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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_2ADDT.sas;
%put NOTE: Purpose : create ADDT dataset;
%put NOTE: ;
%put NOTE: Input Data : STDLIB.ADDT SDTM.DI SDTM.DT ADAM.ADSL
SDTM.SUPPDT SDTM.DR;
%put NOTE: Output : ADAM.ADDT;
%put NOTE: Macros Called : _MPRINTTO _MTOTPER _PERALL _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: 14Apr2014 KB 1) Amended sorting by key variables;
%put NOTE: 05Aug2014 KB 2) Added EXNOTRFL to keep;
%put NOTE: 05Aug2014 KB 3) Amended format issue;
%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 weightbtl
bmi ucpdgr: nicogr: targr:
        enrfl scrffl exfl enfl complfl fupfl saffl randfl tr01:
trt01: trt02: trt02: dthfl trtsdt anal: trtseq: EXNOTRFL; /* 2) KB
05Aug2014 */

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run;

*****;
* bring in SUPPDT ;
*****;
/* no data available yet */

*****;
* DR ;
*****;

proc sort data = sdtm.dr out = dr;
    by spdevid;
run;

data drdi;
    SET/*merge*/ dr(keep = usubjid spdevid) /*sdtm.di(keep = spdevid
diparmcd diparm dival)*/;
    by spdevid;
run;

proc sort data = drdi;
    by spdevid;
run;

*****;
* combine DT and DR ;
*****;
proc sort data = sdtm.dt out = dt;
    by spdevid;
run;

data dt2;
    merge dt drdi;
    by spdevid;

    format astdtm datetime13. astdt date9. avisit $200. avisitn 8.;
    * dates;
/* if length(dtstdtc) gt 10 then astdtm = input(dtstdtc,e8601dt.);*/
    IF LENGTH(DTSTDTC) GT 10 THEN ASTDTM =
DHMS(INPUT(SCAN(DTSTDTC,1,'T'),YYMMDD10.),HOUR(INPUT(SCAN(DTSTDTC,2,'T'),
TIME5.)),MINUTE(INPUT(SCAN(DTSTDTC,2,'T'),TIME5.)),0); /* 3) KB 05Aug2014
*/
    if not missing(astdtm) then astdt = datepart(astdtm);
    else if not missing(dtstdtc) then astdt = input(dtstdtc,yyymmdd10.);

    * visit ;
    avisit = propcase(visit);
    avisitn = visitnum;

    keep usubjid dtseq dtspid spdevid dtterm dtdecod dtparty dtprtyid
dtcat dtstdtc visit visitnum visitdy avisit: astd: epoch;
run;

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proc sort data=dt2;
    by usubjid;
run;
*****;
* Combine ADSL and DT data *;
*****;
* find number of periods ;
*_mtotper;

data sldt(drop = trtsdt trt01: tr01: trt02: tr02: visit:);
    merge adsl dt2(in = a);
    by usubjid;
    if a;          * only include subjects with DT data ;
    format aperiod trtan trtpn astday 8. trta trtp $40. aperiodc $8.;
    if not missing(astdt) and not missing(trtsdt) then astday = astdt -
trtsdt + 1;
    *allocate period using stated 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 addt;
    set stdlib.addt sldt;
    label aperiodc = 'Period (C)';
run;

proc sort data = addt out = adam.addt(label= 'Device Tracking and
Disposition Analysis Dataset');
/*    by usubjid dtcat spdevid avisitn;*/
    BY USUBJID DTCAT SPDEVID DTDECOD DTSTDTC AVISITN; /* 1) KB 14Apr2014
*/
run;

options noreplace;

%_scramble(set=addt, id=usubjid subjid subjidn age sex sexc sexn race
dthfl height weightbl bmi ucpdgr1 ucpdgrln nicogr1
        nicogrln targr1 targrln analgr1 analgrln,
        nullc=trtp trta trtseqp trtseqa,
        nulln=trtpn trtan trtseqpn trtseqan, nullcc=4,
nullnc=4);

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