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\* Project : ZRHM-REXA-07-JP

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\* Program name : t15020204\_ZRHM-REXA-07\_V1.sas


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\* Date created : 06/09/2015

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\* Purpose : Create Table 15.2.2.4 Summary of Product Use by Product Use Category in Ambulatory Period  FAS

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\* Revision History :

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\* Date Author Ref Revision (Date in YYYYMMDD format)

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\*\*\*\*\*,

```
%let prgname=T15020204_ZRHM_REXA_07_JP_V1;
```

```
options nomprint nosymbolgen nomlogic validvarname=upcase;
```

```
options sasautos=("W:\pmp07\macros" sasautos) notes;
```

```
%init(delivery=9);
```

```
%titlecsv(prgname=&prgname., version=5);
```

```
%put &title1;
```

```
%put &title2;
```

```
%put &APPENDIX;
```

```
%put &endpoint;
```

```
%put &outname.;
```

```
data adsl;
```

```
    set adam.adsl(where=(fasfl='Y'));
```

```
    if   trt01an=4 then do; trt=1; output; end;
```

```
    else if trt01an=5 then do; trt=2; output; end;
```

```
    else if trt01an=3 then do; trt=3; output; end;
```

```
run ;
```

```
proc freq data =adsl noprint;
```

```
    table trt/out=treatabt (rename =(count=total)drop=percent);
```

```
run;
```

```
data _null_;
```

```
    Set treatabt;
```

```
    Call symput('n' || strip(put(trt, best.)),strip(put(total, best.)));
```

```
Run;
```

```
%put &n1 &n2 &n3;
```

```
*** Prepare data for analysis ***;
```

```
data data1;
```

```
    set adsl(drop=trt);
```

```
    %macro mlocal(j=,k=);
```

```

if trt01an=4 and pucat&j.ex='Exclusively THS 2.2' then do; order1=1; order2=2; trt=&k.; output; end;
if trt01an=4 and pucat&j.='Primarily THS 2.2' then do; order1=1; order2=3; trt=&k.; output; end;
if trt01an=4 and pucat&j.='Predominantly THS 2.2' then do; order1=1; order2=4; trt=&k.; output;
end;

```

```

if trt01an=4 and pucat&j.='Dual Mostly THS 2.2' then do; order1=2; order2=2; trt=&k.; output; end;
if trt01an=4 and pucat&j.='Dual Balanced' then do; order1=2; order2=3; trt=&k.; output; end;
if trt01an=4 and pucat&j.='Dual Mostly CC' then do; order1=2; order2=3; trt=&k.; output; end;

```

```

if trt01an=4 and pucat&j.='Predominantly CC' then do; order1=3; order2=2; trt=&k.; output; end;
if trt01an=4 and pucat&j.='Primarily CC' then do; order1=3; order2=3; trt=&k.; output; end;
if trt01an=4 and pucat&j.ex='Exclusively CC' then do; order1=3; order2=4; trt=&k.; output; end;

```

```

if trt01an=4 and pucat&j.='Abstinent' then do; order1=4; order2=2; trt=&k.; output; end;
if trt01an=4 and pucat&j.='Predominantly Abstinent' then do; order1=4; order2=3; trt=&k.; output;
end;

```

```

if trt01an=4 and pucat&j.='Not Abstinent' then do; order1=4; order2=4; trt=&k.; output; end;

```

```

if trt01an=5 and pucat&j. in ('CC Only') then do; order1=6; order2=2; trt=&k.; output; end;

```

```

if trt01an=3 and pucat&j.='Abstinent' then do; order1=7; order2=2; trt=&k.; output; end;
if trt01an=3 and pucat&j.='Predominantly Abstinent' then do; order1=7; order2=3; trt=&k.; output;
end;

```

```

if trt01an=3 and pucat&j.='Not Abstinent' then do; order1=7; order2=4; trt=&k.; output; end;

```

```

%mend;

```

```

%mlocal(j=2,k=1);

```

```

%mlocal(j=3,k=2);

```

```
%mlocal(j=4,k=3);
```

```
%mlocal(j=5,k=4);
```

```
%mlocal(j=1,k=5);
```

```
    if trt01an=4 and pucat5='Missing' and index(disccat,'1')=0 then do; order1=5; order2=5; trt=4; output;  
end;
```

```
    if trt01an=5 and pucat5='Missing' and index(disccat,'1')=0 then do; order1=6; order2=5; trt=4; output;  
end;
```

```
/*    if trt01an=3 and pucat5='Missing' and index(disccat,'1')=0 then do; order1=7; order2=5; trt=4;  
output; end;*/
```

```
    if trt01an=4 and pucat1='Missing' and index(disccat,'1')=0 then do; order1=5; order2=5; trt=5; output;  
end;
```

```
    if trt01an=5 and pucat1='Missing' and index(disccat,'1')=0 then do; order1=6; order2=5; trt=5; output;  
end;
```

```
    if trt01an=3 and pucat1='Missing' and index(disccat,'1')=0 then do; order1=7; order2=5; trt=5; output;  
end;
```

```
    if trt01an=4 and prxmatch("m/1/oi",disccat)    then do; order1=5; order2=6; trt=1; output; end;
```

```
    if trt01an=4 and prxmatch("m/1|2/oi",disccat)    then do; order1=5; order2=6; trt=2; output; end;
```

```
    if trt01an=4 and prxmatch("m/1|2|3/oi",disccat)    then do; order1=5; order2=6; trt=3; output; end;
```

```
    if trt01an=4 and prxmatch("m/1|2|3|4/oi",disccat) and PPREAS1 ne "" then do; order1=5; order2=6;  
trt=4; output; end;
```

```
    if trt01an=4 and prxmatch("m/1/oi",disccat)    then do; order1=5; order2=6; trt=5; output; end;
```

```
    if trt01an=5 and prxmatch("m/1/oi",disccat)    then do; order1=6; order2=6; trt=1; output; end;
```

```
    if trt01an=5 and prxmatch("m/1|2/oi",disccat)    then do; order1=6; order2=6; trt=2; output; end;
```

```
    if trt01an=5 and prxmatch("m/1|2|3/oi",disccat)    then do; order1=6; order2=6; trt=3; output; end;
```

```

if trt01an=5 and prxmatch("m/1|2|3|4/oi",disccat) then do; order1=6; order2=6; trt=4; output; end;
if trt01an=5 and prxmatch("m/1/oi",disccat) then do; order1=6; order2=6; trt=5; output; end;

if trt01an=3 and prxmatch("m/1/oi",disccat) then do; order1=7; order2=6; trt=1; output; end;
if trt01an=3 and prxmatch("m/1|2/oi",disccat) then do; order1=7; order2=6; trt=2; output; end;
if trt01an=3 and prxmatch("m/1|2|3/oi",disccat) then do; order1=7; order2=6; trt=3; output; end;
if trt01an=3 and prxmatch("m/1|2|3|4/oi",disccat) then do; order1=7; order2=6; trt=4; output; end;
if trt01an=3 and prxmatch("m/1/oi",disccat) then do; order1=7; order2=6; trt=5; output; end;

run;

```

```

data data2;

  set data1;

  output;

  if order1 in (1 2 3) and order2>1 then do; order2=1; output; end;

  if order1 in (6) and order2=2 then do; order2=1; output; end;

run;

```

```

proc sort data=data2 nodupkey; by usubjid order1 order2 trt; run;

```

```

%macro mfreq(in_dsn=, n_max=, order1=, n=, class=);

proc means data=&in_dsn noprint nway;

  class &class trt;

  var trt;

  output out=stat1 n=count;

run;

```

```

data stat2 (drop=_type_ _freq_ percentx);

    set stat1;

    length percentage $50;

    if count>. then percentx=count/%eval(&n.)*100;

    if   percentx=100 then percentage=put(count,4.)||' (100)';

    else if percentx>=0.1 then percentage=put(count,4.)||' ('||strip(put(percentx,5.1))||')';

    else if percentx>.  then percentage=put(count,4.)||' (<0.1)';

run;


proc transpose data=stat2 out=stat3 prefix=col;

    by &class;

    id trt;

    var percentage;

run;


data final_&order1. (drop=_name_);

    set stat3;

    %do i=1 %to &n_max;

        if col&i="" then col&i='0';

    %end;

run;

%mend mfreq;


%mfreq(in_dsn=data2(where=(order1<=5)), n_max=5, order1=1, n=&n1., class=order1 order2);

```

```
%mfreq(in_dsn=data2(where=(order1=6)), n_max=5, order1=2, n=&n2., class=order1 order2);
```

```
%mfreq(in_dsn=data2(where=(order1=7)), n_max=5, order1=3, n=&n3., class=order1 order2);
```

```
data final1;
```

```
set final_;;
```

```
run;
```

```
*** Prepare the output data set per mock-up/shell ***;
```

```
data shell;
```

```
length stat $50;
```

```
order1=1; order2=0; stat='THSm2.2 Arm'; output;
```

```
order1=1; order2=1; stat='THS 2.2 ([70-100]%)'; output;
```

```
order1=1; order2=2; stat=' Exclusively THS 2.2 (100%)'; output;
```

```
order1=1; order2=3; stat=' Primarily THS 2.2 ([95-100]%)'; output;
```

```
order1=1; order2=4; stat=' Predominantly THS 2.2 ([70-95]%)'; output;
```

```
order1=2; order2=1; stat='Dual ([30-70]%)'; output;
```

```
order1=2; order2=2; stat=' Dual mostly THS 2.2 ([60-70]%)'; output;
```

```
order1=2; order2=3; stat=' Dual balanced ([40-60]%)'; output;
```

```
order1=2; order2=4; stat=' Dual mostly CC ([30-40]%)'; output;
```

```
order1=3; order2=1; stat='CC ([0-30]%)'; output;
```

```
order1=3; order2=2; stat=' Predominantly CC ([5-30]%) '; output;
```

```
order1=3; order2=3; stat=' Primarily CC ([0-5]%)'; output;
```

```
order1=3; order2=4; stat=' Exclusively CC (0%)'; output;
```

```
order1=4; order2=2; stat='Abstinent'; output;
```

```
order1=4; order2=3; stat='Predominantly Abstinent'; output;

order1=4; order2=4; stat='Not Abstinent'; output;


order1=5; order2=5; stat='Missing'; output;

order1=5; order2=6; stat='Discontinued in previous period'; output;


order1=6; order2=0; stat='mCC Arm'; output;

order1=6; order2=1; stat='CC'; output;

order1=6; order2=2; stat=' CC Only (Exclusively CC)'; output;

order1=6; order2=3; stat=' CC Dual (Use of other products)'; output;

order1=6; order2=5; stat='Missing'; output;

order1=6; order2=6; stat='Discontinued in previous period'; output;


order1=7; order2=0; stat='SA Arm'; output;

order1=7; order2=2; stat='Abstinent'; output;

order1=7; order2=3; stat='Predominantly Abstinent'; output;

order1=7; order2=4; stat='Not Abstinent'; output;

order1=7; order2=5; stat='Missing'; output;

order1=7; order2=6; stat='Discontinued in previous period'; output;

run;


data final;

merge shell final1;

by order1 order2;

%macro mtemp;
```



```

if order1=1 and order2=0 then do;

    stat='^S={font_weight=bold}' || strip(stat);

    %do i=1 %to 5; col&i.='^S={font_weight=bold just=c}' || "&n1."; %end;

end;

else if order1=6 and order2=0 then do;

    stat='^S={font_weight=bold}' || strip(stat);

    %do i=1 %to 5; col&i.='^S={font_weight=bold just=c}' || "&n2."; %end;

end;

else if order1=7 and order2=0 then do;

    stat='^S={font_weight=bold}' || strip(stat);

    %do i=1 %to 5; col&i.='^S={font_weight=bold just=c}' || "&n3."; %end;

end;

%mend;

%mtmp;

/*  if order2=5 then do; col1='NA'; col2='NA'; col3='NA'; col4='NA'; end;*/

/*  if order2=6 then col5='NA';*/

if col1="" then col1='0'; if col2="" then col2='0';

if col3="" then col3='0'; if col4="" then col4='0';

if col5="" then col5='0';

pageno=1;

if order1 in (6 7) then pageno=2;

run;

```

```
data odata.%sysfunc(scan(&prgname,1,'_'));
```

```
    set final(in=a);
```

```
    if a then group="Part1";
```

```
run;
```

```
%trtrtfg(pgmname=&outname., pgmid=1, new=0, style=, bookmark=%lowcase(&outname.));
```

```
%global totalpage;
```

```
data _null_;
```

```
    set final end=eof;
```

```
    if eof then do;
```

```
        call symput('totalpage', trim(left(put(pageno,8))));
```

```
    end;
```

```
run;
```

```
%put totalpage=&totalpage;
```

```
options nomprint nosymbolgen;
```

```
%macro reppart;
```

```
    %do i = 1 %to &totalpage;
```

```
proc report data=final(where=(pageno=&i.)) headskip headline spacing=4 nowd split='|'  
style=[outputwidth=100%] style(header column)=[protectspecialchars=off];
```

```
    column pageno order1 order2 stat col1-col5;
```

```

define pageno /order order=internal noprint;

define order1 /order order=internal noprint;

define order2 /order order=internal noprint;

define stat /display "Product Use Categorization" style(column)=[cellwidth=30% asis=on]
style(header)=[just=l];

define col1 /display "Period 2 |n (%)" flow style(column)=[cellwidth=11% just=c];
define col2 /display "Period 3 |n (%)" flow style(column)=[cellwidth=11% just=c];
define col3 /display "Period 4 |n (%)" flow style(column)=[cellwidth=11% just=c];
define col4 /display "Ambulatory|n (%)" flow style(column)=[cellwidth=11% just=c];
define col5 /display "Ambulatory|Safety|n (%)" flow style(column)=[cellwidth=11% just=c];

compute before order1 ;

line "";

endcomp;

compute before _page_/style=[fontweight=bold fontsize=3.75];

line @1 "&title1 &title2";

line @1 "^R/RTF"\brdrb\brdrs\brdrw30\brsp20\b ' ' ";

endcomp;

compute after _page_/style=[fontsize=1.75];

line @1 "Note: mCC = Menthol conventional cigarettes; SA = Smoking abstinence; THSm2.2 =
Tobacco Heating System 2.2 Menthol.";

line @1 "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 @1 "Note: Percentages refer to the total number of subjects per arm.";

```

```
line @1 "Note: Discontinued in previous period for Ambulatory refers to subjects discontinued before period 4.";
```

```
/* line @1 "";*/
```

```
line @1 "&APPENDIX.";
```

```
line @1 "Study ID:ZRHM-REXA-07-JP Program: &fprgname..sas Status:  
&repversion./&fdate. Page: &i of &totalpage.";
```

```
endcomp;
```

```
compute after pageno ;
```

```
/* line "";*/
```

```
endcomp;
```

```
run;
```

```
%end;
```

```
%mend;
```

```
%reppart;
```

```
ods listing;
```

```
ods rtf close;
```