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options notes nosource;
proc datasets lib=work nolist memtype=data kill; quit;
* macro to save output and log to appropriate areas ;
%_mprintto;
%put NOTE:
=====;
%put NOTE: Covance Study Number : 000000106326;
%put NOTE: Client Protocol ID : ZRHM-PK-05-JP;
%put NOTE: Program Name : d_2ADDX.sas;
%put NOTE: Purpose : create ADDX dataset;
%put NOTE: ;
%put NOTE: Input Data : STDLIB.ADDX SDTM.DX SDTM.SUPPDX
ADAM.ADSL;
%put NOTE: Output : ADAM.ADDX;
%put NOTE: Macros Called : _MPRINTTO _MTOTPER _MPERALL _SCRAMBLE;
%put NOTE: ;
%put NOTE: Programmed by : cvn_jhardman;
%put NOTE: Creation Date : 2014-01-03;
%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: 09Jan2014 JMH 1) Amended PARAMCD and
PARCAT1N;
%put NOTE: 13Jan2014 JMH 2) Amended DESC to use
suppdx.qval if necessary;
%put NOTE: 12Apr2014 KB 3) Amended DISDTC;
%put NOTE: 12Apr2014 KB 4) Added ASTTMF;
%put NOTE: 12Apr2014 KB 5) Added ASTTMF and TRTSTMF to
scrambling;
%put NOTE: 12Apr2014 KB 6) Amended format of ASTDTM;
%put NOTE: 23Apr2014 KB 7) Added ASTTMF to keep;
%put NOTE: 05Aug2014 KB 8) Removed SPDEVID from keep;
%put NOTE: 05Aug2014 KB 9) Added EXNOTRFL to keep;
%put NOTE: 05Aug2014 KB 10) Amended format issue;
%put NOTE:
=====;
options notes source source2 nofullstimer validvarname=upcase missing='
';
ods _all_ close;
ods listing;

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

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* bring in ADSL ;
*****;

data adsl;
    set adam.adsl;
    keep studyid usubjid subjid: siteid age sex: race height weightb1
bmi ucpdgr: nicogr: targr:
        enrfl scrfl saffl pprotfl randfl tr01: tr02: trt: enfl
exfl complfl fupfl dthfl anal: EXNOTRFL; /* 9) KB 05Aug2014 */
run;

*****;
* bring in DX ;
*****;

data dx;
    set sdtm.dx(where = (not missing(dxstdtc)));
    format param parcat1 $100. aval best. parcatln avisitn 8. avalu
$10. paramcd $8. avisit $40. /*astdtm*/ aendtm datetime13. ASTDTM
DATETIME16. /* 6) KB 12Apr2014 */
        astdt aendt date9. /*sc $200.*/ ASTTMF $1./*2) JMH
13Jan2014*/ /* 4) KB 12Apr2014 */
    param = trim(dxtrt);
    if not missing(dxtrt) then paramcd = /*'THS2_2'*/ 'THS2_2M';/*1)
JMH 09Jan2014*/
    parcat1 = trim(dxcat);
    if not missing(dxcat) then parcatln = 2/*1*/;/*1) JMH 09Jan2014*/

    aval =0.5;
    avalu = 'mg';

    avisitn = visitnum;
    avisit = propcase(visit);
/* 4) START KB 12Apr2014 */
/* if not missing(dxstdtc) and length(dxstdtc) gt 10 then do;*/
/* astdtm = input(dxstdtc,e8601dt.);*/
/* astdt = datepart(astdtm);*/
/* end;*/
    IF NOT MISSING(DXSTDTC) AND LENGTH(DXSTDTC) GT 10 THEN DO;
        TMST1=SCAN(DXSTDTC,2,'T');
/* IF LENGTH(TMST1)=8 THEN ASTDTM=INPUT(DXSTDTC,E8601DT.);*/
        IF LENGTH(TMST1)=8 THEN
ASTDTM=DHMS(INPUT(SCAN(DXSTDTC,1,'T'),YYMMDD10.),HOUR(INPUT(SCAN(DXSTDTC,
2,'T'),TIME8.)),MINUTE(INPUT(SCAN(DXSTDTC,2,'T'),TIME8.)),SECOND(INPUT(SC
AN(DXSTDTC,2,'T'),TIME8.))); /* 10) KB 05Aug2014 */
        ELSE IF LENGTH(TMST1)=5 THEN DO;
/* ASTDTM=INPUT(CATS(DXSTDTC,':30'),E8601DT.);*/

ASTDTM=DHMS(INPUT(SCAN(CATS(DXSTDTC,':30'),1,'T'),YYMMDD10.),HOUR(INPUT(S
CAN(CATS(DXSTDTC,':30'),2,'T'),TIME8.)),MINUTE(INPUT(SCAN(CATS(DXSTDTC,':
30'),2,'T'),TIME8.)),SECOND(INPUT(SCAN(CATS(DXSTDTC,':30'),2,'T'),TIME8.)
)); /* 10) KB 05Aug2014 */
        ASTTMF='S';
    END;

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        ASTDT=DATEPART (ASTDTM);
    END;
/* 4) END KB 12Apr2014 */
    else if not missing(dxstdtc) and length(dxstdtc) = 10 then astdt =
input(dxstdtc,yymmdd10.);
    if not missing(dxendtc) and length(dxendtc) gt 10 then do;
/*
        aendtm = input(dxendtc,e8601dt.);*/
        AENDTM =
DHMS (INPUT (SCAN (DXENDTC,1,'T'),YYMMDD10.),HOUR (INPUT (SCAN (DXENDTC,2,'T'),
TIME5.)),MINUTE (INPUT (SCAN (DXENDTC,2,'T'),TIME5.)),0); /* 10) KB
05Aug2014 */
        aendt = datepart(aendtm);
    end;
    else if not missing(dxendtc) and length(dxendtc) = 10 then aendt =
input(dxendtc,yymmdd10.);

/*desc=trim(dxtrt);*/ /*2) JMH 13Jan2014*/

    keep usubjid dxseq dxspid /*spdevid*/ param: parcat1: aval avalu
dxlot visitnum visit dxstdtc dxendtc dxstdy dxendy avisit: /* 8) KB
05Aug2014 */
        astdt: aend: epoch /*desc*/ DXTRT ASTTME;/*2) JMH 13Jan2014*/
/* 7) KB 23Apr2014 */
run;

/* Need to call in SDTM.SUPPDX to obtain DXOTH & DISDTC when available */

proc transpose data=sdtm.suppdx out=suppdx(drop=_label_ _name_) ;
    by usubjid idvarval;
    var qval;
    id qnam;
    idlabel qlabel;
run;

data suppdx2;
    set suppdx;
    dxseq=input(idvarval,best.);
    drop idvarval;
run;

proc sort data = dx;
    by usubjid dxseq;
run;

proc sort data=suppdx2;
    by usubjid dxseq;
run;

data sudx;
    merge suppdx2 dx;
    by usubjid dxseq;
run;

DATA SUDX1; /*2) JMH 13Jan2014*/

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        SET SUDX;
        FORMAT DESC $200.;
        /*DESC=TRIM(DXOTH)*/; /*TEMP FIX!! USE IF AVAILABLE. ELSE USE DXTRT
(BELOW)*/
        DESC=TRIM(DXTRT);
        DROP DXTRT;
RUN;

proc sort data = SUDX1 /*sudx*/; /*2) JMH 13Jan2014*/
    by usubjid avisitn avisit;
run;

/* 3) START KB 12Apr2014 */
DATA SUPPDX;
    SET SDTM.SUPPDX(WHERE=(QNAM='DISDTC'));

    DXSEQ=INPUT(IDVARVAL,BEST.);

    KEEP USUBJID DXSEQ QNAM QLABEL QVAL;
RUN;

PROC TRANSPOSE DATA=SUPPDX OUT=SUPPDX2(DROP=_:);
    BY USUBJID DXSEQ;
    VAR QVAL;
    ID QNAM;
    IDLABEL QLABEL;
RUN;

PROC SORT DATA=SUDX1;
    BY USUBJID DXSEQ;
RUN;

PROC SORT DATA=SUPPDX2;
    BY USUBJID DXSEQ;
RUN;

DATA DXA;
    MERGE SUDX1 SUPPDX2;
    BY USUBJID DXSEQ;
RUN;

/* 3) END KB 12Apr2014 */
*****;
* Combine ADSL nd DX data *;
*****;
* find number of periods ;
*_mtotper;

data sldx(drop = tr01: trt01: tr02: trt02: visit:);
    merge adsl /*sudx*//*SUDX1*/DXA(in = a); /*2) JMH 13Jan2014*/ /* 3)
KB 12Apr2014 */
    by usubjid;
    if a;          * only include subjects with DX data ;
    format astday aperiod trtan trtpn 8. trta trtp $40. aperiodc $8.;
    astday = astdt - trtsdt + 1;

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        * allocate period and treatment and full and partial dates;
        if astday in (0 1) then aperiod=1;
        else if astday in (2 3) then aperiod=2;
        %_mperall(dvar1 = astdtm, dvar2 = astdt);

        if not missing(aperiod) then do;
            aperiodc = 'Period ' || put (aperiod,1.);
        end;
run;

*****;
* create output dataset ;
*****;

options replace;

data addx;
    set stdlib.addx sldx;
    label aperiodc = 'Period (C)';
run;

proc sort data = addx out = adam.addx(label= 'THS Product Exposure
Analysis Dataset');
    by usubjid avisitn astdtm;
run;

options noreplace;
%_scramble(set=addx, id=usubjid subjid subjidn age sex sexc sexn race
dthfl height weightb1 bmi ucpdgr1 ucpdgrln nicogr1
            nicogrln targr1 targrln analgr1 analgrln, dates=avisit
avisitn aperiod aperiodc epoch, nullc=disdtc dxstdtc dxendtc trtp trta
trtseqp trtseqa ASTTMF TRTSTMF, /* 5) KB 12Apr2014 */
            nulln=aval astdtm astdt aendtm aendt dxstdy astday
dxendy trtsdtm trtsdt trtsday trtedtm trtedt trteday trtpn trtan trtseqpn
trtseqan, nullcc=/*7*/9, nullnc=18); /* 5) KB 12Apr2014 */

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

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