

# *Section 7— SAS Edits*

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E126	7-42
E130	7-42
E131	7-42
E132	7-43
E135	7-43
E136	7-45
E137	7-45
E140	7-46
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E145	7-47
E146	7-47
E150	7-48
E151	7-49
E155	7-50
E156	7-51
E160	7-53
E161	7-53
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E207 .....	7-69
E210 .....	7-69
E211 .....	7-71
E212 .....	7-71
E213 .....	7-72
E217 .....	7-72
E218 .....	7-73
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E220 .....	7-73
E221 .....	7-74
E222 .....	7-74
E223 .....	7-75
E230 .....	7-75
E231 .....	7-75
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E233 .....	7-76
E235 .....	7-77
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E241 .....	7-79
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E243 .....	7-79
E244 .....	7-80
E245 .....	7-80
E250 .....	7-80
E255 .....	7-81
E260 .....	7-81
E261 .....	7-82
E262 .....	7-83
E263 .....	7-84
E264 .....	7-86
E265 .....	7-87
E271 .....	7-92
E280 .....	7-93
E281 .....	7-94
E285 .....	7-94
E286 .....	7-95

E287 .....	7-95
E290 .....	7-96
E291 .....	7-96
E295 .....	7-97
E296 .....	7-97
E297 .....	7-98
E300 .....	7-98
E301 .....	7-98
E302 .....	7-99
E305 .....	7-99
E306 .....	7-100
E310 .....	7-100
E311 .....	7-101
E320 .....	7-101
E330 .....	7-103
E331 .....	7-105
E333 .....	7-105
E334 .....	7-106
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# *Edit Messages*

Please note that the SAS code listed below is current as at 1 June 2002 and untested against live data for the 2002–2003 financial year. Therefore it is foreseeable that some alteration may be necessary when VEMD version 7 goes live.

```
/*XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX*/
```

```
/*          BUSINESS RULE MODULE          */
```

```
/*XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX*/
```

```
/*XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX */
```

```
/*                                                                 */
```

```
/* 2002/2003 VEMD Edits                                          */
```

```
/*                                                                 */
```

```
/* Last Modified: 30/05/2002                                     */
```

```
/*                                                                 */
```

```
/* Information Analysis Unit                                     */
```

```
/*                                                                 */
```

```
/*XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX */
```

```
/*-----*/
```

```
/*  IMPORT LIBRARY FILE                                          */
```

```
/*-----*/
```

```
PROC IMPORT OUT= work.temp  
  DATAFILE= "&ref_drgs.VEMD_lf.xls"  
  DBMS=EXCEL2000 REPLACE;  
  RANGE="vemd_lf$";  
  GETNAMES=YES;  
RUN;
```

```

/*-----*/
/*   MAKE L4 LIBRARY FILE           */
/*-----*/

data ref_drgs.l4;
length start $24. label $100. fmtname $20.;
set work.temp;      /* THIS IS THE REFERENCE FILE */
keep start label fmtname type;
start=trim(ICD_10_AM);
label =   trim(left(ageedit1)) ||'|'||
          trim(left(low1))    ||'|'||
          trim(left(hi1))     ||'|'||
          trim(left(ageedit2))||'|'||
          trim(left(low2))    ||'|'||
          trim(left(hi2))     ||'|'||
          trim(left(sexedit)) ||'|'||
          trim(left('1'))
          ;

fmtname='ccfmd';
type='C';
run;

proc sort data=ref_drgs.l4 nodupkey; by start; run;

/*-----*/
/*   IMPORT NOMI/BODY REGION MATRIX FILE           */
/*-----*/
*libname v8 ref_drgs 'f:\data\vemd_data\2002-2003\edits\refs\drgs\';

PROC IMPORT OUT= /*ref_drgs*/work.matrix
  DATAFILE= "&ref_drgs.matrix.xls"
  DBMS=EXCEL2000 REPLACE;
  RANGE="import$";
  GETNAMES=YES;
RUN;

```

```

/*-----*/
/*   MAKE MATRIX MERGE FILE           */
/*-----*/

data /*ref_drgs*/work.matrix;
set /*ref_drgs*/work.matrix;
length start $9. label $1. fmtname $20.;
keep start label fmtname type;
start=compress(matrix);
label = trim(left(valid));
fmtname='ccmatfm';
type='C';

format start $9.;

run;

/*-----*/
/*   PRELIM FORMATS - LABELS FOR PSTCODE-LOCALITY TESTING   */
/*-----*/
%include "&ref_slas.formats_for_sla_allocation.sas";

proc format cntlin=ref_drgs.l4;  quit; /* ICD-10-AM TEST REF FILE      */
proc format cntlin=/*ref_drgs*/work.matrix; quit; /* INJURY / BODY REGION MATRIX */

```

```
/*-----*/
```

```
/* PRELIM FORMATS - TRIM DATA TO GET RID OF BLANKS */
```

```
/*-----*/
```

```
data editload;
```

```
set load;
```

```
CAMPCODE = compress(CAMPCODE); KEY = compress(KEY); PAT_ID = compress(PAT_ID);
```

```
MEDNUM = compress(MEDNUM); MEDSUF = compress(MEDSUF); DVAID =  
compress(DVAID);
```

```
SEX = compress(SEX); DOB = compress(dob); COUNTRY = compress(COUNTRY);
```

```
ABOR = compress(ABOR); PREFLANG =compress(PREFLANG); LOCALITY = trim(LOCALITY);
```

```
PSTCODE = compress(PSTCODE); ARRTRAN = compress(ARRTRAN); REFERBY =  
compress(REFERBY);
```

```
TRANSOUR = compress(TRANSOUR); TYPEVIS = compress(TYPEVIS); COMPENS =  
compress(COMPENS);
```

```
AMBCASNU = compress(AMBCASNU); ARRDAT = compress(ARRDAT); ARRTIM =  
compress(ARRTIM);
```

```
TRIDAT = compress(TRIDAT); TRITIM = compress(TRITIM); TRICAT = compress(TRICAT);
```

```
NURSDAT = compress(NURSDAT); NURSTIM = compress(NURSTIM); DOCDAT =  
compress(DOCDAT);
```

```
DOCTIM = compress(DOCTIM); PROC = trim(PROC); BEDREQ = compress(BEDREQ);
```

```
BEDREQDT = compress(BEDREQDT);BEDREQTM = compress(BEDREQTM); DEPDAT =  
compress(DEPDAT);
```

```
DEPTIM = compress(DEPTIM); DEPSTAT = compress(DEPSTAT); TRANDEST =  
compress(TRANDEST);
```

```
REFERTO = compress(REFERTO); CARECOM = compress(CARECOM); REASTRAN =  
compress(REASTRAN);
```

```
ESCOSOUR = compress(ESCOSOUR); DEPTRAN = compress(DEPTRAN); DIAG1 =  
compress(DIAG1);
```

```
DIAG2 = compress(DIAG2); DIAG3 = compress(DIAG3); MAININJ = compress(MAININJ);
```

```
BODYREG = compress(BODYREG);DESCRIPT = trim(DESCRIPT); INJCAUSE =  
compress(INJCAUSE);
```

```
HUMINT = compress(HUMINT);PLACEINJ = compress(PLACEINJ); ACTINJ = compress(ACTINJ);
```

```
if ARRTRAN ne '10' then ARRTRAN = compress(ARRTRAN, '0');
```

```
if DEPTRAN ne '10' then DEPTRAN = compress(DEPTRAN, '0');
```

```
if REFERTO ne '10' then REFERTO = compress(REFERTO, '0');
```

```
if REFERBY ne '10' then REFERBY = compress(REFERBY, '0');
```

```
if TYPEVIS ne '10' then TYPEVIS = compress(TYPEVIS, '0');
```

```
if AMBCASNU eq '000000' then AMBCASNU = ' ';
```

```

/*-----*/
/*    PRELIM FORMATS - DATE CONVERSION SECTION    */
/*-----*/

format BIRTHDAT date9. D M 2.0 Y 4.0 ;
  if length(DOB) = 8 then do;
    D = substr(DOB,1,2); M = substr(DOB,3,2); Y = substr(DOB,5,4);
    /* do not estimate if year = '0000' */
    if substr(DOB,1,8) eq '00000000' OR substr(DOB,5,4) eq '0000' then do;
      EST_DOB = 'N';
    end;

    /* otherwise estimate DOB */
    else if substr(DOB,1,4) = '0000' and substr(DOB,5,4) ne '0000' then do;
      EST_DOB = 'Y';
      birthdat = mdy(1,1,y);
    end;

    /* Example DOB = 12120099 or DOB= 12121999 */
    else if substr(DOB,1,4) ne '0000' and substr(DOB,5,2) ne '00' then do;
      EST_DOB = 'N';
      birthdat = mdy(M, D, Y);
    end;

  end;
end;

```

```

/*-----*/
/*    PRELIM FORMATS - OTHER DATE FORMATS    */
/*-----*/
format ARRDATE date9. ;
  if length(ARRDAT) = 8 then do;
    D = substr(ARRDAT,1,2); M = substr(ARRDAT,3,2);
    Y = substr(ARRDAT,5,4);
    Arrdate = mdy(M, D, Y);
  end;

format TRIDATE date9. ;
  if length(TRIDAT) = 8 then do;
    D = substr(TRIDAT,1,2); M = substr(TRIDAT,3,2);
    Y = substr(TRIDAT,5,4);
    TRIDATE = mdy(M, D, Y);
  end;

format NURSDATE date9. ;
  if length(NURSDAT) = 8 then do;
    D = substr(NURSDAT,1,2); M = substr(NURSDAT,3,2);
    Y = substr(NURSDAT,5,4);
    NURSDATE = mdy(M, D, Y);
  end;

format DOCDATE date9. ;
  if length(DOCDAT) = 8 then do;
    D = substr(DOCDAT,1,2); m = substr(DOCDAT,3,2);
    Y = substr(DOCDAT,5,4);
    DOCDATE = mdy(M, D, Y);
  end;

format DEPDATE date9. ;
  if length(DEPDAT) = 8 then do;
    D = substr(DEPDAT,1,2); M = substr(DEPDAT,3,2);
    Y = substr(DEPDAT,5,4);
    DEPDATE = mdy(M, D, Y);
  end;

format BR_DATE date9. ;
  if length(BEDREQDT) = 8 then do;
    D = substr(BEDREQDT,1,2); M = substr(BEDREQDT,3,2);
    Y = substr(BEDREQDT,5,4);
    BR_DATE = mdy(M, D, Y);
  end;

```

```

/*-----*/
/*   PRELIM FORMATS - OTHER TIME FORMATS   */
/*-----*/

```

```

format ARRTIME hhmm5. HRS MIN 2.0 ;
  if length(ARRTIM)=4 then do;
    HRS = substr(ARRTIM,1,2);
    MIN = substr(ARRTIM,3,2);
    ARRTIME = hms(HRS, MIN, 0);
  end;

```

```

format tritime hhmm5. hrs min 2.0 ;
  if length(tritim)=4 then do;
    hrs = substr(tritim,1,2);
    min = substr(tritim,3,2);
    tritime = hms(hrs, min, 0);
  end;

```

```

format NURSTIME hhmm5. HRS MIN 2.0 ;
  if length(NURSTIM)=4 then do;
    HRS = substr(NURSTIM,1,2);
    MIN = substr(NURSTIM,3,2);
    NURSTIME = hms(HRS, MIN, 0);
  end;

```

```

format DOCTIME hhmm5. HRS MIN 2.0 ;
  if length(DOCTIM)=4 then do;
    HRS = substr(DOCTIM,1,2);
    MIN = substr(DOCTIM,3,2);
    DOCTIME = hms(HRS, MIN, 0);
  end;

```

```

format DEPTIME hhmm5. HRS MIN 2.0 ;
  if length(DEPTIM)=4 then do;
    HRS = substr(DEPTIM,1,2);
    MIN = substr(DEPTIM,3,2);
    DEPTIME = hms(HRS, MIN, 0);
  end;

```

```

format BR_TIME hhmm5. HRS MIN 2.0 ;
  if length(BEDREQTM)=4 then do;
    HRS = substr(BEDREQTM,1,2);

```

```
MIN = substr(BEDREQTM,3,2);
BR_TIME = hms(HRS, MIN, 0);
end;
```

```
format BD_DT ARR_DT DEP_DT DATETIME.;
```

```
format DUP_BKEY $1.;
format DUP_KEY $1.;
```

```
DUP_BKEY = 'N';
DUP_KEY = 'N';
```

```
ARR_DT = ARRDATE*86400 + ARRTIME ;
DEP_DT = DEPDATE*86400 + DEPTIME ;
BD_DT = BR_DATE*86400 + BR_TIME;
```

```
/*-----*/
/* PRELIM FORMATS - CALCULATE AGE IN YEARS & MONTHS */
/*-----*/
```

```
AGEYEAR = intck('year',BIRTHDAT,ARRDATE);
AGEMONTH = intck('month',BIRTHDAT,ARRDATE);
```

```
run;
```

```
/*-----*/
/* PRELIM FORMATS - MAIN DATA STEPS */
/*-----*/
```

```
proc sort data=editload;
  by CAMPCODE PAT_ID KEY;
run;
```

```
data dupload;
set editload ;
```

```
format CAMPKEY $23.;
```

```
/*-----*/  
/*    PRELIM FORMATS - SET UP ARRAY FOR ERROR MESSAGES    */  
/*-----*/
```

```
array mess{60} $55. ;
```

```
CAMPKEY = compress(CAMPCODE) || compress(PAT_ID) || compress(KEY);
```

```
/* E025 Bits */
```

```
if CAMPKEY = lag(CAMPKEY) then do;
```

```
    E025 = 'Y';
```

```
end;
```

```
run;
```

```
data dupft;
```

```
set dupload;
```

```
type   = 'C';
```

```
fmtname = 'dupft';
```

```
label   = E025;
```

```
start   = CAMPKEY;
```

```
keep start type fmtname label;
```

```
run;
```

```
proc format cntlin=dupft; quit;
```

```
data proc;
```

```
set editload;
```

```
where PROC contains('{{') or PROC contains(' {');
```

```
E207 = 'Y';
```

```
CAMPKEY = compress(CAMPCODE) || compress(PAT_ID) || compress(KEY);
```

```
run;
```

```
data procf;
```

```
set proc;
```

```

type = 'C';
fmtname = 'procft';
label = E207;
start = CAMPKEY;
keep start type fmtname label;

proc format cntlin=procft;
quit;

proc sql;

create table dupkeys as
select key, count(*)
from editload
group by key
having count(*) > 1;

update editload
set dup_key = 'Y'
where key in (select key from dupkeys);

quit;

data vemd.P&CAMPCODE.&VERSION.&NUMMONTH. (compress=yes)
  rejects.R&CAMPCODE.&VERSION.&NUMMONTH. (compress=yes)
  rejects.W&CAMPCODE.&VERSION.&NUMMONTH. (compress=yes)
  perfect;

set editload;
array mess{70} $55. ;
array control{10} $200. ;
format fail warn 8.0;
format baddva $1.;
baddva = 'N';

format row_number 4.0;
row_number = _n_;

fail = 0;
warn = 0;
msg = 0;
contcnt = 0;

```

ok=0;

/\*-----\*/

/\*            *MAIN EDITS*            \*/

/\*-----\*/

/\*-----\*/

/\*                                    E001\*/

/\*-----\*/

/\* Notify hospital of invalid submission file naming via  
email \*/

/\*-----\*/

/\*                                    E003 \*/

/\*-----\*/

/\* Use DLL with validation procedure to check entire  
input file ? \*/

/\*-----\*/

/\*                                    E005 \*/

/\*-----\*/

/\* Notify hospital of low record count via  
email \*/

```
/*-----*/  
/*                E012 */  
/*-----*/
```

```
/* Notify hospital of low record count via  
email */
```

```
/*-----*/  
/*                E006 */  
/*-----*/
```

```
/* Use DLL with validation procedure to check entire  
input file ? */
```

```
/*-----*/  
/*                E007 */  
/*-----*/
```

```
/* Use DLL with validation procedure to check entire  
input file ? */
```

```

/*-----*/
/*                E010 */
/*-----*/

```

```

if CAMPCODE NOT IN ('1160','1170','1191','1230','1240',
'1320','1010','1031','1050','2111','1180','1390','1210',
'1280','1331','1450','1460','2010','1020','2050','4110',
'1121','1150','2160','2170','2180','2220','2440','1590',
'2320','1250','2111','2112','1360') then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE010';
end;

```

```

/*-----*/
/*                E030 */
/*-----*/

```

```

CAMPKEY = compress(CAMPCODE) || compress(PAT_ID) || compress(KEY);

```

```

DUP = put(CAMPKEY,dupft.);

```

```

if DUP = 'Y' then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE025'; /* old edit of RE025 for duplicate records */
end;
/* May still be needed for warehouse loading*/

```

```

KEY_id = compress(CAMPCODE) || compress(KEY);
/*DUP_KEY = put(KEY_id, keyft.);*/

```

```

if DUP_KEY = 'Y' then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE030'; /* New edit for 2002-2003 */
end;

```

```

drop DUP_KEY DUP_BKEY ;

```

```

/*-----*/
/*          E025 */
/*-----*/

/*-----*/
/* This section is used to test overlapping arrival and
/* departure date-time          */
/*-----*/

format CAMP_id $14. lag_dep DATETIME. lag_arr DATETIME.;

CAMP_id = compress(CAMP_CODE) || compress(pat_id);

/* E025 Bits */
lagid=lag(CAMP_id);
lag_arr = lag(arr_dt);
lag_dep=lag(dep_dt);
if CAMP_id = lagid then do;

            if (arr_dt <= lag_dep) and (dep_dt >= lag_arr) then do;
                fail = fail + 1;
                msg = msg + 1;
                mess{msg} = 'RE025';

            end;

end;

drop CAMP_id lagid lag_dep lag_arr CAMPKEY KEY_id lag_key;

/*****/

if CAMP_CODE eq '' then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE050';
end;

```

```
/*-----*/  
/*                E051 */  
/*-----*/
```

```
if CAMPCODE NOT IN ('1160','1170','1191','1230','1240',  
'1320','1010','1031','1050','2111','1180','1390','1210',  
'1280','1331','1450','1460','2010','1020','2050','4110',  
'1121','1150','2160','2170','2180','2220','2440','1590',  
'2320','1250','2111','2112', '1360') then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE051';  
end;
```

```
/*-----*/  
/*                E052 */  
/*-----*/
```

```
if &CAMPCODE. ne '0000' then do;  
    if &CAMPCODE. ne CAMPCODE then do;  
        fail = fail + 1;  
        msg = msg + 1;  
        mess{msg} = 'RE052';  
    end;  
end;
```

```
/*-----*/  
/*                E060 */  
/*-----*/
```

```
if KEY eq '' then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE060';  
end;
```

```
/*-----*/  
/*                E061 */  
/*-----*/
```

```
if length(KEY)>9  
OR verify(KEY,'1234567890 ') ne 0 then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE061';  
end;
```

```
/*-----*/  
/*                E065 */  
/*-----*/
```

```
if PAT_ID eq '' then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE065';  
end;
```

```
/*-----*/  
/*                E066 */  
/*-----*/
```

```
PAT_ID=(left(PAT_ID));
```

```
if length(PAT_ID)>10 OR  
verify(uppercase(PAT_ID),'1234567890ABCDEFGHIJKLMNOPQRSTUVWXYZ ')  
ne 0 then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE066';  
end;
```

```
/*-----*/  
/*                E078 */  
/*-----*/
```

```
if COMPENS eq '2' then do;  
  if substr(DVAID,1,1) not in ('Q','N','V','T','S','W') then  
    baddva = 'Y';  
  /*if verify(ucase(substr(DVAID,2,8)),  
  '1234567890ABCDEFGHIJKLMNOPQRSTUVWXYZ ') ne 0 then  
    baddva = 'Y';  
  if verify(ucase(substr(DVAID,2,8)),  
  '1234567890ABCDEFGHIJKLMNOPQRSTUVWXYZ ') ne 0 then  
    baddva = 'Y';*/  
end;
```

```
if baddva = 'Y' then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE078';  
end;
```

```
/*-----*/  
/*                E079 */  
/*-----*/
```

```
if COMPENS eq '2' then do;  
  if DVAID eq '' then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE079';  
  end;  
end;
```

```
if DVAID ne '' then do;  
  if COMPENS ne '2' then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE079';  
  end;  
end;
```

```

/*-----*/
/*                E080 */
/*-----*/

```

```

if MEDNUM eq '' then do;
  warn = warn + 1;
  msg = msg + 1;
  mess{msg} = 'WE080';
end;

```

```

/*-----*/
/*                E081 */
/*-----*/

```

```

/* This section checks medical number = non blank and its check digit */
format checkdg 1.0;

```

```

if MEDNUM ne '' then do;
  if length(MEDNUM) ne 11
  OR verify(MEDNUM,'1234567890 ') ne 0 then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE081';
  end;
end;

```

```

/*      This section checks for its check digit - 9TH DIGIT of medicare number      */

```

```

checkdg = MOD((substr(MEDNUM,1,1) * 1) + (substr(MEDNUM,2,1) * 3) +
  (substr(MEDNUM,3,1) * 7) + (substr(MEDNUM,4,1) * 9) + (substr(MEDNUM,5,1) * 1) +
  (substr(MEDNUM,6,1) * 3) + (substr(MEDNUM,7,1) * 7) + (substr(MEDNUM,8,1) * 9), 10);

```

```

  if      substr(MEDNUM,9,1) ne checkdg      then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE081';
  end;
end;

```

```

drop checkdg;

```

```
/*-----*/  
/*                E086 */  
/*-----*/
```

```
if (substr(MEDNUM,11,1) = 0)  
and (intck('month',BIRTHDAT,ARRDATE) > 12) then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE086';  
end;
```

```
/*-----*/  
/*                E087 */  
/*-----*/
```

```
if MEDSUF eq '' then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE087';  
end;
```

```

/*-----*/
/*                E088 */
/*-----*/

```

```

if substr(MEDSUF,1,1) not in ('A','B','C','D','E','F','G',
    'H','I','J','K','L','M','N',
    'O','P','Q','R','S','T','U',
    'V','W','X','Y','Z') then do;
    warn = warn + 1;
    msg = msg + 1;
    mess{msg} = 'RE088';
end;

```

```

else if (substr(MEDSUF,2,1) not in ('A','B','C','D','E','F','G',
    'H','I','J','K','L','M','N',
    'O','P','Q','R','S','T','U',
    'V','W','X','Y','Z',' ','-',''))

```

```

and (substr(MEDSUF,3,1) not in ('A','B','C','D','E','F','G',
    'H','I','J','K','L','M','N',
    'O','P','Q','R','S','T','U',
    'V','W','X','Y','Z',' ','-','')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE088';

```

```

end;

```

```

/* This section test combinations for 2nd and 3rd position of medsuf */

```

```

else if (substr(medsuf,2,1) eq '-') and (substr(medsuf,3,1) eq '') then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE088';
end;

```

```

else if (substr(medsuf,2,1) eq '') and (substr(medsuf,3,1) eq '') then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE088';
end;

```

```

else if (substr(medsuf,2,1) eq '-') and (substr(medsuf,3,1) eq '-') then do;
    fail = fail + 1;

```

```

    msg = msg + 1;
    mess{msg} = 'RE088';
end;

else if (substr(medsuf,2,1) eq '') and (substr(medsuf,3,1) eq '-') then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE088';
end;

```

```

/*-----*/
/*                E089 */
/*-----*/

```

```

if (substr(MEDNUM,11,1) = 0)
and (intck('month',BIRTHDAT,ARRDATE) > 6) then do;
    warn = warn + 1;
    msg = msg + 1;
    mess{msg} = 'WE089';
end;

```

```

/*-----*/
/*                E090 */
/*-----*/

```

```

if SEX eq '' then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE090';
end;

```

```
/*-----*/  
/*                E091 */  
/*-----*/
```

if SEX not in ('1','2','3') then do;

```
fail = fail + 1;  
msg = msg + 1;  
mess{msg} = 'RE091';
```

end;

```
/*-----*/  
/*                E092 */  
/*-----*/
```

if SEX eq '3' and (ARRDATE-BIRTHDAT) > 90 then do;

```
fail = fail + 1;  
msg = msg + 1;  
mess{msg} = 'RE092';
```

end;

```
/*-----*/  
/*                E093 */  
/*-----*/
```

if SEX eq '3' and (ARRDATE-BIRTHDAT) <= 90 then do;

```
warn = warn + 1;  
msg = msg + 1;  
mess{msg} = 'WE093';
```

end;

```

/*-----*/
/*                E095 */
/*-----*/

```

```

if DOB eq '' then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE095';
end;

```

```

/*-----*/
/*                E096 */
/*-----*/

```

```

if verify (DOB,'1234567890 ')ne 0 then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE096';
end;

```

```

if BIRTHDAT eq . then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE096';
end;

```

```

/* do not estimate if year ='0000' or DOB = '00000000' */
if substr(DOB,1,8) eq '00000000' OR substr(DOB,5,4) eq '0000' then do;
    EST_DOB = 'N';
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE096';
end;

```

```

/*if DOB=12120099*/
else if substr(DOB,1,4) ne '0000' and substr(DOB,5,2) eq '00' then do;
    EST_DOB = 'N';
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE096';
end;

```

```

/* TEST OTHER COMBINATIONS -- DOB= 00121945 */
else if substr(DOB,1,2) eq '00' AND substr(DOB,3,2) ne '00' then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE096';
end;
/* DOB = 22001968*/
else if substr(DOB,3,2) eq '00' AND substr(DOB,1,2) ne '00' then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE096';
end;

/* for DOB - CHECKS ON MM, DD AND YYYY */
/* This section validates DD */
if substr(DOB,1,1) not in ('0','1','2','3') then do;
fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE096';
end;

else if substr(DOB,2,1) not in ('0','1','2','3','4','5','6','7','8','9') then do;
fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE096';
end;

/* FOR DD = 30, 31 */
else if ((substr(DOB,1,1) eq '3') AND (substr(DOB,2,1) not in ('0','1')))
then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE096';
end;

/* This section validates MM */
else if (substr(DOB,3,1) not in ('0','1')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE096';
end;
else if (substr(DOB,4,1) not in ('0','1','2','3','4','5','6','7','8','9')) then do;

```

```

        fail = fail + 1;
    msg = msg + 1;
        mess{msg} = 'RE096';
end;

/* FOR MM=10,11,12 */
else if (substr(DOB,3,1) eq '1') AND (substr(DOB,4,1) not in ('0','1','2')) then do;
        fail = fail + 1;
    msg = msg + 1;
        mess{msg} = 'RE096';
end;

/* for MM=02, DD must be <= 29 -- for February month*/
else if ((substr(DOB,3,1) eq '0') AND (substr(DOB,4,1) eq '2')) then do;
    if (substr(DOB,1,1) gt '2') then do;
        fail = fail + 1;
    msg = msg + 1;
        mess{msg} = 'RE096';
    end;
end;

/* This section validates YYYY */
else if substr(DOB,5,1) not in ('1','2') then do;
        fail = fail + 1;
    msg = msg + 1;
        mess{msg} = 'RE096';
end;

else if substr(DOB,6,1) not in ('0','1','2','3','4','5','6','7','8','9','0') then do;
        fail = fail + 1;
    msg = msg + 1;
        mess{msg} = 'RE096';
end;

else if substr(DOB,7,1) not in ('0','1','2','3','4','5','6','7','8','9') then do;
        fail = fail + 1;
    msg = msg + 1;
        mess{msg} = 'RE096';
end;

else if substr(DOB,8,1) not in ('0','1','2','3','4','5','6','7','8','9') then do;
        fail = fail + 1;
    msg = msg + 1;

```

```

        mess{msg} = 'RE096';
    end;
    /* yyyy=2002, 2003*/
else if (substr(DOB,5,1) eq '2') then do;
    if (substr(DOB,6,1) ne '0') OR (substr(DOB,7,1) ne '0') OR
        (substr(DOB,8,1) not in ('0','1','2')) then do;
        fail = fail + 1;
        msg = msg + 1;
        mess{msg} = 'RE096';
    end;
end;

    /* Allow DOB back to 1880's, for 120 yrs old */

else if (substr(DOB,5,1) eq '1') AND (substr(DOB,6,1) eq '8')
    then do;
    if (substr(DOB,7,1) lt '8') then do;
        fail = fail + 1;
        msg = msg + 1;
        mess{msg} = 'RE096';
    end;
end;

else if (substr(DOB,5,1) eq '1') AND (substr(DOB,6,1) NOT IN ('8', '9')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE096';
end;

```

```

/*-----*/
/*                E097 */
/*-----*/
/* check if > 120 years old*/

```

```

if ARRDAT < BIRTHDAT then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE097';
end;

```

```
/*-----*/  
/*                E098 */  
/*-----*/
```

```
if AGEYEAR >= 120 OR year(BIRTHDAT) lt 1882  
or year(BIRTHDAT) gt 2003 then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE098';  
end;
```

```
/*-----*/  
/*                E100 */  
/*-----*/
```

```
if COUNTRY eq '' then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE100';  
end;
```

```
/*-----*/  
/*                E101 */  
/*-----*/
```

```
if COUNTRY not in (  
'0000','0001','0002','0003','1000','1100','1101','1102','1103',  
'1104','1105','1106','1107','1108','1109','1200','1203','1299',  
'1301','1400','1401','1402','1403','1404','1500','1501','1502',  
'1503','1504','1505','1506','1507','1600','1601','1602','1603',  
'1604','1605','1606','1607','1608','1609','1610','1699','1700',  
'1701','1702','1703','1704','1705','1706','1707','2000','2100',  
'2101','2102','2103','2104','2105','2106','2107','2200','2201',  
'2202','2203','2204','2205','2206','2207','2208','2209','2210',  
'2211','2221','2222','2223','2226','2233','2300','2301','2220',  
'2302','2303','2305','2306','2307','2308','2309','2310','2400',  
'2401','2402','2403','2404','2405','2406','2407','2500','2501',  
'2503','2504','2505','2506','2507','2600','2601','2602','2603',  
'2604','2605','2606','2607','2608','2609','2610','2611','2612',  
'2613','2614','2615','3000','3100','3101','3102','3103','3104',  
'3105','3106','3107','3108','3109','3110','3111','3112','3113',  
'3114','3115','3116','3200','3201','3202','3203','3204','3205',  
'3206','3207','3208','3209','3299','4100','4101','4102','4103',  
'4104','4105','4106','4107','4108','4109','4110','4111','5100','5101',  
'5102','5103','5104','5105','5106','5107','5108','6100','6101',  
'6102','6103','6104','6105','6106','6107','6108','7100','7101',  
'7102','7103','7104','8000','8100','8101','8102','8103','8104',  
'8105','8106','8107','8108','8109','8110','8111','8112','8113',  
'8114','8200','8201','8202','8203','8204','8205','8206','8207',  
'8208','8300','8301','8302','8303','8304','8305','8306','8307',  
'8308','8309','8310','8311','8312','8313','8314','8315','8316',  
'8317','8318','8319','8320','8321','8322','8323','8324','9000',  
'9100','9101','9102','9103','9104','9105','9106','9107','9108',  
'9109','9110','9111','9112','9113','9114','9115','9116','9117',  
'9118','9119','9120','9121','9122','9200','9201','9202','9203',  
'9204','9205','9207','9208','9209','9210','9211','9212','9213',  
'9214','9215','9216','9217','9218','9219','9220','9221','9222',  
'9223','9224','9225','9226','9227'  
) then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE101';  
end;
```

```
/*-----*/  
/*          E102 */  
/*-----*/
```

```
if COUNTRY IN ('0001','0002','1700','1701',  
              '1702','1703','1704','1705',  
              '1706','1707','2206') then do;  
  warn = warn + 1;  
  msg = msg + 1;  
  mess{msg} = 'WE102';  
end;
```

```
/*-----*/  
/*          E103 */  
/*-----*/
```

```
COB = substr(COUNTRY,1,2);
```

```
if ARRDAT eq BIRTHDAT  
and COB not in ('11','12') then do;  
  warn = warn + 1;  
  msg = msg + 1;  
  mess{msg} = 'WE103';  
end;
```

```
/*-----*/  
/*          E105 */  
/*-----*/
```

```
if ABOR eq '' then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE105';  
end;
```

```
/*-----*/  
/*                E106 */  
/*-----*/
```

```
if ABOR not in ('2', '5', '6', '7') then do;
```

```
    fail = fail + 1;
```

```
    msg = msg + 1;
```

```
    mess{msg} = 'RE106';
```

```
end;
```

```
/*-----*/  
/*                E107 */  
/*-----*/
```

```
if ABOR in ('5','6','7')
```

```
and COB not in ('11','12') then do;
```

```
    warn = warn + 1;
```

```
    msg = msg + 1;
```

```
    mess{msg} = 'WE107';
```

```
end;
```

```
/*-----*/  
/*                E110 */  
/*-----*/
```

```
if PREFLANG eq '' then do;
```

```
    fail = fail + 1;
```

```
    msg = msg + 1;
```

```
    mess{msg} = 'RE110';
```

```
end;
```

```

/*-----*/
/*          E111 */
/*-----*/

```

```

if PREFLANG not in ('00','01','02','03','04','05','06','07',
    '08','09','10','11','12','13','14','15',
    '16','17','18','19','20','21','22','23',
    '24','25','26','27','28','29','30','31',
    '32','33','34','35','36','37','38','39',
    '40','41','42','43','44','45','46','47',
    '48','49','50','51','52','53','54','55',
    '56','57','58','59','60','61','62','63',
    '64','65','66','67','68','69','70','71',
    '72','73','74','75','76','77','78','79',
    '80','81','82','83','84','85','86','95',
    '96','97','98') then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE111';
end;

```

```

/*-----*/
/*  INCLUDE Postcode/Locality/SLA Reference Inits      */
/*-----*/

```

```

/* START OF POSTCODE LOCALITY EDITS */

```

```

format
    sla_1 sla_2 sla_3 sla_4 sla_5 $5.
    pw_1 pw_2 pw_3 pw_4 pw_5 8.
    loc_ok pst_ok psloc_ok $1.
    PST_LOC $26.
;

```

```

l_label=put(LOCALITY,loc00fma.);
loc_ok = scan(l_label,1);

```

```

p_label=put(PSTCODE,pc00fma.);
pst_ok = scan(p_label,1);

```

```

if substr(PSTCODE,1,1) ne '3'
and PSTCODE not in ('1000','8888','9988') then do;
  int_loc = PSTCODE || substr(LOCALITY,1,3);
  i_label=put(int_loc,sla00fma.);
  int_ok = scan(i_label,1);
end;

if pst_ok = '1' and loc_ok = '1' then do;
  PST_LOC=trim(PSTCODE) || trim(LOCALITY);

g_label=put(PST_LOC,sla00fma.);
psloc_ok = scan(g_label,1,',');

sla_1 = scan(g_label,2,',');
pw_1 = scan(g_label,3,',');
sla_2 = scan(g_label,4,',');
pw_2 = scan(g_label,5,',');
sla_3 = scan(g_label,6,',');
pw_3 = scan(g_label,7,',');
sla_4 = scan(g_label,8,',');
pw_4 = scan(g_label,9,',');
sla_5 = scan(g_label,10,',');
pw_5 = scan(g_label,11);

end;

```

```
/*-----*/  
/*          E115 */  
/*-----*/
```

```
if LOCALITY eq '' then do;  
  if PSTCODE not in ('1000','8888','9988') then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE115';  
  end;  
end;
```

```
else if LOCALITY ne '' then do;  
  if PSTCODE in ('1000','9988') then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE115';  
  end;
```

```
else if PSTCODE ne '8888' then do;  
  if loc_ok ne '1' then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE115';  
  end;  
end;  
end;
```

```
/*-----*/  
/*          E116 */  
/*-----*/
```

```
if LOCALITY ne '' and PSTCODE ne '8888' then do;
```

```
if verify(upcase(LOCALITY),"1234567890ABCDEFGHIJKLMN  
OPQRSTUVWXYZ!.- ")  
ne 0 or length(LOCALITY) >22 then do;
```

```
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE116';  
end;
```

```
end;
```

```
/*-----*/  
/*                E120 */  
/*-----*/
```

```
if (PSTCODE) eq '' then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE120';  
end;
```

```
/*-----*/  
/*                E121 */  
/*-----*/
```

```
if pst_ok ne '1' then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE121';  
end;
```

```
/*-----*/  
/*                E122 */  
/*-----*/
```

```
if PSTCODE not in ('1000','8888','9988') then do;  
  if psloc_ok ne '1' then do;  
    if int_ok ne '1' then do;  
      fail = fail + 1;  
      msg = msg + 1;  
      mess{msg} = 'RE122';  
    end;  
  end;  
end;  
end;
```

```
/*-----*/
/*      SLA ASSIGNMENT HERE          */
/*-----*/
```

```
if psloc_ok = '1' then do;
```

```
    t1 =   pw_1;
    t2 = t1 + pw_2;
    t3 = t2 + pw_3;
    t4 = t3 + pw_4;
    t5 = t4 + pw_5;
```

```
    pw = 100 * ranuni(4);
```

```
        if 0 <= pw <= t1 then SLA98 = sla_1;
    else if t1 < pw <= t2 then SLA98 = sla_2;
    else if t2 < pw <= t3 then SLA98 = sla_3;
    else if t3 < pw <= t4 then SLA98 = sla_4;
    else if t4 < pw <= 100 then SLA98 = sla_5;
    else SLA98='error';
```

```
end;
```

```
/*-----*/
/*                      E125 */
/*-----*/
```

```
if ARRTRAN eq '' then do;
```

```
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE125';
end;
```

```
/*-----*/  
/*                E126 */  
/*-----*/
```

```
if ARRTRAN not in ('1','2','3','4','6','7',  
                  '8','9','10','11','18','19') then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE126';  
end;
```

```
/*-----*/  
/*                E130 */  
/*-----*/
```

```
if REFERBY eq '' then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE130';  
end;
```

```
/*-----*/  
/*                E131 */  
/*-----*/
```

```
if REFERBY not in ('1', '2', '3', '4', '5', '6',  
                  '7', '8', '9', '10', '11', '12', '19') then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE131';  
end;
```

```
/*-----*/  
/*          E132 */  
/*-----*/
```

```
if REFERBY eq '5' then do;  
  if TYPEVIS not in ('2','4') then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess[msg] = 'RE132';  
  end;  
end;
```

```
/*-----*/  
/*          E135 */  
/*-----*/
```

```
if REFERBY eq '6' then do;  
  if TRANSOUR in (  
  
    '1010','1020','1020','1031','1031','1032','1040','1050',  
    '1060','1071','1072','1090','1101','1102','1121','1122',  
    '1123','1130','1140','1150','1160','1170','1180','1191',  
    '1192','1210','1220','1230','1240','1250','1260','1270',  
    '1280','1290','1320','1331','1331','1332','1340','1352',  
    '1360','1370','1390','1440','1450','1460','1480','1491',  
    '1492','1500','1550','1560','1571','1572','1580','1590',  
    '1660','1670','1700','1770','1780','1820','1881','1882',  
    '1883','1900','2010','2020','2030','2040','2050','2060',  
    '2070','2080','2090','2100','2120','2130','2140',  
    '2150','2160','2170','2180','2190','2210','2220','2230',  
    '2240','2251','2252','2260','2350','2360','2371','2372',  
    '2373','2374','2390','2440','2450','2460','2480','2550',  
    '2580','2590','2660','2670','2970','3010','3020','3030',  
    '3040','3050','3060','3080','3110','3120','3130','3140',  
    '3180','3190','3220','3240','3330','3350','3370','3460',  
    '3590','4010','4020','4050','4080','4120','4130','4161','4162',  
    '4240','4460','5010','5050','5110','5120','2320','1351',  
    '2111','2112','1550','1060')  
    then ok=1;
```

```

else if TRANSOUR in
(
'6020','6030','6040','6070','6080','6100',
'6140','6150','6160','6170','6200','6210',
'6220','6230','6280','6291','6292','6300','6310',
'6320','6330','6350','6400','6410','6420','6450','6460',
'6470','6470','6490','6500','6510','6520','6530','6540',
'6550','6570','6580','6590','6600','6610','6620','6630',
'6640','6650','6670','6680','6690','6710','6730',
'6750','6760','6770','6780','6790','6800','6810',
'6830','6840','6850','6860','6870','6880','6890','6900',
'6910','6920','6930','6950','6960','6970','6980','6990',
'7030','7070','7090','7110','7180','7210','7220','7270',
'7290','7400','7420','7470','7550','7630','7710',
'7720','7730','7740','7750','7760','7770','7780','7790',
'7810','7820','7840','7850','7860','7870','7880','7910',
'7920','7930','7960','7970','7980','8070','8090',
'8210','8270','8550','8720','8810','8840','8850',
'8890','8980','7280','6240','6250','6430','7040',
      '7160','7172','7171','7260','7310','7490','8050','8140',
      '8330','8340','8870','7370','7390','7350'
)
then ok=1;

```

```

else if TRANSOUR in
(
'9007','9017','9027','9037','9057','9067','9097','9107',
'9117','9127','9137','9157','9167','9197','9207','9217',
'9227','9237','9257','9267','9297','9307','9317','9327',
'9337','9357','9367','9397','9407','9417','9427','9437',
'9457','9467','9497','9507','9517','9527','9537','9557',
'9567','9597','9607','9617','9627','9637','9657','9667',
'9697','9707','9717','9727','9737','9757','9767','9797',
'9807','9817','9827','9837','9857','9867','9897','9697'
)
then ok=1;

```

```

else if TRANSOUR eq '9999' then do;
  warn = warn + 1;
  msg = msg + 1;
  mess{msg} = 'WE135';
  ok=1;

```

```

end;

if ok ne 1 then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE135';
end;
end;

```

```

/*-----*/
/*          E136 */
/*-----*/

```

```

if REFERBY eq '6' and TRANSOUR eq '' then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE136';
end;

```

```

else if REFERBY in ('1','2','3','4','5','7','8','9','10','11')
and TRANSOUR ne '' then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE136';
end;

```

```

/*-----*/
/*          E137 */
/*-----*/

```

```

if TRANSOUR = CAMPCODE then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE137';
end;

```

```
/*-----*/  
/*                E140 */  
/*-----*/
```

```
if TYPEVIS eq '' then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE140';  
end;
```

```
/*-----*/  
/*                E141 */  
/*-----*/
```

```
if TYPEVIS in ('1','2','3','4','5','8','9','10') then do;  
  ok=0;  
end;  
else do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE141';  
end;
```

```
/*-----*/  
/*                E142 */  
/*-----*/
```

```
if TYPEVIS eq '10' then do;  
  if TRICAT eq '6'  
  and DEPSTAT eq '8'  
  and REFERTO eq '19' then do;  
    ok=1;  
  end;  
else do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE142';  
end;  
end;
```

```
/*-----*/  
/*                E145 */  
/*-----*/
```

```
if (COMPENS) eq '' then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE145';  
end;
```

```
/*-----*/  
/*                E146 */  
/*-----*/
```

```
if COMPENS not in ('1','2','3','4','5','6','7') then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE146';  
end;
```

```
/*-----*/  
/*          E150 */  
/*-----*/
```

```
if length(AMBCASNU) gt 1 then do;  
  if verify(upcase(AMBCASNU),  
    "1234567890ABCDEFGHIJKLMNQPQRSTUVWXYZ'.- ")  
  ne 0 or length(AMBCASNU)>6 then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE150';  
  end;  
  
  else do;  
    if verify(upcase(AMBCASNU),  
    "1234567890ACDEFGHIJKLMNQPQRSTUVWXYZ'.- ")  
    ne 0 or length(AMBCASNU)>6 then do;  
      fail = fail + 1;  
      msg = msg + 1;  
      mess{msg} = 'RE150';  
    end;  
  end;  
end;
```

```

/*-----*/
/*          E151 */
/*-----*/

```

```

if AMBCASNU in ('0','00','000','0000','00000','000000') then do;

```

```

    fail = fail + 1;

```

```

    msg = msg + 1;

```

```

    mess{msg} = 'RE151';

```

```

end;

```

```

if ARRTRAN in ('6','7','8','9','11','19') then do;

```

```

    if AMBCASNU ne ' ' then do;

```

```

        fail = fail + 1;

```

```

        msg = msg + 1;

```

```

        mess{msg} = 'RE151';

```

```

    end;

```

```

end;

```

```

else if ARRTRAN in ('1','2') then do;

```

```

    if verify(compress(AMBCASNU),

```

```

        "1234567890") ne 0 then do;

```

```

        if AMBCASNU not in ('B','U',' ') then do;

```

```

            fail = fail + 1;

```

```

            msg = msg + 1;

```

```

            mess{msg} = 'RE151';

```

```

        end;

```

```

    end;

```

```

        if AMBCASNU gt 999999 then do;

```

```

            fail = fail + 1;

```

```

            msg = msg + 1;

```

```

        mess{msg} = 'RE151';

```

```

        end;

```

```

end;

```

```

else if ARRTRAN in ('3','4','10') then do;

```

```

    if verify(compress(AMBCASNU),

```

```

        "1234567890") ne 0 then do;

```

```

        if AMBCASNU not in ('B','U',' ') then do;

```

```

            fail = fail + 1;

```

```

            msg = msg + 1;

```

```

            mess{msg} = 'RE151';

```

```

        end;

```

```
end;

if AMBCASNU not in ('B','U',' ') then do;
    if AMBCASNU gt 9999 then do;
        fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE151';
    end;
end;
end;
```

```
/*-----*/
/*          E155 */
/*-----*/
```

```
if ARRDATE = . then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE155';
end;
```

```

/*-----*/
/*          E156 */
/*-----*/

```

```

if length(ARRDAT) ne 8 then do;

```

```

    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE156';

```

```

end;

```

```

/* This section validates DD */

```

```

if (substr(ARRDAT,1,1) not in ('0','1','2','3')) then do;

```

```

    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE156';

```

```

end;

```

```

else if (substr(ARRDAT,2,1) not in ('0','1','2','3','4','5','6','7','8','9')) then do;

```

```

    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE156';

```

```

end;

```

```

/* FOR DD = 30, 31 */

```

```

else if ((substr(ARRDAT,1,1) eq '3') AND (substr(ARRDAT,2,1) not in ('0','1')))
then do;

```

```

    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE156';

```

```

end;

```

```

/* FOR DD NOT = 00 */

```

```

else if ((substr(ARRDAT,1,1) eq '0') AND (substr(ARRDAT,2,1) eq '0')) then do;

```

```

    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE156';

```

```

end;

```

```

/* This section validates MM */

```

```

else if (substr(ARRDAT,3,1) not in ('0','1')) then do;

```

```

    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE156';

```

```

end;
else if (substr(ARRDAT,4,1) not in ('0','1','2','3','4','5','6','7','8','9')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE156';
end;

/* FOR MM=10,11,12 */
else if (substr(ARRDAT,3,1) eq '1') AND (substr(ARRDAT,4,1) not in ('0','1','2')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE156';
end;
/* FOR MM NOT EQ OO */
else if ((substr(ARRDAT,3,1) eq '0') AND (substr(ARRDAT,4,1) eq '0')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE156';
end;
/* for MM EQ 02 (FEB) DD=28 or 29 */
else if ((substr(ARRDAT,3,1) eq '0') AND (substr(ARRDAT,4,1) eq '2')) then do;
    if (substr(ARRDAT,1,1) gt '2') then do;
        fail = fail + 1;
        msg = msg + 1;
        mess{msg} = 'RE156';
    end;
end;

/* This section validates YYYY - 2002-2003*/
else if (substr(ARRDAT,5,1) ne '2') OR (substr(ARRDAT,6,1) ne '0')
    OR (substr(ARRDAT,7,1) ne '0') OR (substr(ARRDAT,8,1) not in ('1','2'))
then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE156';
end;

```

```

/*-----*/
/*                E160 */
/*-----*/

```

```

if ARRTIME eq ' ' then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE160';
end;

```

```

/*-----*/
/*                E161 */
/*-----*/

```

```

if ARRTIME = . then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE161';
end;

```

```

if substr(ARRTIM,1,2) NOT IN
('00','01','02','03','04','05','06','07','08','09','10','11','12',
'13','14','15','16','17','18','19','20','21','22','23',' ') then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE161';
end;

```

```

if substr(ARRTIM,3,2) NOT IN
('00','01','02','03','04','05','06','07','08','09',
'10','11','12','13','14','15','16','17','18','19',
'20','21','22','23','24','25','26','27','28','29',
'30','31','32','33','34','35','36','37','38','39',
'40','41','42','43','44','45','46','47','48','49',
'50','51','52','53','54','55','56','57','58','59',' ') then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE161';
end;

```

```

/*-----*/
/*                      E165 */
/*-----*/

if TRIDAT eq ' ' then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE165';
end;

/* Checks for DD/MM/YYYY */

/* This section validates DD */
if (substr(TRIDAT,1,1) not in ('0','1','2','3')) then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE165';
end;

else if (substr(TRIDAT,2,1) not in ('0','1','2','3','4','5','6','7','8','9')) then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE165';
end;

/* FOR DD = 30, 31 */
else if ((substr(TRIDAT,1,1) eq '3') AND (substr(TRIDAT,2,1) not in ('0','1')))
then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE165';
end;

/* FOR DD NOT = 00 */
else if ((substr(TRIDAT,1,1) eq '0') AND (substr(TRIDAT,2,1) eq '0')) then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE165';
end;

/* This section validates MM */
else if (substr(TRIDAT,3,1) not in ('0','1')) then do;

```

```

        fail = fail + 1;
    msg = msg + 1;
        mess{msg} = 'RE165';
    end;
else if (substr(TRIDAT,4,1) not in ('0','1','2','3','4','5','6','7','8','9')) then do;
        fail = fail + 1;
        msg = msg + 1;
        mess{msg} = 'RE165';
    end;

    /* FOR MM=10,11,12 */
else if (substr(TRIDAT,3,1) eq '1') AND (substr(TRIDAT,4,1) not in ('0','1','2')) then do;
        fail = fail + 1;
        msg = msg + 1;
        mess{msg} = 'RE165';
    end;
    /* FOR MM NOT EQ OO */
else if ((substr(TRIDAT,3,1) eq '0') AND (substr(TRIDAT,4,1) eq '0')) then do;
        fail = fail + 1;
        msg = msg + 1;
        mess{msg} = 'RE165';
    end;

    /* for MM EQ 02 (FEB) DD=28 or 29 */
else if ((substr(TRIDAT,3,1) eq '0') AND (substr(TRIDAT,4,1) eq '2')) then do;
        if (substr(TRIDAT,1,1) gt '2') then do;
            fail = fail + 1;
            msg = msg + 1;
            mess{msg} = 'RE165';
        end;
    end;

    /* This section validates YYYY - 2002-2003*/
else if (substr(TRIDAT,5,1) ne '2') OR (substr(TRIDAT,6,1) ne '0')
        OR (substr(TRIDAT,7,1) ne '0') OR (substr(TRIDAT,8,1) not in ('1','2')) then do;
        fail = fail + 1;
        msg = msg + 1;
        mess{msg} = 'RE165';
    end;

```

```
/*-----*/  
/*                E166 */  
/*-----*/
```

```
if TRIDATE = '' then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE166';  
end;
```

```
/*-----*/  
/*                E167 */  
/*-----*/
```

```
if TRIDATE < ARRDATE then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE167';  
end;
```

```
/*-----*/  
/*                E170 */  
/*-----*/
```

```
if TRITIM eq '' then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE170';  
end;
```

```
/*-----*/  
/*                E171 */  
/*-----*/
```

```
if TRITIME = . then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE171';  
end;
```

```
if substr(TRITIM,1,2) NOT IN  
( '00','01','02','03','04','05','06','07','08','09','10','11','12',  
'13','14','15','16','17','18','19','20','21','22','23',' ' ) then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE171';  
end;
```

```
if substr(TRITIM,3,2) NOT IN  
( '00','01','02','03','04','05','06','07','08','09',  
'10','11','12','13','14','15','16','17','18','19',  
'20','21','22','23','24','25','26','27','28','29',  
'30','31','32','33','34','35','36','37','38','39',  
'40','41','42','43','44','45','46','47','48','49',  
'50','51','52','53','54','55','56','57','58','59',' ' ) then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE171';  
end;
```

```
/*-----*/  
/*                E172 */  
/*-----*/
```

```
if ARRDATE = TRIDATE then do;  
    if TRITIME < ARRTIME then do;  
        fail = fail + 1;  
        msg = msg + 1;  
        mess{msg} = 'RE172';  
    end;  
end;
```

```
/*-----*/  
/*                E175 */  
/*-----*/
```

```
if TRICAT eq ' ' then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE175';  
end;
```

```
/*-----*/  
/*                E176 */  
/*-----*/
```

```
if TRICAT not in ('1','2','3','4','5','6') then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE176';  
end;
```

```

/*-----*/
/*          E180 */
/*-----*/

```

```

if length(NURSDAT) ne 8 and NURSDAT ne '' then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE180';
end;

```

```

/* CHECKS DD/MM/YYYY */
if NURSDAT ne '' then do;
/* This section validates DD */
if (substr(NURSDAT,1,1) not in ('0','1','2','3')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE180';
end;

```

```

else if (substr(NURSDAT,2,1) not in ('0','1','2','3','4','5','6','7','8','9')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE180';
end;

```

```

/* FOR DD = 30, 31 */
else if ((substr(NURSDAT,1,1) eq '3') AND (substr(NURSDAT,2,1) not in ('0','1')))
then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE180';
end;

```

```

/* FOR DD NOT = 00 */
else if ((substr(NURSDAT,1,1) eq '0') AND (substr(NURSDAT,2,1) eq '0')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE180';
end;

```

```

/* This section validates MM */
else if (substr(NURSDAT,3,1) not in ('0','1')) then do;
    fail = fail + 1;

```

```

    msg = msg + 1;
        mess{msg} = 'RE180';
    end;
else if (substr(NURSDAT,4,1) not in ('0','1','2','3','4','5','6','7','8','9')) then do;
        fail = fail + 1;
        msg = msg + 1;
        mess{msg} = 'RE180';
    end;

    /* FOR MM=10,11,12 */
else if (substr(NURSDAT,3,1) eq '1') AND (substr(NURSDAT,4,1) not in ('0','1','2')) then do;
        fail = fail + 1;
        msg = msg + 1;
        mess{msg} = 'RE180';
    end;
    /* fOR MM NOT EQ OO */
else if ((substr(NURSDAT,3,1) eq '0') AND (substr(NURSDAT,4,1) eq '0')) then do;
        fail = fail + 1;
        msg = msg + 1;
        mess{msg} = 'RE180';
    end;

    /* for MM EQ 02 (FEB) DD=28 or 29 */
else if ((substr(NURSDAT,3,1) eq '0') AND (substr(NURSDAT,4,1) eq '2')) then do;
        if (substr(NURSDAT,1,1) gt '2') then do;
            fail = fail + 1;
            msg = msg + 1;
            mess{msg} = 'RE180';
        end;
    end;

    /* This section validates YYYY - 2002-2003*/
else if (substr(NURSDAT,5,1) ne '2') OR (substr(NURSDAT,6,1) ne '0')
        OR (substr(NURSDAT,7,1) ne '0') OR (substr(NURSDAT,8,1) not in ('1','2')) then do;
        fail = fail + 1;
        msg = msg + 1;
        mess{msg} = 'RE180';
    end;
end;

```

```
/*-----*/  
/*                E181 */  
/*-----*/
```

```
if NURSDATE ne . then do;  
  if NURSDATE < TRIDATE then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE181';  
  end;  
end;
```

```
/*-----*/  
/*                E182 */  
/*-----*/
```

```
if (NURSDATE eq .) and (DOCDATE eq .)  
and (DEPSTAT ne '6') then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE182';  
end;
```

```
else if ((NURSDATE ne .) OR (DOCDATE ne .))  
and (DEPSTAT eq '6') then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE182';  
end;
```

```
if DEPSTAT ne '6' then do;  
  if (NURSDATE eq .) and (DOCDATE eq .) then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE182';  
  end;  
end;
```

```
/*-----*/  
/*                E185 */  
/*-----*/
```

```
if length(NURSTIM) ne 4 and NURSTIM ne ' ' then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE185';  
end;
```

```
if substr(NURSTIM,1,2) NOT IN  
( '00','01','02','03','04','05','06','07','08','09','10','11','12',  
'13','14','15','16','17','18','19','20','21','22','23',' ' ) then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE185';  
end;
```

```
if substr(NURSTIM,3,2) NOT IN  
( '00','01','02','03','04','05','06','07','08','09',  
'10','11','12','13','14','15','16','17','18','19',  
'20','21','22','23','24','25','26','27','28','29',  
'30','31','32','33','34','35','36','37','38','39',  
'40','41','42','43','44','45','46','47','48','49',  
'50','51','52','53','54','55','56','57','58','59',' ' ) then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE185';  
end;
```

```
/*-----*/  
/*                E186 */  
/*-----*/
```

```
if TRIDATE = NURSDATE then do;  
  if TRITIME > NURSTIME then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE186';  
  end;  
end;
```

```
/*-----*/  
/*          E187 */  
/*-----*/
```

```
if NURSDATE ne . and NURSTIME = . then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE187';  
end;
```

```
/*-----*/  
/*          E188 */  
/*-----*/
```

```
if (NURSTIME eq .) and (DOCTIME eq .)  
and (DEPSTAT ne '6') then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE188';  
end;
```

```
else if (NURSTIME ne .) and (DEPSTAT eq '6') then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE188';  
end;
```

```
else if (DOCTIME ne .) and (DEPSTAT eq '6') then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE188';  
end;
```

```
if DEPSTAT ne '6' then do;  
    if (NURSTIME eq .) and (DOCTIME eq .) then do;  
        fail = fail + 1;  
        msg = msg + 1;  
        mess{msg} = 'RE188';  
    end;  
end;
```

```

/*-----*/
/*                E195 */
/*-----*/

```

```

if length(DOCDAT) ne 8 and DOCDAT ne '' then do;

```

```

    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE195';

```

```

end;

```

```

/** Validates DD/MM/YYYY **/

```

```

if DOCDAT ne '' then do;

```

```

/* This section validates DD */

```

```

if (substr(DOCDAT,1,1) not in ('0','1','2','3')) then do;

```

```

    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE195';

```

```

end;

```

```

else if (substr(DOCDAT,2,1) not in ('0','1','2','3','4','5','6','7','8','9')) then do;

```

```

    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE195';

```

```

end;

```

```

/* FOR DD = 30, 31 */

```

```

else if ((substr(DOCDAT,1,1) eq '3') AND (substr(DOCDAT,2,1) not in ('0','1')))

```

```

then do;

```

```

    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE195';

```

```

end;

```

```

/* FOR DD NOT = 00 */

```

```

else if ((substr(DOCDAT,1,1) eq '0') AND (substr(DOCDAT,2,1) eq '0')) then do;

```

```

    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE195';

```

```

end;

```

```

/* This section validates MM */

```

```

else if (substr(DOCDAT,3,1) not in ('0','1')) then do;

```

```

        fail = fail + 1;
    msg = msg + 1;
        mess{msg} = 'RE195';
    end;
else if (substr(DOCDAT,4,1) not in ('0','1','2','3','4','5','6','7','8','9')) then do;
        fail = fail + 1;
    msg = msg + 1;
        mess{msg} = 'RE195';
    end;

    /* FOR MM=10,11,12 */
else if (substr(DOCDAT,3,1) eq '1') AND (substr(DOCDAT,4,1) not in ('0','1','2')) then do;
        fail = fail + 1;
    msg = msg + 1;
        mess{msg} = 'RE195';
    end;
    /* FOR MM NOT EQ OO */
else if ((substr(DOCDAT,3,1) eq '0') AND (substr(DOCDAT,4,1) eq '0')) then do;
        fail = fail + 1;
    msg = msg + 1;
        mess{msg} = 'RE195';
    end;

    /* for MM EQ 02 (FEB) DD=28 or 29 */
else if ((substr(DOCDAT,3,1) eq '0') AND (substr(DOCDAT,4,1) eq '2')) then do;
        if (substr(DOCDAT,1,1) gt '2') then do;
            fail = fail + 1;
        msg = msg + 1;
            mess{msg} = 'RE195';
        end;
    end;

    /* This section validates YYYY - 2002-2003*/
else if (substr(DOCDAT,5,1) ne '2') OR (substr(DOCDAT,6,1) ne '0')
        OR (substr(DOCDAT,7,1) ne '0') OR (substr(DOCDAT,8,1) not in ('1','2')) then do;
        fail = fail + 1;
    msg = msg + 1;
        mess{msg} = 'RE195';
    end;
end;

```

```

/*-----*/
/*                E196 */
/*-----*/

```

```

if DOCDATE ne . then do;
  if DOCDATE < TRIDATE then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE196';
  end;
end;

```

```

/*-----*/
/*                E200 */
/*-----*/

```

```

if length(DOCTIM) ne 4 and DOCTIM ne '' then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE200';
end;

```

```

if substr(DOCTIM,1,2) NOT IN
('00','01','02','03','04','05','06','07','08','09','10','11','12',
'13','14','15','16','17','18','19','20','21','22','23',' ') then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE200';
end;

```

```

if substr(DOCTIM,3,2) NOT IN
('00','01','02','03','04','05','06','07','08','09',
'10','11','12','13','14','15','16','17','18','19',
'20','21','22','23','24','25','26','27','28','29',
'30','31','32','33','34','35','36','37','38','39',
'40','41','42','43','44','45','46','47','48','49',
'50','51','52','53','54','55','56','57','58','59',' ') then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE200';
end;

```

```
/*-----*/  
/*                E201 */  
/*-----*/
```

```
if TRIDATE = DOCDATE then do;  
  if TRITIME > DOCTIME then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE201';  
  end;  
end;
```

```
/*-----*/  
/*                E202 */  
/*-----*/
```

```
if DOCDATE ne . and DOCTIME = . then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE202';  
end;
```

```
/*-----*/  
/*                E205 */  
/*-----*/  
/* Commeted out as it is no longer mandatory  
if DIAG1 ne '' then do;  
  if compress(PROC) eq '' then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE205';  
  end;  
end;  
*/
```

```
/*-----*/  
/*          E206 */  
/*-----*/
```

```
format PR1-PR30 $2.;
```

```
array pr {30} ;
```

```
qqq=1;
```

```
do i = 1 to 30 while (qqq = 1);
```

```
  if i > 1 then do;
```

```
    if pr{i-1} = '' then qqq=0;
```

```
  end;
```

```
  pr{i}=scan(PROC, i, '{');
```

```
  if pr{i} ne '' then do;
```

```
    if pr{i} in ('01','02','03','04','05','11',
```

```
      '12','13','14','15','16','17',
```

```
      '18','21','22','23','24','25',
```

```
      '26','27','28','29','30','31',
```

```
      '32','41','42','43','44','45',
```

```
      '46','47','48','49','50','51',
```

```
      '52','53','54','55','56','57',
```

```
      '58','59','60','71','72','73',
```

```
      '74','75','76','77','78','79',
```

```
      '80','81','82','83','84','85',
```

```
      '91','99') then ok=0;
```

```
    else do;
```

```
      fail = fail + 1;
```

```
      msg = msg + 1;
```

```
      qqq=0;
```

```
      mess{msg} = 'RE206';
```

```
    end;
```

```
  end;
```

```
end;
```

```
/*-----*/  
/*          E207 */  
/*-----*/
```

```
/* procdud = put(CAMPKEY,procft.);
```

```
if procdud = 'Y' then do;
```

```
    fail = fail + 1;
```

```
    msg = msg + 1;
```

```
    mess{msg} = 'RE207';
```

```
end;          ONLY TO BE USED IF PROCFT HAS VALUES */
```

```
/*-----*/  
/*          E210 */  
/*-----*/
```

```
if DEPDAT eq '' then do;
```

```
    fail = fail + 1;
```

```
    msg = msg + 1;
```

```
    mess{msg} = 'RE210';
```

```
end;
```

```
if length(depdatt) ne 8 then do;
```

```
    fail = fail + 1;
```

```
    msg = msg + 1;
```

```
    mess{msg} = 'RE210';
```

```
end;
```

```
/* This section validates DD */
```

```
if (substr(DEPDAT,1,1) not in ('0','1','2','3')) then do;
```

```
    fail = fail + 1;
```

```
    msg = msg + 1;
```

```
    mess{msg} = 'RE210';
```

```
end;
```

```
else if (substr(DEPDAT,2,1) not in ('0','1','2','3','4','5','6','7','8','9')) then do;
```

```
    fail = fail + 1;
```

```
    msg = msg + 1;
```

```
    mess{msg} = 'RE210';
```

```
end;
```

```

/* FOR DD = 30, 31 */
else if ((substr(DEPDAT,1,1) eq '3') AND (substr(DEPDAT,2,1) not in ('0','1')))
then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE210';
end;

/* FOR DD NOT = 00 */
else if ((substr(DEPDAT,1,1) eq '0') AND (substr(DEPDAT,2,1) eq '0')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE210';
end;

/* This section validates MM */
else if (substr(DEPDAT,3,1) not in ('0','1')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE210';
end;
else if (substr(DEPDAT,4,1) not in ('0','1','2','3','4','5','6','7','8','9')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE210';
end;

/* FOR MM=10,11,12 */
else if (substr(DEPDAT,3,1) eq '1') AND (substr(DEPDAT,4,1) not in ('0','1','2')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE210';
end;
/* fOR MM NOT EQ OO */
else if ((substr(DEPDAT,3,1) eq '0') AND (substr(DEPDAT,4,1) eq '0')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE210';
end;

/* This section validates YYYY - 2002-2003*/

```

```

else if (substr(DEPDAT,5,1) ne '2') OR (substr(DEPDAT,6,1) ne '0')
    OR (substr(DEPDAT,7,1) ne '0') OR (substr(DEPDAT,8,1) not in ('1','2')) then do;
    fail = fail + 1;
msg = msg + 1;
    mess{msg} = 'RE210';
end;

```

```

/*-----*/
/*                E211 */
/*-----*/

```

```

if DEPDATE eq . then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE211';
end;

```

```

/* DEPARTURE FROM 01/07/2002 till 30/06/2003 */
if NOT('01jul2002'd <= depdate <= '30jun2003'd) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE211';
end;

```

```

/*-----*/
/*                E212 */
/*-----*/

```

```

if NURSDATE ne . then do;
    if DEPDATE < NURSDATE then do;
        fail = fail + 1;
        msg = msg + 1;
        mess{msg} = 'RE212';
    end;
end;

```

```
/*-----*/  
/          E213 */  
/*-----*/
```

```
if DOCDATE ne . then do;  
  if DEPDATE < DOCDATE then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE213';  
  end;  
end;
```

```
/*-----*/  
/*          E217 */  
/*-----*/
```

```
format ACT_MTH /*$2.*/ act_no arr_mth 2.0;  
ACT_MTH = compress(&nummonth,'0');  
ARR_MTH = month(ARRDATE);  
ACT_NO = (compress(&nummonth,'0'))-1;
```

```
if &nummonth < 10 then do;  
  
  if month(DEPDATE) ne ACT_MTH then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE217';  
  end;  
end;
```

```
end;
```

```
if &nummonth > 9 then do;  
  
  if month(DEPDATE) ne &nummonth then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE217';  
  end;  
end;
```

```
end;
```

```
/*-----*/  
/*                E218 */  
/*-----*/
```

```
if (ARR_MTH ne ACT_MTH) then do;  
  if (ARR_MTH ne ACT_NO) then do;  
    if ARR_MTH ne 12 and ACT_NO ne 0 then do;  
      fail = fail + 1;  
      msg = msg + 1;  
      mess{msg} = 'RE218';  
    end;  
  end;  
end;
```

```
/*-----*/  
/*                E219 */  
/*-----*/
```

```
LOS = intck('day',ARRDATE,DEPDATE);
```

```
if LOS gt 10 then do;  
  warn = warn + 1;  
  msg = msg + 1;  
  mess{msg} = 'WE219';  
end;
```

```
/*-----*/  
/*                E220 */  
/*-----*/
```

```
if DEPTIM eq '' then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE220';  
end;
```

```
/*-----*/  
/*                E221 */  
/*-----*/
```

```
if length(DEPTIM) ne 4 or DEPTIM in ('0000','2400')  
or DEPTIME eq . then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE221';  
end;
```

```
if substr(DEPTIM,1,2) NOT IN  
( '00','01','02','03','04','05','06','07','08','09','10','11','12',  
'13','14','15','16','17','18','19','20','21','22','23',' ' ) then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE221';  
end;
```

```
if substr(DEPTIM,3,2) NOT IN  
( '00','01','02','03','04','05','06','07','08','09',  
'10','11','12','13','14','15','16','17','18','19',  
'20','21','22','23','24','25','26','27','28','29',  
'30','31','32','33','34','35','36','37','38','39',  
'40','41','42','43','44','45','46','47','48','49',  
'50','51','52','53','54','55','56','57','58','59',' ' ) then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE221';  
end;
```

```
/*-----*/  
/*                E222 */  
/*-----*/
```

```
if DEPDATE = NURSDATE then do;  
  if DEPTIME < NURSTIME then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE222';  
  end;  
end;
```

```
/*-----*/  
/*                E223 */  
/*-----*/
```

```
if DEPDATE = DOCDATE then do;  
  if DEPTIME < DOCTIME then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE223';  
  end;  
end;
```

```
/*-----*/  
/*                E230 */  
/*-----*/
```

```
if DEPSTAT = '' then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE230';  
end;
```

```
/*-----*/  
/*                E231 */  
/*-----*/
```

```
if DEPSTAT not in ('0','1','2','3','4','5','6','7','8','9') then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE231';  
end;
```

```

/*-----*/
/*                E232 */
/*-----*/
/* ESCOSOUR is now changed to optional for depstat = 4 */

if DEPSTAT eq '4' then do;
  if REASTRAN eq '' /*OR ESCOSOUR eq ' */
  OR DEPTRAN eq '' or TRANDEST eq '' then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE232';
  end;
end;
/* Depstat not = 4, departure transport mode must be blank */
/* Depstat = 3 is now added and treated like patients in depstat = 2 */
else if DEPSTAT in ('1','2','3','5','6','7','9') then do;
  if (REASTRAN ne '' /*OR ESCOSOUR ne ' */
  OR DEPTRAN ne '' or TRANDEST ne '') then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE232';
  end;
end;
end;

```

```

/*-----*/
/*                E233 */
/*-----*/

/*    Hospitals with SOU units    */
if DEPSTAT eq '3' then do;
  if CAMPCODE NOT IN ('1031','1050','1210','1331','1390','1450','1590',
  '2220') then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE233';
  end;
end;
end;

```

```
/*-----*/  
/*          E235 */  
/*-----*/
```

ok=0;

if (TRANDEST) in (

'1010','1020','1020','1031','1031','1032','1040','1050',  
'1060','1071','1072','1090','1101','1102','1121','1122',  
'1123','1130','1140','1150','1160','1170','1180','1191',  
'1192','1200','1210','1220','1230','1240','1250','1260',  
'1270','1280','1290','1320','1331','1331','1332','1340',  
'1350','1360','1370','1390','1440','1450','1460','1480',  
'1491','1492','1500','1550','1560','1570','1580','1590',  
'1660','1670','1700','1770','1780','1820','1881','1882',  
'1883','1900','2010','2020','2030','2040','2050','2060',  
'2070','2080','2090','2100','2110','2120','2130','2140',  
'2150','2160','2170','2180','2190','2210','2220','2230',  
'2240','2251','2252','2260','2350','2360','2371','2372',  
'2373','2374','2390','2440','2450','2460','2480','2550',  
'2580','2590','2660','2670','2970','3010','3020','3030',  
'3040','3050','3060','3080','3110','3120','3130','3140',  
'3180','3190','3220','3240','3330','3350','3370','3460',  
'3590','4010','4020','4050','4080','4110','4161','4162',  
'4240','4460','5010','5050','5110','5120','2320','2111',  
'2112' ) then ok=1;

else if (TRANDEST) in (

'6020','6030','6040','6050','6070','6080','6100','6110',  
'6130','6140','6150','6160','6170','6190','6200','6210',  
'6220','6230','6260','6280','6291','6292','6300','6310',  
'6320','6330','6350','6400','6410','6420','6450','6460',  
'6470','6470','6490','6500','6510','6520','6530','6540',  
'6550','6570','6580','6590','6600','6610','6620','6630',  
'6640','6650','6670','6680','6690','6710','6730','6740',  
'6750','6760','6770','6780','6790','6800','6810','6820',  
'6830','6840','6850','6860','6870','6880','6890','6900',  
'6910','6920','6930','6950','6960','6970','6980','6990',  
'7030','7070','7090','7110','7180','7210','7220','7270',  
'7290','7400','7420','7470','7550','7610','7630','7710',  
'7720','7730','7740','7750','7760','7770','7780','7790',  
'7810','7820','7840','7850','7860','7870','7880','7910',  
'7920','7930','7940','7960','7970','7980','8070','8090',

```

'8210','8270','8550','8720','8810','8840','8850','8880',
'8890','8910','8980','7280','1351','7370','7390','7350') then ok=1;

else if (TRANDEST) in (
'9007','9017','9027','9037','9057','9067','9097','9107',
'9117','9127','9137','9157','9167','9197','9537','9807','9817',
'9827','9837','9857','9867','9897','9697','9307','9317','9337') then ok=1;
/*9537 added as per Greg's request*/
else if (TRANDEST) eq '9999' then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE235';
end;

else do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE235';
end;

/*-----*/
/*          E240 */
/*-----*/

if REFERTO eq '' then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE240';
end;

```

```
/*-----*/  
/*                E241 */  
/*-----*/
```

```
if REFERTO not in ('1','2','3','4','5','6','7',  
                  '8','16','17','18','19') then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE241';  
end;
```

```
/*-----*/  
/*                E242 */  
/*-----*/
```

```
if DEPSTAT in ('0','1','9') and REFERTO eq '19' then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE242';  
end;  
/* patients in depstat 3 are treated in same way as patients in depstat 2 */  
else if DEPSTAT in ('2','3','4','5','6','7','8')  
and REFERTO ne '19' then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE242';  
end;
```

```
/*-----*/  
/*                E243 */  
/*-----*/
```

```
if CARECOM eq '' then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE243';  
end;
```

```
/*-----*/  
/*                E244 */  
/*-----*/
```

```
if upcase(CARECOM) not in ('Y','N') then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE244';  
end;
```

```
/*-----*/  
/*                E245 */  
/*-----*/
```

```
if REASTRAN not in (  
'1','2','3','4','5','6','7','9',' ') then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE245';  
end;
```

```
/*-----*/  
/*                E250 */  
/*-----*/
```

```
if ESCOSOUR not in (  
'1','2','3','4','5','9',' ') then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE250';  
end;
```

```
/*-----*/  
/*          E255 */  
/*-----*/
```

```
if DEPTRAN not in (  
  '1','2','3','4','6','7','8','9','10','11','19','') then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE255';  
end;
```

```
/*-----*/  
/*          E260 */  
/*-----*/
```

```
if DIAG1 eq '' then do;  
  if depstat not in ('6','8')  
  and (MAININJ ne '25' and BODYREG ne '22') then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE260';  
  end;  
end;
```

```

/*-----*/
/*                E261 */
/*-----*/

if DIAG1 ne '' then do;
  x_label = put(compress(DIAG1, ' '), ccfmd.);
  d1_age1 = scan(x_label, 1, ','); d1_low1 = scan(x_label, 2, ',');
  d1_hi1 = scan(x_label, 3, ','); d1_age2 = scan(x_label, 4, ',');
  d1_low2 = scan(x_label, 5, ','); d1_hi2 = scan(x_label, 6, ',');
  d1_sex = scan(x_label, 7, ','); d1_ok = scan(x_label, 8, ',');

  if d1_ok ne 1 then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE261';
  end;
end;

if DIAG2 ne '' then do;
  x_label = put(compress(DIAG2, ' '), ccfmd.);
  d2_age1 = scan(x_label, 1, ','); d2_low1 = scan(x_label, 2, ',');
  d2_hi1 = scan(x_label, 3, ','); d2_age2 = scan(x_label, 4, ',');
  d2_low2 = scan(x_label, 5, ','); d2_hi2 = scan(x_label, 6, ',');
  d2_sex = scan(x_label, 6, ','); d2_ok = scan(x_label, 8, ',');

  if d2_ok ne 1 then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE261';
  end;
end;

if DIAG3 ne '' then do;
  x_label = put(compress(DIAG3, ' '), ccfmd.);
  d3_age1 = scan(x_label, 1, ','); d3_low1 = scan(x_label, 2, ',');
  d3_hi1 = scan(x_label, 3, ','); d3_age2 = scan(x_label, 4, ',');
  d3_low2 = scan(x_label, 5, ','); d3_hi2 = scan(x_label, 6, ',');
  d3_sex = scan(x_label, 6, ','); d3_ok = scan(x_label, 8, ',');

  if d3_ok ne 1 then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE261';
  end;
end;

```

```
/*-----*/  
/*                E262 */  
/*-----*/
```

```
if d1_sex eq '1' and SEX ne '1' then do;
```

```
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE262';  
    eddiag1='*' | |DIAG1;
```

```
end;
```

```
if d2_sex eq '1' and SEX ne '1' then do;
```

```
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE262';  
    eddiag2='*' | |DIAG2;
```

```
end;
```

```
if d3_sex eq '1' and SEX ne '1' then do;
```

```
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE262';  
    eddiag3='*' | |DIAG3;
```

```
end;
```

```
if d1_sex eq '3' and SEX ne '2' then do;
```

```
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE262';  
    eddiag1='*' | |DIAG1;
```

```
end;
```

```
if d2_sex eq '3' and SEX ne '2' then do;
```

```
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE262';  
    eddiag2='*' | |DIAG2;
```

```
end;
```

```
if d3_sex eq '3' and SEX ne '2' then do;
```

```
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE262';  
    eddiag3='*' | |DIAG3;
```

```
end;
```

```
/*-----*/  
/*                E263 */  
/*-----*/
```

```
if (d1_age1 eq '1'  
and d1_low1<=agemonth<=d1_hi1) then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE263';  
  eddiag1='*' | |DIAG1;  
end;
```

```
if (d2_age1 eq '1'  
and d2_low1<=agemonth<=d2_hi1) then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE263';  
  eddiag2='*' | |DIAG2;  
end;
```

```
if (d3_age1 eq '1'  
AND d3_low1<=agemonth<=d3_hi1) then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE263';  
  eddiag3='*' | |DIAG3;  
end;
```

```
if (d1_age1 eq '3'  
AND d1_low1<=ageyear<=d1_hi1) then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE263';  
  eddiag1='*' | |DIAG1;  
end;
```

```
if (d2_age1 eq '3'  
and d2_low1<=ageyear<=d2_hi1) then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE263';  
  eddiag2='*' | |DIAG2;  
end;
```

```
if (d3_age1 eq '3'  
and d3_low1<=ageyear<=d3_hi1) then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE263';  
  eddiag3='*' || DIAG3;  
end;
```

```
if (d1_age1 eq '5'  
and (ageyear<d1_low1 OR ageyear>d1_hi1) ) then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE263';  
  eddiag1='*' || DIAG1;  
end;
```

```
if (d2_age1 eq '5'  
and (ageyear<d2_low1 OR ageyear>d2_hi1)) then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE263';  
  eddiag2='*' || DIAG2;  
end;
```

```
if (d3_age1 eq '5'  
and (ageyear<d3_low1 OR ageyear>d3_hi1)) then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE263';  
  eddiag3='*' || DIAG3;  
end;
```

```
if (d1_age1 eq '7'  
and (agemonth<d1_low1 OR agemonth>d1_hi1) ) then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess{msg} = 'RE263';  
  eddiag1='*' || DIAG1;  
end;
```

```
if (d2_age1 eq '7'  
and (agemonth<d2_low1 OR agemonth>d2_hi1)) then do;
```

```
fail = fail + 1;
msg = msg + 1;
mess{msg} = 'RE263';
ediag2='*' | |DIAG2;
end;
```

```
if (d3_age1 eq '7'
and (agemonth<d3_low1 OR agemonth>d3_hi1)) then do;
fail = fail + 1;
msg = msg + 1;
mess{msg} = 'RE263';
ediag3='*' | |DIAG3;
end;
```

```
/*-----*/
/*          E264 */
/*-----*/
```

```
if d1_sex eq '2' and sex IN ('2','3') then do;
warn = warn + 1;
msg = msg + 1;
mess{msg} = 'WE264';
ediag1='#' | |DIAG1;
end;
```

```
if d2_sex eq '2' and sex IN ('2','3') then do;
warn = warn + 1;
msg = msg + 1;
mess{msg} = 'WE264';
ediag2='#' | |DIAG2;
end;
```

```
if d3_sex eq '2' and sex IN ('2','3') then do;
warn = warn + 1;
msg = msg + 1;
mess{msg} = 'WE264';
ediag3='#' | |DIAG3;
end;
```

```
if d1_sex eq '4' and sex IN ('1','3') then do;
warn = warn + 1;
msg = msg + 1;
```

```

    mess{msg} = 'WE264';
    eddiag1='#' | |DIAG1;
end;
if d2_sex eq '4' and sex IN ('1','3') then do;
    warn = warn + 1;
    msg = msg + 1;
    mess{msg} = 'WE264';
    eddiag2='#' | |DIAG2;
end;
if d3_sex eq '4' and sex IN ('1','3') then do;
    warn = warn + 1;
    msg = msg + 1;
    mess{msg} = 'WE264';
    eddiag3='#' | |DIAG3;
end;

```

```

/*-----*/
/*                E265 */
/*-----*/

```

```

if (d1_age1 eq '2'
and d1_low1<=agemonth<=d1_hi1) then do;
    warn = warn + 1;
    msg = msg + 1;
    mess{msg} = 'WE265';
    eddiag1='#' | |DIAG1;
end;

```

```

if (d2_age1 eq '2'
and d2_low1<=agemonth<=d2_hi1) then do;
    warn = warn + 1;
    msg = msg + 1;
    mess{msg} = 'WE265';
    eddiag2='#' | |DIAG2;
end;

```

```

if (d3_age1 eq '2'
and d3_low1<=agemonth<=d3_hi1) then do;
    warn = warn + 1;
    msg = msg + 1;

```

```
mess{msg} = 'WE265';  
ediag3='#' | |DIAG3;  
end;
```

```
if (d1_age1 eq '4'  
and d1_low1<=ageyear<=d1_hi1) then do;  
  warn = warn + 1;  
  msg = msg + 1;  
  mess{msg} = 'WE265';  
  ediag1='#' | |DIAG1;  
end;
```

```
if (d2_age1 eq '4'  
and d2_low1<=ageyear<=d2_hi1) then do;  
  warn = warn + 1;  
  msg = msg + 1;  
  mess{msg} = 'WE265';  
  ediag2='#' | |DIAG2;  
end;
```

```
if (d3_age1 eq '4'  
and d3_low1<=ageyear<=d3_hi1) then do;  
  warn = warn + 1;  
  msg = msg + 1;  
  mess{msg} = 'WE265';  
  ediag3='#' | |DIAG3;  
end;
```

```
if (d1_age1 eq '6'  
and (ageyear<d1_low1 OR ageyear>d1_hi1)) then do;  
  warn = warn + 1;  
  msg = msg + 1;  
  mess{msg} = 'WE265';  
  ediag1='#' | |DIAG1;  
end;
```

```
if (d2_age1 eq '6'  
and (ageyear<d2_low1 OR ageyear>d2_hi1)) then do;  
  warn = warn + 1;  
  msg = msg + 1;  
  mess{msg} = 'WE265';  
  ediag2='#' | |DIAG2;  
end;
```

```

if (d3_age1 eq '6'
and (ageyear<d3_low1 OR ageyear>d3_hi1)) then do;
  warn = warn + 1;
  msg = msg + 1;
  mess{msg} = 'WE265';
  eddiag3='#' | | diag3;
end;

if (d1_age1 eq '8'
and (agemonth<d1_low1 OR agemonth>d1_hi1)) then do;
  warn = warn + 1;
  msg = msg + 1;
  mess{msg} = 'WE265';
  eddiag1='#' | | DIAG1;
end;

if (d2_age1 eq '8'
and (agemonth<d2_low1 OR agemonth>d2_hi1)) then do;
  warn = warn + 1;
  msg = msg + 1;
  mess{msg} = 'WE265';
  eddiag2='#' | | DIAG2;
end;

if (d3_age1 eq '8'
and (agemonth<d3_low1 OR agemonth>d3_hi1)) then do;
  warn = warn + 1;
  msg = msg + 1;
  mess{msg} = 'WE265';
  eddiag3='#' | | DIAG3;
end;

if (d1_age1 eq '2'
and d1_low1<=agemonth<=d1_hi1) then do;
  warn = warn + 1;
  msg = msg + 1;
  mess{msg} = 'WE265';
  eddiag1='#' | | DIAG1;
end;

if (d2_age1 eq '2'
and d2_low1<=agemonth<=d2_hi1) then do;

```

```
warn = warn + 1;
msg = msg + 1;
mess{msg} = 'WE265';
ediag2='#' | |DIAG2;
end;
```

```
if (d3_age1 eq '2'
and d3_low1<=agemonth<=d3_hi1) then do;
  warn = warn + 1;
  msg = msg + 1;
  mess{msg} = 'WE265';
  ediag3='#' | |DIAG3;
end;
```

```
if (d1_age1 eq '4'
and d1_low1<=ageyear<=d1_hi1) then do;
  warn = warn + 1;
  msg = msg + 1;
  mess{msg} = 'WE265';
  ediag1='#' | |DIAG1;
end;
```

```
if (d2_age1 eq '4'
and d2_low1<=ageyear<=d2_hi1) then do;
  warn = warn + 1;
  msg = msg + 1;
  mess{msg} = 'WE265';
  ediag2='#' | |DIAG2;
end;
```

```
if (d3_age1 eq '4'
and d3_low1<=ageyear<=d3_hi1) then do;
  warn = warn + 1;
  msg = msg + 1;
  mess{msg} = 'WE265';
  ediag3='#' | |DIAG3;
end;
```

```
if (d1_age1 eq '6'
and (ageyear<d1_low1 OR ageyear>d1_hi1)) then do;
  warn = warn + 1;
  msg = msg + 1;
  mess{msg} = 'WE265';
```

```
    eddiag1='#' | |DIAG1;  
end;
```

```
if (d2_age1 eq '6'  
and (ageyear<d2_low1 OR ageyear>d2_hi1)) then do;  
    warn = warn + 1;  
    msg = msg + 1;  
    mess{msg} = 'WE265';  
    eddiag2='#' | |DIAG2;  
end;
```

```
if (d3_age1 eq '6'  
and (ageyear<d3_low1 OR ageyear>d3_hi1)) then do;  
    warn = warn + 1;  
    msg = msg + 1;  
    mess{msg} = 'WE265';  
    eddiag3='#' | |DIAG3;  
end;
```

```
if (d1_age1 eq '8'  
and (agemonth<d1_low1 OR agemonth>d1_hi1)) then do;  
    warn = warn + 1;  
    msg = msg + 1;  
    mess{msg} = 'WE265';  
    eddiag1='#' | |DIAG1;  
end;
```

```
if (d2_age1 eq '8'  
and (agemonth<d2_low1 OR agemonth>d2_hi1)) then do;  
    warn = warn + 1;  
    msg = msg + 1;  
    mess{msg} = 'WE265';  
    eddiag2='#' | |DIAG2;  
end;
```

```
if (d3_age1 eq '8'  
and (agemonth<d3_low1 OR agemonth>d3_hi1)) then do;  
    warn = warn + 1;  
    msg = msg + 1;  
    mess{msg} = 'WE265';  
    eddiag3='#' | |DIAG3;  
end;
```

```
/*-----*/  
/*          E271 */  
/*-----*/
```

```
if DIAG1 eq '' then do;  
  if DIAG2 ne '' then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE271';  
  end;  
end;
```

```
if DIAG1 eq '' AND DIAG2 eq '' then do;  
  if DIAG3 ne '' then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE271';  
  end;  
end;
```

```
if DIAG1 ne '' then do;  
  if verify(compress(DIAG1),  
    "1234567890ABCDEFGHIJKLMNOPQRSTUVWXYZ") ne 0 then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE271';  
  end;  
end;
```

```
if DIAG2 ne '' then do;  
  if verify(compress(DIAG2),  
    "1234567890ABCDEFGHIJKLMNOPQRSTUVWXYZ") ne 0 then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE271';  
  end;  
end;
```

```
if diag3 ne '' then do;  
  if verify(compress(DIAG3),  
    "1234567890ABCDEFGHIJKLMNOPQRSTUVWXYZ") ne 0 then do;  
    fail = fail + 1;  
    msg = msg + 1;
```

```

    mess{msg} = 'RE271';
end;
end;

if substr(MAININJ,1,1) eq '0' then do;
    MAININJ = substr(MAININJ,2,1);
end;

if substr(BODYREG,1,1) eq '0' then do;
    BODYREG = substr(BODYREG,2,1);
end;

if substr(INJCAUSE,1,1) eq '0' then do;
    INJCAUSE = substr(INJCAUSE,2,1);
end;

if substr(HUMINT,1,1) eq '0' then do;
    HUMINT = substr(HUMINT,2,1);
end;

```

```

/*-----*/
/*                E280 */
/*-----*/

```

```

if BODYREG ne '' or INJCAUSE ne '' or HUMINT ne ''
or PLACEINJ ne '' or ACTINJ ne '' then do;

    if MAININJ eq '' then do;
        fail = fail + 1;
        msg = msg + 1;
        mess{msg} = 'RE280';
    end;

```

```
/*-----*/  
/*                E281 */  
/*-----*/
```

```
if MAININJ not in ('1','2','3','4','5','6','7','8',  
                  '9','10','11','12','13','14','15',  
                  '16','17','18','19','20','21','22',  
                  '23','24','25','26') then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess[msg] = 'RE281';  
end;  
end;
```

```
/*-----*/  
/*                E285 */  
/*-----*/
```

```
if MAININJ ne '' OR INJCAUSE ne '' OR HUMINT ne ''  
OR PLACEINJ ne '' OR ACTINJ ne '' then do;
```

```
if BODYREG eq '' then do;  
  fail = fail + 1;  
  msg = msg + 1;  
  mess[msg] = 'RE285';  
end;
```

```
/*-----*/  
/*                E286 */  
/*-----*/
```

```
if BODYREG not in ('F1','F2','F3','F4','F5','F6','F7',  
    '1','2','3','4','5','6','7','8','9',  
    '10','11','12','13','14','15','16',  
    '17','18','19','20','21','22') then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE286';  
end;  
end;
```

```
/*-----*/  
/*                E287 */  
/*-----*/
```

```
if MAININJ in ('1','2','3','4','5','6','7','8','9','10',  
    '11','12','21','22','23','24','26') then do;
```

```
    if BODYREG not in ('1','2','3','4','5','6','7','8','9',  
        '10','11','12','13','14','15','16',  
        '17','18','19','20','21','22') then do;
```

```
        fail = fail + 1;  
        msg = msg + 1;  
        mess{msg} = 'RE287';  
    end;  
end;
```

```
else if MAININJ in ('13','15','16','17','18','19','20','25') then do;
```

```
    if MAININJ eq '15' and BODYREG eq '1' then do;
```

```
end;
```

```
    else do;
```

```
        if BODYREG ne '22' then do;
```

```
            fail = fail + 1;
```

```
            msg = msg + 1;
```

```
            mess{msg} = 'RE287';
```

```
        end;
```

```
    end;
```

```

end;

else if MAININJ eq '14' then do;
  if BODYREG not in ('F1','F2','F3','F4','F5','F6','F7') then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE287';
  end;
end;

```

```

/*-----*/
/*                E290 */
/*-----*/

```

```

if length(DESCRPT) > 250 then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE290';
end;

```

```

/*-----*/
/*                E291 */
/*-----*/

```

```

if BODYREG ne '' or INJCAUSE ne '' or HUMINT ne ''
or PLACEINJ ne '' or ACTINJ ne '' then do;

  if DESCRPT eq '' then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE291';
  end;
end;

```

```
/*-----*/  
/*                E295 */  
/*-----*/
```

```
if INJCAUSE ne '' then do;  
  if INJCAUSE not in (  
    '1','2','3','4','5','6','7','8','9',  
    '10','11','12','13','14','15','16','17','18',  
    '19','20','21','22','23','24','25','26','27',  
    '28','29','30') then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE295';  
  end;  
end;
```

```
/*-----*/  
/*                E296 */  
/*-----*/
```

```
if BODYREG ne '' or HUMINT ne '' or PLACEINJ ne ''  
or ACTINJ ne '' then do;  
  
  if INJCAUSE eq '' then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE296';  
  end;  
end;
```

```
/*-----*/  
/*                E297 */  
/*-----*/
```

```
if INJCAUSE in ('1','3') and AGEYEAR < 14 then do;  
    warn = warn + 1;  
    msg = msg + 1;  
    mess{msg} = 'WE297';  
end;
```

```
/*-----*/  
/*                E300 */  
/*-----*/
```

```
if HUMINT ne '' then do;  
    if HUMINT not in ('1','2','3','4','5','6',  
        '7','8','9','10','11') then do;  
        fail = fail + 1;  
        msg = msg + 1;  
        mess{msg} = 'RE300';  
    end;  
end;
```

```
/*-----*/  
/*                E301 */  
/*-----*/
```

```
if BODYREG ne '' or MAININJ ne '' or PLACEINJ ne ''  
or ACTINJ ne '' then do;  
  
    if HUMINT = '' then do;  
        fail = fail + 1;  
        msg = msg + 1;  
        mess{msg} = 'RE301';  
    end;  
end;
```

```
/*-----*/  
/*                E302 */  
/*-----*/
```

```
if HUMINT eq '2' and AGEYEAR <=10 then do;
```

```
    warn = warn + 1;
```

```
    msg = msg + 1;
```

```
    mess{msg} = 'WE302';
```

```
end;
```

```
else if HUMINT eq '4' and AGEYEAR >15 then do;
```

```
    warn = warn + 1;
```

```
    msg = msg + 1;
```

```
    mess{msg} = 'WE302';
```

```
end;
```

```
else if HUMINT eq '5' and AGEYEAR le 15 then do;
```

```
    warn = warn + 1;
```

```
    msg = msg + 1;
```

```
    mess{msg} = 'WE302';
```

```
end;
```

```
/*-----*/  
/*                E305 */  
/*-----*/
```

```
if PLACEINJ ne '' then do;
```

```
    if PLACEINJ not in ('H','I','S','M','P',
```

```
        'A','R','T','C','Q',
```

```
        'F','O','U') then do;
```

```
        fail = fail + 1;
```

```
        msg = msg + 1;
```

```
        mess{msg} = 'RE305';
```

```
    end;
```

```
end;
```

```

/*-----*/
/*          E306 */
/*-----*/
if BODYREG ne '' or MAININJ ne ''
or HUMINT ne '' or ACTINJ ne '' then do;

    if PLACEINJ = '' then do;
        fail = fail + 1;
        msg = msg + 1;
        mess{msg} = 'RE306';
    end;
end;

```

```

/*-----*/
/*          E310 */
/*-----*/

if ACTINJ ne '' then do;
    if ACTINJ not in (
        'L','S','E','W','C','N','V','O','U') then do;
        fail = fail + 1;
        msg = msg + 1;
        mess{msg} = 'RE310';
    end;
end;

```

```

/*-----*/
/*                E311 */
/*-----*/
if BODYREG ne ''
or MAININJ ne ''
or HUMINT ne ''
or PLACEINJ ne '' then do;

    if ACTINJ = '' then do;
        fail = fail + 1;
        msg = msg + 1;
        mess{msg} = 'RE311';
    end;
end;

```

```

/*-----*/
/*                E320 */
/*-----*/

```

```

if DIAG1 in (
'S0080','S0090','S0180','S019','S025','S029','S030','S033',
'S035','S045','S049','S059','S069','S070','S079','S088','S089','S090',
'S091','S092','S097','S098','S099','S1090','S119','S129','S132','S136',
'S146','S159','S16','S179','S18','S197','S198','S199','S2080',
'S219','S229','S232','S235','S246','S259','S279','S280','S281','S290',
'S297','S298','S299','S3090','S310','S3180','S3200','S3283','S333','S334','S3350',
'S337','S346','S359','S369','S379','S381','S383','S390','S397','S398','S399',
'S409','S410','S411','S423','S429','S4300','S437','S449','S459','S469','S47',
'S480','S481','S497','S498','S499','S509','S510','S519','S5200','S529','S5310',
'S5340','S549','S559','S568','S570','S579','S580','S589','S597','S598','S599',
'S609','S619','S628','S6300','S6310','S6350','S637','S649','S659','S669','S678',
'S684','S689','S697','S698','S699','S709','S710','S711','S7208','S729','S7300',
'S7310','S749','S759','S760','S764','S770','S771','S780','S781','S797','S798',
'S799','S809','S810','S819','S820','S8288','S829','S8310','S836','S849','S859',
'S869','S870','S878','S880','S881','S897','S898','S899','S909','S910','S913',
'S929','S930','S9330','S9340','S936','S949','S959','S969','S970','S978','S980',
'S984','S997','S998','S999','T009','T019','T029','T039','T049','T059','T062',
'T064','T068','T07','T092','T112','T132','T1400','T141','T142','T143',
'T144','T145','T146','T147','T148','T149','T159','T16','T171','T179','T189',

```

```

'T199','T200','T2102','T2103','T2104','T2109','T2201','T2202','T230','T240',
'T250','T290','T300','T400','T401','T402','T403','T405','T407','T408','T409',
'T424','T439','T509','T519','T520','T529','T639','T659','T700','T71','T751','T754')
and MAININJ eq '' then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE320';
end;

format matrix $9.;

matrix = '';

if MAININJ ne '' and DEPSTAT not in ('6','8') then do;

  matrix = compress(MAININJ) || compress(BODYREG) || compress(DIAG1);

  m_label=put(matrix,ccmatfm.);
  mat_ok = scan(m_label,1);

  if mat_ok ne 'Y' then do;
    if not (MAININJ = '25' and BODYREG = '22') then do;
      fail = fail + 1;
      msg = msg + 1;
      mess{msg} = 'RE320';
    end;
  end;
end;
end;

```

```

/*-----*/
/*          E330 */
/*-----*/

if BEDREQDT ne '' and BR_TIME eq . then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE330';
end;

if BEDREQTM ne '' and BR_DATE eq . then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE330';
end;

/** CHECKS DD/MM/YYYY **/
/* This section validates DD */
if BEDREQDT ne '' then do;
if (substr(BEDREQDT,1,1) not in ('0','1','2','3')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE330';
end;

else if (substr(BEDREQDT,2,1) not in ('0','1','2','3','4','5','6','7','8','9')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE330';
end;

/* FOR DD = 30, 31 */
else if ((substr(BEDREQDT,1,1) eq '3') AND (substr(BEDREQDT,2,1) not in ('0','1')))
then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE330';
end;

/* FOR DD NOT = 00 */
else if ((substr(BEDREQDT,1,1) eq '0') AND (substr(BEDREQDT,2,1) eq '0')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE330';
end;

```

```

end;

/* This section validates MM */
else if (substr(BEDREQDT,3,1) not in ('0','1')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE330';
end;
else if (substr(BEDREQDT,4,1) not in ('0','1','2','3','4','5','6','7','8','9')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE330';
end;

/* FOR MM=10,11,12 */
else if (substr(BEDREQDT,3,1) eq '1') AND (substr(BEDREQDT,4,1) not in ('0','1','2')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE330';
end;
/* FOR MM NOT EQ OO */
else if ((substr(BEDREQDT,3,1) eq '0') AND (substr(BEDREQDT,4,1) eq '0')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE330';
end;

/* for MM EQ 02 (FEB) DD=28 or 29 */
else if ((substr(BEDREQDT,3,1) eq '0') AND (substr(BEDREQDT,4,1) eq '2')) then do;
    if (substr(BEDREQDT,1,1) gt '2') then do;
        fail = fail + 1;
    end;
    msg = msg + 1;
    mess{msg} = 'RE330';
end;
end;

/* This section validates YYYY - 2002-2003*/
else if (substr(BEDREQDT,5,1) ne '2') OR (substr(BEDREQDT,6,1) ne '0')
    OR (substr(BEDREQDT,7,1) ne '0') OR (substr(BEDREQDT,8,1) not in ('1','2')) then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE330';
end;
end;

```

```

/*-----*/
/*          E331 */
/*-----*/

```

```

if BR_DATE ne . then do;
  if length(BEDREQDT) ne 8 then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE331';
  end;
end;

```

```

/*-----*/
/*          E333 */
/*-----*/

```

```

if BR_DATE ne . then do;
  if BR_TIME = . then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE333';
  end;
end;

```

```

if substr(BEDREQTM,1,2) NOT IN
('00','01','02','03','04','05','06','07','08','09','10','11','12',
'13','14','15','16','17','18','19','20','21','22','23',' ') then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE333';
end;

```

```

if substr(BEDREQTM,3,2) NOT IN
('00','01','02','03','04','05','06','07','08','09',
'10','11','12','13','14','15','16','17','18','19',
'20','21','22','23','24','25','26','27','28','29',
'30','31','32','33','34','35','36','37','38','39',
'40','41','42','43','44','45','46','47','48','49',
'50','51','52','53','54','55','56','57','58','59',' ') then do;
  fail = fail + 1;
  msg = msg + 1;
  mess{msg} = 'RE333';
end;

```

end;

```
/*-----*/  
/*          E334 */  
/*-----*/
```

```
/* This Edit is not required for 2002-2003 */
```

```
/* This is left blank as this edit is no longer required */
```

```
/*-----*/  
/*          E335 */  
/*-----*/
```

```
if BR_DATE ne . then do;  
  if DEPDATE < BR_DATE then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE335';  
  end;  
end;
```

```
/*-----*/  
/*          E336 */  
/*-----*/
```

```
if BR_DATE ne . then do;  
  if BR_DATE < ARRDATE then do;  
    warn = warn + 1;  
    msg = msg + 1;  
    mess{msg} = 'WE336';  
  end;  
end;
```



```
/*-----*/  
/*                E337 */  
/*-----*/
```

```
if BR_TIME ne . then do;  
  if ARR_DT > BD_DT then do;  
    warn = warn + 1;  
    msg = msg + 1;  
    mess{msg} = 'WE337';  
  end;  
end;
```

```
/*-----*/  
/*                E338 */  
/*-----*/
```

```
if BR_TIME ne . then do;  
  if DEP_DT < BD_DT then do;  
    fail = fail + 1;  
    msg = msg + 1;  
    mess{msg} = 'RE338';  
  end;  
end;
```

```
/*-----*/  
/* For departure status = 2 and 3                E339 */  
/*-----*/  
/* This bedrequest date/time is only required for 2002-2003 */
```

```
if DEPSTAT in ('2','3') then do;  
  warn = warn + 1;  
  msg = msg + 1;  
  mess{msg} = 'WE339';  
end;
```

```

/*-----*/
/*                E340 */
/*-----*/
*format LOS_mins 4.0 ;
if DEPDATE ne . then do;
  if DEPDATE < ARRDATE then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE340';
  end;
  if DEPDATE = ARRDATE then do;
    IF deptime < arrtime then do;
      fail = fail + 1;
      msg = msg + 1;
      mess{msg} = 'RE340';
      end;
      else
        IF intck('minute',ARRTIME,DEPTIME) < 1 then do;
          fail = fail + 1;
          msg = msg + 1;
          mess{msg} = 'RE340';
          end;
        end;
      end;
    end;
  end;
end;

```

```

/*-----*/
/*                E341 */
/*-----*/

if DIAG1 eq 'Z099' then do;
  if DIAG2 eq 'Z099' OR DIAG3 eq 'Z099' OR
    (DIAG2 eq ' ' AND DIAG3 eq ' ') then do;
    fail = fail + 1;
    msg = msg + 1;
    mess{msg} = 'RE341';
  end;
end;
end;

```

```
/*-----*/  
/*              E342 */  
/*-----*/
```

```
if DEPSTAT eq '6' AND DIAG1 ne ' ' then do;
```

```
    fail = fail + 1;
```

```
    msg = msg + 1;
```

```
    mess{msg} = 'RE342';
```

```
end;
```

```
/*if DEPSTAT eq '8' AND DIAG1 ne ' ' then do;
```

```
    fail = fail + 1;
```

```
    msg = msg + 1;
```

```
    mess{msg} = 'RE342';
```

```
end;*/
```

```
if DEPSTAT eq '8' then do;
```

```
    if DIAG1 ne ' ' or DIAG1 ne 'R961' then do;
```

```
        fail = fail + 1;
```

```
        msg = msg + 1;
```

```
        mess{msg} = 'RE342';
```

```
    end;
```

```
end;
```

```
/*-----*/
```

```
/*          CONTROL REPORT DATA ITEMS */
```

```
/*-----*/
```

```
format
```

```
  treat_wa ed_stay MMSS6. arr_dt tri_dt dep_dt  
  doc_dt nurs_dt treat_dt DATETIME.;
```

```
format treat stay $4.;
```

```
arr_dt = arrdate*86400 + arrtime ;
```

```
tri_dt = tridate*86400 + tritime ;
```

```
dep_dt = depdate*86400 + deptime ;
```

```
doc_dt = docdate*86400 + doctime ;
```

```
nurs_dt = nursdate*86400 + nurstime ;
```

```
if doc_dt ne . then treat_dt = doc_dt;
```

```
else treat_dt = nurs_dt;
```

```
oos=1;
```

```
treat_wa = intck('minute', arr_dt, treat_dt) ;
```

```
treat = compress(treat_wa, ' ');
```

```
ed_stay = intck('minute', arr_dt, dep_dt) ;
```

```
stay = compress(ed_stay, ' ');
```

```
if (depstat='2' AND ed_stay > 720) then admblock='Y';
```

```
else admblock='N';
```

```
/* patients admitted to SOU unit -- FOR FUTURE USE when required
```

```
if depstat='3' then sou = 'Y';
```

```
else sou = 'N';
```

```
*/
```

```
/* waiting times are expressed in minutes */
```

```
in_targ = 'Yes';
```

```
if depstat='6' then in_targ='N/A';
```

```
else if tricat = '1' and treat_wa > 1 then in_targ = 'No';
```

```
else if tricat = '2' and treat_wa > 10 then in_targ = 'No';
```

```
else if tricat = '3' and treat_wa > 30 then in_targ = 'No';
```

```
else if tricat = '4' and treat_wa > 60 then in_targ = 'No';
```

```
else if tricat = '5' and treat_wa > 120 then in_targ = 'No';
```

```

if in_targ = 'No' then do;
  contcnt = contcnt + 1;
  control{contcnt} = 'APatient not treated in Target time (Waited ' || trim(treat) || ' minutes with Triage
Category ' || tricat || ')';
end;

if admblock = 'Y' then do;
  contcnt = contcnt + 1;
  control{contcnt} = 'BPatients admission was blocked (Waited ' || trim(stay) || ' minutes before
admission)';
end;

if ed_stay > 1440 then do;
  contcnt = contcnt + 1;
  control{contcnt} = 'CPatient stayed in ED for ' || trim(stay) || ' minutes';
end;

/***** OUTPUT TO DIFFERENT FILES *****/
if fail=0 then output vemd.P&CAMPCODE.&VERSION.&NUMMONTH;
if fail ne 0 then output rejects.R&CAMPCODE.&VERSION.&NUMMONTH.;
if warn ne 0 and fail = 0 then output rejects.W&CAMPCODE.&VERSION.&NUMMONTH.;
if fail = 0 and warn = 0 then output perfect;

run;

```