

```

%_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_conmed.sas;
%put NOTE: Purpose              : table of concomitant medications by
preferred drug name;
%put NOTE: ;
%put NOTE: Input Data           : ADAM.ADCM ADAM.ADSL;
%put NOTE: Output               : t_15_2_6_9_2(conmed);
%put NOTE: Macros Called        : _MPRINTTO;
%put NOTE: ;
%put NOTE: Programmed by        : cvn_kbooth;
%put NOTE: Creation Date        : 2014-04-16;
%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: 08Jun2014   JR        1) Amended as per DRM;
%put NOTE: 06Aug2014   JMH       2) Applied formatting updates;
%put NOTE: 11Aug2014   JMH       3) Amended table and footnote;
%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_06_09_02(conmed);

%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 ;
*****;

data adsl1;
  set adam.adsl;
  where saffl = 'Y';
  if missing(trtseql) then delete;
  if index(trtseql,'Enroll') then do;
    trtseql=6;
    trtseql='Exposed not randomized';
  end;
  headorder1=trtseql;
  headtext1=trtseql;
  output;
  trtseql=99;
  headorder1=99;
  trtseql='Overall Safety';
  headtext1='Overall Safety';
  output;
run;

data dumtrts; /*Use this to output any columns for which N=0*/
  attrib headtext1 length=$200.
           headorder1 length=8.;
  headorder1=1;
  headtext1='THS 2.2 Menthol - mCC';
  output;
  headorder1=2;
  headtext1='mCC - THS 2.2 Menthol';
  output;
  headorder1=3;
  headtext1='THS 2.2 Menthol - NRT gum';
  output;
  headorder1=4;
  headtext1='NRT gum - THS 2.2 Menthol';
  output;
  headorder1=6;
  headtext1='Exposed not randomized';
  output;
run;

proc sort data=adsl1 out=adsl; by headorder1 headtext1; run;

proc freq data=adsl noprint;
  table headorder1*headtext1/ out =tot(drop=percent);
run;

data tot2;
  merge tot(in=a) dumtrts(in=b);
  by headorder1 headtext1;
  if a or b;

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        if b and not a then count=0;
        call symput('trt' || compress(put(headorder1,best.)),
compress(count));
run;

%macro test;

%if %sysfunc(exist(adam.adcm))=0 %then %do;
data paging;
    page=1; flag=1; ln=1; sort2=.; odd=.; sort3=.; odd2=.; column='';
n1=''; p1=''; e1=''; n2=''; p2=''; e2='';
n3=''; p3=''; e3=''; n4=''; p4=''; e4=''; n6=''; p6=''; e6=''; n99='';
p99=''; e99='';
    output;
    call symput("page",'1');

        attrib n1 label = "n"
                n2 label = "n"
                n3 label = "n"
                n4 label = "n"
                n6 label = "n"
                n99 label = "n"
                p1 label = '(%)'
                p2 label = '(%)'
                p3 label = '(%)'
                p4 label = '(%)'
                p6 label = '(%)'
                p99 label = '(%)'
                e1 label = "Events"
                e2 label = "Events"
                e3 label = "Events"
                e4 label = "Events"
                e6 label = "Events"
                e99 label = "Events";

run;
%end;

%else %if %sysfunc(exist(adam.adcm)) %then %do;
%put "USER WARN" "ING: ADCM exists, update code.";

data cm1;
    set adam.adcm;
    where anycmfl='Y' and cmfl='Y' and saffl='Y';
    if missing(trtseqan) then delete;
    if index(trtseqa,'Enroll') then delete;
run;

data cm;
    set cm1;
    headorder1=trtseqan;
    headtext1=trtseqa;
    output;
    headorder1=99;

```

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        headtext1='Overall Safety';
        output;
run;

proc sort data=cm; by headorder1 headtext1 usubjid; run;

proc sort data=adsl(keep=usubjid headorder1 headtext1); by headorder1
headtext1 usubjid; run;

data cm02;
    merge cm(in=a) adsl(in=b); /*Only keep subjects with Conmeds*/
    by headorder1 headtext1 usubjid;
    if a and b;
run;

proc sort data=cm02; by headorder1 headtext1; run;

data cm03;
    set cm02;
    output;
    cmdecod='Any Medication';
    output;
run;

/** Number of CMs overall **/
proc freq data=cm03 noprint;
tables headorder1*headtext1*cmdecod / out=ovall(rename=(count=tot)
drop=percent);
run;

/** getting number of subjects studied **/
proc sort data=cm03 out=ncm3 nodupkey;
    by headorder1 headtext1 cmdecod subjidn;
run;

proc freq data=ncm3 noprint;
    tables headorder1*headtext1*cmdecod/ out=novall(rename=(count=ntot)
drop=percent);
run;

data otot;
    merge ovall novall;
    by headorder1 headtext1 cmdecod;
run;

/** number of subjects and CMs in overall **/
data overall;
set otot;
    if cmdecod='Any Medication' then sort2=1;
    else sort2=2;
    sort3=0;
run;

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proc freq data=cm03 noprint;
tables headorder1*headtext1*cmdecod / out=preft(rename=(count=tot)
drop=percent);
run;

/** getting number of subjects studied **/
proc sort data=cm03 out=npcm2 nodupkey;
by headorder1 headtext1 cmdecod subjidn;
run;

proc freq data=npcm2 noprint;
tables headorder1*headtext1*cmdecod / out=npreftr(rename=(count=ntot)
drop=percent);
run;

data prefterm;
merge preft npreftr;
by headorder1 headtext1 cmdecod;
run;

data cmdecod;
set prefterm;
    if cmdecod='Any Medication' then do; sort2=1; sort3=0; end;
    else do; sort2=2; sort3=1; end;
run;

data all;
set overall cmdecod;
run;

proc sort data=all out=all2;
by headorder1 headtext1 sort2 cmdecod;
run;

data format;
merge all2(in=a) dumtrts tot;
by headorder1 headtext1;
    if not a then do;
        sort2=1;
        sort3=0;
        cmdecod='Any Medication';
    end;
run;

data format2;
set format;
attrib text text2 text3 format=$20.;
/* Percentage of subjects*/
if not missing(count) then percent=put((ntot/count)*100,8.1);
else percent='0';

/*n value*/
if missing(ntot) then text='0';

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        else text=put(ntot,3.);

        /*% value*/
        if percent=100 then text3='(100 %)';
        else if percent=0 or missing(percent) then text3='';
        else if percent ge 10 then text3='( ' ||
left(compress(put(percent,8.1))) || '%' );
        else if percent lt 10 then text3='( ' ||
left(compress(put(percent,8.1))) || '%' );

        /*events value*/
        if missing(tot) then text2='0';
        else text2=compress(put(tot,3.));

        drop percent;
run;

proc sort data=format2 nodupkey;
    by headorder1 headtext1 tot ntot sort2 sort3 cmdecod count text text2
text3;
run;

proc sort data=format2;
    by headorder1 headtext1 sort2 sort3 cmdecod;
run;

proc sort data=format2 out=format3;
    by sort2 sort3 cmdecod;
run;

proc transpose data=format3 out=nformat prefix=n;
    by sort2 sort3 cmdecod;
    var text;
    id headorder1;
    idlabel headtext1;
run;

proc transpose data=format3 out=eformat prefix=e;
    by sort2 sort3 cmdecod;
    var text2;
    id headorder1;
    idlabel headtext1;
run;

proc transpose data=format3 out=pformat prefix=p;
    by sort2 sort3 cmdecod;
    var text3;
    id headorder1;
    idlabel headtext1;
run;

data tformat;
    merge nformat eformat pformat;

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        by sort2 sort3 cmdecod;
run;

data sformat3;
set format3;
col=headorder1;
run;

proc sort data=sformat3;
by sort2 sort3 cmdecod;
run;

data final;
set tformat;
run;

proc transpose data=sformat3(where=(sort3=1)) out=psort prefix=n;
by sort2 sort3 cmdecod;
var ntot;
id col;
run;

proc transpose data=sformat3(where=(sort3=1)) out=psort_a prefix=t;
by sort2 sort3 cmdecod;
var tot;
id col;
run;

data psort1;
merge psort psort_a;
by sort2 sort3 cmdecod;

run;

data psort2;
set psort1;
    num=0;
run;

proc sort data=psort2;
by sort2 sort3 descending num;
run;

/** unique sorting numbers for prefterm by total number of aes **/
data psorting;
set psort2;
by sort2 sort3 descending num;
if first.sort3 then odd2=1;
else odd2+1;
keep sort2 cmdecod odd2;
run;

proc sort data=psorting;
by sort2 cmdecod;

```

```

run;

proc sort data=final;
by sort2 cmdecod;
run;

data final2;
merge final psorting;
by sort2 cmdecod;
run;

proc sort data=final2;
by sort2 odd2 cmdecod;
run;

data final3;
set final2;
attrib column format=$70.;
if sort2=1 then do; column='Any Medication'; odd2=0; end;
    else do column=trim(propcase(cmdecod)); end;

if sort3=1 then delete;
run;

proc sort data=final3;
by sort2 sort3 odd2 column;
run;

data labels;
    set final3;
    attrib n1 label = "n"
           n2 label = "n"
           n3 label = "n"
           n4 label = "n"
           n6 label = "n"
           n99 label = "n"
           p1 label = '(%)'
           p2 label = '(%)'
           p3 label = '(%)'
           p4 label = '(%)'
           p6 label = '(%)'
           p99 label = '(%)'
           e1 label = "Events"
           e2 label = "Events"
           e3 label = "Events"
           e4 label = "Events"
           e6 label = "Events"
           e99 label = "Events";

run;

data final4;
    set labels;

    /* STUDY SPECIFIC, CHECK WHICH COLUMNS YOU NEED TO USE */

```



```

        array a [4] n1 n2 n3 n4;
        array b [4] e1 e2 e3 e4 ;
        do i=1 to 4;
            if missing(a[i]) then a[i] ='0';
            if missing(b[i]) then b[i] ='0';
        end;

        if missing(n99) then n99='0';
        if missing(e99) then e99='0';

run;

/*options replace;*/
proc sql noprint;

create table table.t_15_02_06_09_02 as
select cmdecod, column, n1, n2, n3, n4, n6, n99, e1, e2, e3, e4, e6, e99,
p1, p2, p3, p4, p6, p99
from final4
order by sort2, sort3, odd2, column;

quit;
/*options noreplace;*/

data paging;
set final4;
by sort2 sort3 odd2 column;

flag=1;

if ln gt 5 then ln=1;
else ln+1;

if ln=1 then page+1;
call symput("page",compress(put(page,best.)));
run;

        %end;
    %mend test;
%test;

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

data comp;
    set paging end=eof;
    where page=&i;
    if missing(column) then call symput('NOOBS',1);

    /* Amend title as needed */
    _firtitl="Table 15.2.6.9.2 Summary of Concomitant Medication
by Preferred Drug Name - Safety 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;

* 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 missing nowd split = '$' %if
&i=1 %then %do; contents=' ' %end; %else %do; contents='' %end;;;
    column flag page sort2 sort3 odd2 column ("Sequence &linebot"
("THS 2.2 Menthol$- mCC $(N=&trt1) &linebot" n1 p1 e1) ("mCC -$THS 2.2
Menthol$(N=&trt2) &linebot" n2 p2 e2)

("THS 2.2 Menthol$-
NRT gum $(N=&trt3) &linebot" n3 p3 e3) ("NRT gum -$THS 2.2$(N=&trt4)

```

```
&linebot" n4 p4 e4) /*("Exposed not$randomized$(N=&trt6) &linebot" n6 p6
e6)*/
```

```

("Exposed
Not$Randomized$(N=&trt6) &linebot" n6 p6 e6)) /* 2) JMH 06Aug2014 */
```

```

("Overall$Safety$(N=&trt99) &linebot" n99 p99 e99); ;
  define flag      / order order=internal noprint;
    define page    / order order = internal noprint;
    define sort2   / order order=internal noprint;
    define sort3   / order order=internal noprint;
    define odd2    / order order=internal noprint;

    define column  / group style={just=left cellwidth=2.5cm}
"Preferred Term" style(header)={just=center};
    define n1      / display style={just=d cellwidth=0.3cm}
style(header)={just=center};
    define n2      / display style={just=d cellwidth=0.3cm}
style(header)={just=center};
    define n3      / display style={just=d cellwidth=0.3cm}
style(header)={just=center};
    define n4      / display style={just=d cellwidth=0.3cm}
style(header)={just=center};
    define n6      / display style={just=d cellwidth=0.3cm}
style(header)={just=center};
    define n99     / display style={just=d cellwidth=0.4cm}
style(header)={just=center};
    define p1      / display style={just=d cellwidth=1.1cm}
style(header)={just=center};
    define p2      / display style={just=d cellwidth=1.1cm}
style(header)={just=center};
    define p3      / display style={just=d cellwidth=1.1cm}
style(header)={just=center};
    define p4      / display style={just=d cellwidth=1.1cm}
style(header)={just=center};
    define p6      / display style={just=d cellwidth=1.1cm}
style(header)={just=center};
    define p99     / display style={just=d cellwidth=1.1cm}
style(header)={just=center};
    define e1      / display style={cellwidth=1.05cm}
pretext="\tqdec\tx500 " style(header)={just=center};
    define e2      / display style={cellwidth=1.05cm}
pretext="\tqdec\tx500 " style(header)={just=center};
    define e3      / display style={cellwidth=1.05cm}
pretext="\tqdec\tx500 " style(header)={just=center};
    define e4      / display style={cellwidth=1.05cm}
pretext="\tqdec\tx500 " style(header)={just=center};
    define e6      / display style={cellwidth=1.05cm}
pretext="\tqdec\tx500 " style(header)={just=center};
    define e99     / display style={cellwidth=1.05cm}
pretext="\tqdec\tx500 " style(header)={just=center};

break before flag / page %if &i=1 %then %do;
```

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        contents="_fsrtitl" %end; %else %do; contents='' %end;;

        break after page / page;

%if &NOOBS. NE 1 %then %do; /* 3) JMH 11Aug2014 */
    compute after sort2;
        line " ";
    endcomp;
%END; /* 3) JMH 11Aug2014 */

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

        compute after page/style={just=center cellwidth=5cm
protectspecialchars=off};
        %if &NOOBS.=1 %then %do;
/*          line " ";*/ /* 3) JMH 11Aug2014 */
/*          line "No concomitant medication data";*/ /* 1) JR 08Jun2014 */
            line "No concomitant medication reported";
            line " ";
        %end;
/*          line "&linebot" ;*/ /* 2) JMH 06Aug2014 */
        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."}; /* 2) JMH 06Aug2014 */
/*          line 'Note: "Exposed not randomized" refers to all subjects
exposed to THS 2.2 Menthol or NRT gum but not randomized. The Overall
Safety refers to all subjects exposed to THS 2.2 Menthol or NRT gum.';*/
/*          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
in the column header (N).';*/
            /*line 'Note: mCC = menthol conventional cigarettes; NRT gum
= Nicotine Replacement Therapy gum; THS = Tobacco Heating System.';*/ /*
2) JMH 06Aug2014 */
            line 'Note: mCC = menthol conventional cigarettes; NRT gum =
Nicotine Replacement Therapy gum; THS = Tobacco Heating System.'; /* 3)
JMH 11Aug2014 */
            line 'Note: Exposed Not Randomized refers to all subjects
exposed to THS 2.2 Menthol or NRT gum but not randomized. Overall Safety
refers to all subjects exposed to THS 2.2 Menthol or NRT gum.'; /* 2)
JMH 06Aug2014 */
            line 'Note: Percentages are based on the number of subjects
indicated in the column header (N).'; /* 2) JMH 06Aug2014 */
            line ' ';

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```

        line 'Appendix 15.3.6.3.2';
        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=);
%macro test2;
%if %sysfunc(exist(adam.adcm)) %then %do;

ods listing;
proc printto print = "&table./t_15_02_06_09_02.lst" new;
run;

proc contents data = table.t_15_02_06_09_02 varnum;
run;
ods listing close;
%end;
%mend test2;
%test2;

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