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/*=====
| Covance Study Number   : COV- 106343
| Program Name           : d_2addv.sas
| Purpose                 : create ADV
| Input Data              : ADAM.ADSL,SDTM.Dv
| Output Data             : ADAM.ADQSND
|
| Macros Called           :
|
| Originally Performed by : Jyothsna Reddy
| Date/Time billed       : 24Mar2015
|
+=====
|
| Modification History    :
|
| Programmer             :
| Date                   :
| Reason for Change      :
+=====*/
options notes source source2 nofullstimer validvarname=upcase missing=' ';

proc datasets lib=work nolist memtype=data kill; quit;
libname sdtm "/cvn/projects/prj/data/000000106343/datasets/sdtm/sdtmx";
* macro to save output and log to appropriate areas ;
%am_printto(route=YES);

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

* bring in param and paramcd;
/*proc import*/
/*      datafile="/cvn/projects/prj/data/0000008276792/source/dv.xlsx" */
/*      out=work.dvparam*/
/*      replace*/
/*      dbms=xlsx;*/
/*      getnames=no;*/
/*run;*/
/**/
/**select data;*/
/*data dvparam2;*/
/*      set dvparam;*/
/*      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, 'kw'));*/
/*      paramcd=trim(x);*/
/*      paramcd=compress(paramcd, 'kw');*/
/*      keep usubjid dvseq param paramcd;*/
/*run;*/
/**/
/*proc sort data=dvparam2;*/
/*      by usubjid dvseq;*/
/*run;*/

*****;
* bring in ADSL ;
*****;

data adsl;
  set adam.adsl;
  *keep studyid usubjid subjid: siteid age sex: race height weightb1 bmi ucpdgr: nicogr: targr:
  enrfl scrffl complfl fupfl saffl pprot1fl pprot2fl pprot3fl pprot4fl randfl trt: enrfl exfl dthfl exnotrfl fasfl ;
run;

*****;
* 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;

proc sort data=suppdv2;
  by usubjid dvseq;
run;

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

data dv1;
  merge sdtm.dv suppdv2;
  by usubjid dvseq;
  if dvcat ne "MIS-USE OF PRODUCT";
run;
data dv;
  length dvdecod $200 dvcat $60 ;
  set dv1(rename=(dvdecod=dvdecod_ dvcat=dvcat_));
dvdecod=dvdecod_;
dvcat=dvcat_;
run;
data reason1;
  set adam.adsl;
  where upcase(PPREAS1)^ in ('DISCONTINUED IN PREVIOUS PERIOD' 'NOT IN FAS') and cmpcp1f1="N";
  keep usubjid cMPCP: PPREAS;;
run;

data reason2;
  set adam.adsl;
  where upcase(PPREAS2)^ in ('DISCONTINUED IN PREVIOUS PERIOD' 'NOT IN FAS') and cmpcp2f1="N";
  keep usubjid cMPCP: PPREAS;;
run;
data reason3;
  set adam.adsl;
  where upcase(PPREAS3)^ in ('DISCONTINUED IN PREVIOUS PERIOD' 'NOT IN FAS') and cmpcp3f1="N";
  keep usubjid cMPCP: PPREAS;;
run;
data reason4;
  set adam.adsl;
  where upcase(PPREAS4)^ in ('DISCONTINUED IN PREVIOUS PERIOD' 'NOT IN FAS') and cmpcp4f1="N";
  keep usubjid cMPCP: PPREAS;;
run;

data MID_DV;
  length avalc dvdecod $200 param $100 dvcat $60 ;

  set reason1(in=a) reason2(in=b) reason3(in=c) reason4(in=d);
  if a then DVCAT="MIS-USE OF PRODUCT IN PERIOD 1";
  if b then DVCAT="MIS-USE OF PRODUCT IN PERIOD 2";
  if c then DVCAT="MIS-USE OF PRODUCT IN PERIOD 3";
  if d then DVCAT="MIS-USE OF PRODUCT IN PERIOD 4";
  dvdecod="NON-COMPLIANCE TO RANDOMIZATION ARM";
  evalcat="NON EVALUABLE";
dvterm=dvdecod;
dvsig="MAJOR";
paramcd = "PROTVIOL";
avalc=dvterm;
assess="PRODUCT USE";
param = "Protocol violation";
dvrepdtc=" ";RESOL="NA"; SOURCE="PROGRAMMING";

  keep usubjid avalc dvdecod dvcat assess param: dvsig evalcat dvrepdtc RESOL SOURCE;

run;
data dv_all;
  set dv(in=a) MID_DV(in=b);
  length avisit $40 atpt avalc $200 param $100 avisitn 8 ;
  format asdt aendtm date9. asdtm aendtm datetime13.; * visit details ;
  avisit = propcase(visit);
  avisitn = visitnum;
  ATPT=PROPCASE(DVTIMEPT);
/* if a then dvscat="Manual";*/
/* else dvscat="Programmatic";*/
/* if b then do;dvcat=pdcat;dvdecod=upcase(pddesc);evalcat=pdeval;end;*/

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if (upcase(dvcat) in ("MIS-RANDOMIZATION" "PRODUCT COMPLIANCE" "VIOLATION" "DURATION OF 24 HOUR COLLECTION" "OTHER") and upcase(dvsi
g) = 'MINOR') or dvcat = "PROCEDURAL VIOLATION" then paramcd = "PROCVIOL";
else if upcase(dvcat) in ("MIS-RANDOMIZATION" "PRODUCT COMPLIANCE" "VIOLATION" "DURATION OF 24 HOUR COLLECTION" "OTHER") and upcas
e(dvsig) = 'MAJOR' then paramcd = "PROTVIOL";
else if upcase(dvcat) = "CONCOMITANT MEDICATION" then paramcd = "CONCMED";
else if upcase(dvcat) = "TIME DEVIATION" then paramcd = "TIMEDEV";
else if upcase(dvcat) = "VISIT WINDOW DEVIATION" then paramcd = "VISWINDV";
else if upcase(dvcat) in ("TIME MISSING") then paramcd = "TIMEMISS";
else if upcase(dvcat) = "ASSESSMENT MISSING" then paramcd = "ASSESMIS";
else if upcase(dvcat) = "VISIT MISSING" then paramcd = "VISMIS";
If paramcd = "PROCVIOL" then param = "Procedure violation";
else if paramcd = "PROTVIOL" then param = "Protocol violation";
else if paramcd = "CONCMED" then param = "Concomitant medication";
else if paramcd = "TIMEDEV" then param = "Time schedule deviation";
else if paramcd = "VISWINDV" then param = "Visit window deviation";
else if paramcd = "TIMEMISS" then param = "Time missing";
else if paramcd = "ASSESMIS" then param = "Assessment missing";
else if paramcd = "VISMIS" then param = "Visit missing";

* values;
if a then avalc = dvterm;

* dates;
if length(dvstdtc) gt 10 then asdtm = input(dvstdtc,e8601dt.);
if not missing(asdtm) then asdt = datepart(asdtm);
else if length(dvstdtc) = 10 then asdt = input(dvstdtc,yyymmdd10.);

if length(dvendtc) gt 10 then aendtm = input(dvendtc,e8601dt.);
if not missing(aendtm) then aendt = datepart(aendtm);
else if length(dvendtc) = 10 then aendt = input(dvendtc,yyymmdd10.);

if dvsig='' then dvsig='';
if evalcat='' then evalcat='';

COHORT="";
keep usubjid dvseq avalc dvdecod dvcat assess DVSCAT COHORT DVREPDTC source resol visit: avisit: dvstdtc asdt:
dvendtc aendt: atpt: param: epoch dvoth dvsig evalcat;
run;

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*****;
* Combine ADSL and DV data *;
*****;
* find number of periods ;
%m_totper;
proc sort data=dv_all;
by usubjid;
run;

data sldv;
merge adsl dv_all(in = a);
by usubjid;
if a; * only include subjects with DV data ;
length asday aenday aperiod trtan trtpn 8 trta trtp $40 aperiodc $10;
if not missing(asdt) and not missing(trtsdt) then asday = asdt - trtsdt + 1;
if not missing(aendt) and not missing(trtsdt) then aenday = aendt - trtsdt + 1;
* allocate period and treatment and full and partial dates;
%m_perall(dvar1 = asdtm, dvar2 = asdt);
if not missing(aperiod) then do;
aperiodc = 'Period ' || put (aperiod,1.);
end;

/* keep &keepvars;*/
run;

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

options replace;

data addv;
set sldv;
label aperiodc = 'Period (C)';
run;

%m_attrib_adam(dset=addv);

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proc sort data = addv out = adam.addv(label= 'Protocol Deviation Analysis Dataset');  
    by usubjid dvstdtc avisitn assess avalc;  
run;
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%m_logchk;
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*=====;  
*  END OF PROGRAM CODE      ;  
*=====;
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