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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_2ADDV.sas;
%put NOTE: Purpose : create ADDV dataset;
%put NOTE: ;
%put NOTE: Input Data : STDLIB.ADDV SDTM.DV SDTM.SUPPDV
ADAM.ADSL;
%put NOTE: Output : ADAM.ADDV;
%put NOTE: Macros Called : _MPRINTTO;
%put NOTE: ;
%put NOTE: Programmed by : cvn_kbooth;
%put NOTE: Creation Date : 2014-04-15;
%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: 21May2014 KB 1) Added EVALCAT to keep statement;
%put NOTE: 21May2014 KB 2) Added DVSIG to keep statement;
%put NOTE: 05Aug2014 KB 3) Added EXNOTRFL to keep;
%put NOTE: 05Aug2014 KB 4) Removed format of EVALCAT;
%put NOTE: 05Aug2014 KB 5) Amended format issue;
%put NOTE: 05Aug2014 KB 6) Amended ATPT population;
%put NOTE: 05Aug2014 KB 7) Removed DVDECOD as no longer in
SDTM;
%put NOTE: 05Aug2014 KB 8) Amended sorting by key variables;
%put NOTE: 05Aug2014 KB 9) Added format for PARAMCD and amended
format of APERIODC;
%put NOTE: 07Aug2014 KB 10) Added PARAM & PARAMCD mapping;
%put NOTE: 07Aug2014 KB 11) Added AVALC1;
%put NOTE: 07Aug2014 KB 12) Amended PARAM & PARAMCD mapping;
%put NOTE: ;
%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 complfl fupfl saffl pprotfl randfl trt: tr01:
tr02: enfl exfl dthfl anal: EXNOTRFL; /* 3) KB 05Aug2014 */
run;

/* 10) START KB 07Aug2014 */
* BRING IN PARAM AND PARAMCD;
PROC IMPORT
    DATAFILE="/cvn/projects/prj/data/000000106326/source/dv.xlsx"
    OUT=WORK.DVPARM
    REPLACE
    DBMS=XLSX;
    GETNAMES=NO;
RUN;

*SELECT DATA;
DATA DVPARM2;
    SET DVPARM;
    IF _N_=1 THEN DELETE; *DROP COLUMN LABELS;
    FORMAT PARAM $100. PARAMCD $8.;
    USUBJID=TRIM(C);
    IF _N_ GT 1 THEN DVSEQ=INPUT(compress(D, '.', 'kd'),5.);
    PARAM=TRIM(compress(/*W*/X, 'kw')); /* 12) KB 07Aug2014 */
    PARAMCD=TRIM(/*X*/Y); /* 12) KB 07Aug2014 */
    PARAMCD=COMPRESS(PARAMCD, 'kw');

    KEEP USUBJID DVSEQ PARAM PARAMCD;
RUN;

PROC SORT DATA=DVPARM2;
    BY USUBJID DVSEQ;
RUN;

/* 10) END KB 07Aug2014 */

*****;
* bring in SUPPDV ;
*****;

proc transpose data = sdtm.suppdv out=suppdv(drop = _:);
    var qval;
    by usubjid idvarval;
    id qnam;
    idlabel qlabel;
run;

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data suppdv2(drop = idvarval);
    set suppdv;
    dvseq = input(idvarval , best.);
run;

*****;
* bring in DV ;
*****;

data dv;
    merge sdtm.dv suppdv2 DVPARM2; /* 10) KB 07Aug2014 */
    by usubjid dvseq;
    format avisit atpt avalc AVALC1 $200. /*param $100. PARAMCD $8.*/
    avisitn best. astdt aendtm date9. astdtm aendtm datetime13. /*EVALCAT
$100.*/; /* 1) KB 21May2014 */ /* 4) KB 05Aug2014 */ /* 9) KB 05Aug2014
*/ /* 10) KB 07Aug2014 */ /* 11) KB 07Aug2014 */
    * visit details ;
    avisit = propcase(visit);
    avisitn = visitnum;
    atpt = propcase(/*dvtpt*/DVTIMEPT); /* 6) KB 05Aug2014 */

    *Parameter;
/*    param='';*/ /* 10) KB 07Aug2014 */
/*    PARAMCD=''; *//* 9) KB 05Aug2014 */ /* 10) KB 07Aug2014 */

    * values;
    avalc = dvterm;
    AVALC1=DVTERM1; /* 11) KB 07Aug2014 */

    * dates;
/*    if length(dvstdtc) gt 10 then astdtm = input(dvstdtc,e8601dt.);*/
    IF LENGTH(DVSTDTC) GT 10 THEN ASTDTM =
DHMS(INPUT(SCAN(DVSTDTC,1,'T'),YYMMDD10.),HOUR(INPUT(SCAN(DVSTDTC,2,'T'),
TIME5.)),MINUTE(INPUT(SCAN(DVSTDTC,2,'T'),TIME5.)),0); /* 5) KB 05Aug2014
*/
    if not missing(astdtm) then astdt = datepart(astdtm);
    else if length(dvstdtc) = 10 then astdt = input(dvstdtc,yyymmdd10.);

/*    if length(dvendtc) gt 10 then aendtm = input(dvendtc,e8601dt.);*/
    IF LENGTH(DVENDTTC) GT 10 THEN AENDTM =
DHMS(INPUT(SCAN(DVENDTTC,1,'T'),YYMMDD10.),HOUR(INPUT(SCAN(DVENDTTC,2,'T'),
TIME5.)),MINUTE(INPUT(SCAN(DVENDTTC,2,'T'),TIME5.)),0); /* 5) KB 05Aug2014
*/
    if not missing(aendtm) then aendtm = datepart(aendtm);
    else if length(dvendtc) = 10 then aendtm = input(dvendtc,yyymmdd10.);

    keep usubjid dvseq avalc AVALC1 /*dvdecod*/ dvcat assess cohort
    dvreptdc source resol visit: avisit: /*dvtpt*/DVTIMEPT dvstdtc astdt: /*
6) KB 05Aug2014 */ /* 7) KB 05Aug2014 */ /* 11) KB 07Aug2014 */
    dvendtc aendtm: atpt: param epoch EVALCAT DVSIG PARAMCD; /*
1) KB 21May2014 */ /* 2) KB 21May2014 */ /* 9) KB 05Aug2014 */
run;

*****;

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* Combine ADSL and DV data *;
*****;
* find number of periods ;
%_mtotper;

data sldv;
    merge adsl dv(in = a);
    by usubjid;
    if a;          * only include subjects with DV data ;
    format astday aenday aperiod trtan trtpn 8. trta trtp $40. aperiodc
/*$10.*/$8.; /* 9) KB 05Aug2014 */
    astday = astdt - trtsdt + 1;
    aenday = aendt - trtsdt + 1;
    * 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;

    avalc=tranwrd(avalc,'hepb','HepB');
    avalc=tranwrd(avalc,'mcc','mCC');
    avalc=tranwrd(avalc,'iso','ISO');
    avalc=tranwrd(avalc,'ecg','ECG');
    avalc=tranwrd(avalc,'Ecg','ECG');
    avalc=tranwrd(avalc,'co breath','CO breath');
    avalc=tranwrd(avalc,'Fev1/fvc','FEV1/FVC');
/* 11) START KB 07Aug2014 */
    AVALC1=TRANWRD(AVALC1,'hepb','HepB');
    AVALC1=TRANWRD(AVALC1,'mcc','mCC');
    AVALC1=TRANWRD(AVALC1,'iso','ISO');
    AVALC1=TRANWRD(AVALC1,'ecg','ECG');
    AVALC1=TRANWRD(AVALC1,'Ecg','ECG');
    AVALC1=TRANWRD(AVALC1,'co breath','CO breath');
    AVALC1=TRANWRD(AVALC1,'Fev1/fvc','FEV1/FVC');
/* 11) END KB 07Aug2014 */
run;

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

options replace;

data addv;
    set stdlib.addv sldv;
    label aperiodc = 'Period (C)';
    drop visit visitdy /*dvtpt*/DVTIMEPT trt01p: trt01a: trt02p: trt02a:
visitnum; /* 6) KB 05Aug2014 */
run;

proc sort data = addv out = adam.addv(label= 'Protocol Deviation Analysis
Dataset');

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/*      by usubjid dvstdtc avisitn atpt dvdecod; */
      BY USUBJID DVSTDTC AVISITN ATPT ASSESS AVALC; /* 8) KB 05Aug2014 */
run;

options noreplace;

%_scramble(set=addv, 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 tr01sdt tr01stm tr01sdm tr01edt
tr01etm tr01edtm
          tr02sdt tr02stm tr02sdm tr02edt tr02etm tr02edtm,
nullc=avalc /*dvdecod*/ dvcat dvrepdtc atpt dvstdtc dvendtc /* 7) KB
05Aug2014 */
          trtp trta trtseqp trtseqa trtstmf tr01stmf tr02stmf,
nulln=astdtm aendtm trtpn trtan trtseqpn trtseqan, nullcc=/*14*/13,
nullnc=6); /* 7) KB 05Aug2014 */

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

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