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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_qsu3.sas;
%put NOTE: Purpose              : table of QSU factors and total score by
nicotine level;
%put NOTE: ;
%put NOTE: Input Data           : ADAM.ADQSSU ADAM.ADSL;
%put NOTE: Output               : t_15_2_4_14_2(qsu);
%put NOTE: Macros Called        : _MPRINTTO;
%put NOTE: ;
%put NOTE: Programmed by        : cvn_jriley;
%put NOTE: Creation Date        : 2014-08-06;
%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 paging;
%put NOTE: 11Aug2014   JR         2) Footnote amended;
%put NOTE: 11Aug2014   JR         3) Headeres amended;
%put NOTE: 23Sep2014   JR         4) Added qsu footnote;
%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_14_02(qsu);

%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 ;
*****;
/* 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=1;
        output;
        if index(trt01a,'CC') or index(trt02a,'CC') then trtord=2;
        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 analgr1 trtord nicogrln nicogr1 subjid;
run;

proc freq data=adsl1(where=(not missing(trtord))) noprint;
    table analgrln*analgr1*trtord*nicogrln*nicogr1/ out
=totals2(drop=percent rename=(count=total));
run;

data totals3;
    set totals2;

    if missing(nicogrln) then delete;

    call
symput('gender' || strip(put(trtord,best.)) || strip(put(nicogrln,best.)),str
ip(put(total,best.)));
run;

proc sort data=totals3;
    by analgrln analgr1 trtord;
run;

/*Bring in appropriate data from ADQSSU*/
data adqssu;
    set adam.adqssu(where=(anl01fl='Y' and pprotfl='Y'));
run;

data adqssu_orig;

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        set adqssu;

        statval=aval;
        if nicogrln=. then delete;

        if atpt='T0 + 15 min' or atpt='T0 + 20 min' then do;
            atpt='T0 + 15/20 min';
            atptn=6;
        end;
run;

proc sort data=adqssu_orig;
    by analgrln analgrl trtan trta parcat2n parcat2 paramn param paramcd
    atptn atpt nicogrln nicogr1;
run;

proc means data=adqssu_orig alpha=0.05 noprint;
    var statval;
    by analgrln analgrl trtan trta parcat2n parcat2 paramn param paramcd
    atptn atpt nicogrln nicogr1;
    output out=results01 n=n1 mean=mean1 std=std1 median=median1 min=min1
    max=max1 q1=q1 q3=q3 lclm=lci1 uclm=uci1;
run;

data results02;
    set results01;
    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(median1,8.2)));
    if not missing(mean1) and not missing(std1) then meansd =
left(compress(put(round(mean1,0.01),8.2))) || ' (' ||
left(compress(put(0.001*ceil(std1/0.001),8.3))) || ')';
    if not missing(min1) and not missing(max1) then minmax =
left(compress(put(min1,8.1))) || ', ' || left(compress(put(max1,8.1)));
    if not missing(lci1) and not missing(uci1) then ci =
strip(strip(put(0.01*floor(lci1/0.01),8.2))) || ', ' ||
strip(put(0.01*ceil(uci1/0.01),8.2)));
    if not missing(q1) and not missing(q3) then quart =
strip(strip(put(q1,8.2)) || ', ' || strip(put(q3,8.2)));

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

data results03; /*Create text as required in output*/
    set results02;
    attrib paramc length = $100.;

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    if index(parcat2,'Factor')=0 then paramc=strip(param);
    else paramc=strip(parcat2);

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

    trtans=strip(strip(put(trtan,best.)) || strip(put(nicogr1n,best.)));

    drop param paramcd parcat2 parcat2n;
run;

proc sort data=results03;
    by analgr1n paramn paramc atptn atpt;
run;

proc transpose data=results03 out=results04 prefix=_ name=varname;
    by analgr1n paramn paramc atptn atpt;
    var n meansd median minmax ci quart;
    id trtans;
    idlabel trta;
run;

data results05;
    set results04;
    attrib stat length = $100.;

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

    drop varname;
run;

data results06;

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set results05;

if stat='n' then do;
    if missing(_41) then _41='0';
    if missing(_51) then _51='0';
    if missing(_101) then _101='0';
    if missing(_71) then _71='0';
    if missing(_42) then _42='0';
    if missing(_52) then _52='0';
    if missing(_102) then _102='0';
    if missing(_72) then _72='0';
end;
run;

proc sort data=results06;
    by analgrln paramn atptn statord;
run;

data labels;
set results06;
    ATTRIB _41 LABEL = "<= 0.6 mg$(N=&gender11) "
           _42 LABEL = "> 0.6 - 1.0 mg$(N=&gender12) " /*">0.6 - 1.0
mg$(N=&gender12)"/ */ /* 3) JR 11Aug2014 */
           _51 LABEL = "<= 0.6 mg$(N=&gender21) "
           _52 LABEL = "> 0.6 - 1.0 mg$(N=&gender22)"/ */ /*">0.6 - 1.0
mg$(N=&gender22)"/ */ /* 3) JR 11Aug2014 */
           _101 LABEL = "<= 0.6 mg$(N=&gender101) "
           _102 LABEL = "> 0.6 - 1.0 mg$(N=&gender102)"/ */ /*">0.6 - 1.0
mg$(N=&gender102)"/ */ /* 3) JR 11Aug2014 */
           _71 LABEL = "<= 0.6 mg$(N=&gender71) "
           _72 LABEL = "> 0.6 - 1.0 mg$(N=&gender72)"/ */ /*">0.6 - 1.0
mg$(N=&gender72)"/ */ /* 3) JR 11Aug2014 */
           atpt label= "Unformatted Timepoint";

    atpt=tranwrd(atpt,'T0','T${sub 0}');

    if not index(paramc,'-') then
paramc=upcase(substr(paramc,1,1))||lowercase(substr(paramc,2));

run;

proc sql noprint;

create table table.t_15_02_04_15_02 as
select paramc, atpt, stat, _41, _42, _51, _52, _101, _102, _71, _72
from labels
order by analgrln, paramn, atptn, statord;

quit;

data paging;
set labels;
by analgrln paramn atptn statord;

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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(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;
ods proclabel = ' ';

/*%do j=1 %to 2;*/
/**/
/* %let maxpage=%eval((&page*2));*/
/* %let thispage=%eval((2*&i + &j-2));*/ /* 1) JR 11Aug2014 */

title ;
footnote;

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

/* Amend title as needed */
_firtitl="Table 15.2.4.14.2 Descriptive Statistics of QSU-brief
Questionnaire Factors and Total Score by Nicotine Level";

_upcas=(length("Path: &TFLpath.")-
length(compress("Path:&TFLpath.",'ABCDEFGHIJKLMNOPQRSTUVWXYZ')))/2;
len=&blankn.-length("(Page &i of &page)"/"*(page &thispage of
&maxpage)"/"); /* 1) JR 11Aug2014 */
if eof then do;
call symput('_FSRTITL', trim(left(_firtitl)));
call symput('_blankn', compress(put(len,best.)));

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        call symput('analgr',compress(put(analgrln,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;
* 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 /*and &j=1*/ %then %do; contents=' ' %end; %else %do;
contents='' %end;;; /* 1) JR 11Aug2014 */
    column flag page paramn paramc atptn atpt statord stat
        %if &analgr=1 %then %do; ("Group-1 PK &linebot" ("THS 2.2 Menthol
&linebot" _41 _42) ("mCC &linebot" _51 _52)) %end;
        %ELSE %if &analgr=2 %then %do; ("Group-2 PK &linebot" ("THS 2.2
Menthol &linebot" _101 _102) ("NRT gum &linebot" _71 _72)) %end;; /* 1)
JR 11Aug2014 */

        define flag          / order order=internal noprint;
        define page          / order order = internal noprint;
        define paramn        / order order = internal noprint;
        define paramc        / group style={just=left cellwidth=2cm}
style(header)={just=center} "Variable";
        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";
        %if &analgr=1 %then %do;
            define _41        / display style={just=c cellwidth=1.5cm}
style(header)={just=center};
            define _42        / display style={just=c cellwidth=1.5cm}
style(header)={just=center};
            define _51        / display style={just=c cellwidth=1.5cm}
style(header)={just=center};
            define _52        / display style={just=c cellwidth=1.5cm}
style(header)={just=center};
        %end;
        %ELSE %if &analgr=2 %then %do; /* 1) JR 11Aug2014 */
            define _101       / display style={just=c cellwidth=1.5cm}
style(header)={just=center};
            define _102       / display style={just=c cellwidth=1.5cm}
style(header)={just=center};
            define _71        / display style={just=c cellwidth=1.5cm}
style(header)={just=center};

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        define _72                / display style={just=c cellwidth=1.5cm}
style(header)={just=center};
    %end;

    break before flag / page %if &i=1 /*and &j=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\sas24- PK Population";
    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.';*/
    line 'Note: mCC = menthol conventional cigarettes; NRT gum =
Nicotine Replacement Therapy gum; THS = Tobacco Heating System.'; /* 2)
JR 11Aug2014 */
/*
    LINE "Note: T${sub 0} = Time of first
product use at single use day";*/
    LINE "Note: T${sub 0} = Time of first product use
at single use day."; /* 2) JR 11Aug2014 */
    LINE "Note: The QSU-brief values at T${sub 0} + 15/20
min refer to QSU-brief data at time T${sub 0} + 15 min for THS 2.2
Menthol and mCC, and to QSU-brief data at time T${sub 0} + 20 min for NRT
gum.";
    LINE 'Note: QSU-brief scores reported on a 7-point
scale. Higher scores indicate greater intensity of urge.'; /* 4) JR
23Sep2014 */
    line ' ';
    line 'Appendix 15.3.6.11';
    line "Path: &TFLpath." &_blankn.*"\~\~" "(Page &i of
&page)"/*(Page &thispage of &maxpage)"/; /* 1) JR 11Aug2014 */
    line "Program Run: &sysdate &sysuserid Program Status:
&status";
endcomp;
run;
%end;
/*%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_15_02.lst" new;
run;

proc contents data = table.t_15_02_04_15_02 varnum;
run;
ods listing close;

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