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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_2ADCO.sas;
%put NOTE: Purpose : create ADCO dataset;
%put NOTE: ;
%put NOTE: Input Data : STDLIB.ADCO SDTM.CO ADAM.ADSL SDTM.QS
SDTM.LB SDTM.VS SDTM.PE;
%put NOTE: Output : ADAM.ADCO;
%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: 13Apr2014 KB 1) Uncommented code for the SDTMs we
now have;
%put NOTE: 13Apr2014 KB 2) Added ADOMAIN;
%put NOTE: 13Apr2014 KB 3) Amended sort by key variables;
%put NOTE: 13Apr2014 KB 4) Added AVALC1;
%put NOTE: 13Apr2014 KB 5) Added variables to scramble macro;
%put NOTE: 13Apr2014 KB 6) Removed COREF from keep statement;
%put NOTE: 05Aug2014 KB 7) Removed variables from CO section
due to removal in SDTM;
%put NOTE: 05Aug2014 KB 8) Added EXNOTRFL & NICOGR2 variables
to keep;
%put NOTE: 05Aug2014 KB 9) Amended format issue;
%put NOTE: 05Aug2014 KB 10) Removed pregnancy labs from code;
%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 ucpdgr1 ucpdgrln nicogr1 nicogrln NICOGR2 NICOGR2N targr1 targrln /*
8) KB 05Aug2014 */
    enrfl scrffl exfl enfl complfl fupfl saffl randfl trt:
tr01: tr02: dthfl anal: EXNOTRFL; /* 8) KB 05Aug2014 */
run;

*****;
* bring in CO ;
*****;

/* 1) START KB 13Apr2014 */
DATA CO;
    SET SDTM.CO;
    FORMAT /*ADTM DATETIME13. ADT DATE9. AVISIT $40.*/ ASEQ /*AVISITN*/
8. AVALC /*AVALC1*/ $200. /*RDOMAIN*/ADOMAIN $2.; /* 2) KB 13Apr2014 */
/* 4) KB 13Apr2014 */ /* 7) KB 05Aug2014 */
    AVALC = TRIM(COVAL);
/*AVALC1=STRIP(COVAL1);*/ /* 4) KB 13Apr2014 */ /* 7) KB 05Aug2014
*/
/* RDOMAIN = TRIM(DOMAIN);*/
ADOMAIN = STRIP(RDOMAIN); /* 2) KB 13Apr2014 */
/* 7) START KB 05Aug2014 */
/* IF LENGTH(CODTC) GT 10 THEN DO;*/
/* ADTM = INPUT(CODTC,E8601DT.);*/
/* ADT = DATEPART(ADTM);*/
/* END;*/
/* ELSE IF LENGTH(CODTC) = 10 THEN ADT = INPUT(CODTC,YYMMDD10.);*/
/* AVISITN = VISITNUM;*/
/* AVISIT = PROPCASE(VISIT);*/
/* 7) END KB 05Aug2014 */
    ASEQ = COSEQ;
    KEEP USUBJID /*RDOMAIN*/ADOMAIN AVALC /*AVALC1*/ ASEQ /*COREF*/
/*CODTC ADTM ADT VISIT VISITNUM AVISIT:*/ ; /* 2) KB 13Apr2014 */ /* 4)
KB 13Apr2014 */ /* 6) KB 13Apr2014 */ /* 7) KB 05Aug2014 */
RUN;
/* 1) END KB 13Apr2014 */
*****;
* bring in VS ;
*****;

data vs;
    set sdtm.vs(where = (not missing(vsreasnd)));
    format adtm datetime13. adt date9. avisit $40. avisitn aseq 8.
/*rdomain*/ADOMAIN $2. avalc $200.; /* 2) KB 13Apr2014 */
/*rdomain*/ADOMAIN = trim(domain); /* 2) KB 13Apr2014 */
    avalc = vsreasnd;
    aseq = vsseq;
    if length(vsdtc) gt 10 then do;

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/*          adtm = input(vsdtc,e8601dt.);*/
          ADTM
=DHMS(INPUT(SCAN(VSDTC,1,'T'),YYMMDD10.),HOUR(INPUT(SCAN(VSDTC,2,'T'),TIME
E5.)),MINUTE(INPUT(SCAN(VSDTC,2,'T'),TIME5.)),0); /* 9) KB 05Aug2014 */
          adt = datepart(adtm);
          end;
          else if length(vsdtc) = 10 then adt = input(vsdtc,yyymmdd10.);
          avisitn = visitnum;
          avisit = propcase(visit);
          keep usubjid avalc aseq /*rdomain*/ADOMAIN adtm adt visit visitnum
avisit: epoch; /* 2) KB 13Apr2014 */
run;

*****;
* bring in QS ;
*****;
/* 1) START KB 13Apr2014 */
DATA QS;
    SET SDTM.QS(WHERE = (NOT MISSING(QSREASND)));
    FORMAT ADTM DATETIME13. ADT DATE9. AVISIT $40. AVISITN ASEQ 8.
/*RDOMAIN*/ADOMAIN $2. AVALC $200.; /* 2) KB 13Apr2014 */
    /*RDOMAIN*/ADOMAIN = TRIM(DOMAIN); /* 2) KB 13Apr2014 */
    AVALC = QSREASND;
    ASEQ = QSSEQ;
    IF LENGTH(QSDTC) GT 10 THEN DO;
/*          ADTM = INPUT(QSDTC,E8601DT.);*/
          ADTM =
=DHMS(INPUT(SCAN(QSDTC,1,'T'),YYMMDD10.),HOUR(INPUT(SCAN(QSDTC,2,'T'),TIME
5.)),MINUTE(INPUT(SCAN(QSDTC,2,'T'),TIME5.)),0); /* 9) KB 05Aug2014 */
          ADT = DATEPART(ADTM);
          END;
          ELSE IF LENGTH(QSDTC) = 10 THEN ADT = INPUT(QSDTC,YYMMDD10.);
          AVISITN = VISITNUM;
          AVISIT = PROPCASE(VISIT);
          KEEP USUBJID AVALC ASEQ /*RDOMAIN*/ADOMAIN ADTM ADT VISIT VISITNUM
AVISIT: EPOCH; /* 2) KB 13Apr2014 */
RUN;
/* 1) END KB 13Apr2014 */
*****;
* bring in PE ;
*****;

data pe;
    set sdtm.pe(where = (not missing(pereasnd)));
    format adtm datetime13. adt date9. avisit $40. avisitn aseq 8.
/*rdomain*/ADOMAIN $2. avalc $200.; /* 2) KB 13Apr2014 */
    /*rdomain*/ADOMAIN = trim(domain); /* 2) KB 13Apr2014 */
    avalc = pereasnd;
    aseq = pseq;
    if length(pedtc) gt 10 then do;
/*          adtm = input(pedtc,e8601dt.);*/
          ADTM
=DHMS(INPUT(SCAN(PEDTC,1,'T'),YYMMDD10.),HOUR(INPUT(SCAN(PEDTC,2,'T'),TIME
E5.)),MINUTE(INPUT(SCAN(PEDTC,2,'T'),TIME5.)),0); /* 9) KB 05Aug2014 */

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        adt = datepart(adtm);
    end;
    else if length(pedtc) = 10 then adt = input(pedtc, yymmdd10.);
    avisitn = visitnum;
    avisit = propcase(visit);
    keep usubjid avalc aseq /*rdomain*/ADOMAIN adtm adt visit visitnum
    avisit: epoch; /* 2) KB 13Apr2014 */
run;

*****;
* bring in LB ;
*****;

data lb;
    set sdtm.lb(where = (not missing(lbreasnd) AND LBCAT NE
    'PREGNANCY'))); /* 10) KB 05Aug2014 */
    format adtm datetime13. adt date9. avisit $40. avisitn aseq 8.
    /*rdomain*/ADOMAIN $2. avalc $200.; /* 2) KB 13Apr2014 */
    /*rdomain*/ADOMAIN = trim(domain); /* 2) KB 13Apr2014 */
    avalc = lbreasnd;
    aseq = lbseq;
    if length(lbdtc) gt 10 then do;
/*
        adtm = input(lbdtc, e8601dt.);*/
        ADTM
        =DHMS(INPUT(SCAN(LBDTC,1,'T'),YMMDD10.),HOUR(INPUT(SCAN(LBDTC,2,'T'),TIM
E5.)),MINUTE(INPUT(SCAN(LBDTC,2,'T'),TIME5.)),0); /* 9) KB 05Aug2014 */
        adt = datepart(adtm);
    end;
    else if length(lbdtc) = 10 then adt = input(lbdtc, yymmdd10.);
    avisitn = visitnum;
    avisit = propcase(visit);
    keep usubjid avalc aseq /*rdomain*/ADOMAIN adtm adt visit visitnum
    avisit: epoch; /* 2) KB 13Apr2014 */
run;

*****;
* Combine comment data *;
*****;

data co2;
    set QS CO vs pe lb; /* Uncomment when available */ /* 1) KB
    13Apr2014 */
run;

proc sort data=co2;
    by usubjid /*rdomain*/ADOMAIN; /* 2) KB 13Apr2014 */
run;
*****;
* Combine ADSL and data *;
*****;

/* macro to allocate period and actual treatment information from ADSL */
%_mtotper;

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data slco(drop = trt01: tr01: trt02: tr02: visit: /*astday*/);
    merge adsl co2(in = a);
    by usubjid;
    if a;          * only include subjects with comments ;
    format aperiod trtan trtpn aday /*astday*/ 8. trta trtp $40.
aperiodc $8.;
    aday = adt - trtsdt + 1;
/*    astday = adt - trtsdt + 1;*/
    * declare full and partial dates for deriving period;
    if aday in (0 1) then aperiod=1;
    else if aday in (2 3) then aperiod=2;
    %_mperall(dvar1 = adtm, dvar2 = adt);

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

run;

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

options replace;

data adco;
    set stdlib.adco slco;
    label aperiodc = 'Period (C)';
run;

proc sort data = adco out = adam.adco(label= 'Comments Analysis
Dataset');
/*    by usubjid rdomain avisitn;*/
    BY USUBJID ADOMAIN AVISITN ASEQ; /* 3) KB 13Apr2014 */
run;

options noreplace;

%_scramble(set=adco, id=usubjid subjid subjidn age sex sexc sexn race
dthfl height weightbl bmi ucpdgr1 ucpdgrln nicogr1
        nicogrln targr1 targrln analgr1 analgrln, dates=trtsdtm
trtsdt trtsday trtedtm trtedt trteday, nullc=trtp trta trtseqp trtseqa
/*coref*/ avalc /*AVALC1*/ TRTSTMF, /* 5) KB 13Apr2014 */ /* 6) KB
13Apr2014 */ /* 7) KB 05Aug2014 */
        nulln=trtpn trtan trtseqpn trtseqan, nullcc=/*6*//*7*/6,
nullnc=4); /* 5) KB 13Apr2014 */ /* 7) KB 05Aug2014 */

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