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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_cosing.sas;
%put NOTE: Purpose              : table of exhaled CO during single use
days;
%put NOTE: ;
%put NOTE: Input Data           : ADAM.adbx;
%put NOTE: Output               : t_15_2_4_10_1(co);
%put NOTE: Macros Called        : _MPRINTTO;
%put NOTE: ;
%put NOTE: Programmed by        : cvn_jriley;
%put NOTE: Creation Date        : 2014-08-07;
%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   JR        1)  Amended footnote;
%put NOTE: 23Sep2014   JR        2)  Removed reference to anl01fl;
%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_10_01(co);

%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;

*****;

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* read in data ;
*****;
/*Bring in appropriate data from adbx*/
data adbx;
    set adam.adbx(where=(paramcd='CO' and avisit in ('Day 1' 'Day 3')
and pprotfl='Y' /*and anl01fl='Y'*/ and anl02fl='Y')));/*Using both
analysis flags for now, may need reviewing whether this is right*/ /* 2)
JR 23Sep2014 */
run;

/* Calculate totals for products */
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,'CC') or index(trt02a,'CC') 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 gum') or index(trt02a,'NRT gum') then
trtord=7;
        output;
    end;
    else if missing(analgrln) then delete;
run;

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

proc freq data=adsl1(where=(not missing(trtord))) noprint;
    table analgrln*analgrl*trtord/ out =totals2(drop=percent
rename=(count=total));
run;

data totals3;
    set totals2;

    call symput('trt'||strip(put(trtord,best.)),strip(put(total,best.)));
run;

proc sort data=totals3;
    by analgrln analgrl trtord;
run;

/* Back to data */
data adbx_orig;
    set adbx;

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        statval=aval;
run;

proc sort data=adbx_orig;
    by analgrln analgrl trtan trta atptn atpt;
run;

proc means data=adbx_orig alpha=0.05 noprint;
    var statval;
    by analgrln analgrl trtan trta atptn atpt;
    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 results03;
    set results02;
    attrib meansd length=$20.
        minmax length=$20.
        n length=$20.
        median length=$20.
        ci length=$20.
        quart length=$20.;

    n = left(compress(put(n1,8.)));
    if not missing(median1) then median =
left(compress(put(round(median1,0.1),8.1)));
    if not missing(mean1) and not missing(std1) then meansd =
left(compress(put(round(mean1,0.1),8.1))) || ' (' ||
left(compress(put(0.01*ceil(std1/0.01),8.2))) || ')';
    if not missing(min1) and not missing(max1) then minmax =
left(compress(put(min1,8.))) || ', ' || left(compress(put(max1,8.)));
    if not missing(lci1) and not missing(uci1) then ci =
strip(strip(put(0.1*floor(lci1/0.1),8.1)) || ', ' ||
strip(put(0.1*ceil(uci1/0.1),8.1)));
    if not missing(q1) and not missing(q3) then quart =
strip(strip(put(round(q1,0.1),8.1)) || ', ' ||
strip(put(round(q3,0.1),8.1)));

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

data results04;
    set results03;

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

    trtord=trtan;
run;

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

proc transpose data=results04 out=results05 prefix=_ name=varname;

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        by atptn atpt;
        var n meansd median minmax ci quart;
        id trtord;
        idlabel trta;
run;

/* Create BLOQ data */
data bloq;
    set adbx_orig(where=(bloqfl='Y')) keep=analgrln analgrl trtan trta
    atptn atpt aval bloqfl);

    statval=aval;
run;

proc means data=bloq noprint;
    var statval;
    by analgrln analgrl trtan trta atptn atpt;
    output out=bloq2 n=n2;
run;

data bloq3;
    set bloq2;
    attrib bloq length=$20.;

    bloq = left(compress(put(n2,8.)));

    drop n2;
run;

data bloq4;
    set bloq3;

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

    trtord=trtan;
run;

proc sort data=bloq4;
    by atptn atpt;
run;

proc transpose data=bloq4 out=bloq5 prefix=_ name=varname;
    by atptn atpt;
    var bloq;
    id trtord;
    idlabel trta;
run;

/* Dummy variables as currently there are no BLOQ values */
data bloq6;
    set bloq5;

    if atpt='' and atptn=. then do;
        atpt='15 min < T0';
    end;

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        atptn=0;
        output;
        atpt='12:00-01:30 PM';
        atptn=102;
        output;
        atpt='04:00-05:30 PM';
        atptn=103;
        output;
        atpt='08:00-09:30 PM';
        atptn=104;
        output;
    end;
run;

/* Set BLOQ data on */
data results05a;
    set results05 bloq6;
run;

data results06;
    set results05a;
    attrib stat length = $100.;

    if varname='N' then do;
        statord=1;
        stat='n';
    end;
    if varname='BLOQ' then do;
        statord=2;
        stat='BLOQ - n (%)';
    end;
    else if varname='MEANSD' then do;
        statord=3;
        stat='Mean (SD)';
    end;
    else if varname='CI' then do;
        statord=4;
        stat='95% CI';
    end;
    else if varname='MEDIAN' then do;
        statord=5;
        stat='Median';
    end;
    else if varname='QUART' then do;
        statord=6;
        stat='Q25, Q75';
    end;
    else if varname='MINMAX' then do;
        statord=7;
        stat='Min, Max';
    end;

    drop varname;
run;

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data results07;
  set results06;

  if stat='n' or stat='BLOQ - n (%)' then do;
    if missing(_4) then _4='0';
    if missing(_5) then _5='0';
    if missing(_10) then _10='0';
    if missing(_7) then _7='0';
  end;
run;

data labels;
set results07;
  attrib _4 label = "THS 2.2 Menthol$(N=&trt4)"
         _5 label = "mCC$(N=&trt5)"
         _10 label = "THS 2.2 Menthol$(N=&trt10)"
         _7 label = "NRT gum$(N=&trt7)"
         atpt label= "Formatted timepoint"
         atpt1 label= "Unformatted timepoint";

  atpt1=atpt;

  if index(atpt,'T0') then atpt=tranwrd(atpt,'T0',"T${sub 0}");

  if index(stat,'BLOQ') and _4=0 and _5=0 and _10=0 and _7=0 then
delete;
run;

proc sql noprint;
  create table table.T_15_02_04_10_01 as
  select atpt, atpt1, stat, _4, _5, _10, _7
  from labels
  order by atptn, statord;
quit;

proc sort data=labels;
  by atptn statord;
run;

data paging;
  set labels;
  by atptn statord;

  flag=1;

  if ln gt 11 then ln=1; /*Amend to look presentable, and avoid page
overflows*/
  else ln+1;
  if ln=1 then page+1;
  call symput("page",compress(page,best.));
run;

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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;
%let bloq=0;
ods proclabel = ' ';

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

    if index(stat,'bloq') and (index(_4,'0')=0 or index(_5,'0')=0 or
index(_10,'0')=0 or index(_7,'0')=0)
        then call symput('bloq',1);

    /* Amend title as needed */
    _firtitl="Table 15.2.4.10.1 Descriptive Statistics of Exhaled CO
(ppm) During Single Use Continuous Measurements - PK";
    _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;

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* 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;
proc report data = comp missing headline headskip missing nowd split =
'$' %if &i=1 %then %do; contents=' ' %end; %else %do; contents=''
%end;;;
    column flag page atptn atpt statord stat ("Group-1 PK &linebot" _4
_5) ("Group-2 PK &linebot" _10 _7);

    define flag          / order order=internal noprint;
    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} "Timepoint";
    define statord       / order order = internal noprint;
    define stat          / display style={just=left cellwidth=1.5cm}
style(header)={just=center} "Statistic";
    define _4            / display style={just=C cellwidth=1.5cm}
style(header)={just=center};
    define _5            / display style={just=C cellwidth=1.5cm}
style(header)={just=center};
    define _10           / display style={just=C cellwidth=1.5cm}
style(header)={just=center};
    define _7            / display style={just=C cellwidth=1.5cm}
style(header)={just=center};

    break before flag / page %if &i=1 %then %do;
    contents="&_fsrtitl" %end; %else %do; contents='' %end;;

    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 "\b\fs24\sas24Population";
        line "&linebot";
    endcomp;

    compute after _page_ / style={just=left protectspecialchars=off
PRETEXT="&LINETOP."};
        line 'Note: mCC = menthol conventional cigarettes; NRT
gum = Nicotine Replacement Therapy gum; THS = Tobacco Heating System.';
/* 1) JR 11Aug2014 */

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/*                                line 'Note: mCC = menthol conventional
cigarettes; NRT gum = Nicotine Replacement Therapy gum;  THS = Tobacco
Heating System.'; */
      LINE "Note: T${sub 0} = Time of first product use at
single use day.";
      %if &bloq=1 %then %do;
        line "Note: LOQ = ppm";
      %end;
      line ' ';
      line 'Appendix 15.3.3.5';
      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=70, halfblnk=N);
ods listing;
proc printto print = "&table./T_15_02_04_10_01.lst" new;
run;

proc contents data = table.T_15_02_04_10_01 varnum;
run;
ods listing close;
proc printto ; run;
*=====;
* END OF PROGRAM CODE ;
*=====;

```