

```

/*=====
=====*

| Covance Study Number   : 000000106343          |
|
| Program Name           : t_avg_prduse_fas.sas    |
|
| Purpose                 : 15.2.2.3.1 summary of Average Product use in Ambulatory Period -FAS
|
| Input Data              : ADAM.ADSL, ADAM.adex    |
|                          |
| Output Data             : T_15_02_02_03_01
|
|
|
|
| Macros Called           :
|
| Originally Performed by :Sree Bikki
|
| Date                    : 11May2015
|
|
|
|=====
=====|

| Modification History
|-----|

| Modified by             :
|
| Modification Date       :
|                          |
|
| Modification Description :
|
+=====
=====*/

```

```
proc datasets lib=work nolist memtype=data kill; quit;
```

```
options notes source source2 nofullstimer validvarname=upcase missing=' ';
```

```
%m_printto;
```

```
%let TFL_Part=%scan(&_SASPROGRAMFILE,-3,%str(/));
```

```
/* 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", ""));
```

```
    call symput('TFLprg',reverse(scan(strip(reverse(compress("&_SASPROGRAMFILE", ""))),1,"/")));
```

```
run;
```

```
%let paramcd1 = "PDTHS2_2" ,"PDMCC" ,"PDCHWMKL" ,"PDCIGARS" ,"PDE_CIG" ,"PDGUMS" ,  
"PDINHAL" ,"PDLOZENG" ,"PDNASPR" ,"PDOTHNRT" ,"PDPATCHE" ,"PDPIPE" ,"PDOTHTOB" ,
```

```
    "ADTHS2_2" "ADMCC" "ADCHWMKL" "ADCIGARS" "ADE_CIG" "ADGUMS" "ADINHAL"  
"ADLOZENG" "ADNASPR" "ADOTHNRT" "ADPATCHE" "ADPIPE" "ADOTHTOB" ;
```

```
data adex;
```

```
set adam.adex;
```

```
where paramcd in (&paramcd1) and SAFAFL ='Y' ;
```

```
if paramcd in ("ADTHS2_2" "ADMCC" "ADCHWMKL" "ADCIGARS" "ADE_CIG" "ADGUMS" "ADINHAL"  
"ADLOZENG" "ADNASPR" "ADOTHNRT" "ADPATCHE" "ADPIPE" "ADOTHTOB") then do;
```

```
apuperc = 'Ambulatory';

apuper = 5;

paramcd1 = tranwrd(paramcd, "AD", "PD");

end;

else do paramcd1 = paramcd;

end;

run;


data adex;

set adex;

if paramcd1 = "PDTHS2_2" then param = "THSm 2.2 Sticks";

if paramcd1 = "PDMCC" then param = "mCC/CC";

if paramcd1 = "PDCHWMKL" then param = "Chew/Smokeless Tob." ;

if paramcd1 = "PDCIGARS" then param = "Cigar/Cigarillo";

if paramcd1 = "PDE_CIG" then param = "E-Cigarette";

if paramcd1 = "PDGUMS" then param = "Gums";

if paramcd1 = "PDINHAL" then param = "Inhaler";

if paramcd1 = "PDLOZENG" then param = "Lozenges";

if paramcd1 = "PDNASPR" then param = "Nasal Spray";

if paramcd1 = "PDOTHNRT" then param = "Other NRT";

if paramcd1 = "PDPATCHE" then param = "Patches";

if paramcd1 = "PDPIPE" then param = "Pipes";

if paramcd1 = "PDOTHTOB" then param = "Tob. Not Listed";

run;
```

```
data dm;

set adex;

if trtpn = 4 then do;

trt01p = 'THS';

trt01pn = 1;

end;

if trtpn = 5 then do;

trt01p = 'mcc';

trt01pn = 2;

end;

if trtpn = 3 then do;

trt01p = 'SA';

trt01pn = 3;

end;

run;
```

```
data dm0;

set dm;
```

```
run;
```

```
proc sort data= dm0;

by usubjid;

run;
```

```
/*bign calculation for each period*/
```

```
proc sql;
```

```
select count(distinct usubjid) into: N2THS from adam.adsl(where=(trt01pn = 4 and SAFAFL = "Y"));
```

```
select count(distinct usubjid) into: N2MCC from adam.adsl(where=(trt01pn = 5 and SAFAFL = "Y"));
```

```
select count(distinct usubjid) into: N2SAA from adam.adsl(where=(trt01pn = 3 and SAFAFL = "Y" ));
```

```
quit;
```

```
/* End of bign calculation for each period*/
```

```
/*Stats calulation for each parama and period*/
```

```
data dm1;
```

```
set dm0;
```

```
where aval ge 0;
```

```
run;
```

```
%macro blocks( cond = , outds= , srt1 =, fin= );
```

```
data &outds;
```

```
set dm1;
```

```
where &cond;
```

```
run;
```

```
proc sort data= &outds;
```

```
by trt01pn trt01p apuperc apuper param;
```

```
run;
```

```
proc means data=&outds noprint;
```

```
by trt01pn trt01p apuperc apuper param;
```

```
var aval;
```

```
output out=&outds._1 (drop=_type_ _freq_)n=smalln mean=mean std=std min=min  
max=max median=med lclm = lclm uclm = uclm;
```

```
run;
```

```
data &fin;
```

```
set &outds._1;
```

```
if smalln = 0 then smalln = .;
```

```
if not missing(lclm) then lclmx = 0.01*floor(100*lclm);
```

```
if not missing(uclm) then uclmx = 0.01*ceil(100*uclm);
```

```
if not missing(smalln) then do;
```

```
n=strip(put(smalln,best.));
```

```
end;
```

```
if not missing(mean) and not missing(std) then do;
```

```
mean_sd=strip(put(round(mean, 0.01), 15.2))||" ("||strip(put(0.001*ceil(1000*std), 16.3))||")";
```

```
end;
```

```
else if not missing(mean) and missing(std) then do;
```

```
mean_sd=strip(put(round(mean, 0.01), 15.2))||" ("||"NA"||")";
```

```
end;
```

```
else if missing(mean) and not missing(std) then do;
```

```
mean_sd="NA"||" ("||strip(put(0.001*ceil(1000*std), 16.3))||")";
```

```
end;
```

```
if not missing(med) then do;
```

```
median=strip(put(round(med, 0.01), 15.2));
```

```
end;
```

```
if not missing(min) and not missing(max) then do;
```

```
min_max= strip(put(round(min, 0.1), 15.1))||", "||strip(put(round(max, 0.1), 15.1));
```

```
end;
```

```
if not missing(lclmx) and not missing(uclmx) then do;
```

```
ci = strip(put(lclmx, 15.2))||", "||strip(put(uclmx, 15.2));
```

```
end;
```

```
else if not missing(lclmx) and missing(uclmx) then do;
```

```
ci = strip(put(lclmx, 15.2))||", "||"NC";
```

```
end;
```

```
else if missing(lclmx) and not missing(uclmx) then do;
```

```
ci = "NC"||", "||strip(put(uclmx, 15.2));
```

```
end;
```

```
    if apuper = 2 then ord =1;
```

```
    if apuper = 3 then ord =2;
```

```
    if apuper = 4 then ord =3;
```

```
    if apuper = 5 then ord = 4;
```

```
    srt = &srt1;
```

```
        drop mean med min max std lclmx uclmx lclm uclm apuper;
```

```
        if smalln = . and n = " " and mean_sd = " " and median = " " and min_max = " " and ci = "  
" then delete;
```

```
run;
```

```
proc sort data= &fin(rename=(apuperc = time param = product));
```

```
by srt ord trt01pn trt01p;
```

```
run;
```

```
%mend blocks;
```

```
%blocks(cond = ( paramcd1 ="PDTHS2_2"), outds= stat,srt1= 1, fin = stat1);
```

```
%blocks(cond = (paramcd1 ="PDMCC"), outds= stat,srt1= 2, fin = stat2);
```

```
%blocks(cond = ( paramcd1 ="PDCHWMKL"), outds= stat,srt1= 3, fin = stat3);
```



```

%blocks(cond = ( paramcd1 ="PDCIGARS"), outds= stat,srt1= 4, fin = stat4);
%blocks(cond = ( paramcd1 ="PDE_CIG"), outds= stat,srt1= 5, fin = stat5);
%blocks(cond = ( paramcd1 ="PDGUMS"), outds= stat,srt1= 6, fin = stat6);
%blocks(cond = ( paramcd1 ="PDINHAL"), outds= stat,srt1= 7, fin = stat7);
%blocks(cond = (paramcd1 ="PDLOZENG"), outds= stat,srt1= 8, fin = stat8);
%blocks(cond = (paramcd1 ="PDNASPR"), outds= stat,srt1= 9, fin = stat9);
%blocks(cond = (paramcd1 ="PDOTHNRT"), outds= stat,srt1= 10, fin = stat10);
%blocks(cond = ( paramcd1 ="PDPATCHE"), outds= stat,srt1= 11, fin = stat11);
%blocks(cond = (paramcd1 ="PDPIPE"), outds= stat,srt1= 12, fin = stat12);
%blocks(cond = ( paramcd1 ="PDOTHTOB"), outds= stat,srt1= 13, fin = stat13);

```

```

data dummy;

```

```

do ord = 1 to 4;

```

```

do trt01pn = 1, 2, 3;

```

```

do srt = 1 to 13;

```

```

output;

```

```

end;

```

```

end;

```

```

end;

```

```

run;

```

```

proc sort data= dummy;

```

```

by srt ord trt01pn;

```

```

run;

```

```

data stat_fin;

```

```
set stat1 -stat13;

    if n = " " then n = "0";

    if mean_sd = " " then mean_sd = "NA (NA)";

    if min_max = " " then min_max = "0 , 0";

    if median = " " then median = "0.0";

    if ci = " " then ci = "NC, NC";
```

```
run;
```

```
data stat_fin_1;

merge dummy (in=a) stat_fin;

by srt ord trt01pn;

if a;

if ord =1 then time = "Period 2";

if ord =2 then time = "Period 3";

if ord =3 then time = "Period 4";

if ord =4 then time = "Ambulatory";

if srt = 1 then product = "THSm 2.2 Sticks";

if srt = 2 then product = "mCC/CC";

if srt = 3 then product = "Chew/Smokeless Tob.";

if srt = 4 then product = "Cigar/Cigarillo";

if srt = 5 then product = "E-Cigarette";

if srt = 6 then product = "Gums";

if srt = 7 then product = "Inhaler";
```

```

if srt = 8 then product = "Lozenges";
if srt = 9 then product = "Nasal Spray";
if srt = 10 then product = "Other NRT";
if srt = 11 then product = "Patches";
if srt = 12 then product = "Pipes";
if srt = 13 then product = "Tob. Not Listed";
if trt01pn = 2 then trt01p = "mcc";
if trt01pn = 3 then trt01p = "SA";
if trt01pn = 1 then trt01p = "THS";
run;

```

```

data final;
set stat_fin_1;
if trt01pn = 1 then bign = &n2ths;
else if trt01pn =2 then bign = &n2mcc;
else if trt01pn = 3 then bign = &n2saa;
run;

```

```

data final_1;
set final;
if not missing(smalln) and not missing(bign) and smalln ne bign then do;
per1 = strip(put(smalln,best.)) || ' (' || strip(put(round((smalln/bign)* 100, 0.1), 5.1)) || ')';

```

```

end;

else if smalln = bign and not missing(smalln) and not missing(bign) then do;

per1 = strip(put(smalln,best.)) || ' (' || strip(put(round((smalln/bign)* 100, 0.1),best.)) || ')';

end;

else if smalln = . and bign = . then do;

per1 = " ";

end;

n= strip(put(smalln,best.));

bign1 = strip(put(bign,5.0));

run;

```

```

proc transpose data= final_1 out= final_tra prefix= trt;

by srt ord product time;

var /*bign1*/ per1 mean_sd median min_max ci;

id trt01pn;

run;

```

```

data final_2;

length term $200.;

set final_tra;

if _name_ = "PER1" then do;

subord = 1;

term = "n(%)";

end;

```

```
else if _name_ = "MEAN_SD" then do;
```

```
subord = 2;
```

```
term = "Mean (SD)";
```

```
end;
```

```
else if _name_ = "CI" then do;
```

```
subord = 3;
```

```
term = "95% CI";
```

```
end;
```

```
else if _name_ = "MEDIAN" then do;
```

```
subord = 4;
```

```
term = "Median";
```

```
end;
```

```
else if _name_ = "MIN_MAX" then do;
```

```
subord = 5;
```

```
term = "Min, Max";
```

```
end;
```

```
run;
```

```
proc sort data= final_2;
```

```
by srt ord subord term;
```

```
run;
```

```
proc sql;
```

```
create table test as
```

```
select distinct (product) from stat_fin;
```

```
quit;
```

```
proc sort data= final_2;
```

```
by product;
```

```
run;
```

```
data final_3;
```

```
merge final_2(in=a) test(in=b);
```

```
by product;
```

```
if b;
```

```
run;
```

```
data final_3;
```

```
set final_3;
```

```
if subord= 1 then do;
```

```
if trt1 = " " then trt1 = "0";
```

```
if trt2 = " " then trt2 = "0";
```

```
if trt3 = " " then trt3 = "0";
```

```
end;
```

```
run;
```

```
proc sort data= final_3;  
by srt ord subord term;  
run;
```

```
data page1;  
set final_3;  
by srt ord subord term;  
obs=_n_;  
page = ceil(obs/10);  
run;
```

```
proc sql;  
create table final_page as  
select distinct a.*, b.page  
from final_3 as a  
left join page1 as b  
on a.srt = b.srt and a.ord = b.ord and a.subord = b.subord  
order by srt, ord, subord;  
quit;
```

```
data final_page;  
set final_page end=last;  
by srt ord subord;  
if last then call symputx("page", page);  
run;
```

```
%let tflno = %str(T_15_02_02_03_01);
```

```
data tflds.&tflno;
```

```
set final_page;
```

```
run;
```

```
%put &page;
```

```
/* Standard - leave this */
```

```
options number nodate orientation=landscape /* papersize=&P_PGSIZE*/ 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;
```

```
/* Standard - macro for paging */
```

```
%macro outrtf(blankn=130, halfblk=N);
```

```
%if &halfblk=N %then %let halfblk=;
```

```
%else %if &halfblk=Y %then %let halfblk=\~;
```



```

ods path stdlib.t106343 (read) ;

ods results off;

ods rtf toc_data/* contents*/
file="/cvn/projects/prj/data/000000106343/TFL/&TFL_Part./Tables/&tflno..rtf" style=t106343
startpage=yes headery=1440 footery=1440 ;

ods noproctitle;

%do i=1 %to &page;

title ;

footnote;

%let wd=0;

ods proclabel = ' ';

data comp;

    set final_page end=eof;

        where page=&i;

        /* Amend title as needed */

            _firtitl="Table 15.2.2.3.1 Summary of Average Daily Product Use in Ambulatory Period-
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;
```

```
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;  
/* Update with your variables as needed */
```

```
proc report data = comp headline headskip nowd split = '$' %if &i=1 %then %do; contents=' ' %end;  
%else %do; contents=" %end;;;
```

```
column page srt ord product time subord term trt1 trt2 trt3;  
define page / order order = internal noprint;  
define srt / order order = internal noprint;  
define ord / order order = internal noprint;  
define product / group "Product" style={just=left cellwidth=1.9cm} style(header)={just=left};  
define time /group "Product Use Time$Periods" style={just=left cellwidth=1.9cm}  
style(header)={just=left} ;  
define subord / order order = internal noprint ;  
define term /"Statistic" display style={JUST=l cellwidth=1.4cm}  
style(header)={just=left} ;
```

```

define trt1      / "THSm2.2$(N=%sysfunc(strip(&n2ths)))" display style={just=c
cellwidth=1.4cm} style(header)={just=center};

```

```

define trt2      /"mCC$(N=%sysfunc(strip(&n2mcc)))" display style={just=c
cellwidth=1.4cm} style(header)={just=center};

```

```

define trt3      /"SA$(N=%sysfunc(strip(&n2saa))) " display
style={JUST=c cellwidth=1.4cm} style(header)={just=center};

```

```

break after page / page;

```

```

compute after ord;

```

```

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."};

```

```
line 'Note: mCC = Menthol Conventional cigarettes; SA = Smoking abstinence; THSm2.2  
= Tobacco Heating System 2.2 Menthol.';
```

```
line 'Note: Ambulatory periods defined as Period 2 ([Day 6 ambulatory - Day 30 Visit]),  
Period 3 ([Day 30 Visit - Day 60 Visit]) and Period 4 ([Day 60 Visit - Day 90 Visit]).';
```

```
line 'Note: Percentages are based on the number of subjects indicated in each product  
use period (N).';
```

```
line 'Note: Tob. Not Listed refers to other tobacco products not previously listed.';
```

```
line 'Note: NC = Not calculated.';
```

```
line "';
```

```
line 'Appendix 15.3.2.1.3';
```

```
line "Study ID: ZRHM-REXA-08-US Program: &TFLprg Status: &status"  
&_blankn.*"\~\~" "&sysdate" &_blankn.*"\~\~" "(Page &i of &page)";
```

```
endcomp;
```

```
run;
```

```
%end;
```

```
ods rtf close;
```

```
ods results on;
```

```
ods path sashelp.tmplmst (read);
```

```
%mend ;
```

```
%outrtf(blankn=36, halfblank=N);
```

```
ods listing;
```

```
%m_logchk2;
```