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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 : 000000106324;
%put NOTE: Client Protocol ID : ZRHR-REXC-03-EU;
%put NOTE: Program Name : d_2ADDX.sas;
%put NOTE: Purpose : create ADDX dataset;
%put NOTE: ;
%put NOTE: Input Data : STDLIB.ADDX SDTM.DX ADAM.ADSL;
%put NOTE: Output : ADAM.ADDX;
%put NOTE: Macros Called : _MPRINTTO;
%put NOTE: ;
%put NOTE: Programmed by : cvn_smulholl;
%put NOTE: Creation Date : 2013-09-19;
%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: 02Dec2013 SM 1) Remove VISITx variables;
%put NOTE: 29Apr2014 KB 2) Added DESC;
%put NOTE: 14May2014 KB 3) Amended sorting by key variables;
%put NOTE: 14May2014 KB 4) Set DXSTDY and DXENDY to blank for
derived parameter;
%put NOTE: 27May2014 KB 5) Added EPOCH to keep;
%put NOTE: 27Jul2014 KB 6) Added EXNOTRFL;
%put NOTE:
=====;
options notes source source2 nofullstimer validvarname=upcase missing='
';
ods _all_ close;
ods listing;

*=====;
* START OF PROGRAM CODE ;
*=====;
*****;
* bring in ADSL ;
*****;

data adsl;
    set adam.adsl;
    keep studyid usubjid subjid: siteid age sex: race height weightb1
bmi ucpdgr: nicogr: targr: cobl

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enrlfl scrffl saffl fasfl pprotfl randfl tr01: trt: enfl
EXNOTRFL exfl complfl fupfl dthfl; /* 6) KB 27Jul2014 */
run;

*****;
* bring in DX ;
*****;
data supidx;
    set sdtm.supidx;
    dxseq=input(IDVARVAL,best.);
run;

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

proc transpose data=supidx out=supidx2(drop=_:);
    by usubjid dxseq;
    id qnam;
    var qval;
run;

data dx;
    merge sdtm.dx(where = (not missing(dxstdtc))) supidx2;
    by usubjid dxseq;

    format param parcat1 $100. aval parcat1n avisitn 8. avalu $10.
paramcd $8. avisit $40. astdtm aendtm datetime13.
    astdt aendt date9. DESC $200.; /* 2) KB 29Apr2014 */
    param = trim(dxtrt);
    if not missing(dxtrt) then paramcd = 'THS2_2';
    parcat1 = trim(dxcat);
    if not missing(dxcat) then parcat1n = 1;
    aval = dxdose;
    avalu = dxdosu;
    avisitn = visitnum;
    avisit = propcase(visit);
    if not missing(dxstdtc) and length(dxstdtc) gt 10 then do;
        astdtm =
input(scan(dxstdtc,1,'T'),ymmdd10.)*86400+input(scan(dxstdtc,2,'T'),time
5.);
        astdt = datepart(astdtm);
    end;
    else if not missing(dxstdtc) and length(dxstdtc) = 10 then astdt =
input(dxstdtc,ymmdd10.);
    if not missing(dxendtc) and length(dxendtc) gt 10 then do;
        aendtm =
input(scan(dxendtc,1,'T'),ymmdd10.)*86400+input(scan(dxendtc,2,'T'),time
5.);
        aendt = datepart(aendtm);
    end;
    else if not missing(dxendtc) and length(dxendtc) = 10 then aendt =
input(dxendtc,ymmdd10.);

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DESC=TRIM(DXTRT); /* 2) KB 29Apr2014 */

keep usubjid dxseq dxspid /*spdevid*/ param: parcat1: aval avalu
dxlot visitnum visit dxstdtc dxendtc dxstdy dxendy avisit:
    astdt: aend: DESC EPOCH DISDTC; /* 2) KB 29Apr2014 */ /* 5)
KB 27May2014 */
run;

*****;
* Calculate number of items smoked per day ;
*****;

proc sort data = dx;
    by usubjid avisitn avisit;
run;

proc summary data = dx noprint;
    var aval astdtm aendtm;
    by usubjid avisitn avisit;
    id aendt astdt parcat1 parcatln visit visitnum dxstdy dxendy;
    output out = sumdx (drop = _:)          sum = aval;
    output out = stimes (drop = _:)         min(astdtm) = astdtm
    max(aendtm) = aendtm;
run;

data dx2;
    merge sumdx stimes;
    by usubjid avisitn avisit;
    format paramcd $8. param $100. paramtyp $10. dtype $20.;
    paramcd = 'DTHS2_2';
    param = 'Daily THS 2.2 Administration';
    paramtyp = 'DERIVED';
    dtype = 'SUM';
    avalu = 'STICKS/DAY';
run;

data dx3;
    set dx dx2;
    by usubjid avisitn avisit;
run;

*****;
* Combine ADSL nd DX data *;
*****;
* find number of periods ;
*_mtotper;

data sldx(drop = tr01: trt01: VISIT:); /* 1) SM 02Dec2013 */
    merge adsl dx3(in = a);
    by usubjid;
    if a;          * only include subjects with DX data ;
    format astday aperiod trtan trtpn 8. trta trtp $40. aperiodc $10.;
    astday = astdt - trtsdt + 1;
    * allocate period and treatment and full and partial dates;

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        %_mperall(dvar1 = astdtm, dvar2 = astdt);
        aperiodc = 'Period ' || put (aperiod,1.);

/* 4) START KB 14May2014 */
    IF PARAMCD='DTHS2_2' THEN DO;
        DXSTDY=.;
        DXENDY=.;
    END;
/* 4) END KB 14May2014 */
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;*/
    BY USUBJID AVISITN PARAMCD DXSTDTC DXENDTC DXSPID; /* 3) KB
14May2014 */
run;

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

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