3;

    count1=trim(count1);

    result=trim(count1) || ' ' || percent1;
run;

proc sort data=results04;
    by atptn atpt statord stat;
run;

proc transpose data=results04 out=results05n prefix=n name=varname;
    by atptn atpt statord stat;
    var count1;
    id trtan;
    idlabel trta;
run;

proc transpose data=results04 out=results05p prefix=p name=varname;
    by atptn atpt statord stat;
    var percent1;
    id trtan;
    idlabel trta;
run;

data results05;

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        merge results05n results05p;
        by atptn atpt statord stat;
run;

data results06;
    set results05;
    if missing(n1) then n1='0';
    if missing(n2) then n2='0';
    if missing(n10) then n10='0';
    if missing(n7) then n7='0';
run;

data labels;
set results06;
    attrib n1 label = "THS 2.2 Menthol n"
           n2 label = "mCC n"
           n10 label = "THS 2.2 Menthol n"
           n7 label = "NRT gum n"
           p1 label = "THS 2.2 Menthol %"
           p2 label = "mCC %"
           p10 label = "THS 2.2 Menthol %"
           p7 label = "NRT gum %";

    if index(atpt,'T0') then atpt=tranwrd(atpt,'T0',"T${sub 0}");
/* START 1) AOB 11Aug2014 */
    OUTPUT;
    IF ATPTN=10 THEN DO;
        STAT='COHb <= 2% - n (%)';
        STATORD=1;
        N1='0'; N2='0'; N10='0'; N7='0';
        P1=''; P2=''; P10=''; P7='';
        OUTPUT;
    END;
/* END 1) AOB 11Aug2014 */
run;

proc sort data=labels;
    by atptn STATORD; /* 1) AOB 11Aug2014 */
run;

proc sql noprint;
    create table table.t_15_02_04_08_02 as
    select atpt, stat, n1, p1, n2, p2, n10, p10, n7, p7
    from labels
    order by atptn, statord;
quit;

data paging;
    set labels;
    by atptn statord;
    if ln gt 13 then ln=1; /*Amend to look presentable, and avoid page
overflows*/
    else ln+1;
    if ln=1 then page+1;

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        call symput("page",compress(put(page,best.)));
run;

options number nodate orientation=landscape papersize=&p_pgsz 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=, halfblnk=);

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

ods path stdlib.tl06326 (read) ;
ods results off;
ods rtf toc_data
file="/cvn/projects/prj/data/000000106326/TFL/&TFL_Part./&tflno..rtf"
style=tl06326 startpage=yes headery=1440 footery=1440 ;
ods noproctitle;
%do i=1 %to &page;

title ;
footnote;
%let wd=0;

data comp;
    set paging end=eof;
    where page=&i;

    /* Amend title as needed */
    _firtitl="Table 15.2.4.8.2 Descriptive Statistics of Blood COHb (%)
Categorical Measurements - PK Population";
    _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;

* 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;

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* headers to be central, text values left aligned and numeric centered
around decimal point;
proc report data = comp missing headline headskip missing nowd split =
'$' contents = "&_FSRTITL";
    column page atptn ("Timepoint" atpt) statord ("Statistic" stat)
("Group-1 PK &linebot" ("THS 2.2 Menthol$(N=&trt4)" n1 p1)
("mCC$(N=&trt5)" n2 p2))

                                ("Group-2 PK &linebot" ("THS 2.2
Menthol$(N=&trt10)" n10 p10) ("NRT gum$(N=&trt7)" n7 p7));

    define page          / order order = internal noprint;
    define atptn         / order order=internal noprint;
    define atpt          / group style={just=left cellwidth=1.5cm}
style(header)={just=center} "";
    define statord       / order order=internal noprint;
    define stat          / display style={just=left cellwidth=1.5cm}
style(header)={just=center} "";
    define n1            / display style={just=d cellwidth=0.4cm}
style(header)={just=center} "";
    define n2            / display style={just=d cellwidth=0.4cm}
style(header)={just=center} "";
    define n10           / display style={just=d cellwidth=0.4cm}
style(header)={just=center} "";
    define n7            / display style={just=d cellwidth=0.4cm}
style(header)={just=center} "";
    define p1            / display style={just=l cellwidth=0.8cm}
style(header)={just=center} "";
    define p2            / display style={just=l cellwidth=0.8cm}
style(header)={just=center} "";
    define p10           / display style={just=l cellwidth=0.8cm}
style(header)={just=center} "";
    define p7            / display style={just=l cellwidth=0.8cm}
style(header)={just=center} "";

    break after page / page;

    compute after atptn;
        line " ";
    endcomp;

    compute before page / style={protectspecialchars=off};;
        line "&linetop";
    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 "&linebot";
    endcomp;

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

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        line 'Note: mCC = menthol conventional cigarettes; NRT gum =
Nicotine Replacement Therapy gum; THS = Tobacco Heating System.';
        line 'Note: Percentages are based on the number of subjects
indicated in the column header (N).';
        line "Note: T${sub 0} = Time of first product use at single
use day.";
        line ' ';
        line 'Appendix 15.3.3.4';
        line "Path: &TFLpath." &_blankn.*"\~\~" "(Page &i of &page)";
        line "Program Run: &sysdate   &sysuserid   Program Status:
&status";
        endcomp;
run;
%end;
ods rtf close;
ods results on;
ods path sashelp.tmplmst (read);

%mend ;

%outrtf(blankn=68, halfblnk=N);

ods listing;
proc printto print = "&table./t_15_02_04_08_02.lst" new;
run;

proc contents data = table.t_15_02_04_08_02 varnum;
run;
ods listing close;

proc printto ; run;
*=====;
* END OF PROGRAM CODE ;
*=====;

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