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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        : f_qsu2.sas;
%put NOTE: Purpose              : Figure of QSU brief and total score
factors Group-2;
%put NOTE: ;
%put NOTE: Input Data           : ADAM.ADQSSU;
%put NOTE: Output               : f_15_1_2_10_2(qsu);
%put NOTE: Macros Called        : _MPRINTTO;
%put NOTE: ;
%put NOTE: Programmed by        : cvn_jhardman;
%put NOTE: Creation Date        : 2014-08-13;
%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: 22Sept14   CK         1) Output excel file ;
%put NOTE: 22Sept14   CK         2) move title and footnotes outside
graph;
%put NOTE: 08Oct2014   JMH        3) Added footnote;
%put NOTE: ;
%put NOTE:
=====;
options notes source source2 nofullstimer validvarname=upcase missing='
';
ods _all_ close;
ods listing;

*=====;
* START OF PROGRAM CODE                                     ;
*=====;

/* Standard - just change the number to match the listing you're working
on. Also change the letters in the*/
/* bracket, eg ccb = current cigarette brands. Make sure to do this at
the top of the code too. */
%let tflno=F_15_01_02_10_02(qsu);

/* Standard - leave this */
%let TFL_Part=%scan(&_SASPROGRAMFILE,-3,%str(/));

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/* Standard - leave this */
data _null_;
    tmp="&TFL_Part";
    if tmp not in ("dev" "qc") then call symput("TFL_Part", "prod");
    call symput('TFLpath', compress("&_SASPROGRAMFILE",""));
run;

/* Example of basic GTL syntax */
ods _all_ close;
%let temp=/cvn/projects/prj/development/000000106326/dev/macro/;

/* Ensure ODS listing, html etc is turned off to prevent */
/* temporary or junk image files being produced */
options notes source source2 nofullstimer validvarname=upcase
nonumber nodate orientation=portrait papersize=&p_pgsz missing=' ';
ods graphics on; /* As we are effectively using ODS graphics we need to
ensure that it is turned on */
ods graphics / height=14cm width=16cm noborder; /* Removes border around
the image */
ods path reset;
/* please include styles template */
%include "&temp.figtmpplt.sas";

ods rtf toc_data
file="/cvn/projects/prj/data/000000106326/TFL/&TFL_Part/&tflno..rtf"
style=tl06326_g startpage=yes headery=1440 footery=1440 ;

ods exclude all;

proc sort data = adam.adqssu(where=(analgr1 = "Group-2" and pprotfl='Y'
and anl01fl='Y')) out = qs01;
    by paramn param trtan trta atptn atpt;
run;

proc means data=qs01 mean noprint alpha = 0.05;
    var aval;
    by paramn param trtan trta atptn atpt;
    output out=qs02 mean=mean lclm = lclm uclm = uclm;
run;

data qs03;
    set qs02;

    attrib tpt label = "Time post-product (h)" format = best.;

    if atpt = "15 min < T0" then tpt = -0.5;
    else if atpt in ("T0 + 15 min" "T0 + 20 min") then tpt = 0.5;
    else if atpt = "T0 + 30 min" then tpt = 1.5;
    else if atpt = "T0 + 45 min" then tpt = 2.5;
    else if atpt = "T0 + 60 min" then tpt = 3.5;

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else if atpt = "T0 + 2 h" then tpt = 5;
else if atpt = "T0 + 4 h" then tpt = 8;
else if atpt = "T0 + 6 h" then tpt = 12;
else if atpt = "T0 + 9 h" then tpt = 18;
else if atpt = "T0 + 12 h" then tpt = 24;

        if param='Reward' then param='Factor 1 - Reward';
        if param='Relief' then param='Factor 2 - Relief';
run;

/* 1) START CK 22Sep2014 */
PROC SQL;
CREATE TABLE QS04 AS
SELECT PARAM, TRTA, ATPT, MEAN, LCLM, UCLM
FROM QS03;
QUIT;

PROC EXPORT
DATA=QS04
DBMS=XLSX
OUTFILE="/cvn/projects/prj/data/000000106326/TFL/&TFL_Part./&tflno..xlsx"
REPLACE;
SHEET=Sheet1;
/* 1) END CK 22Sep2014 */
proc format;
    value xaxis
        -0.5="15 min < T0"
        0.5 = "T0 + 15/20 min"
        1.5 = "T0 + 30 min"
        2.5 = "T0 + 45 min"
        3.5 = "T0 + 60 min"
        5= "T0 + 2 h"
        8= "T0 + 4 h"
        12= "T0 + 6 h"
        18= "T0 + 9 h"
        24= "T0 + 12 h";
run;

title;
footnote;

data paging; /* paging is derived normally as with RTF type TFL */

    set qs03 end=last;
        by paramn;
        if first.paramn then ln=1;
        else ln+1;

        if ln=1 then page+1;

        if last then call symput("maxpage", compress(page));
run;

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%macro graph();

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

    data plot;
        set paging;
        where page = &i;
                                call symput("param",left(trim(param)));
    run;

    proc template;
        define statgraph splot /store = work.templat;
            begingraph /;
                /* 2) CK 22Sep14 */
                /*
                entrytitle halign=left "Figure 15.1.2.10.2 QSU-brief
Factors and Total Score Profiles Arithmetic Mean and 95% CI - Group-2 PK
Population" /;
                    entrytitle halign=left " " /; */
                    entrytitle halign=left "&param." /;
                    entrytitle halign=left " " /;
                    layout overlay / border=false
xaxisopts=(linearopts=(tickvaluefitpolicy=rotate tickvaluelist=(-0.5 0.5
1.5 2.5 3.5 5 8 12 18 24)) label="Time post-product (h)")
yaxisopts=(linearopts=(tickvaluesequence=(start=0 end=6 increment=1)
viewmin=0 viewmax=6) label="Score") cycleattrs=false;
                                seriesplot x=tpt y=mean / index=trtan primary=true
group=trta display=(markers) legendlabel="mean" name="series";
                                /*referenceline y=0.5 / ;*/ /*This would be the BLOQ
value*/
                                scatterplot x=tpt y=mean / index=trtan group=trta
yerrorlower=lclm yerrorupper=uclm
                                legendlabel="mean" name="scatter" ;
                                discretelegend "series";
                                endlayout;
                                /* footnotes work using the same option as the entrytitle
statement */
                                /*
                                entryfootnote halign=left " ";
                                entryfootnote halign=left "Note: NRT gum = Nicotine
Replacement Therapy gum; THS = Tobacco Heating System.";
                                entryfootnote halign=left "Note: QSU-brief scores
reported on a 7-point scale. Higher values indicate greater intensity of
urge.";
                                    entryfootnote halign=left " ";
                                    entryfootnote halign=left
"Appendix 15.2.4.14";
                                    entryfootnote halign=left "Path: &TFLpath." halign=right
"(Page &i of &maxpage)";
                                    entryfootnote halign=left "Program Run: &sysdate
&sysuserid Program Status: &status"; */
                                endgraph;
                            end;
    run;

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ods select all;

/* 2) START Ck 22Sep2014 */
ODS ESCAPECHAR='^';
ODS RTF PREPAGE="^S={outputwidth=100% just=l font_size=12pt
font_weight=bold background=white foreground=black
font_face=arial}^R/RTF'\QL' Figure 15.1.2.10.2 QSU-brief Factors and
Total Score Profiles Arithmetic Mean and 95% CI - Group-2 PK Population";
/* 2) END CK 22Sep2014 */

proc sgrender data=plot template=splot; /* applies the above
template to the specified data */
    format tpt xaxis.;
run;

/* 2) START CK 22Sep2014 */
ODS RTF TEXT="^S={outputwidth=100% just=l font_size=9pt background=white
foreground=black font_face=arial}^R/RTF'\QL'";
ODS RTF TEXT="^S={outputwidth=100% just=l font_size=9pt background=white
foreground=black font_face=arial}^R/RTF'\QL' Note: NRT gum= Nicotine
Replacement Therapy gum; THS = Tobacco Heating System.";
ODS RTF TEXT="^S={outputwidth=100% just=l font_size=9pt background=white
foreground=black font_face=arial}^R/RTF'\QL' Note: QSU-brief scores
reported on a 7-point scale. Higher values indicate greater intensity of
urge.";
ODS RTF TEXT="^S={outputwidth=100% just=l font_size=9pt background=white
foreground=black font_face=arial}^R/RTF'\QL' Note: T0+15/20 min refers to
T0+15min for THS 2.2 Menthol and T0+20min for NRT gum."; /* 3) JMH
08Oct2014 */
ODS RTF TEXT="^S={outputwidth=100% just=l font_size=9pt background=white
foreground=black font_face=arial}^R/RTF'\QL'";
ODS RTF TEXT="^S={outputwidth=100% just=l font_size=9pt background=white
foreground=black font_face=arial}^R/RTF'\QL' Appendix 15.2.4.14";
ODS RTF TEXT="^S={outputwidth=100% just=l font_size=9pt background=white
foreground=black font_face=arial}^R/RTF'\QL' Path: &TFLpath.
(Page &i of &maxpage)";
ODS RTF TEXT="^S={outputwidth=100% just=l font_size=9pt background=white
foreground=black font_face=arial}^R/RTF'\QL' Program Run: &sysdate
&sysuserid Program Status: &status";
/* 2) END CK 22Sep2014 */
%end;
%mend graph;
%graph;
proc printto; run;

ods exclude all;
ods _all_ close;
ods graphics / reset;

```