

```
*****
** Program Name   : addv.sas                                **.
** Date Created  : 09Mar2021                                **.
** Programmer Name : (b) (6)                                **.
** Purpose       : Create addv dataset                      **.
** Input data    : dv suppdv adsl                          **.
** Output data   : addv.sas7bdat                           **.
*****
```

```
options mprint mlogic symbolgen mprint mlogic nocenter missing=" ";
```

```
proc datasets library=WORK kill nolist nodetails;
quit;
```

```
**Setup the environment**;
```

```
%let
```

```
oprot=/Volumes/app/cdars/prod/sites/cdars4/prjC459/nda2_unblinded_esub/bla_euaext_esub_sdtm/saseng/cdisc3_0;
```

```
%let prot=/Volumes/app/cdars/prod/sites/cdars4/prjC459/nda2_unblinded_esub/euaext_esub_adam/saseng/cdisc3_0;
```

```
libname dataprot "&oprot./data" access=readonly;
```

```
libname datvprot "&prot./data_vai";
```

```
proc printto print="&prot./analysis/esub/output/addv.rpt"
```

```
log="&prot./analysis/esub/logs/addv.log" new;
```

```
run;
```

```
proc sort data=dataprot.suppdv out=suppdv;
```

```
by usubjid idvarval qnam;
```

```
run;
```

```
proc transpose data=suppdv out=suppdv1(drop=_NAME__LABEL_);
```

```
by usubjid idvarval;
```

```
var qval;
```

```
id qnam;
```

```
idlabel qlabel;
```

```
run;
```

```
data suppdv1;
```

```
set suppdv1;
```

```
dvseq=input(idvarval, best.);
```

```
run;
```

```
proc sort;
```

```
by usubjid dvseq;
```

```
run;
```

```
proc sort data=dataprot.dv out=dv;
```

```
by usubjid dvseq;
```

```
run;
```

```
data _dv1;
```

```
merge dv suppdv1;
```

```
by usubjid dvseq;
```

```
proc sort;
```

```

    by usubjid;
run;

proc sort data=datvprot.adsl out=adsl;
    by usubjid;
run;

data _dv2;
    merge _dv1(in=a) adsl(in=b);
    by usubjid;

    if a;
run;

data _dv3;
    set _dv2;
    format ASTDT date9. aphasdt date9. aphaedt date9.;
    length aphase $40. aperiodc $20.;
    label ASTDT='Analysis Start Date' APHASE='Phase' APERIOD='Period'
        APERIODC='Period (C)' PREFL='Pre-treatment Flag' TRPFL='On Treatment Flag';
    p2dt=min(VAX201DT, unblnddt);

    if dvstdtc ne "" then
        astdt=input(dvstdtc, yymmdd10.);

    if brthdt<=astdt<=(trtsdt-1) then
        do;
            aphase='PRE-TREATMENT';
        end;
    else if (.<trtsdt<=astdt and p2dt=.) or (p2dt ne . and .<trtsdt<=astdt<p2dt)
        then
            do;
                aphase='TREATMENT 01';
            end;
    else if .<p2dt<=astdt<trtedt+365 then
        do;
            aphase='TREATMENT 02';
        end;

    if (trtsdt ne . and .<astdt and p2dt=.) or (trtsdt ne . and p2dt
        ne . and .<astdt<p2dt) then
        do;
            aperiod=1;
            aperiodc='Period 01';
        end;
    else if .<p2dt<=astdt<=trtsdt+365 then
        do;
            aperiod=2;
            aperiodc='Period 02';
        end;

    if astdt<trtsdt then
        prefl='Y';

```

```

if substr(aphase, 1, 9)='TREATMENT' then
  TRPFL='Y';
else
  TRPFL='N';
run;

data final;
  retain studyid usubjid domain subjid siteid age sex race trtsdt trtedt arm
    armed actarm actarmcd trt01p trt01a trt01pn trt01an agegr1 agegr1n dvseq
    dvspid dvterm dvterm1 dvdecod epoch actsite desgtor cape dvcat dvstdtc dvstdy
    astdt pref1 trpfl randfl phase phasen trtarn trtar trtpn trtpr COHORT
    COHORTN DOSALVL DOSALVLN DOSPLVL DOSPLVLN DS3KFL AGEGR3N AGEGR3 AGEGR4N
    AGEGR4 HIVFL AGETR01 TRTSDTM TRTEDTM TR01SDTM TR01EDTM TR02SDTM TR02EDTM
    VAX101 VAX102 VAX10U VAX201 VAX202 VAX20U VAX20UDT UNBLNDDT MULENRFL RAND1FL;
set _dv3;
keep studyid usubjid domain subjid siteid age sex race trtsdt trtedt arm armed
  actarm actarmcd trt01p trt01a trt01pn trt01an agegr1 agegr1n dvseq dvspid
  dvterm dvterm1 dvdecod epoch actsite desgtor cape dvcat dvstdtc dvstdy astdt
  pref1 trpfl randfl phase phasen trtarn trtar trtpn trtpr COHORT COHORTN
  DOSALVL DOSALVLN DOSPLVL DOSPLVLN DS3KFL AGEGR3N AGEGR3 AGEGR4N AGEGR4 HIVFL
  AGETR01 TRTSDTM TRTEDTM TR01SDTM TR01EDTM TR02SDTM TR02EDTM VAX101 VAX102
  VAX10U VAX201 VAX202 VAX20U VAX20UDT UNBLNDDT MULENRFL RAND1FL;
run;
proc sort data=final
  out=datvprot.addv(label='Protocol Deviations Analysis Dataset');
  by USUBJID ASTDT;
run;

proc printto;
run;

```