

Syntax for the cardiovascular disease ascertainment algorithms
Cohort 2

*****ALGORITHMS CARDIOVASCULAR DISEASES (CVD) in LASA COHORT 2*****.

*Syntax cardiovascular diseases - revised version 2018.

* Cardiac diseases: Angina Pectoris (AP), Congestive Heart Failure (CHF), Myocardial Infarction (MI), arrhythmia (ARI).

* Vascular diseases: Cerebrovascular accident (CVA) en Peripheral arterial disease (PAD).

* SPSS-syntax combines three data sources: self-report, medication and general practitioner (GP) diagnoses

(Revised version of the syntax and algorithms made by Bianca Schalk & Marijke Bremmer & Marjolein Visser).

*Currently available for LASA waves: B2 F G H I.

*for more information: see word document available by Jan Poppelaars and the flow charts on the website.

*Used LASA datafiles:

035 = SR diagnosis

352 = use of medication (predefined groups of medication)

152 = use of medication

602 = SR diagnosis, telephonic interview with proxy

702 = SR diagnosis, telephonic interview with respondent

G01 = GP diagnosis

Z008 = year of interview

Z002 = cohort type & data available or not.

```
match files /file = '*your directory here*\LAS2B035.SAV'  
/file = '*your directory here*\LAS2B352.SAV'  
/file = '*your directory here*\LAS2B152.SAV'  
/file = '*your directory here*\LASAZ008.SAV'  
/file = '*your directory here*\LASAZ002.SAV'  
/file = '*your directory here*\LASAEG01.SAV'  
/file = '*your directory here*\LASAF602.SAV'  
/file = '*your directory here*\LASAF702.SAV'  
/file = '*your directory here*\LASAF035.SAV'  
/file = '*your directory here*\LASAF352.SAV'  
/file = '*your directory here*\LASAF152.SAV'  
/file = '*your directory here*\LASAFG01.SAV'  
/file = '*your directory here*\LASAG602.SAV'  
/file = '*your directory here*\LASAG702.SAV'  
/file = '*your directory here*\LASAG035.SAV'  
/file = '*your directory here*\LASAG352.SAV'  
/file = '*your directory here*\LASAG152.SAV'  
/file = '*your directory here*\tempHG01.SAV'  
/file = '*your directory here*\LASAH602.SAV'  
/file = '*your directory here*\LASAH702.SAV'  
/file = '*your directory here*\LASAH035.SAV'
```

```
/file = '*your directory here*\LASAH352.SAV'  
/file = '*your directory here*\LASAH152.SAV'  
/file = '*your directory here*\LASAI602.SAV'  
/file = '*your directory here*\LASAI702.SAV'  
/file = '*your directory here*\LASAI035.SAV'  
/file = '*your directory here*\LASAI352.SAV'  
/file = '*your directory here*\LASAI152.SAV'  
/by respnr  
/keep respnr cohort bresult bhart01 bhart05 bhart10 bhart11 bhart12 bhart13 bhart15  
bhart15b bhart15c bhart15d bdiabe01 bdiabe07 bdiabe09 bdiabe11 bdiabe12 bcva01 bartvei1  
bartvei5 bartvei7 bartve8 bartve8b bartve8c  
    bartve8d bmed_ang bmed_ari bmed_diu bmed_ino bmed_hyp t2_dat bmvar13  
bmatc1 bmatc2 bmatc3 bmatc4 bmatc5 bmatc6 bmatc7 bmatc8 bmmed1 bmmed2 bmmed3  
bmmed4 bmmed5 bmmed6 bmmed7 bmmed8 egap egapy egaps egarrth egarrty  
    egarrths egcva egcvay egcvas egartvei egartvey egartves egmi egmiy egmis egchf  
egchfy egchfs fhart01 t6_dat fhart05 fhart10 fhart11 fhart12 fhart13 fdiabe01 fdiabe07  
    fdiabe09 fdiabe11 fdiabe12 fcva01 fartvei1 fartvei5 fartvei7 fhart15 fhart15d fhart15c  
fhart15b fartve8b fartve8d fartve8c fartve8 fgap fgapy fgaps fgarrth fgarrthy fgarrths fgcva fgcvay  
fgcvas fgartvei fgartvey  
    fgartves fgmi fgmiy fgmis fgchf fgchfy fgchfs fmed_ang fmed_ari fmed_diu fmed_ino  
fmed_hyp fmvar13 fmatc1 fmatc2 fmatc3 fmatc4 fmatc5 fmatc6 fmmed1 fmmed2 fmmed3 fmmed4  
fmmed5 fmmed6  
    fresult ftpcva01 ftphart1 ftpartv1 ftrcva01 ftrhart1 ftrartv1 ghart01 ghart05 ghart10  
ghart11 ghart12 ghart13 gdiabe01 gdiabe07 gdiabe09 gdiabe11 gdiabe12 gcva01 gartvei1 gartvei5  
gartvei7 ghart15 ghart15d ghart15c  
    ghart15b gartve8b gartve8d gartve8c gartve8 gmed_ang gmed_ari gmed_diu  
gmed_ino gmed_hyp gmvar13 gmatc1 gmatc2 gmatc3 gmatc4 gmatc5 gmatc6 gmmed1 gmmed2  
gmmed3 gmmed4 gmmed5 gmmed6  
    gresult gtpcva01 gtphart1 gtpartv1 gtrcva01 gtrhart1 gtrartv1 t7_dat  
    fmatc7 fmatc8 Fmmed7 Fmmed8 gmatc7 gmatc8 gmatc9 gmatc10 gmatc11 gmatc12  
gmatc13 gmatc14 gmatc15 gmatc16  
    Gmmed7 Gmmed8 Gmmed9 Gmmed10 Gmmed11 Gmmed12 Gmmed13 Gmmed14  
Gmmed15 Gmmed16 hmatc7 hmatc8 hmatc9 hmatc10 hmatc11 hmatc12 hmatc13 hmatc14  
hmatc15 hmatc16 hmatc17 hmatc18 hmatc19 hmatc20  
    hmmed7 hmmed8 hmmed9 hmmed10 hmmed11 hmmed12 hmmed13 hmmed14  
hmmed15 hmmed16 hmmed17 hmmed18 hmmed19 hmmed20  
    imatc7 imatc8 imatc9 imatc10 imatc11 imatc12 imatc13 imatc14 imatc15 imatc16  
imatc17 imatc18 imatc19 imatc20 imatc21 imatc22 imatc23 imatc24  
    immed7 immed8 immed9 immed10 immed11 immed12 immed13 immed14 immed15  
immed16 immed17 immed18 immed19 immed20 immed21 immed22 immed23 immed24  
    hgap hgapy hgaps hgarrth hgarrthy hgarrths hgcva hgcvay hgcvas hgartvei hgartvey  
    hgartves hgmi hgmiy hgmis hgchf hgchfy hgchfs t8_dat hhart01 hhart05 hhart10  
hhart11 hhart12 hhart13 hdiabe01 hdiabe07 hdiabe09 hdiabe11 hdiabe12 hcva01 hartvei1 hartvei5  
hartvei7 hhart15 hhart15d hhart15c  
    hhart15b hartve8b hartve8d hartve8c hartve8 hmed_ang hmed_ari hmed_diu  
hmed_ino hmed_hyp hmvar13 hmatc1 hmatc2 hmatc3 hmatc4 hmatc5 hmatc6 hmmed1 hmmed2  
hmmed3 hmmed4 hmmed5 hmmed6  
    hresult htpcva01 htphart1 htpartv1 htrcva01 htrhart1 htrartv1 t9_dat ihart01 ihart05  
ihart10 ihart11 ihart12 ihart13 idiabe01 idiabe07 idiabe09 idiabe11 idiabe12 icva01 iartvei1 iartvei5  
iartvei7 ihart15 ihart15d ihart15c
```

```
ihart15b iartve8b iartve8d iartve8c iartve8 imed_ang imed_ari imed_diu imed_ino
imed_hyp imvar13 imatc1 imatc2 imatc3 imatc4 imatc5 imatc6 immed1 immed2 immed3 immed4
immed5 immed6
ireult itpcva01 itphart1 itpartv1 itrcva01 itrhart1 itrartv1.
```

```
FILTER OFF.
USE ALL.
SELECT IF (cohort = 2 & bresult=5).
EXECUTE.
```

```
*in the EG01 datafile (gp questionnaire), the variable egarrths (=diagnosis of arrhythmia by specialist)
is not coded correctly.
RECODE egarrths (3=1).
EXECUTE.
```

```
SAVE OUTFILE='*your directory here* \LASAZH02_workingfile.sav'
/COMPRESSED.
```

```
*-----missing values.
```

```
*some cases are missing because they do not exist in original LASA files.
```

```
*assign value -9 to these cases.
```

```
RECODE egap egapy egaps egarrth egarrty egarrths egcva egcvay egcvas egartvei egartvey egartves
egmi egmiy egmis egchf egchfy egchfs fhart01 fhart05 fhart10 fhart11 fhart12 fhart13 fdiabe01
fdiabe07
fdiabe09 fdiabe11 fdiabe12 fcva01 fartvei1 fartvei5 fartvei7 fhart15 fhart15d fhart15c
fhart15b fartve8b fartve8d fartve8c fartve8 fgap fgapy fgaps fgarrth fgarrthy fgarrths fgcva fgcway
fgcvas fgartvei fgartvey
fgartves fgmi fgmiy fgmis fgchf fgchfy fgchfs fmed_ang fmed_ari fmed_diu fmed_ino
fmed_hyp fmvar13 fresult ftpcva01 ftphart1 ftpartv1 ftrcva01 ftrhart1 ftrartv1
ghart01 ghart05 ghart10 ghart11 ghart12 ghart13 gdiabe01 gdiabe07 gdiabe09
gdiabe11 gdiabe12 gcva01 gartvei1 gartvei5 gartvei7 ghart15 ghart15d ghart15c ghart15b gartve8b
gartve8d gartve8c gartve8 gmed_ang
gmed_ari gmed_diu gmed_ino gmed_hyp gresult gtpcva01 gtphart1 gtpartv1 gtrcva01
gtrhart1 gtrartv1 hgap hgapy hgaps hgarrth hgarrthy hgarrths hgcva hgcway hgcvas hgartvei hgartvey
hgartves hgmi hgmiy hgmis hgchf hgchfy hgchfs hhart01 hhart05 hhart10 hhart11
hhart12 hhart13 hdiabe01 hdiabe07 hdiabe09 hdiabe11 hdiabe12 hcva01 hartvei1 hartvei5 hartvei7
hhart15 hhart15d hhart15c
hhart15b hartve8b hartve8d hartve8c hartve8 hmed_ang hmed_ari hmed_diu
hmed_ino hmed_hyp
hresult htpcva01 htphart1 htpartv1 htrcva01 htrhart1 htrartv1 ihart01 ihart05 ihart10
ihart11 ihart12 ihart13 idiabe01 idiabe07 idiabe09 idiabe11 idiabe12 icva01 iartvei1 iartvei5 iartvei7
ihart15 ihart15d ihart15c
ihart15b iartve8b iartve8d iartve8c iartve8 imed_ang imed_ari imed_diu imed_ino
imed_hyp
ireult itpcva01 itphart1 itpartv1 itrcva01 itrhart1 itrartv1 bmvar13 gmvar13 hmvar13
imvar13 (MISSING=-9).
VALUE LABELS egap egapy egaps egarrth egarrty egarrths egcva egcvay egcvas egartvei egartvey
egartves egmi egmiy egmis egchf egchfy egchfs fhart01 fhart05 fhart10 fhart11 fhart12 fhart13
fdiabe01 fdiabe07
fdiabe09 fdiabe11 fdiabe12 fcva01 fartvei1 fartvei5 fartvei7 fhart15 fhart15d fhart15c
fhart15b fartve8b fartve8d fartve8c fartve8 fgap fgapy fgaps fgarrth fgarrthy fgarrths fgcva fgcway
fgcvas fgartvei fgartvey
```

fgartves fgmi fgmiy fgmis fgchf fgchfy fgchfs fmed_ang fmed_ari fmed_diu fmed_ino
fmed_hyp fmvar13 fresult ftpcva01 ftphart1 ftpartv1 ftrcva01 ftrhart1 ftrartv1
ghart01 ghart05 ghart10 ghart11 ghart12 ghart13 gdiabe01 gdiabe07 gdiabe09
gdiabe11 gdiabe12 gcva01 gartvei1 gartvei5 gartvei7 ghart15 ghart15d ghart15c ghart15b gartve8b
gartve8d gartve8c gartve8 gmed_ang
gmed_ari gmed_diu gmed_ino gmed_hyp gresult gtpcva01 gtphart1 gtpartv1 gtrcva01
gtrhart1 gtrartv1 hgap hgapy hgaps hgarrth hgarrthy hgarrths hgcva hgcva y hgcvas hgartvei hgartvey
hgartves hgmi hgmiy hgmis hgchf hgchfy hgchfs hhart01 hhart05 hhart10 hhart11
hhart12 hhart13 hdiabe01 hdiabe07 hdiabe09 hdiabe11 hdiabe12 hcva01 hartvei1 hartvei5 hartvei7
hhart15 hhart15d hhart15c
hhart15b hartve8b hartve8d hartve8c hartve8 hmed_ang hmed_ari hmed_diu
hmed_ino hmed_hyp
hresult htpcva01 htphart1 htpartv1 htrcva01 htrhart1 htrartv1 ihart01 ihart05 ihart10
ihart11 ihart12 ihart13 idiabe01 idiabe07 idiabe09 idiabe11 idiabe12 icva01 iartvei1 iartvei5 iartvei7
ihart15 ihart15d ihart15c
ihart15b iartve8b iartve8d iartve8c iartve8 imed_ang imed_ari imed_diu imed_ino
imed_hyp
iresult itpcva01 itphart1 itpartv1 itrcva01 itrhart1 itrartv1 bmvar13 gmvar13 hmvar13
imvar13

-9 'missing, case was missing in original LASA files'.

*****B2 WAVE*****

*enalapril has the wrong ATC codes, change it to the correct code.

If (bmatc1='C09BA02' and bmmed1='enalaprilmaleaat') bmatc1='C09AA02' .

If (bmatc2='C09BA02' and bmmed2='enalaprilmaleaat') bmatc2='C09AA02' .

If (bmatc3='C09BA02' and bmmed3='enalaprilmaleaat') bmatc3='C09AA02' .

If (bmatc4='C09BA02' and bmmed4='enalaprilmaleaat') bmatc4='C09AA02' .

If (bmatc5='C09BA02' and bmmed5='enalaprilmaleaat') bmatc5='C09AA02' .

If (bmatc6='C09BA02' and bmmed6='enalaprilmaleaat') bmatc6='C09AA02' .

If (bmatc7='C09BA02' and bmmed7='enalaprilmaleaat') bmatc7='C09AA02' .

If (bmatc8='C09BA02' and bmmed8='enalaprilmaleaat') bmatc8='C09AA02' .

*tamsulosin is categorized as antihypertensive, but is never used as antihypertensive; its for BPH.

If (bmatc1='C02CA01' and bmmed1='omnic') bmatc1='G04CA02' .

If (bmatc2='C02CA01' and bmmed2='omnic') bmatc2='G04CA02' .

If (bmatc3='C02CA01' and bmmed3='omnic') bmatc3='G04CA02' .

If (bmatc4='C02CA01' and bmmed4='omnic') bmatc4='G04CA02' .

If (bmatc5='C02CA01' and bmmed5='omnic') bmatc5='G04CA02' .

If (bmatc6='C02CA01' and bmmed6='omnic') bmatc6='G04CA02' .

If (bmatc7='C02CA01' and bmmed7='omnic') bmatc7='G04CA02' .

If (bmatc8='C02CA01' and bmmed8='omnic') bmatc8='G04CA02' .

*bmed_ino: no errors.

*med_ari.

*flecainide has the wrong ATC code.

If (fmatc1='C07AA05' and fmmed1='flecainide') fmatc1='C01BC04' .

If (fmatc2='C07AA05' and fmmed2='flecainide') fmatc2='C01BC04' .

If (fmatc3='C07AA05' and fmmed3='flecainide') fmatc3='C01BC04' .

If (fmatc4='C07AA05' and fmmed4='flecainide') fmatc4='C01BC04' .

If (fmatc5='C07AA05' and fmmed5='flecainide') fmatc5='C01BC04' .

If (fmatc6='C07AA05' and fmmed6='flecainide') fmatc6='C01BC04' .

If (fmatc7='C07AA05' and fmmed7='flecainide') fmatc7='C01BC04' .

If (fmatc8='C07AA05' and fmed8='flecainide') fmatc8='C01BC04' .
EXECUTE.

*bmed_ang no errors.

*med_diu: C03.

*HYDROCHLORTHIAZIDE C03EA01 --> C03AA03 .

If (bmatc1='C03EA01' and bmed1='hydrochloorthiazide') bmatc1='C03AA03' .
If (bmatc2='C03EA01' and bmed2='hydrochloorthiazide') bmatc2='C03AA03' .
If (bmatc3='C03EA01' and bmed3='hydrochloorthiazide') bmatc3='C03AA03' .
If (bmatc4='C03EA01' and bmed4='hydrochloorthiazide') bmatc4='C03AA03' .
If (bmatc5='C03EA01' and bmed5='hydrochloorthiazide') bmatc5='C03AA03' .
If (bmatc6='C03EA01' and bmed6='hydrochloorthiazide') bmatc6='C03AA03' .
If (bmatc7='C03EA01' and bmed7='hydrochloorthiazide') bmatc7='C03AA03' .
If (bmatc8='C03EA01' and bmed8='hydrochloorthiazide') bmatc8='C03AA03' .
EXECUTE.

*med_hyp: C02 C07 C08 C09.

*C02.

* remaining medication coded as C02 but should not be C02.

*NORVASC C02DE12 --> C08CA01.

If (bmatc1='C02DE12') bmatc1='C08CA01' .
If (bmatc2='C02DE12') bmatc2='C08CA01' .
If (bmatc3='C02DE12') bmatc3='C08CA01' .
If (bmatc4='C02DE12') bmatc4='C08CA01' .
If (bmatc5='C02DE12') bmatc5='C08CA01' .
If (bmatc6='C02DE12') bmatc6='C08CA01' .
If (bmatc7='C02DE12') bmatc7='C08CA01' .
If (bmatc8='C02DE12') bmatc8='C08CA01' .

*PLENDIL C02DE10 --> C08CA02.

If (bmatc1='C02DE10') bmatc1='C08CA02' .
If (bmatc2='C02DE10') bmatc2='C08CA02' .
If (bmatc3='C02DE10') bmatc3='C08CA02' .
If (bmatc4='C02DE10') bmatc4='C08CA02' .
If (bmatc5='C02DE10') bmatc5='C08CA02' .
If (bmatc6='C02DE10') bmatc6='C08CA02' .
If (bmatc7='C02DE10') bmatc7='C08CA02' .
If (bmatc8='C02DE10') bmatc8='C08CA02' .

*LOMIR C02DE13 --> C08CA03.

If (bmatc1='C02DE13') bmatc1='C08CA03' .
If (bmatc2='C02DE13') bmatc2='C08CA03' .
If (bmatc3='C02DE13') bmatc3='C08CA03' .
If (bmatc4='C02DE13') bmatc4='C08CA03' .
If (bmatc5='C02DE13') bmatc5='C08CA03' .
If (bmatc6='C02DE13') bmatc6='C08CA03' .
If (bmatc7='C02DE13') bmatc7='C08CA03' .
If (bmatc8='C02DE13') bmatc8='C08CA03' .

*CARDENE C02DE09 --> C08CA04.

If (bmatc1='C02DE09') bmatc1='C08CA04' .
If (bmatc2='C02DE09') bmatc2='C08CA04' .
If (bmatc3='C02DE09') bmatc3='C08CA04' .
If (bmatc4='C02DE09') bmatc4='C08CA04' .
If (bmatc5='C02DE09') bmatc5='C08CA04' .
If (bmatc6='C02DE09') bmatc6='C08CA04' .
If (bmatc7='C02DE09') bmatc7='C08CA04' .
If (bmatc8='C02DE09') bmatc8='C08CA04' .

*ADALAT, NIFEDIPINE, C02DE02 --> C08CA05 .

If (bmatc1='C02DE02') bmatc1='C08CA05' .
If (bmatc2='C02DE02') bmatc2='C08CA05' .
If (bmatc3='C02DE02') bmatc3='C08CA05' .
If (bmatc4='C02DE02') bmatc4='C08CA05' .
If (bmatc5='C02DE02') bmatc5='C08CA05' .
If (bmatc6='C02DE02') bmatc6='C08CA05' .
If (bmatc7='C02DE02') bmatc7='C08CA05' .
If (bmatc8='C02DE02') bmatc8='C08CA05' .

*SYSCOR C02DE14 --> C08CA07.

If (bmatc1='C02DE14') bmatc1='C08CA07' .
If (bmatc2='C02DE14') bmatc2='C08CA07' .
If (bmatc3='C02DE14') bmatc3='C08CA07' .
If (bmatc4='C02DE14') bmatc4='C08CA07' .
If (bmatc5='C02DE14') bmatc5='C08CA07' .
If (bmatc6='C02DE14') bmatc6='C08CA07' .
If (bmatc7='C02DE14') bmatc7='C08CA07' .
If (bmatc8='C02DE14') bmatc8='C08CA07' .

*ISOPTINE, VERAPAMIL C02DE01 --> C08DA01.

If (bmatc1='C02DE01') bmatc1='C08DA01' .
If (bmatc2='C02DE01') bmatc2='C08DA01' .
If (bmatc3='C02DE01') bmatc3='C08DA01' .
If (bmatc4='C02DE01') bmatc4='C08DA01' .
If (bmatc5='C02DE01') bmatc5='C08DA01' .
If (bmatc6='C02DE01') bmatc6='C08DA01' .
If (bmatc7='C02DE01') bmatc7='C08DA01' .
If (bmatc8='C02DE01') bmatc8='C08DA01' .

*DILTIAZEM, TILDIEM, C02DE04 --> C08DB01.

If (bmatc1='C02DE04') bmatc1='C08DB01' .
If (bmatc2='C02DE04') bmatc2='C08DB01' .
If (bmatc3='C02DE04') bmatc3='C08DB01' .
If (bmatc4='C02DE04') bmatc4='C08DB01' .
If (bmatc5='C02DE04') bmatc5='C08DB01' .
If (bmatc6='C02DE04') bmatc6='C08DB01' .
If (bmatc7='C02DE04') bmatc7='C08DB01' .
If (bmatc8='C02DE04') bmatc8='C08DB01' .

*CAPOTEN C02EA01 --> C09AA01.

If (bmatc1='C02EA01') bmatc1='C09AA01' .
If (bmatc2='C02EA01') bmatc2='C09AA01' .

If (bmatc3='C02EA01') bmatc3='C09AA01' .
If (bmatc4='C02EA01') bmatc4='C09AA01' .
If (bmatc5='C02EA01') bmatc5='C09AA01' .
If (bmatc6='C02EA01') bmatc6='C09AA01' .
If (bmatc7='C02EA01') bmatc7='C09AA01' .
If (bmatc8='C02EA01') bmatc8='C09AA01' .

*RENITEC, enalapril C02EA02 --> C09AA02.

If (bmatc1='C02EA02') bmatc1='C09AA02' .
If (bmatc2='C02EA02') bmatc2='C09AA02' .
If (bmatc3='C02EA02') bmatc3='C09AA02' .
If (bmatc4='C02EA02') bmatc4='C09AA02' .
If (bmatc5='C02EA02') bmatc5='C09AA02' .
If (bmatc6='C02EA02') bmatc6='C09AA02' .
If (bmatc7='C02EA02') bmatc7='C09AA02' .
If (bmatc8='C02EA02') bmatc8='C09AA02' .

*NOVATEC, ZESTRIL C02EA03 --> C09AA03 .

If (bmatc1='C02EA03') bmatc1='C09AA03' .
If (bmatc2='C02EA03') bmatc2='C09AA03' .
If (bmatc3='C02EA03') bmatc3='C09AA03' .
If (bmatc4='C02EA03') bmatc4='C09AA03' .
If (bmatc5='C02EA03') bmatc5='C09AA03' .
If (bmatc6='C02EA03') bmatc6='C09AA03' .
If (bmatc7='C02EA03') bmatc7='C09AA03' .
If (bmatc8='C02EA03') bmatc8='C09AA03' .

*COVERSYL C02EA04 --> C09AA04 .

If (bmatc1='C02EA04') bmatc1='C09AA04' .
If (bmatc2='C02EA04') bmatc2='C09AA04' .
If (bmatc3='C02EA04') bmatc3='C09AA04' .
If (bmatc4='C02EA04') bmatc4='C09AA04' .
If (bmatc5='C02EA04') bmatc5='C09AA04' .
If (bmatc6='C02EA04') bmatc6='C09AA04' .
If (bmatc7='C02EA04') bmatc7='C09AA04' .
If (bmatc8='C02EA04') bmatc8='C09AA04' .

*ACUPRIL C02EA06 --> C09AA06 .

If (bmatc1='C02EA06') bmatc1='C09AA06' .
If (bmatc2='C02EA06') bmatc2='C09AA06' .
If (bmatc3='C02EA06') bmatc3='C09AA06' .
If (bmatc4='C02EA06') bmatc4='C09AA06' .
If (bmatc5='C02EA06') bmatc5='C09AA06' .
If (bmatc6='C02EA06') bmatc6='C09AA06' .
If (bmatc7='C02EA06') bmatc7='C09AA06' .
If (bmatc8='C02EA06') bmatc8='C09AA06' .

*CAPOZIDE C02LM01 --> C09BA01.

If (bmatc1='C02LM01') bmatc1='C09BA01' .
If (bmatc2='C02LM01') bmatc2='C09BA01' .
If (bmatc3='C02LM01') bmatc3='C09BA01' .
If (bmatc4='C02LM01') bmatc4='C09BA01' .

If (bmatc5='C02LM01') bmatc5='C09BA01' .
If (bmatc6='C02LM01') bmatc6='C09BA01' .
If (bmatc7='C02LM01') bmatc7='C09BA01' .
If (bmatc8='C02LM01') bmatc8='C09BA01' .

*ZESTORETIC C02LM03 --> C09BA03.
If (bmatc1='C02LM03') bmatc1='C09BA03' .
If (bmatc2='C02LM03') bmatc2='C09BA03' .
If (bmatc3='C02LM03') bmatc3='C09BA03' .
If (bmatc4='C02LM03') bmatc4='C09BA03' .
If (bmatc5='C02LM03') bmatc5='C09BA03' .
If (bmatc6='C02LM03') bmatc6='C09BA03' .
If (bmatc7='C02LM03') bmatc7='C09BA03' .
If (bmatc8='C02LM03') bmatc8='C09BA03' .
EXECUTE.

*hyzaarC09CX --> C09DA01.
If (bmatc1='C09CX') bmatc1='C09DA01' .
If (bmatc2='C09CX') bmatc2='C09DA01' .
If (bmatc3='C09CX') bmatc3='C09DA01' .
If (bmatc4='C09CX') bmatc4='C09DA01' .
If (bmatc5='C09CX') bmatc5='C09DA01' .
If (bmatc6='C09CX') bmatc6='C09DA01' .
If (bmatc7='C09CX') bmatc7='C09DA01' .
If (bmatc8='C09CX') bmatc8='C09DA01' .
EXECUTE.

*acuzide C09AX --> C09BA06.
If (bmatc1='C09AX' and bmmed1='acuzide') bmatc1='C09BA06' .
If (bmatc2='C09AX' and bmmed2='acuzide') bmatc2='C09BA06' .
If (bmatc3='C09AX' and bmmed3='acuzide') bmatc3='C09BA06' .
If (bmatc4='C09AX' and bmmed4='acuzide') bmatc4='C09BA06' .
If (bmatc5='C09AX' and bmmed5='acuzide') bmatc5='C09BA06' .
If (bmatc6='C09AX' and bmmed6='acuzide') bmatc6='C09BA06' .
If (bmatc7='C09AX' and bmmed7='acuzide') bmatc7='C09BA06' .
If (bmatc8='C09AX' and bmmed8='acuzide') bmatc8='C09BA06' .

*captopril/hydrochloorthiazide C09AX C09BA01.
If (bmatc1='C09AX') bmatc1='C09BA01' .
If (bmatc2='C09AX') bmatc2='C09BA01' .
If (bmatc3='C09AX') bmatc3='C09BA01' .
If (bmatc4='C09AX') bmatc4='C09BA01' .
If (bmatc5='C09AX') bmatc5='C09BA01' .
If (bmatc6='C09AX') bmatc6='C09BA01' .
If (bmatc7='C09AX') bmatc7='C09BA01' .
If (bmatc8='C09AX') bmatc8='C09BA01' .
EXECUTE.

*captopril C09AP01 C09AA01.
If (bmatc1='C09AP01') bmatc1='C09AA01' .
If (bmatc2='C09AP01') bmatc2='C09AA01' .
If (bmatc3='C09AP01') bmatc3='C09AA01' .

If (bmatc4='C09AP01') bmatc4='C09AA01' .
If (bmatc5='C09AP01') bmatc5='C09AA01' .
If (bmatc6='C09AP01') bmatc6='C09AA01' .
If (bmatc7='C09AP01') bmatc7='C09AA01' .
If (bmatc8='C09AP01') bmatc8='C09AA01' .
EXECUTE.

*C07.

*emcoretic (and not emcor) C07AB07 --> C07BB07.

If (bmatc1='C07AB07' and bmmed1='emcoretic') bmatc1='C07BB07' .
If (bmatc2='C07AB07' and bmmed2='emcoretic') bmatc2='C07BB07' .
If (bmatc3='C07AB07' and bmmed3='emcoretic') bmatc3='C07BB07' .
If (bmatc4='C07AB07' and bmmed4='emcoretic') bmatc4='C07BB07' .
If (bmatc5='C07AB07' and bmmed5='emcoretic') bmatc5='C07BB07' .
If (bmatc6='C07AB07' and bmmed6='emcoretic') bmatc6='C07BB07' .
If (bmatc7='C07AB07' and bmmed7='emcoretic') bmatc7='C07BB07' .
If (bmatc8='C07AB07' and bmmed8='emcoretic') bmatc8='C07BB07' .

*atenolol/chloortalidon C07AB03 --> C07CB03.

If (bmatc1='C07AB03' and bmmed1='atenolol/chloortalidon') bmatc1='C07CB03' .
If (bmatc2='C07AB03' and bmmed2='atenolol/chloortalidon') bmatc2='C07CB03' .
If (bmatc3='C07AB03' and bmmed3='atenolol/chloortalidon') bmatc3='C07CB03' .
If (bmatc4='C07AB03' and bmmed4='atenolol/chloortalidon') bmatc4='C07CB03' .
If (bmatc5='C07AB03' and bmmed5='atenolol/chloortalidon') bmatc5='C07CB03' .
If (bmatc6='C07AB03' and bmmed6='atenolol/chloortalidon') bmatc6='C07CB03' .
If (bmatc7='C07AB03' and bmmed7='atenolol/chloortalidon') bmatc7='C07CB03' .
If (bmatc8='C07AB03' and bmmed8='atenolol/chloortalidon') bmatc8='C07CB03' .

*C08.

*C09.

*irbesartan/hydrochloorthiazide C09CA04 --> C09DA04.

If (bmatc1='C09CA04' and bmmed1='irbesartan/hydrochloorthiazide') bmatc1='C09DA04' .
If (bmatc2='C09CA04' and bmmed2='irbesartan/hydrochloorthiazide') bmatc2='C09DA04' .
If (bmatc3='C09CA04' and bmmed3='irbesartan/hydrochloorthiazide') bmatc3='C09DA04' .
If (bmatc4='C09CA04' and bmmed4='irbesartan/hydrochloorthiazide') bmatc4='C09DA04' .
If (bmatc5='C09CA04' and bmmed5='irbesartan/hydrochloorthiazide') bmatc5='C09DA04' .
If (bmatc6='C09CA04' and bmmed6='irbesartan/hydrochloorthiazide') bmatc6='C09DA04' .
If (bmatc7='C09CA04' and bmmed7='irbesartan/hydrochloorthiazide') bmatc7='C09DA04' .
If (bmatc8='C09CA04' and bmmed8='irbesartan/hydrochloorthiazide') bmatc8='C09DA04' .

*create a string variable that consists of the first 3 characters of the ATC code.

string b_3ATC1(a30).

COMPUTE b_3ATC1 = CHAR.SUBSTR(bmatc1,1,3) .

string b_3ATC2(a30).

COMPUTE b_3ATC2 = CHAR.SUBSTR(bmatc2,1,3) .

string b_3ATC3(a30).

COMPUTE b_3ATC3 = CHAR.SUBSTR(bmatc3,1,3) .

string b_3ATC4(a30).

```
COMPUTE b_3ATC4 = CHAR.SUBSTR(bmatc4,1,3) .
string b_3ATC5(a30).
COMPUTE b_3ATC5 = CHAR.SUBSTR(bmatc5,1,3) .
string b_3ATC6(a30).
COMPUTE b_3ATC6 = CHAR.SUBSTR(bmatc6,1,3) .
string b_3ATC7(a30).
COMPUTE b_3ATC7 = CHAR.SUBSTR(bmatc7,1,3) .
string b_3ATC8(a30).
COMPUTE b_3ATC8 = CHAR.SUBSTR(bmatc8,1,3) .
```

*create a string variable that consists of the first 4 characters of the ATC code.

```
string b_4ATC1(a30).
COMPUTE b_4ATC1 = CHAR.SUBSTR(bmatc1,1,4) .
string b_4ATC2(a30).
COMPUTE b_4ATC2 = CHAR.SUBSTR(bmatc2,1,4) .
string b_4ATC3(a30).
COMPUTE b_4ATC3 = CHAR.SUBSTR(bmatc3,1,4) .
string b_4ATC4(a30).
COMPUTE b_4ATC4 = CHAR.SUBSTR(bmatc4,1,4) .
string b_4ATC5(a30).
COMPUTE b_4ATC5 = CHAR.SUBSTR(bmatc5,1,4) .
string b_4ATC6(a30).
COMPUTE b_4ATC6 = CHAR.SUBSTR(bmatc6,1,4) .
string b_4ATC7(a30).
COMPUTE b_4ATC7 = CHAR.SUBSTR(bmatc7,1,4) .
string b_4ATC8(a30).
COMPUTE b_4ATC8 = CHAR.SUBSTR(bmatc8,1,4) .
```

*create a string variable that consists of the first 5 characters of the ATC code.

```
string b_5ATC1(a30).
COMPUTE b_5ATC1 = CHAR.SUBSTR(bmatc1,1,5) .
string b_5ATC2(a30).
COMPUTE b_5ATC2 = CHAR.SUBSTR(bmatc2,1,5) .
string b_5ATC3(a30).
COMPUTE b_5ATC3 = CHAR.SUBSTR(bmatc3,1,5) .
string b_5ATC4(a30).
COMPUTE b_5ATC4 = CHAR.SUBSTR(bmatc4,1,5) .
string b_5ATC5(a30).
COMPUTE b_5ATC5 = CHAR.SUBSTR(bmatc5,1,5) .
string b_5ATC6(a30).
COMPUTE b_5ATC6 = CHAR.SUBSTR(bmatc6,1,5) .
string b_5ATC7(a30).
COMPUTE b_5ATC7 = CHAR.SUBSTR(bmatc7,1,5) .
string b_5ATC8(a30).
COMPUTE b_5ATC8 = CHAR.SUBSTR(bmatc8,1,5) .
EXECUTE.
```

*bmed_ino: no errors.

*bmed_ari no errors.

*med_ang no errors.

*med_diu: C03.

```
RECODE bmed_diu (ELSE=COPY) INTO bmed_diu_or.
VARIABLE LABELS bmed_diu_or 'origineel'.
EXECUTE.
RECODE bmed_diu (ELSE=-3).
EXECUTE.
If (bmvar13 le -1) bmed_diu=-1.
If (bmvar13=2 or bmvar13=1) bmed_diu=0.
If (b_4ATC1='C03' OR b_3ATC2='C03' OR b_3ATC3='C03' OR b_3ATC4='C03' OR b_3ATC5='C03' OR
b_3ATC6='C03' OR b_3ATC7='C03' OR b_3ATC8='C03') bmed_diu=1.
EXECUTE.
```

*some diuretics are combination preps and therefore (incorrectly) not included in the diuretics variable.

*C07B C07C C07D C02L C09BA C09DA C08G .

```
If (b_4ATC1='C07B' OR b_4ATC2='C07B' OR b_4ATC3='C07B' OR b_4ATC4='C07B' OR b_4ATC5='C07B'
OR b_4ATC6='C07B' OR
b_4ATC7='C07B' OR b_4ATC8='C07B') bmed_diu=1.
If (b_4ATC1='C07C' OR b_4ATC2='C07C' OR b_4ATC3='C07C' OR b_4ATC4='C07C' OR b_4ATC5='C07C'
OR b_4ATC6='C07C' OR
b_4ATC7='C07C' OR b_4ATC8='C07C') bmed_diu=1.
If (b_4ATC1='C07D' OR b_4ATC2='C07D' OR b_4ATC3='C07D' OR b_4ATC4='C07D' OR
b_4ATC5='C07D' OR b_4ATC6='C07D' OR
b_4ATC7='C07D' OR b_4ATC8='C07D') bmed_diu=1.
If (b_4ATC1='C02L' OR b_4ATC2='C02L' OR b_4ATC3='C02L' OR b_4ATC4='C02L' OR b_4ATC5='C02L'
OR b_4ATC6='C02L' OR
b_4ATC7='C02L' OR b_4ATC8='C02L') bmed_diu=1.
If (b_5ATC1='C09BA' OR b_5ATC2='C09BA' OR b_5ATC3='C09BA' OR b_5ATC4='C09BA' OR
b_5ATC5='C09BA' OR b_5ATC6='C09BA' OR b_5ATC7='C09BA' OR b_5ATC8='C09BA') imed_diu=1.
If (b_5ATC1='C09DA' OR b_5ATC2='C09DA' OR b_5ATC3='C09DA' OR b_5ATC4='C09DA' OR
b_5ATC5='C09DA' OR b_5ATC6='C09DA' OR b_5ATC7='C09DA' OR b_5ATC8='C09DA') imed_diu=1.
If (b_4ATC1='C08G' OR b_4ATC2='C08G' OR b_4ATC3='C08G' OR b_4ATC4='C08G' OR
b_4ATC5='C08G' OR b_4ATC6='C08G' OR b_4ATC7='C08G' OR b_4ATC8='C08G') imed_diu=1.
EXECUTE.
```

*med_hyp: C02 C07 C08 C09.

```
RECODE bmed_hyp (ELSE=COPY) INTO bmed_hyp_or.
VARIABLE LABELS bmed_hyp_or 'origineel'.
EXECUTE.
RECODE bmed_hyp (ELSE=-3).
EXECUTE.
If (bmvar13 le -1) bmed_hyp=-1.
If (bmvar13=2 or bmvar13=1) bmed_hyp=0.
If (b_3ATC1='C02' OR b_3ATC2='C02' OR b_3ATC3='C02' OR b_3ATC4='C02' OR b_3ATC5='C02' OR
b_3ATC6='C02' OR b_3ATC7='C02' OR b_3ATC8='C02') bmed_hyp=1.
If (b_3ATC1='C07' OR b_3ATC2='C07' OR b_3ATC3='C07' OR b_3ATC4='C07' OR b_3ATC5='C07' OR
b_3ATC6='C07' OR b_3ATC7='C07' OR b_3ATC8='C07') bmed_hyp=1.
If (b_3ATC1='C08' OR b_3ATC2='C08' OR b_3ATC3='C08' OR b_3ATC4='C08' OR b_3ATC5='C08' OR
b_3ATC6='C08' OR b_3ATC7='C08' OR b_3ATC8='C08') bmed_hyp=1.
If (b_3ATC1='C09' OR b_3ATC2='C09' OR b_3ATC3='C09' OR b_3ATC4='C09' OR b_3ATC5='C09' OR
b_3ATC6='C09' OR b_3ATC7='C09' OR b_3ATC8='C09') bmed_hyp=1.
EXECUTE.
```

*create a variable: use of beta blocking agents (atc code C07, thus includes combination preparaten) yes/no.

```
compute bmed_beta=0.
```

```
if (bmvar13 le -1) bmed_beta=-1.
```

```
if (b_3ATC1='C07' OR b_3ATC2='C07' OR b_3ATC3='C07' OR b_3ATC4='C07' OR b_3ATC5='C07' OR  
b_3ATC6='C07' OR
```

```
b_3ATC7='C07' OR b_3ATC8='C07') bmed_beta=1.
```

```
VARIABLE LABELS bmed_beta 'use of beta blocking agents'.
```

```
VALUE LABELS bmed_beta
```

```
  -1 'missing'
```

```
  0 'no'
```

```
  1 'yes'.
```

```
EXECUTE.
```

*create a variable: use of anticoagulant drugs (vitamine K antagonists, DOACs, dabigatran (atc codes B01AA, B01AF, B01AE)) yes/no.

```
compute bmed_stolling=0.
```

```
if (bmvar13 le -1) bmed_stolling=-1.
```

```
if (b_5ATC1='B01AA' OR b_5ATC2='B01AA' OR b_5ATC3='B01AA' OR b_5ATC4='B01AA' OR  
b_5ATC5='B01AA' OR b_5ATC6='B01AA' OR  
b_5ATC7='B01AA') bmed_stolling=1.
```

```
if (b_5ATC1='B01AF' OR b_5ATC2='B01AF' OR b_5ATC3='B01AF' OR b_5ATC4='B01AF' OR  
b_5ATC5='B01AF' OR b_5ATC6='B01AF' OR  
b_5ATC7='B01AF' OR b_5ATC8='B01AF') bmed_stolling=1.
```

```
if (b_5ATC1='B01AE' OR b_5ATC2='B01AE' OR b_5ATC3='B01AE' OR b_5ATC4='B01AE' OR  
b_5ATC5='B01AE' OR b_5ATC6='B01AE' OR  
b_5ATC7='B01AE' OR b_5ATC8='B01AE') bmed_stolling=1.
```

```
VARIABLE LABELS bmed_stolling 'use of anticoagulants'.
```

```
VALUE LABELS bmed_stolling
```

```
  -1 'missing'
```

```
  0 'no'
```

```
  1 'yes'.
```

```
EXECUTE.
```

*combining anticoagulants and betablocking agents: use of both, yes/no.

```
compute bmed_stol_beta=-3.
```

```
if (bmed_stolling=-1) bmed_stol_beta=-1.
```

```
if (bmed_stolling=1 and bmed_beta=1) bmed_stol_beta=1.
```

```
if (bmed_stolling=0 or bmed_beta=0) bmed_stol_beta=0.
```

```
VARIABLE LABELS bmed_stol_beta 'use of both beta blocking agent AND anticoagulantia'.
```

```
VALUE LABELS bmed_stol_beta
```

```
  -1 'missing'
```

```
  0 'no'
```

```
  1 'yes'.
```

```
EXECUTE.
```

*****year of interview (2003 or 2003).

```
COMPUTE t2_YEAR=XDATE.YEAR(t2_dat).
```

```
VARIABLE LABELS t2_YEAR "LASA main interview year (w2)".
```

```
VARIABLE LEVEL t2_YEAR(SCALE).
```

```
FORMATS t2_YEAR(F8.0).
```

```
VARIABLE WIDTH t2_YEAR(8).
```

EXECUTE.

*****ARRHYTHMIA (ARI) at B*****.

*Selfreport surgery implantation of pacemaker.

COMPUTE b2_surARI=-3.

IF (bhart01 le -1) b2_surARI=-1.

IF (bhart15d le -1) b2_surARI=-1.

IF (bhart15 le -1) b2_surARI=-1.

IF (bhart01=1) b2_surARI=0.

IF (bhart15=1) b2_surARI=0.

IF (bhart15d=0) b2_surARI=0.

IF (bhart15d=1) b2_surARI=1.

VARIABLE LABELS b2_surARI 'self report surgery: pacemaker'.

VALUE LABELS b2_surARI

-1 'missing'

0 'no'

1 'yes'.

*use of anti arrhythmic medication.

RECODE bmed_ARI (0=0) (1=1) (SYSMIS=-1) (-9=-1) (ELSE=copy) INTO b2_mARI.

IF (bmed_ino=1) b2_mARI=1.

IF (bmvar13=0) b2_mARI=0.

IF (bmvar13 le -1) b2_mARI=-1.

VARIABLE LABELS b2_mARI 'use of antiarrhythmics'.

VALUE LABELS b2_mARI

-1 'missing'

0 'no'

1 'yes'.

*GP diagnosis of ARI.

COMPUTE b2_gpARI=-3.

IF (egarrth le -1) b2_gpARI=-1.

IF (t2_year le -1) b2_gpARI=-1.

IF (egarrth=0) b2_gpARI=0.

IF (egarrth=1 and egarrty ge 7) b2_gpARI=0.

IF (egarrth=1 and egarrty ge 6 and t2_year=2002) b2_gpARI=0.

IF (egarrth=1 and (egarrty ge 1 and egarrty le 5)) b2_gpARI=1.

IF (egarrth=1 and (egarrty=6 and t2_YEAR=2003.0)) b2_gpARI=1.

IF (egarrth=1 and egarrty le -1) b2_gpARI=2.

IF (b2_gpARI=-1 AND fgarrth=0) b2_gpARI=0.

IF (b2_gpARI=-1 AND fgarrth=1 AND fgarrthy ge 2) b2_gpARI=0.

IF (b2_gpARI=-1 AND fgarrth=1 AND fgarrthy le 1) b2_gpARI=2.

IF (b2_gpARI=-1 AND hgarrth=0) b2_gpARI=0.

IF (b2_gpARI=-1 AND hgarrth=1 AND hgarrthy ge 2) b2_gpARI=0.

IF (b2_gpARI=-1 AND hgarrth=1 AND hgarrthy le 1) b2_gpARI=2.

VARIABLE LABELS b2_gpARI 'gp diagnosis: cardiac arrhythmia'.

VALUE LABELS b2_gpARI

-1 'missing'

0 'no'

1 'yes'

2 'diagnose = yes, but year = missing'.

```

*ARI algorithm: medication, GP diagnosis and SR implantation of pacemaker combined.
compute b2_ARI=-3.
IF (b2_mARI=1) b2_ARI=1.
IF (b2_mARI=0 and b2_gpARI=1 and (bmed_stol_beta=1)) b2_ARI=1.
IF (b2_mARI=0 and b2_gpARI=1 and (bmed_stol_beta=0) and (egarrths=1 or fgarrths=1 or hgarrths=1)) b2_ARI=1.
IF (b2_mARI=0 and b2_gpARI=1 and (bmed_stol_beta=0) and egarrths le 0 and b2_surARI=1) b2_ARI=1.
IF (b2_mARI=0 and b2_gpARI=1 and (bmed_stol_beta=0) and egarrths le 0 and b2_surARI le 0) b2_ARI=2.
IF (b2_mARI=0 and b2_gpARI=0 and b2_surARI=1) b2_ARI=3.
IF (b2_mARI=0 and b2_gpARI=0 and b2_surARI le 0) b2_ARI=0.
IF (b2_mARI=0 and b2_gpARI=2 and (bmed_stol_beta=1)) b2_ARI=1.
IF (b2_mARI=0 and b2_gpARI=2 and (bmed_stol_beta=0) and b2_surARI=1) b2_ARI=1.
IF (b2_mARI=0 and b2_gpARI=2 and (bmed_stol_beta=0) and b2_surARI le 0) b2_ARI=0.
IF (b2_mARI=0 and b2_gpARI=2 and (bmed_stol_beta=0) and b2_surARI le -1) b2_ARI=0.
IF (b2_mARI=0 and b2_gpARI=-1 and b2_surARI=1) b2_ARI=2.
IF (b2_mARI=0 and b2_gpARI=-1 and (bmed_stol_beta=0) and b2_surARI=0) b2_ARI=0.
IF (b2_mARI=0 and b2_gpARI=-1 and (bmed_stol_beta=0) and b2_surARI le -1) b2_ARI=-1.
IF (b2_mARI=0 and b2_gpARI=-1 and (bmed_stol_beta=1) and b2_surARI le 0) b2_ARI=-1.
IF (b2_mARI le -1 and b2_gpARI=1 and (egarrths=1 or fgarrths=1 or hgarrths=1)) b2_ARI=1.
IF (b2_mARI le -1 and b2_gpARI=1 and egarrths le 0 and b2_surARI=1) b2_ARI=1.
IF (b2_mARI le -1 and b2_gpARI=1 and egarrths le 0 and b2_surARI le 0) b2_ARI=2.
IF (b2_mARI le -1 and b2_gpARI=0 and b2_surARI=1) b2_ARI=3.
IF (b2_mARI le -1 and b2_gpARI=0 and b2_surARI le 0) b2_ARI=0.
IF (b2_mARI le -1 and b2_gpARI=2 and b2_surARI=1) b2_ARI=1.
IF (b2_mARI le -1 and b2_gpARI=2 and b2_surARI le 0) b2_ARI=-1.
IF (b2_mARI le -1 and b2_gpARI le -1 and b2_surARI=1) b2_ARI=2.
IF (b2_mARI le -1 and b2_gpARI le -1 and b2_surARI le 0) b2_ARI=-1.
VARIABLE LABELS b2_ARI '2B wave: arrhythmia'.
VALUE LABELS b2_ARI
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****CEREBROVASCULAR ACCIDENT (CVA) at B*****.

```

*Selfreport diagnosis of CVA.
COMPUTE b2_srCVA=-3.
IF (bcva01 le -1) b2_srCVA=-1.
IF (bcva01=1) b2_srCVA=0.
IF (bcva01=2) b2_srCVA=1.
VARIABLE LABELS b2_srCVA 'self report: CVA'.
VALUE LABELS b2_srCVA
    -1 'missing'
    0 'no'
    1 'yes'.

```

```

*GP diagnosis of CVA.
COMPUTE b2_gpCVA=-3.
IF (egcva le -1) b2_gpCVA=-1.

```

```

IF (t2_year le -1) b2_gpCVA=-1.
IF (egcva=0) b2_gpCVA=0.
IF (egcva=1 and egcvay ge 7) b2_gpCVA=0.
IF (egcva=1 and egcvay ge 6 and t2_year=2002) b2_gpCVA=0.
IF (egcva=1 and (egcvay ge 1 and egcvay le 5)) b2_gpCVA=1.
IF (egcva=1 and (egcvay=6 and t2_YEAR=2003.0)) b2_gpCVA=1.
IF (egcva=1 and egcvay le -1) b2_gpCVA=2.
If (b2_gpCVA=-1 AND fgcva=0) b2_gpCVA=0.
If (b2_gpCVA=-1 AND fgcva=1 AND fgcvay ge 2) b2_gpCVA=0.
If (b2_gpCVA=-1 AND fgcva=1 AND fgcvay le 1) b2_gpCVA=2.
If (b2_gpCVA=-1 AND hgcva=0) b2_gpCVA=0.
If (b2_gpCVA=-1 AND hgcva=1 AND hgcvay ge 2) b2_gpCVA=0.
If (b2_gpCVA=-1 AND hgcva=1 AND hgcvay le 1) b2_gpCVA=2.
VARIABLE LABELS b2_gpCVA 'gp diagnosis: CVA'.
VALUE LABELS b2_gpCVA
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*CVA algorithm: GP diagnosis and SR combined.

```

COMPUTE b2_CVA=-3.
IF (b2_gpCVA=1 and (egcvas=1 or fgcvas=1 or hgcvas=1)) b2_CVA=1.
IF (b2_gpCVA=1 and egcvas le 0 and b2_srCVA=1) b2_CVA=1.
IF (b2_gpCVA=1 and egcvas le 0 and b2_srCVA=0) b2_CVA=3.
IF (b2_gpCVA=1 and egcvas le 0 and b2_srCVA le -1) b2_CVA=2.
IF (b2_gpCVA=0 and b2_srCVA=1) b2_CVA=3.
IF (b2_gpCVA=0 and b2_srCVA=0) b2_CVA=0.
IF (b2_gpCVA=0 and b2_srCVA le -1) b2_CVA=0.
IF (b2_gpCVA=2 and b2_srCVA=1) b2_CVA=1.
IF (b2_gpCVA=2 and b2_srCVA=0) b2_CVA=0.
IF (b2_gpCVA=2 and b2_srCVA le -1) b2_CVA=-1.
IF (b2_gpCVA le -1 and b2_srCVA=1) b2_CVA=2.
IF (b2_gpCVA le -1 and b2_srCVA=0) b2_CVA=0.
IF (b2_gpCVA le -1 and b2_srCVA le -1) b2_CVA=-1.
VARIABLE LABELS b2_CVA '2B wave: cerebrovascular accident'.
VALUE LABELS b2_CVA
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****MYOCARDIAL INFARCTION (MI) at B*****.

*Selfreport diagnosis of MI.

```

COMPUTE b2_srMI=-5.
IF (bhart01 le -1) b2_srMI=-1.
IF (bhart05 le -1 and bhart01=2) b2_srMI=-1.
IF (bhart01=1) b2_srMI=0.
IF (bhart05=1) b2_srMI=0.
IF (bhart05=2) b2_srMI=1.

```

```
VARIABLE LABELS b2_srMI 'self report: myocardial infarction'.
VALUE LABELS b2_srMI
  -1 'missing'
  0 'no'
  1 'yes'.
```

*GP diagnosis of MI.

```
COMPUTE b2_gpMI=-3.
IF (egmi le -1) b2_gpMI=-1.
IF (t2_year le -1) b2_gpMI=-1.
IF (egmi=0) b2_gpMI=0.
IF (egmi=1 and egmiy ge 7) b2_gpMI=0.
IF (egmi=1 and egmiy ge 6 and t2_year=2002) b2_gpMI=0.
IF (egmi=1 and (egmiy ge 1 and egmiy le 5)) b2_gpMI=1.
IF (egmi=1 and (egmiy=6 and t2_YEAR=2003.0)) b2_gpMI=1.
IF (egmi=1 and egmiy le -1) b2_gpMI=2.
IF (b2_gpmi=-1 AND fgmi=0) b2_gpmi=0.
IF (b2_gpmi=-1 AND fgmi=1 AND fgmiy ge 2) b2_gpmi=0.
IF (b2_gpmi=-1 AND fgmi=1 AND fgmiy le 1) b2_gpmi=2.
IF (b2_gpmi=-1 AND hgmi=0) b2_gpmi=0.
IF (b2_gpmi=-1 AND hgmi=1 AND hgmiy ge 2) b2_gpmi=0.
IF (b2_gpmi=-1 AND hgmi=1 AND hgmiy le 1) b2_gpmi=2.
VARIABLE LABELS b2_gpMI 'gp diagnosis: MI'.
VALUE LABELS b2_gpMI
  -1 'missing'
  0 'no'
  1 'yes'
  2 'diagnose = yes, but year = missing'.
```

*MI algorithm: GP diagnosis and SR combined.

```
COMPUTE b2_MI=-3.
IF (b2_gpMI=1 and (egmis=1 or fgmis=1 or hgmis=1)) b2_MI=1.
IF (b2_gpMI=1 and egmis le 0 and b2_srMI=1) b2_MI=1.
IF (b2_gpMI=1 and egmis le 0 and b2_srMI=0) b2_MI=3.
IF (b2_gpMI=1 and egmis le 0 and b2_srMI le -1) b2_MI=2.
IF (b2_gpMI=0 and b2_srMI=1) b2_MI=3.
IF (b2_gpMI=0 and b2_srMI=0) b2_MI=0.
IF (b2_gpMI=0 and b2_srMI le -1) b2_MI=0.
IF (b2_gpMI=2 and b2_srMI=1) b2_MI=1.
IF (b2_gpMI=2 and b2_srMI=0) b2_MI=0.
IF (b2_gpMI=2 and b2_srMI le -1) b2_MI=-1.
IF (b2_gpMI le -1 and b2_srMI=1) b2_MI=2.
IF (b2_gpMI le -1 and b2_srMI=0) b2_MI=0.
IF (b2_gpMI le -1 and b2_srMI le -1) b2_MI=-1.
VARIABLE LABELS b2_MI '2B wave: myocardial infarction'.
VALUE LABELS b2_MI
  -1 'missing'
  0 'no'
  1 'definite'
  2 'possible'
  3 'contradictory'.
```

*****ANGINA PECTORIS (AP) at B*****.

*Selfreport diagnosis of AP.

COMPUTE b2_srAP=-5.

IF (bhart01 le -1) b2_srAP=-1.

IF (bhart01=2 and bhart10 le -1) b2_srAP=-1.

IF (bhart01=1) b2_srAP=0.

IF ((bhart01=2 and bhart10=1) or (bdiabe01=2 and bdiabe11=1)) b2_srAP=0.

IF ((bhart01=2 and bhart10 ge 4) or (bdiabe01=2 and bdiabe11 ge 4)) b2_srAP=0.

IF ((bhart10=2 and bhart11 le -1) OR (bdiabe11=2 and bdiabe12 le -1)) b2_srAP=2.

IF (bhart11=1 or bdiabe12=1) b2_srAP=0.

IF (bhart10=3 or bdiabe11=3) b2_srAP=1.

IF (bhart11=2 or bdiabe12=2) b2_srAP=1.

VARIABLE LABELS b2_srAP 'self report: angina pectoris'.

VALUE LABELS b2_srAP

-1 'missing'

0 'no'

1 'yes'

2 'possible'.

*GP diagnosis of AP.

COMPUTE b2_gpAP=-3.

IF (egap le -1) b2_gpAP=-1.

IF (t2_year le -1) b2_gpAP=-1.

IF (egap=0) b2_gpAP=0.

IF (egap=1 and egapy ge 7) b2_gpAP=0.

IF (egap=1 and egapy ge 6 and t2_year=2002) b2_gpAP=0.

IF (egap=1 and (egapy ge 1 and egapy le 5)) b2_gpAP=1.

IF (egap=1 and (egapy=6 and t2_YEAR=2003.0)) b2_gpAP=1.

IF (egap=1 and egapy le -1) b2_gpAP=2.

if (b2_gpap=-1 AND fgap=0) b2_gpap=0.

if (b2_gpap=-1 AND fgap=1 AND fgapy ge 2) b2_gpap=0.

if (b2_gpap=-1 AND fgap=1 AND fgapy le 1) b2_gpap=2.

if (b2_gpap=-1 AND hgap=0) b2_gpap=0.

if (b2_gpap=-1 AND hgap=1 AND hgapy ge 2) b2_gpap=0.

if (b2_gpap=-1 AND hgap=1 AND hgapy le 1) b2_gpap=2.

VARIABLE LABELS b2_gpAP 'gp diagnosis: angina pectoris'.

VALUE LABELS b2_gpAP

-1 'missing'

0 'no'

1 'yes'

2 'diagnose = yes, but year = missing'.

*use of AP medication: nitrates.

RECODE bmed_ang (0=0) (1=1) (SYSMIS=-1) (-9=-1) (ELSE=copy) INTO b2_mAP.

IF (bmvar13 le -1) b2_mAP=-1.

IF (bmvar13=0) b2_mAP=0.

VARIABLE LABELS b2_mAP 'use of nitrates'.

VALUE LABELS b2_mAP

-1 'missing'

0 'no'

1 'yes'.

*AP algorithm: medication, GP diagnosis and SR combined.

COMPUTE b2_AP=-3.

IF (b2_mAP=1) b2_AP=1.

IF (b2_mAP le 0 and b2_srAP=1 and b2_gpAP=1) b2_AP=1.

IF (b2_mAP le 0 and b2_srAP=1 and b2_gpAP=0) b2_AP=3.

IF (b2_mAP le 0 and b2_srAP=1 and b2_gpap=2) b2_AP=1.

IF (b2_mAP le 0 and b2_srAP=1 and b2_gpAP le -1) b2_AP=2.

IF (b2_mAP le 0 and b2_srAP=0 and b2_gpAP=1 and (egaps=1 or fgaps=1 or hgaps=1)) b2_AP=1.

IF (b2_mAP le 0 and b2_srAP=0 and b2_gpAP=1 and egaps le 0) b2_AP=3.

IF (b2_mAP le 0 and b2_srAP=0 and b2_gpAP=0) b2_AP=0.

IF (b2_mAP le 0 and b2_srAP=0 and b2_gpap=2) b2_AP=0.

IF (b2_mAP le 0 and b2_srAP=0 and b2_gpAP le -1) b2_AP=0.

IF (b2_mAP le 0 and b2_srAP=2 and b2_gpAP=1) b2_AP=1.

IF (b2_mAP le 0 and b2_srAP=2 and b2_gpAP=0) b2_AP=0.

IF (b2_mAP le 0 and b2_srAP=2 and b2_gpAP=2) b2_AP=-1.

IF (b2_mAP le 0 and b2_srAP=2 and b2_gpap=-1) b2_AP=-1.

IF (b2_mAP le 0 and b2_srAP le -1 and b2_gpAP=1 and (egaps=1 or fgaps=1 or hgaps=1)) b2_AP=1.

IF (b2_mAP le 0 and b2_srAP le -1 and b2_gpAP=1 and egaps le 0) b2_AP=2.

IF (b2_mAP le 0 and b2_srAP le -1 and b2_gpAP=0) b2_AP=0.

IF (b2_mAP le 0 and b2_srAP le -1 and b2_gpap=2) b2_AP=-1.

IF (b2_mAP le 0 and b2_srAP le -1 and b2_gpAP le -1) b2_AP=-1.

VARIABLE LABELS b2_AP '2B wave: angina pectoris'.

VALUE LABELS b2_AP

-1 'missing'

0 'no'

1 'definite'

2 'possible'

3 'contradictory'.

*****CONGESTIVE HEART FAILURE (CHF) at B*****.

*Selfreport diagnosis of CHF.

COMPUTE b2_srCHF=-3.

IF (bhart01 le -1) b2_srCHF=-1.

IF (bhart01=2 and bhart12 le -1) b2_srCHF=-1.

IF (bhart01=1) b2_srCHF=0.

IF (bhart01=2 and bhart12=1) b2_srCHF=0.

IF (bhart01=2 and bhart12=2) b2_srCHF=1.

VARIABLE LABELS b2_srCHF 'self reported diagnosis of congestive heart failure'.

VALUE LABELS b2_srCHF

-1 'missing'

0 'no'

1 'yes'.

*GP diagnosis of CHF.

COMPUTE b2_gpCHF=-3.

IF (egchf le -1) b2_gpCHF=-1.

IF (t2_year le -1) b2_gpCHF=-1.

IF (egchf=0) b2_gpCHF=0.

IF (egchf=1 and egchfy ge 7) b2_gpCHF=0.

IF (egchf=1 and egchfy ge 6 and t2_year=2002) b2_gpCHF=0.

IF (egchf=1 and (egchfy ge 1 and egchfy le 5)) b2_gpCHF=1.

```

IF (egchf=1 and (egchfy=6 and t2_YEAR=2003.0)) b2_gpCHF=1.
IF (egchf=1 and egchfy le -1) b2_gpCHF=2.
IF (b2_gpchf=-1 AND fgchf=0) b2_gpchf=0.
IF (b2_gpchf=-1 AND fgchf=1 AND fgchfy ge 2) b2_gpchf=0.
IF (b2_gpchf=-1 AND fgchf=1 AND fgchfy le 1) b2_gpchf=2.
IF (b2_gpchf=-1 AND hgchf=0) b2_gpchf=0.
IF (b2_gpchf=-1 AND hgchf=1 AND hgchfy ge 2) b2_gpchf=0.
IF (b2_gpchf=-1 AND hgchf=1 AND hgchfy le 1) b2_gpchf=2.
VARIABLE LABELS b2_gpCHF 'gp diagnosis: congestive heart failure'.
VALUE LABELS b2_gpCHF
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*CHF medication: diuretics, antihypertensives, nitrates, inotropics, beta blocking agents.

```

compute b2_mCHF=0.
IF (bmed_diu=1 and (bmed_hyp=1 or bmed_ang=1 or bmed_ino=1 or bmed_beta=1)) b2_mCHF=1.
IF (bmvar13 le -1) b2_mCHF=-1.
IF (bmvar13=0) b2_mCHF=0.
VARIABLE LABELS b2_mCHF 'medication for congestive heart failure'.
VALUE LABELS b2_mCHF
    -1 'missing'
    0 'no'
    1 'yes'.

```

*CHF algorithm: medication, GP diagnosis and SR combined.

```

COMPUTE b2_CHF=-3.
IF (b2_gpCHF=1 and (egchfs=1 or fgchfs=1 or hgchfs=1)) b2_CHF=1.
IF (b2_gpCHF=1 and egchfs le 0 and b2_srCHF=1) b2_CHF=1.
IF (b2_gpCHF=1 and egchfs le 0 and b2_srCHF le 0 and b2_mCHF=1) b2_CHF=1.
IF (b2_gpCHF=1 and egchfs le 0 and b2_srCHF=0 and b2_mCHF=0) b2_CHF=2.
IF (b2_gpCHF=1 and egchfs le 0 and b2_srCHF le 0 and b2_mCHF le -1) b2_CHF=2.
IF (b2_gpCHF=1 and egchfs le 0 and b2_srCHF le -1 and b2_mCHF le 0) b2_CHF=2.
IF (b2_gpCHF=0 and b2_srCHF=1 and b2_mCHF=1) b2_CHF=1.
IF (b2_gpCHF=0 and b2_srCHF=1 and b2_mCHF le 0) b2_CHF=2.
IF (b2_gpCHF=0 and b2_srCHF le 0 and b2_mCHF=1) b2_CHF=3.
IF (b2_gpCHF=0 and b2_srCHF le 0 and b2_mCHF le 0) b2_CHF=0.
IF (b2_gpCHF=2 and b2_srCHF=1) b2_CHF=1.
IF (b2_gpCHF=2 and b2_srCHF le 0 and b2_mCHF=1) b2_CHF=1.
IF (b2_gpCHF=2 and b2_srCHF le 0 and b2_mCHF le 0) b2_CHF=0.
IF (b2_gpCHF=2 and b2_srCHF=0 and b2_mCHF=-1) b2_CHF=-1.
IF (b2_gpCHF=2 and b2_srCHF le -1 and b2_mCHF le -1) b2_CHF=-1.
IF (b2_gpCHF le -1 and b2_srCHF=1 and b2_mCHF=1) b2_CHF=1.
IF (b2_gpCHF le -1 and b2_srCHF=1 and b2_mCHF le 0) b2_CHF=2.
IF (b2_gpCHF le -1 and b2_srCHF=0 and b2_mCHF=1) b2_CHF=2.
IF (b2_gpCHF le -1 and b2_srCHF=0 and b2_mCHF le 0) b2_CHF=0.
IF (b2_gpCHF le -1 and b2_srCHF le -1 and b2_mCHF=1) b2_CHF=2.
IF (b2_gpCHF le -1 and b2_srCHF le -1 and b2_mCHF=0) b2_CHF=0.
IF (b2_gpCHF le -1 and b2_srCHF le -1 and b2_mCHF le -1) b2_CHF=-1.
VARIABLE LABELS b2_CHF '2B wave: congestive heart failure'.
VALUE LABELS b2_CHF

```

-1 'missing'
0 'no'
1 'definite'
2 'possible'
3 'contradictory'.

*****PERIPHERAL ARTERIAL DISEASE (PAD) at B*****.

*Selfreport diagnosis of PAD.

COMPUTE b2_srPAD=-3.

IF (bartvei1 le -1) b2_srPAD=-1.

IF (bartvei1=2 and bartvei5 le -1) b2_srPAD=-1.

IF (bartvei1=1) b2_srPAD=0.

IF ((bartvei5=2 and bartvei7 le -1) or (bdiabe07=2 and bdiabe09 le -1)) b2_srPAD=2.

IF (bartvei7=1 or bdiabe09=1) b2_srPAD=0.

IF (bartvei5=1 or bdiabe07=1) b2_srPAD=0.

IF (bartvei7=2 or bdiabe09=2) b2_srPAD=1.

VARIABLE LABELS b2_srPAD 'self reported diagnosis of peripheral artery disease'.

VALUE LABELS b2_srPAD

-1 'missing'

0 'no'

1 'yes'

2 'possible'.

*Selfreport surgery.

COMPUTE b2_surPAD=-3.

IF (bartvei1 le -1) b2_surPAD=-1.

IF ((bartve8c le -1 AND bartve8d le -1) AND (bartve8b le 0)) b2_surPAD=-1.

IF (bartvei1=1 and bartve8 le -1) b2_surPAD=-1.

IF ((bartve8c=0 AND bartve8d=0) AND (bartve8b le 0)) b2_surPAD=0.

IF (bartvei1=1) b2_surPAD=0.

IF (bartve8=1) b2_surPAD=0.

IF ((bartve8c le 0 AND bartve8d le 0) AND (bartve8b=1)) b2_surPAD=2.

IF (bartve8c=1 OR bartve8d=1) b2_surPAD=1.

VARIABLE LABELS b2_surPAD 'self reported surgery of peripheral arteries'.

VALUE LABELS b2_surPAD

-1 'missing'

0 'no'

1 'yes'

2 'possible'.

*GP diagnosis of PAD.

COMPUTE b2_gpPAD=-3.

IF (egartvei le -1) b2_gpPAD=-1.

IF (t2_year le -1) b2_gpPAD=-1.

IF (egartvei=0) b2_gpPAD=0.

IF (egartvei=1 and egartvey ge 7) b2_gpPAD=0.

IF (egartvei=1 and egartvey ge 6 and t2_year=2002) b2_gpPAD=0.

IF (egartvei=1 and (egartvey ge 1 and egartvey le 5)) b2_gpPAD=1.

IF (egartvei=1 and (egartvey=6 and t2_YEAR=2003.0)) b2_gpPAD=1.

IF (egartvei=1 and egartvey le -1) b2_gpPAD=2.

IF (b2_gpPAD=-1 AND fgartvei=0) b2_gpPAD=0.

IF (b2_gpPAD=-1 AND fgartvei=1 AND fgartvey ge 2) b2_gpPAD=0.

```

If (b2_gpPAD=-1 AND fgartvei=1 AND fgartvey le 1) b2_gpPAD=2.
If (b2_gpPAD=-1 AND hgartvei=0) b2_gpPAD=0.
If (b2_gpPAD=-1 AND hgartvei=1 AND hgartvey ge 2) b2_gpPAD=0.
If (b2_gpPAD=-1 AND hgartvei=1 AND hgartvey le 1) b2_gpPAD=2.
VARIABLE LABELS b2_gpPAD 'gp diagnosis: PAD'.

```

```

VALUE LABELS b2_gpPAD
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*PAD algorithm: medication, GP diagnosis, SR and surgery combined.

```

COMPUTE b2_PAD=-3.
IF (b2_surPAD=1) b2_PAD=1.
IF (b2_surPAD le 0 and b2_gpPAD=1 and (egartves=1 or fgartves=1 or hgartves=1)) b2_PAD=1.
IF (b2_surPAD le 0 and b2_gpPAD=1 and egartves le 0 and b2_srPAD=1) b2_PAD=1.
IF (b2_surPAD le 0 and b2_gpPAD=1 and egartves le 0 and b2_srPAD=0) b2_PAD=3.
IF (b2_surPAD le 0 and b2_gpPAD=1 and egartves le 0 and b2_srPAD le -1) b2_PAD=2.
IF (b2_surPAD le 0 and b2_gpPAD=1 and egartves le 0 and b2_srPAD=2) b2_PAD=1.
IF (b2_surPAD le 0 and b2_gpPAD=0 and b2_srPAD=1) b2_PAD=3.
IF (b2_surPAD le 0 and b2_gpPAD=0 and b2_srPAD=0) b2_PAD=0.
IF (b2_surPAD le 0 and b2_gpPAD=0 and b2_srPAD le -1) b2_PAD=0.
IF (b2_surPAD le 0 and b2_gpPAD=0 and b2_srPAD=2) b2_PAD=0.
IF (b2_surPAD le 0 and b2_gpPAD=2 and b2_srPAD=1) b2_PAD=1.
IF (b2_surPAD le 0 and b2_gpPAD=2 and b2_srPAD=0) b2_PAD=0.
IF (b2_surPAD le 0 and b2_gpPAD=2 and b2_srPAD le -1) b2_PAD=-1.
IF (b2_surPAD le 0 and b2_gpPAD=2 and b2_srPAD=2) b2_PAD=1.
IF (b2_surPAD le 0 and b2_gpPAD le -1 and b2_srPAD=1) b2_PAD=2.
IF (b2_surPAD le 0 and b2_gpPAD le -1 and b2_srPAD=0) b2_PAD=0.
IF (b2_surPAD le 0 and b2_gpPAD le -1 and b2_srPAD le -1) b2_PAD=-1.
IF (b2_surPAD le 0 and b2_gpPAD le -1 and b2_srPAD=2) b2_PAD=-1.
IF (b2_surPAD=2 and b2_gpPAD=1) b2_PAD=1.
IF (b2_surPAD=2 and b2_gpPAD=0 and b2_srPAD=1) b2_PAD=1.
IF (b2_surPAD=2 and b2_gpPAD=0 and b2_srPAD=0) b2_PAD=0.
IF (b2_surPAD=2 and b2_gpPAD=0 and b2_srPAD le -1) b2_PAD=0.
IF (b2_surPAD=2 and b2_gpPAD=0 and b2_srPAD=2) b2_PAD=3.
IF (b2_surPAD=2 and b2_gpPAD=2 and b2_srPAD=1) b2_PAD=1.
IF (b2_surPAD=2 and b2_gpPAD le -1 and b2_srPAD=1) b2_PAD=1.
IF (b2_surPAD=2 and b2_gpPAD le -1 and b2_srPAD=0) b2_PAD=0.
IF (b2_surPAD=2 and b2_gpPAD le -1 and b2_srPAD le -1) b2_PAD=-1.
IF (b2_surPAD=2 and b2_gpPAD le -1 and b2_srPAD=2) b2_PAD=-1.
VARIABLE LABELS b2_PAD '2B wave algorithm: peripheral artery disease'.
VALUE LABELS b2_PAD
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****CORONARY ARTERY DISEASE (CAD) at B*****.

*CAD Selfreport surgery.

```

COMPUTE b2_surCAD=-3.

```

```

IF (bhart01 le -1) b2_surCAD=-1.
IF (bhart01=2 and bhart15 le -1) b2_surCAD=-1.
IF (bhart15b le -1 AND bhart15c le -1) b2_surCAD=-1.
IF (bhart15b=0 AND bhart15c=0) b2_surCAD=0.
IF (bhart15=1) b2_surCAD=0.
IF (bhart01=1) b2_surCAD=0.
IF (bhart15b=1 OR bhart15c=1) b2_surCAD=1.
VARIABLE LABELS b2_surCAD 'self reported surgery of coronary arteries'.
VALUE LABELS b2_surCAD
    -1 'missing'
    0 'no'
    1 'yes'.

```

*CAD selfreport (=Selfreport of AP or MI).

```

COMPUTE b2_srCAD=-5.
IF (bhart01 le -1) b2_srCAD=-1.
IF (b2_srMI=0 AND b2_srAP=2) b2_srCAD=-1.
IF (b2_srMI=0 AND b2_srAP le -1) b2_srCAD=-1.
IF (b2_srMI le -1 AND b2_srAP=0) b2_srCAD=-1.
IF (b2_srMI le -1 AND b2_srAP=2) b2_srCAD=-1.
IF (b2_srMI le -1 AND b2_srAP le -1) b2_srCAD=-1.
IF (b2_srMI=0 AND b2_srAP=0) b2_srCAD=0.
IF (bhart01=1) b2_srCAD=0.
IF (b2_srMI=1) b2_srCAD=1.
IF (b2_srAP=1) b2_srCAD=1.
VARIABLE LABELS b2_srCAD 'self report: myocardial infarction OR angina pectoris'.
VALUE LABELS b2_srCAD
    -1 'missing'
    0 'no'
    1 'yes'.

```

*GP diagnosis of CAD (gp diagnosis of AP or MI).

```

COMPUTE b2_gpCAD=-5.
IF (b2_gpMI le -1 AND b2_gpAP=0) b2_gpCAD=-1.
IF (b2_gpMI=0 AND b2_gpAP le -1) b2_gpCAD=-1.
IF (b2_gpMI le -1 AND b2_gpAP le -1) b2_gpCAD=-1.
IF (b2_gpMI=0 AND b2_gpAP=0) b2_gpCAD=0.
IF (b2_gpMI=0 AND b2_gpAP=2) b2_gpCAD=2.
IF (b2_gpMI le -1 AND b2_gpAP=2) b2_gpCAD=2.
IF (b2_gpMI=2 AND b2_gpAP=0) b2_gpCAD=2.
IF (b2_gpMI=2 AND b2_gpAP=2) b2_gpCAD=2.
IF (b2_gpMI=2 AND b2_gpAP le -1) b2_gpCAD=2.
IF (b2_gpMI=1) b2_gpCAD=1.
IF (b2_gpAP=1) b2_gpCAD=1.
VARIABLE LABELS b2_gpCAD 'self report: myocardial infarction OR angina pectoris'.
VALUE LABELS b2_gpCAD
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*CAD algorithm: medication, GP diagnosis, SR and surgery combined.

COMPUTE b2_CAD=-3.

IF ((b2_mAP le 0 and b2_surCAD le 0) and b2_srMI le 0 and (b2_srAP le 0 or b2_srAP=2) and b2_gpMI le 0) b2_CAD=0.

IF (b2_mAP le -1 and b2_surCAD le -1 and b2_srMI le -1 and b2_srAP le -1 and b2_gpAP le -1 and b2_gpMI le -1) b2_CAD=-1.

IF (b2_mAP=0 and b2_surCAD=0 and b2_srMI=0 and b2_srAP=0 and b2_gpAP=0 and b2_gpMI=0) b2_CAD=0.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_srAP=1 and (b2_srMI le 0 and b2_gpAP le 0 and b2_gpMI le 0))) b2_CAD=3.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_srMI=1 and (b2_srAP le 0 and b2_gpAP le 0 and b2_gpMI le 0))) b2_CAD=3.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_gpAP=1 and egaps le 0 and (b2_gpMI le 0 or b2_gpMI=2) and b2_srAP le 0 and b2_srMI le 0)) b2_CAD=3.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_gpMI=1 and egmis le 0 and (b2_gpAP le 0 or b2_gpAP=2) and b2_srAP le 0 and b2_srMI le 0)) b2_CAD=3.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_srAP=1 and (b2_srMI le -1 and b2_gpAP le -1 and b2_gpMI le -1))) b2_CAD=2.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_srMI=1 and (b2_srAP le -1 and b2_gpAP le -1 and b2_gpMI le -1))) b2_CAD=2.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_gpAP=1 and egaps le 0 and b2_gpMI le -1 and b2_srAP le -1 and b2_srMI le -1)) b2_CAD=2.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_gpMI=1 and egmis le 0 and b2_gpAP le -1 and b2_srAP le -1 and b2_srMI le -1)) b2_CAD=2.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_gpAP=2 and (b2_gpMI le 0 or b2_gpMI=2) and (b2_srAP le 0 or b2_srAP=2) and b2_srMI le 0)) b2_CAD=0.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_gpMI=2 and (b2_gpAP le 0 or b2_gpAP=2) and (b2_srAP le 0 or b2_srAP=2) and b2_srMI le 0)) b2_CAD=0.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_gpAP=2 and (b2_gpMI le -1 or b2_gpMI=2) and (b2_srAP le -1 or b2_srAP=2) and b2_srMI le -1)) b2_CAD=-1.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_gpMI=2 and (b2_gpAP le -1 or b2_gpAP=2) and (b2_srAP le -1 or b2_srAP=2) and b2_srMI le -1)) b2_CAD=-1.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_srAP=1 and (b2_srMI=1 OR b2_gpAP=1 OR b2_gpMI=1))) b2_CAD=1.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_srMI=1 and (b2_srAP=1 OR b2_gpAP=1 OR b2_gpMI=1))) b2_CAD=1.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_gpAP=1 and (egaps=1 or fgaps=1 or hgaps=1))) b2_CAD=1.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_gpMI=1 and (egmis=1 or fgmis=1 or hgmis=1))) b2_CAD=1.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_gpAP=1 and egaps le 0) and (b2_srMI=1 or b2_srAP=1 or b2_gpMI=1)) b2_CAD=1.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_gpMI=1 and egmis le 0) and (b2_srMI=1 or b2_srAP=1 or b2_gpAP=1)) b2_CAD=1.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_srAP=1 and b2_srMI le 0) and (b2_gpAP=2 or b2_gpMI=2)) b2_CAD=1.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_srMI=1) and (b2_gpAP=2 or b2_srAP=2 or b2_gpMI=2)) b2_CAD=1.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_gpAP=1 and b2_srMI le 0) and (b2_srAP=2 and b2_gpMI=2)) b2_CAD=1.

IF ((b2_mAP le 0 and b2_surCAD le 0) and (b2_gpMI=1 and b2_srMI le 0) and (b2_gpAP=2 or b2_srAP=2)) b2_CAD=1.

```
IF (b2_mAP=1 or b2_surCAD=1) b2_CAD=1.
VARIABLE LABELS b2_CAD '2B wave: coronary artery disease'.
VALUE LABELS b2_CAD
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.
EXECUTE.
```

```
*****F wave*****.
```

*enalapril has the wrong ATC codes which hampers the next section of the syntax, therefore change it to the correct code.

```
If (fmatc1='C09BA02' and fmmed1='enalaprilmaleaat') fmatc1='C09AA02' .
If (fmatc2='C09BA02' and fmmed2='enalaprilmaleaat') fmatc2='C09AA02' .
If (fmatc3='C09BA02' and fmmed3='enalaprilmaleaat') fmatc3='C09AA02' .
If (fmatc4='C09BA02' and fmmed4='enalaprilmaleaat') fmatc4='C09AA02' .
If (fmatc5='C09BA02' and fmmed5='enalaprilmaleaat') fmatc5='C09AA02' .
If (fmatc6='C09BA02' and fmmed6='enalaprilmaleaat') fmatc6='C09AA02' .
If (fmatc7='C09BA02' and fmmed7='enalaprilmaleaat') fmatc7='C09AA02' .
If (fmatc8='C09BA02' and fmmed8='enalaprilmaleaat') fmatc8='C09AA02' .
```

*tamsulosin is categorized as antihypertensive, but is never used as antihypertensive; its for BPH.

```
If (fmatc1='C02CA01' and fmmed1='omnic') fmatc1='G04CA02' .
If (fmatc2='C02CA01' and fmmed2='omnic') fmatc2='G04CA02' .
If (fmatc3='C02CA01' and fmmed3='omnic') fmatc3='G04CA02' .
If (fmatc4='C02CA01' and fmmed4='omnic') fmatc4='G04CA02' .
If (fmatc5='C02CA01' and fmmed5='omnic') fmatc5='G04CA02' .
If (fmatc6='C02CA01' and fmmed6='omnic') fmatc6='G04CA02' .
If (fmatc7='C02CA01' and fmmed7='omnic') fmatc7='G04CA02' .
If (fmatc8='C02CA01' and fmmed8='omnic') fmatc8='G04CA02' .
```

*fmed_ino: no errors.

*med_ari.

*flecainide has the wrong ATC code.

```
If (fmatc1='C07AA05' and fmmed1='flecainide') fmatc1='C01BC04' .
If (fmatc2='C07AA05' and fmmed2='flecainide') fmatc2='C01BC04' .
If (fmatc3='C07AA05' and fmmed3='flecainide') fmatc3='C01BC04' .
If (fmatc4='C07AA05' and fmmed4='flecainide') fmatc4='C01BC04' .
If (fmatc5='C07AA05' and fmmed5='flecainide') fmatc5='C01BC04' .
If (fmatc6='C07AA05' and fmmed6='flecainide') fmatc6='C01BC04' .
If (fmatc7='C07AA05' and fmmed7='flecainide') fmatc7='C01BC04' .
If (fmatc8='C07AA05' and fmmed8='flecainide') fmatc8='C01BC04' .
EXECUTE.
```

*fmed_ang no errors.

*med_diu: C03.

*HYDROCHLORTHAZIDE C03EA01 --> C03AA03 .

```
If (fmatc1='C03EA01' and fmmed1='hydrochloorthiazide') fmatc1='C03AA03' .
```

If (fmatc2='C03EA01' and fmmed2='hydrochloorthiazide') fmatc2='C03AA03' .
If (fmatc3='C03EA01' and fmmed3='hydrochloorthiazide') fmatc3='C03AA03' .
If (fmatc4='C03EA01' and fmmed4='hydrochloorthiazide') fmatc4='C03AA03' .
If (fmatc5='C03EA01' and fmmed5='hydrochloorthiazide') fmatc5='C03AA03' .
If (fmatc6='C03EA01' and fmmed6='hydrochloorthiazide') fmatc6='C03AA03' .
If (fmatc7='C03EA01' and fmmed7='hydrochloorthiazide') fmatc7='C03AA03' .
If (fmatc8='C03EA01' and fmmed8='hydrochloorthiazide') fmatc8='C03AA03' .
EXECUTE.

*NORVASC C02DE12 --> C08CA01.

If (fmatc1='C02DE12') fmatc1='C08CA01' .
If (fmatc2='C02DE12') fmatc2='C08CA01' .
If (fmatc3='C02DE12') fmatc3='C08CA01' .
If (fmatc4='C02DE12') fmatc4='C08CA01' .
If (fmatc5='C02DE12') fmatc5='C08CA01' .
If (fmatc6='C02DE12') fmatc6='C08CA01' .
If (fmatc7='C02DE12') fmatc7='C08CA01' .
If (fmatc8='C02DE12') fmatc8='C08CA01' .

*PLENDIL C02DE10 --> C08CA02.

If (fmatc1='C02DE10') fmatc1='C08CA02' .
If (fmatc2='C02DE10') fmatc2='C08CA02' .
If (fmatc3='C02DE10') fmatc3='C08CA02' .
If (fmatc4='C02DE10') fmatc4='C08CA02' .
If (fmatc5='C02DE10') fmatc5='C08CA02' .
If (fmatc6='C02DE10') fmatc6='C08CA02' .
If (fmatc7='C02DE10') fmatc7='C08CA02' .
If (fmatc8='C02DE10') fmatc8='C08CA02' .

*LOMIR C02DE13 --> C08CA03.

If (fmatc1='C02DE13') fmatc1='C08CA03' .
If (fmatc2='C02DE13') fmatc2='C08CA03' .
If (fmatc3='C02DE13') fmatc3='C08CA03' .
If (fmatc4='C02DE13') fmatc4='C08CA03' .
If (fmatc5='C02DE13') fmatc5='C08CA03' .
If (fmatc6='C02DE13') fmatc6='C08CA03' .
If (fmatc7='C02DE13') fmatc7='C08CA03' .
If (fmatc8='C02DE13') fmatc8='C08CA03' .

*CARDENE C02DE09 --> C08CA04.

If (fmatc1='C02DE09') fmatc1='C08CA04' .
If (fmatc2='C02DE09') fmatc2='C08CA04' .
If (fmatc3='C02DE09') fmatc3='C08CA04' .
If (fmatc4='C02DE09') fmatc4='C08CA04' .
If (fmatc5='C02DE09') fmatc5='C08CA04' .
If (fmatc6='C02DE09') fmatc6='C08CA04' .
If (fmatc7='C02DE09') fmatc7='C08CA04' .
If (fmatc8='C02DE09') fmatc8='C08CA04' .

*ADALAT, NIFEDIPINE, C02DE02 --> C08CA05 .

If (fmatc1='C02DE02') fmatc1='C08CA05' .
If (fmatc2='C02DE02') fmatc2='C08CA05' .

If (fmatc3='C02DE02') fmatc3='C08CA05' .
If (fmatc4='C02DE02') fmatc4='C08CA05' .
If (fmatc5='C02DE02') fmatc5='C08CA05' .
If (fmatc6='C02DE02') fmatc6='C08CA05' .
If (fmatc7='C02DE02') fmatc7='C08CA05' .
If (fmatc8='C02DE02') fmatc8='C08CA05' .

*ISOPTINE, VERAPAMIL C02DE01 --> C08DA01.

If (fmatc1='C02DE01') fmatc1='C08DA01' .
If (fmatc2='C02DE01') fmatc2='C08DA01' .
If (fmatc3='C02DE01') fmatc3='C08DA01' .
If (fmatc4='C02DE01') fmatc4='C08DA01' .
If (fmatc5='C02DE01') fmatc5='C08DA01' .
If (fmatc6='C02DE01') fmatc6='C08DA01' .
If (fmatc7='C02DE01') fmatc7='C08DA01' .
If (fmatc8='C02DE01') fmatc8='C08DA01' .

*DILTIAZEM, TILDIEM, C02DE04 --> C08DB01.

If (fmatc1='C02DE04') fmatc1='C08DB01' .
If (fmatc2='C02DE04') fmatc2='C08DB01' .
If (fmatc3='C02DE04') fmatc3='C08DB01' .
If (fmatc4='C02DE04') fmatc4='C08DB01' .
If (fmatc5='C02DE04') fmatc5='C08DB01' .
If (fmatc6='C02DE04') fmatc6='C08DB01' .
If (fmatc7='C02DE04') fmatc7='C08DB01' .
If (fmatc8='C02DE04') fmatc8='C08DB01' .

*CAPOTEN C02EA01 --> C09AA01.

If (fmatc1='C02EA01') fmatc1='C09AA01' .
If (fmatc2='C02EA01') fmatc2='C09AA01' .
If (fmatc3='C02EA01') fmatc3='C09AA01' .
If (fmatc4='C02EA01') fmatc4='C09AA01' .
If (fmatc5='C02EA01') fmatc5='C09AA01' .
If (fmatc6='C02EA01') fmatc6='C09AA01' .
If (fmatc7='C02EA01') fmatc7='C09AA01' .
If (fmatc8='C02EA01') fmatc8='C09AA01' .

*RENITEC, enalapril C02EA02 --> C09AA02.

If (fmatc1='C02EA02') fmatc1='C09AA02' .
If (fmatc2='C02EA02') fmatc2='C09AA02' .
If (fmatc3='C02EA02') fmatc3='C09AA02' .
If (fmatc4='C02EA02') fmatc4='C09AA02' .
If (fmatc5='C02EA02') fmatc5='C09AA02' .
If (fmatc6='C02EA02') fmatc6='C09AA02' .
If (fmatc7='C02EA02') fmatc7='C09AA02' .
If (fmatc8='C02EA02') fmatc8='C09AA02' .

*NOVATEC, ZESTRIL C02EA03 --> C09AA03 .

If (fmatc1='C02EA03') fmatc1='C09AA03' .
If (fmatc2='C02EA03') fmatc2='C09AA03' .
If (fmatc3='C02EA03') fmatc3='C09AA03' .
If (fmatc4='C02EA03') fmatc4='C09AA03' .

If (fmatc5='C02EA03') fmatc5='C09AA03' .
If (fmatc6='C02EA03') fmatc6='C09AA03' .
If (fmatc7='C02EA03') fmatc7='C09AA03' .
If (fmatc8='C02EA03') fmatc8='C09AA03' .

*ACUPRIL C02EA06 --> C09AA06 .

If (fmatc1='C02EA06') fmatc1='C09AA06' .
If (fmatc2='C02EA06') fmatc2='C09AA06' .
If (fmatc3='C02EA06') fmatc3='C09AA06' .
If (fmatc4='C02EA06') fmatc4='C09AA06' .
If (fmatc5='C02EA06') fmatc5='C09AA06' .
If (fmatc6='C02EA06') fmatc6='C09AA06' .
If (fmatc7='C02EA06') fmatc7='C09AA06' .
If (fmatc8='C02EA06') fmatc8='C09AA06' .

*ZESTORETIC C02LM03 --> C09BA03.

If (fmatc1='C02LM03') fmatc1='C09BA03' .
If (fmatc2='C02LM03') fmatc2='C09BA03' .
If (fmatc3='C02LM03') fmatc3='C09BA03' .
If (fmatc4='C02LM03') fmatc4='C09BA03' .
If (fmatc5='C02LM03') fmatc5='C09BA03' .
If (fmatc6='C02LM03') fmatc6='C09BA03' .
If (fmatc7='C02LM03') fmatc7='C09BA03' .
If (fmatc8='C02LM03') fmatc8='C09BA03' .
EXECUTE.

*hyzaarC09CX --> C09DA01.

If (fmatc1='C09CX') fmatc1='C09DA01' .
If (fmatc2='C09CX') fmatc2='C09DA01' .
If (fmatc3='C09CX') fmatc3='C09DA01' .
If (fmatc4='C09CX') fmatc4='C09DA01' .
If (fmatc5='C09CX') fmatc5='C09DA01' .
If (fmatc6='C09CX') fmatc6='C09DA01' .
If (fmatc7='C09CX') fmatc7='C09DA01' .
If (fmatc8='C09CX') fmatc8='C09DA01' .
EXECUTE.

*acuzide C09AX --> C09BA06.

If (fmatc1='C09AX' and fmed1='acuzide') fmatc1='C09BA06' .
If (fmatc2='C09AX' and fmed2='acuzide') fmatc2='C09BA06' .
If (fmatc3='C09AX' and fmed3='acuzide') fmatc3='C09BA06' .
If (fmatc4='C09AX' and fmed4='acuzide') fmatc4='C09BA06' .
If (fmatc5='C09AX' and fmed5='acuzide') fmatc5='C09BA06' .
If (fmatc6='C09AX' and fmed6='acuzide') fmatc6='C09BA06' .
If (fmatc7='C09AX' and fmed7='acuzide') fmatc7='C09BA06' .
If (fmatc8='C09AX' and fmed8='acuzide') fmatc8='C09BA06' .

*motens C09CA01 --> C08CA09.

If (fmatc1='C09CA01' and fmed1='motens') fmatc1='C08CA09' .
If (fmatc2='C09CA01' and fmed2='motens') fmatc2='C08CA09' .
If (fmatc3='C09CA01' and fmed3='motens') fmatc3='C08CA09' .
If (fmatc4='C09CA01' and fmed4='motens') fmatc4='C08CA09' .

If (fmatc5='C09CA01' and fmmed5='motens') fmatc5='C08CA09' .
If (fmatc6='C09CA01' and fmmed6='motens') fmatc6='C08CA09' .
If (fmatc7='C09CA01' and fmmed7='motens') fmatc7='C08CA09' .
If (fmatc8='C09CA01' and fmmed8='motens') fmatc8='C08CA09' .

*C07.

*emcoretic (and not emcor) C07AB07 -> C07BB07.

If (fmatc1='C07AB07' and fmmed1='emcoretic') fmatc1='C07BB07' .
If (fmatc2='C07AB07' and fmmed2='emcoretic') fmatc2='C07BB07' .
If (fmatc3='C07AB07' and fmmed3='emcoretic') fmatc3='C07BB07' .
If (fmatc4='C07AB07' and fmmed4='emcoretic') fmatc4='C07BB07' .
If (fmatc5='C07AB07' and fmmed5='emcoretic') fmatc5='C07BB07' .
If (fmatc6='C07AB07' and fmmed6='emcoretic') fmatc6='C07BB07' .
If (fmatc7='C07AB07' and fmmed7='emcoretic') fmatc7='C07BB07' .
If (fmatc8='C07AB07' and fmmed8='emcoretic') fmatc8='C07BB07' .

*atenolol/chloortalidon C07AB03 --> C07CB03. is al goed

If (fmatc1='C07AB03' and fmmed1='atenolol/chloortalidon') fmatc1='C07CB03' .
If (fmatc2='C07AB03' and fmmed2='atenolol/chloortalidon') fmatc2='C07CB03' .
If (fmatc3='C07AB03' and fmmed3='atenolol/chloortalidon') fmatc3='C07CB03' .
If (fmatc4='C07AB03' and fmmed4='atenolol/chloortalidon') fmatc4='C07CB03' .
If (fmatc5='C07AB03' and fmmed5='atenolol/chloortalidon') fmatc5='C07CB03' .
If (fmatc6='C07AB03' and fmmed6='atenolol/chloortalidon') fmatc6='C07CB03' .
If (fmatc7='C07AB03' and fmmed7='atenolol/chloortalidon') fmatc7='C07CB03' .
If (fmatc8='C07AB03' and fmmed8='atenolol/chloortalidon') fmatc8='C07CB03' .

*C08.

*no errors.

*C09.

*no errors.

*create a string variable that consists of the first 3 characters of the ATC code.

string f_3ATC1(a30).

COMPUTE f_3ATC1 = CHAR.SUBSTR(fmatc1,1,3) .

string f_3ATC2(a30).

COMPUTE f_3ATC2 = CHAR.SUBSTR(fmatc2,1,3) .

string f_3ATC3(a30).

COMPUTE f_3ATC3 = CHAR.SUBSTR(fmatc3,1,3) .

string f_3ATC4(a30).

COMPUTE f_3ATC4 = CHAR.SUBSTR(fmatc4,1,3) .

string f_3ATC5(a30).

COMPUTE f_3ATC5 = CHAR.SUBSTR(fmatc5,1,3) .

string f_3ATC6(a30).

COMPUTE f_3ATC6 = CHAR.SUBSTR(fmatc6,1,3) .

string f_3ATC7(a30).

COMPUTE f_3ATC7 = CHAR.SUBSTR(fmatc7,1,3) .

string f_3ATC8(a30).

COMPUTE f_3ATC8 = CHAR.SUBSTR(fmatc8,1,3) .

*create a string variable that consists of the first 4 characters of the ATC code.

string f_4ATC1(a30).

COMPUTE f_4ATC1 = CHAR.SUBSTR(fmatc1,1,4) .

```
string f_4ATC2(a30).
COMPUTE f_4ATC2 = CHAR.SUBSTR(fmatc2,1,4) .
string f_4ATC3(a30).
COMPUTE f_4ATC3 = CHAR.SUBSTR(fmatc3,1,4) .
string f_4ATC4(a30).
COMPUTE f_4ATC4 = CHAR.SUBSTR(fmatc4,1,4) .
string f_4ATC5(a30).
COMPUTE f_4ATC5 = CHAR.SUBSTR(fmatc5,1,4) .
string f_4ATC6(a30).
COMPUTE f_4ATC6 = CHAR.SUBSTR(fmatc6,1,4) .
string f_4ATC7(a30).
COMPUTE f_4ATC7 = CHAR.SUBSTR(fmatc7,1,4) .
string f_4ATC8(a30).
COMPUTE f_4ATC8 = CHAR.SUBSTR(fmatc8,1,4) .
```

*create a string variable that consists of the first 5 characters of the ATC code.

```
string f_5ATC1(a30).
COMPUTE f_5ATC1 = CHAR.SUBSTR(fmatc1,1,5) .
string f_5ATC2(a30).
COMPUTE f_5ATC2 = CHAR.SUBSTR(fmatc2,1,5) .
string f_5ATC3(a30).
COMPUTE f_5ATC3 = CHAR.SUBSTR(fmatc3,1,5) .
string f_5ATC4(a30).
COMPUTE f_5ATC4 = CHAR.SUBSTR(fmatc4,1,5) .
string f_5ATC5(a30).
COMPUTE f_5ATC5 = CHAR.SUBSTR(fmatc5,1,5) .
string f_5ATC6(a30).
COMPUTE f_5ATC6 = CHAR.SUBSTR(fmatc6,1,5) .
string f_5ATC7(a30).
COMPUTE f_5ATC7 = CHAR.SUBSTR(fmatc7,1,5) .
string f_5ATC8(a30).
COMPUTE f_5ATC8 = CHAR.SUBSTR(fmatc8,1,5) .
EXECUTE.
```

*fmed_ino: no errors.

*med_ang no errors.

*fmed_ari: C01B.

```
RECODE fmed_ari (ELSE=COPY) INTO fmed_ari_or.
```

```
VARIABLE LABELS fmed_ari_or 'origineel'.
```

```
EXECUTE.
```

```
RECODE fmed_ari (ELSE=-3).
```

```
EXECUTE.
```

```
If (fmvar13 le -1) fmed_ari=-1.
```

```
If (fmvar13=2 or fmvar13=1) fmed_ari=0.
```

```
If (f_4ATC1='C01B' OR f_4ATC2='C01B' OR f_4ATC3='C01B' OR f_4ATC4='C01B' OR f_4ATC5='C01B'
OR f_4ATC6='C01B' OR f_4ATC7='C01B' OR f_4ATC8='C01B') fmed_ari=1.
```

```
EXECUTE.
```

*med_diu: C03.

```
RECODE fmed_diu (ELSE=COPY) INTO fmed_diu_or.
```

```
VARIABLE LABELS fmed_diu_or 'origineel'.
```

```
EXECUTE.
RECODE fmed_diu (ELSE=-3).
EXECUTE.
If (fmvar13 le -1) fmed_diu=-1.
If (fmvar13=2 or fmvar13=1) fmed_diu=0.
If (f_3ATC1='C03' OR f_3ATC2='C03' OR f_3ATC3='C03' OR f_3ATC4='C03' OR f_3ATC5='C03' OR
f_3ATC6='C03' OR f_3ATC7='C03' OR f_3ATC8='C03') fmed_diu=1.
EXECUTE.
```

*some diuretics are combination preps and therefore (incorrectly) not included in the diuretics variable.

*C07B C07C C07D C02L C09BA C09DA C08G .

```
If (f_4ATC1='C07B' OR f_4ATC2='C07B' OR f_4ATC3='C07B' OR f_4ATC4='C07B' OR f_4ATC5='C07B'
OR f_4ATC6='C07B' OR
f_4ATC7='C07B' OR f_4ATC8='C07B') fmed_diu=1.
If (f_4ATC1='C07C' OR f_4ATC2='C07C' OR f_4ATC3='C07C' OR f_4ATC4='C07C' OR f_4ATC5='C07C'
OR f_4ATC6='C07C' OR
f_4ATC7='C07C' OR f_4ATC8='C07C') fmed_diu=1.
If (f_4ATC1='C07D' OR f_4ATC2='C07D' OR f_4ATC3='C07D' OR f_4ATC4='C07D' OR f_4ATC5='C07D'
OR f_4ATC6='C07D' OR
f_4ATC7='C07D' OR f_4ATC8='C07D') fmed_diu=1.
If (f_4ATC1='C02L' OR f_4ATC2='C02L' OR f_4ATC3='C02L' OR f_4ATC4='C02L' OR f_4ATC5='C02L' OR
f_4ATC6='C02L' OR
f_4ATC7='C02L' OR f_4ATC8='C02L') fmed_diu=1.
If (f_5ATC1='C09BA' OR f_5ATC2='C09BA' OR f_5ATC3='C09BA' OR f_5ATC4='C09BA' OR
f_5ATC5='C09BA' OR f_5ATC6='C09BA' OR f_5ATC7='C09BA' OR f_5ATC8='C09BA') imed_diu=1.
If (f_5ATC1='C09DA' OR f_5ATC2='C09DA' OR f_5ATC3='C09DA' OR f_5ATC4='C09DA' OR
f_5ATC5='C09DA' OR f_5ATC6='C09DA' OR f_5ATC7='C09DA' OR f_5ATC8='C09DA') imed_diu=1.
If (f_4ATC1='C08G' OR f_4ATC2='C08G' OR f_4ATC3='C08G' OR f_4ATC4='C08G' OR f_4ATC5='C08G'
OR f_4ATC6='C08G' OR f_4ATC7='C08G' OR f_4ATC8='C08G') imed_diu=1.
EXECUTE.
```

*med_hyp: C02 C07 C08 C09.

```
RECODE fmed_hyp (ELSE=COPY) INTO fmed_hyp_or.
```

```
VARIABLE LABELS fmed_hyp_or 'origineel'.
```

```
EXECUTE.
```

```
RECODE fmed_hyp (ELSE=-3).
```

```
EXECUTE.
```

```
If (fmvar13 le -1) fmed_hyp=-1.
```

```
If (fmvar13=2 or fmvar13=1) fmed_hyp=0.
```

```
If (f_3ATC1='C02' OR f_3atc2='C02' OR f_3atc3='C02' OR f_3atc4='C02' OR f_3atc5='C02' OR
f_3atc6='C02' OR f_3atc7='C02' OR f_3atc8='C02') fmed_hyp=1.
```

```
If (f_3ATC1='C07' OR f_3atc2='C07' OR f_3atc3='C07' OR f_3atc4='C07' OR f_3atc5='C07' OR
f_3atc6='C07' OR f_3atc7='C07' OR f_3atc8='C07') fmed_hyp=1.
```

```
If (f_3ATC1='C08' OR f_3atc2='C08' OR f_3atc3='C08' OR f_3atc4='C08' OR f_3atc5='C08' OR
f_3atc6='C08' OR f_3atc7='C08' OR f_3atc8='C08') fmed_hyp=1.
```

```
If (f_3ATC1='C09' OR f_3atc2='C09' OR f_3atc3='C09' OR f_3atc4='C09' OR f_3atc5='C09' OR
f_3atc6='C09' OR f_3atc7='C09' OR f_3atc8='C09') fmed_hyp=1.
```

```
EXECUTE.
```

*create a variable: use of beta blocking agents (atc code C07, thus includes combination preparaten) yes/no.

compute fmed_beta=0.

If (fmvar13 le -1) fmed_beta=-1.

If (f_3ATC1='C07' OR f_3ATC2='C07' OR f_3ATC3='C07' OR f_3ATC4='C07' OR f_3ATC5='C07' OR f_3ATC6='C07' OR

f_3ATC7='C07' OR f_3ATC8='C07') fmed_beta=1.

VARIABLE LABELS fmed_beta 'use of beta blocking agents'.

VALUE LABELS fmed_beta

-1 'missing'

0 'no'

1 'yes'.

EXECUTE.

*create a variable: use of anticoagulant drugs (vitamine K antagonists, DOACs, dabigatran (atc codes B01AA, B01AF, B01AE)) yes/no.

compute fmed_stolling=0.

If (fmvar13 le -1) fmed_stolling=-1.

If (f_5ATC1='B01AA' OR f_5ATC2='B01AA' OR f_5ATC3='B01AA' OR f_5ATC4='B01AA' OR f_5ATC5='B01AA' OR f_5ATC6='B01AA' OR

f_5ATC7='B01AA') fmed_stolling=1.

If (f_5ATC1='B01AF' OR f_5ATC2='B01AF' OR f_5ATC3='B01AF' OR f_5ATC4='B01AF' OR

f_5ATC5='B01AF' OR f_5ATC6='B01AF' OR

f_5ATC7='B01AF' OR f_5ATC8='B01AF') fmed_stolling=1.

If (f_5ATC1='B01AE' OR f_5ATC2='B01AE' OR f_5ATC3='B01AE' OR f_5ATC4='B01AE' OR

f_5ATC5='B01AE' OR f_5ATC6='B01AE' OR

f_5ATC7='B01AE' OR f_5ATC8='B01AE') fmed_stolling=1.

VARIABLE LABELS fmed_stolling 'use of anticoagulants'.

VALUE LABELS fmed_stolling

-1 'missing'

0 'no'

1 'yes'.

EXECUTE.

*combining anticoagulants and betablocking agents: use of both, yes/no.

compute fmed_stol_beta=-3.

If (fmed_stolling=-1) fmed_stol_beta=-1.

If (fmed_stolling=1 and fmed_beta=1) fmed_stol_beta=1.

If (fmed_stolling=0 or fmed_beta=0) fmed_stol_beta=0.

VARIABLE LABELS fmed_stol_beta 'use of both beta blocking agent AND anticoagulantia'.

VALUE LABELS fmed_stol_beta

-1 'missing'

0 'no'

1 'yes'.

EXECUTE.

*****year of interview (2005 or 2006).

COMPUTE t6_year=XDATE.YEAR(t6_dat).

VARIABLE LABELS t6_year "LASA main interview year (w6)".

VARIABLE LEVEL t6_year(SCALE).

FORMATS t6_year(F8.0).

VARIABLE WIDTH t6_year(8).
EXECUTE.

*****ARRHYTHMIA (ARI) at F*****.

*Selfreport surgery implantation of pacemaker.

```
COMPUTE f_surARI=-3.
IF (fhart15d le -1) f_surARI=-1.
IF (fhart01 le -1) f_surARI=-1.
IF (fhart15 le -1) f_surARI=-1.
IF (fhart01=0 or fhart01=1) f_surARI=0.
IF (fhart15d=0) f_surARI=0.
IF (fhart15=1) f_surARI=0.
IF (fhart15d=1) f_surARI=1.
VARIABLE LABELS f_surARI 'self report surgery: pacemaker'.
VALUE LABELS f_surARI
    -1 'missing'
    0 'no'
    1 'yes'.
```

*use of anti arrhythmic medication.

```
RECODE fmed_ARI (0=0) (1=1) (SYSMIS=-1) (-9=-1) (ELSE=copy) INTO f_mARI.
IF (fmed_ino=1) f_mARI=1.
IF (fmvar13=1) f_mARI=0.
IF (fmvar13 le -1) f_mARI=-1.
VARIABLE LABELS f_mARI 'use of antiarrhythmics'.
VALUE LABELS f_mARI
    -1 'missing'
    0 'no'
    1 'yes'.
```

*GP diagnosis of ARI.

```
COMPUTE f_gpARI=-3.
IF (fgarrth le -1) f_gpARI=-1.
IF (t6_year le -1) f_gpARI=-2.
IF (fgarrth=0) f_gpARI=0.
IF (fgarrth=1 and fgarrthy ge 6) f_gpARI=0.
IF (fgarrth=1 and fgarrthy=5 and t6_year=2005) f_gpARI=0.
IF (fgarrth=1 and (fgarrthy ge 1 and fgarrthy le 4)) f_gpARI=1.
IF (fgarrth=1 and fgarrthy=5 and t6_YEAR=2006) f_gpARI=1.
IF (fgarrth=1 and fgarrthy le -1) f_gpARI=2.
IF (fgarrth=1 and fgarrthy=1) f_gpARI=1.
IF (egarrth=1) f_gpARI=1.
If (f_gpARI=-1 AND hgarrth=0) f_gpARI=0.
If (f_gpARI=-1 AND hgarrth=1 AND hgarrthy ge 2) f_gpARI=0.
If (f_gpARI=-1 AND hgarrth=1 AND hgarrthy le 1) f_gpARI=2.
VARIABLE LABELS f_gpARI 'gp diagnosis: cardiac arrhythmia'.
VALUE LABELS f_gpARI
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.
```

*ARI algorithm: medication, GP diagnosis and SR implantation of pacemaker combined.

compute f_alg_ARI=-3.

IF (f_mARI=1) f_alg_ARI=1.

IF (f_mARI=0 and f_gpARI=1 and (fmed_stol_beta=1)) f_alg_ARI=1.

IF (f_mARI=0 and f_gpARI=1 and (fmed_stol_beta=0) and (fgarrths=1 or egarrths=1 or hgarrths=1)) f_alg_ARI=1.

IF (f_mARI=0 and f_gpARI=1 and (fmed_stol_beta=0) and fgarrths le 0 and f_surARI=1) f_alg_ARI=1.

IF (f_mARI=0 and f_gpARI=1 and (fmed_stol_beta=0) and fgarrths le 0 and f_surARI le 0) f_alg_ARI=2.

IF (f_mARI=0 and f_gpARI=0 and f_surARI=1) f_alg_ARI=3.

IF (f_mARI=0 and f_gpARI=0 and f_surARI le 0) f_alg_ARI=0.

IF (f_mARI=0 and f_gpARI=2 and (fmed_stol_beta=1)) f_alg_ARI=1.

IF (f_mARI=0 and f_gpARI=2 and (fmed_stol_beta=0) and f_surARI=1) f_alg_ARI=1.

IF (f_mARI=0 and f_gpARI=2 and (fmed_stol_beta=0) and f_surARI le 0) f_alg_ARI=0.

IF (f_mARI=0 and f_gpARI=2 and (fmed_stol_beta=0) and f_surARI le -1) f_alg_ARI=0.

IF (f_mARI=0 and f_gpARI=-1 and f_surARI=1) f_alg_ARI=2.

IF (f_mARI=0 and f_gpARI=-1 and (fmed_stol_beta=0) and f_surARI=0) f_alg_ARI=0.

IF (f_mARI=0 and f_gpARI=-1 and (fmed_stol_beta=0) and f_surARI le -1) f_alg_ARI=-1.

IF (f_mARI=0 and f_gpARI=-1 and (fmed_stol_beta=1) and f_surARI le 0) f_alg_ARI=-1.

IF (f_mARI le -1 and f_gpARI=1 and (fgarrths=1 or egarrths=1 or hgarrths=1)) f_alg_ARI=1.

IF (f_mARI le -1 and f_gpARI=1 and fgarrths le 0 and f_surARI=1) f_alg_ARI=1.

IF (f_mARI le -1 and f_gpARI=1 and fgarrths le 0 and f_surARI le 0) f_alg_ARI=2.

IF (f_mARI le -1 and f_gpARI=0 and f_surARI=1) f_alg_ARI=3.

IF (f_mARI le -1 and f_gpARI=0 and f_surARI le 0) f_alg_ARI=0.

IF (f_mARI le -1 and f_gpARI=2 and f_surARI=1) f_alg_ARI=1.

IF (f_mARI le -1 and f_gpARI=2 and f_surARI le 0) f_alg_ARI=-1.

IF (f_mARI le -1 and f_gpARI le -1 and f_surARI=1) f_alg_ARI=2.

IF (f_mARI le -1 and f_gpARI le -1 and f_surARI le 0) f_alg_ARI=-1.

IF (f_alg_ARI=-1 and (ftrhart1=0 or ftphart1=0)) f_alg_ARI=0.

VARIABLE LABELS f_alg_ARI 'F wave: arrhythmia'.

VALUE LABELS f_alg_ARI

-1 'missing'

0 'no'

1 'definite'

2 'possible'

3 'contradictory'.

*****CEREBROVASCULAR ACCIDENT (CVA) at F*****.

*Selfreport diagnosis of CVA.

COMPUTE f_srCVA=-3.

IF (fcva01=2 or fcva01=3) f_srCVA=1.

IF (fcva01=0 or fcva01=1) f_srCVA=0.

IF (ftpcva01=1) f_srCVA=1.

IF (ftpcva01=0) f_srCVA=0.

IF (ftrcva01=1) f_srCVA=1.

IF (ftrcva01=0) f_srCVA=0.

IF (fcva01 le -1 and ftpcva01 le -1 and ftrcva01 le -1) f_srCVA=-1.

VARIABLE LABELS f_srCVA 'self report: CVA'.

VALUE LABELS f_srCVA

-1 'missing'

0 'no'

1 'yes'.

```

*GP diagnosis of CVA.
COMPUTE f_gpCVA=-3.
IF (fgcva le -1) f_gpCVA=-1.
IF (t6_year le -1) f_gpCVA=-2.
IF (fgcva=0) f_gpCVA=0.
IF (fgcva=1 and fgcvey ge 4) f_gpCVA=0.
IF (fgcva=1 and fgcvey ge 3 and t6_year=2005) f_gpCVA=0.
IF (fgcva=1 and (fgcvey ge 1 and fgcvey le 2)) f_gpCVA=1.
IF (fgcva=1 and fgcvey=3 and t6_YEAR=2006) f_gpCVA=1.
IF (fgcva=1 and fgcvey le -1) f_gpCVA=2.
IF (fgcva=1 and fgcvey=1) f_gpCVA=1.
IF (egcva=1) f_gpCVA=1.
if (f_gpCVA=-1 AND hgcva=0) f_gpCVA=0.
if (f_gpCVA=-1 AND hgcva=1 AND hgcvey ge 2) f_gpCVA=0.
if (f_gpCVA=-1 AND hgcva=1 AND hgcvey le 1) f_gpCVA=2.
VARIABLE LABELS f_gpCVA 'gp diagnosis: CVA'.
VALUE LABELS f_gpCVA
    -2 'dropout'
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

```

*CVA algorithm: GP diagnosis and SR combined.
COMPUTE f_alg_CVA=-3.
IF (f_gpCVA=1 and (fgcvas=1 or egcvas=1 or hgcvas=1)) f_alg_CVA=1.
IF (f_gpCVA=1 and fgcvas le 0 and f_srCVA=1) f_alg_CVA=1.
IF (f_gpCVA=1 and fgcvas le 0 and f_srCVA=0) f_alg_CVA=3.
IF (f_gpCVA=1 and fgcvas le 0 and f_srCVA le -1) f_alg_CVA=2.
IF (f_gpCVA=0 and f_srCVA=1) f_alg_CVA=3.
IF (f_gpCVA=0 and f_srCVA=0) f_alg_CVA=0.
IF (f_gpCVA=0 and f_srCVA le -1) f_alg_CVA=0.
IF (f_gpCVA=2 and f_srCVA=1) f_alg_CVA=1.
IF (f_gpCVA=2 and f_srCVA=0) f_alg_CVA=0.
IF (f_gpCVA=2 and f_srCVA le -1) f_alg_CVA=-1.
IF (f_gpCVA le -1 and f_srCVA=1) f_alg_CVA=2.
IF (f_gpCVA le -1 and f_srCVA=0) f_alg_CVA=0.
IF (f_gpCVA le -1 and f_srCVA le -1) f_alg_CVA=-1.
VARIABLE LABELS f_alg_CVA 'F wave: cerebrovascular accident'.
VALUE LABELS f_alg_CVA
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****MYOCARDIAL INFARCTION (MI) at F*****.

```

*Selfreport diagnosis of MI.
COMPUTE f_srMI=-5.
IF (fhart01 le -1) f_srMI=-1.
IF ((fhart01=2 or fhart01=3) and fhart05 le -1) f_srMI=-1.

```

```

IF (fhart05=1) f_srMI=0.
IF (fhart01=0 or fhart01=1) f_srMI=0.
IF (fhart05=2) f_srMI=1.
IF (ftphart1=0 or ftrhart1=0) f_srMI=0.
VARIABLE LABELS f_srMI 'self report: myocardial infarction'.
VALUE LABELS f_srMI
    -1 'missing'
    0 'no'
    1 'yes'.

```

*GP diagnosis of MI.

```

COMPUTE f_gpMI=-3.
IF (fgmi le -1) f_gpMI=-1.
IF (t6_year le -1) f_gpMI=-1.
IF (fgmi=0) f_gpMI=0.
IF (fgmi=1 and fgmiy ge 4) f_gpMI=0.
IF (fgmi=1 and fgmiy ge 3 and t6_year=2005) f_gpMI=0.
IF (fgmi=1 and (fgmiy ge 1 and fgmiy le 2)) f_gpMI=1.
IF (fgmi=1 and (fgmiy=3 and t6_YEAR=2006)) f_gpMI=1.
IF (fgmi=1 and fgmiy le -1) f_gpMI=2.
IF (fgmi=1 and fgmiy=1) f_gpMI=1.
IF (egmi=1) f_gpMI=1.
IF (f_gpMI=-1 AND hgmi=0) f_gpMI=0.
IF (f_gpMI=-1 AND hgmi=1 AND hgmiy ge 2) f_gpMI=0.
IF (f_gpMI=-1 AND hgmi=1 AND hgmiy le 1) f_gpMI=2.
VARIABLE LABELS f_gpMI 'gp diagnosis: MI'.
VALUE LABELS f_gpMI
    -2 'dropout'
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*MI algorithm: GP diagnosis and SR combined.

```

COMPUTE f_alg_MI=-3.
IF (f_gpMI=1 and (fgmis=1 or egmis=1 or hgmis=1)) f_alg_MI=1.
IF (f_gpMI=1 and fgmis le 0 and f_srMI=1) f_alg_MI=1.
IF (f_gpMI=1 and fgmis le 0 and f_srMI=0) f_alg_MI=3.
IF (f_gpMI=1 and fgmis le 0 and f_srMI le -1) f_alg_MI=2.
IF (f_gpMI=0 and f_srMI=1) f_alg_MI=3.
IF (f_gpMI=0 and f_srMI=0) f_alg_MI=0.
IF (f_gpMI=0 and f_srMI le -1) f_alg_MI=0.
IF (f_gpMI=2 and f_srMI=1) f_alg_MI=1.
IF (f_gpMI=2 and f_srMI=0) f_alg_MI=0.
IF (f_gpMI=2 and f_srMI le -1) f_alg_MI=-1.
IF (f_gpMI le -1 and f_srMI=1) f_alg_MI=2.
IF (f_gpMI le -1 and f_srMI=0) f_alg_MI=0.
IF (f_gpMI le -1 and f_srMI le -1) f_alg_MI=-1.
VARIABLE LABELS f_alg_MI 'F wave: myocardial infarction'.
VALUE LABELS f_alg_MI
    -1 'missing'
    0 'no'

```

- 1 'definite'
- 2 'possible'
- 3 'contradictory'.

*****ANGINA PECTORIS (AP) at F*****.

*Selfreport diagnosis of AP.

COMPUTE f_srAP=-5.

IF (fhart01 le -1) f_srAP=-1.

IF ((fhart01=2 or fhart01=3) and fhart10 le -1) f_srAP=-1.

IF (fhart01=0 or fhart01=1) f_srAP=0.

IF (fhart11=1 or fdiabe12=1) f_srAP=0.

if (((fhart01=2 or fhart01=3) and fhart10=1) OR ((fdiabe01=2 or fdiabe01=3) and fdiabe11=1))
f_srAP=0.

IF (((fhart01=2 or fhart01=3) and fhart10 ge 4) OR ((fdiabe01=2 or fdiabe01=3) and fdiabe11 ge 4))
f_srAP=0.

IF (((fhart01=2 or fhart01=3) and fhart10=2 and fhart11 le -1) OR ((fdiabe01=2 or fdiabe01=3) and
fdiabe11=2 and fdiabe12 le -1)) f_srAP=2.

IF (fhart11=2 or fdiabe12=2) f_srAP=1.

IF (fhart10=3 or fdiabe11=3) f_srAP=1.

IF (ftphart1=0 or ftrhart1=0) f_srAP=0.

VARIABLE LABELS f_srAP 'self report: angina pectoris'.

VALUE LABELS f_srAP

-1 'missing'

0 'no'

1 'yes'

2 'possible'.

*GP diagnosis of AP.

COMPUTE f_gpAP=-3.

IF (fgap le -1) f_gpAP=-1.

IF (t6_year le -1) f_gpAP=-1.

IF (fgap=0) f_gpAP=0.

IF (fgap=1 and fgapy ge 4) f_gpAP=0.

IF (fgap=1 and fgapy ge 3 and t6_year=2005) f_gpAP=0.

IF (fgap=1 and (fgapy ge 1 and fgapy le 2)) f_gpAP=1.

IF (fgap=1 and (fgapy=3 and t6_YEAR=2006)) f_gpAP=1.

IF (fgap=1 and fgapy le -1) f_gpAP=2.

IF (fgap=1 and fgapy=1) f_gpAP=1.

IF (egap=1) f_gpAP=1.

If (f_gpap=-1 AND hgap=0) f_gpap=0.

If (f_gpap=-1 AND hgap=1 AND hgapy ge 2) f_gpap=0.

If (f_gpap=-1 AND hgap=1 AND hgapy le 1) f_gpap=2.

VARIABLE LABELS f_gpAP 'gp diagnosis: angina pectoris'.

VALUE LABELS f_gpAP

-2 'dropout'

-1 'missing'

0 'no'

1 'yes'

2 'diagnose = yes, but year = missing'.

*use of AP medication: nitrates.

```

RECODE fmed_ang (0=0) (1=1) (SYSMIS=-1) (-9=-1) (ELSE=copy) INTO f_mAP.
IF (fmvar13 le -1) f_mAP=-1.
IF (fmvar13=1) f_mAP=0.
VARIABLE LABELS f_mAP 'use of nitrates'.
VALUE LABELS f_mAP
    -1 'missing'
    0 'no'
    1 'yes'.

```

*AP algorithm: medication, GP diagnosis and SR combined.

```

COMPUTE f_alg_AP=-3.
IF (f_mAP=1) f_alg_AP=1.
IF (f_mAP le 0 and f_srAP=1 and f_gpAP=1) f_alg_AP=1.
IF (f_mAP le 0 and f_srAP=1 and f_gpAP=0) f_alg_AP=3.
IF (f_mAP le 0 and f_srAP=1 and f_gpap=2) f_alg_AP=1.
IF (f_mAP le 0 and f_srAP=1 and f_gpAP le -1) f_alg_AP=2.
IF (f_mAP le 0 and f_srAP=0 and f_gpAP=1 and (fgaps=1 or egaps=1 or hgaps=1)) f_alg_AP=1.
IF (f_mAP le 0 and f_srAP=0 and f_gpAP=1 and fgaps le 0) f_alg_AP=3.
IF (f_mAP le 0 and f_srAP=0 and f_gpAP=0) f_alg_AP=0.
IF (f_mAP le 0 and f_srAP=0 and f_gpap=2) f_alg_AP=0.
IF (f_mAP le 0 and f_srAP=0 and f_gpAP le -1) f_alg_AP=0.
IF (f_mAP le 0 and f_srAP=2 and f_gpAP=1) f_alg_AP=1.
IF (f_mAP le 0 and f_srAP=2 and f_gpAP=0) f_alg_AP=0.
IF (f_mAP le 0 and f_srAP=2 and f_gpAP=2) f_alg_AP=-1.
IF (f_mAP le 0 and f_srAP=2 and f_gpap=-1) f_alg_AP=-1.
IF (f_mAP le 0 and f_srAP le -1 and f_gpAP=1 and (fgaps=1 or egaps=1 or hgaps=1)) f_alg_AP=1.
IF (f_mAP le 0 and f_srAP le -1 and f_gpAP=1 and fgaps le 0) f_alg_AP=2.
IF (f_mAP le 0 and f_srAP le -1 and f_gpAP=0) f_alg_AP=0.
IF (f_mAP le 0 and f_srAP le -1 and f_gpap=2) f_alg_AP=-1.
IF (f_mAP le 0 and f_srAP le -1 and f_gpAP le -1) f_alg_AP=-1.
VARIABLE LABELS f_alg_AP 'F wave: angina pectoris'.
VALUE LABELS f_alg_AP
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****CONGESTIVE HEART FAILURE (CHF) at F*****.

*Selfreport diagnosis of CHF.

```

COMPUTE f_srCHF=-3.
IF (fhart01 le -1) f_srCHF=-1.
IF ((fhart01=2 or fhart01=3) and fhart12 le -1) f_srCHF=-1.
IF (fhart01=0 or fhart01=1) f_srCHF=0.
IF ((fhart01=2 or fhart01=3) and fhart12=1) f_srCHF=0.
IF ((fhart01=2 or fhart01=3) and fhart12=2) f_srCHF=1.
IF (ftphart1=0 or ftrhart1=0) f_srCHF=0.
VARIABLE LABELS f_srCHF 'self reported diagnosis of congestive heart failure'.
VALUE LABELS f_srCHF
    -1 'missing'
    0 'no'
    1 'yes'.

```

```

*GP diagnosis of CHF.
COMPUTE f_gpCHF=-3.
IF (fgchf le -1) f_gpCHF=-1.
IF (t6_year le -1) f_gpCHF=-1.
IF (fgchf=0) f_gpCHF=0.
IF (fgchf=1 and fgchfy ge 4) f_gpCHF=0.
IF (fgchf=1 and fgchfy ge 3 and t6_year=2005) f_gpCHF=0.
IF (fgchf=1 and (fgchfy ge 1 and fgchfy le 2)) f_gpCHF=1.
IF (fgchf=1 and (fgchfy=3 and t6_YEAR=2006)) f_gpCHF=1.
IF (fgchf=1 and fgchfy le -1) f_gpCHF=2.
IF (fgchf=1 and fgchfy=1) f_gpCHF=1.
IF (egchf=1) f_gpCHF=1.
IF (f_gpchf=-1 AND hgchf=0) f_gpchf=0.
IF (f_gpchf=-1 AND hgchf=1 AND hgchfy ge 2) f_gpchf=0.
IF (f_gpchf=-1 AND hgchf=1 AND hgchfy le 1) f_gpchf=2.
VARIABLE LABELS f_gpCHF 'gp diagnosis: congestive heart failure'.
VALUE LABELS f_gpCHF
    -2 'dropout'
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

```

*CHF medication: diuretics, antihypertensives, nitrates, inotropics, beta blocking agents.
compute f_mCHF=0.
if (fmed_diu=1 and (fmed_hyp=1 or fmed_ang=1 or fmed_ino=1 or fmed_beta=1)) f_mCHF=1.
IF (fmvar13 le -1) f_mCHF=-1.
IF (fmvar13=1) f_mCHF=0.
VARIABLE LABELS f_mCHF 'medication for congestive heart failure'.
VALUE LABELS f_mCHF
    -1 'missing'
    0 'no'
    1 'yes'.

```

```

*CHF algorithm: medication, GP diagnosis and SR combined.
COMPUTE f_alg_CHF=-3.
IF (f_gpCHF=1 and (fgchfs=1 or egchfs=1 or hgchfs=1)) f_alg_CHF=1.
IF (f_gpCHF=1 and fgchfs le 0 and f_srCHF=1) f_alg_CHF=1.
IF (f_gpCHF=1 and fgchfs le 0 and f_srCHF le 0 and f_mCHF=1) f_alg_CHF=1.
IF (f_gpCHF=1 and fgchfs le 0 and f_srCHF=0 and f_mCHF=0) f_alg_CHF=2.
IF (f_gpCHF=1 and fgchfs le 0 and f_srCHF le 0 and f_mCHF le -1) f_alg_CHF=2.
IF (f_gpCHF=1 and fgchfs le 0 and f_srCHF le -1 and f_mCHF le 0) f_alg_CHF=2.
IF (f_gpCHF=0 and f_srCHF=1 and f_mCHF=1) f_alg_CHF=1.
IF (f_gpCHF=0 and f_srCHF=1 and f_mCHF le 0) f_alg_CHF=2.
IF (f_gpCHF=0 and f_srCHF le 0 and f_mCHF=1) f_alg_CHF=3.
IF (f_gpCHF=0 and f_srCHF le 0 and f_mCHF le 0) f_alg_CHF=0.
IF (f_gpCHF=2 and f_srCHF=1) f_alg_CHF=1.
IF (f_gpCHF=2 and f_srCHF le 0 and f_mCHF=1) f_alg_CHF=1.
IF (f_gpCHF=2 and f_srCHF le 0 and f_mCHF le 0) f_alg_CHF=0.
IF (f_gpCHF=2 and f_srCHF=0 and f_mCHF=-1) f_alg_CHF=-1.
IF (f_gpCHF=2 and f_srCHF le -1 and f_mCHF le -1) f_alg_CHF=-1.

```

```

IF (f_gpCHF le -1 and f_srCHF=1 and f_mCHF=1) f_alg_CHF=1.
IF (f_gpCHF le -1 and f_srCHF=1 and f_mCHF le 0) f_alg_CHF=2.
IF (f_gpCHF le -1 and f_srCHF=0 and f_mCHF=1) f_alg_CHF=2.
IF (f_gpCHF le -1 and f_srCHF=0 and f_mCHF le 0) f_alg_CHF=0.
IF (f_gpCHF le -1 and f_srCHF le -1 and f_mCHF=1) f_alg_CHF=2.
IF (f_gpCHF le -1 and f_srCHF le -1 and f_mCHF=0) f_alg_CHF=0.
IF (f_gpCHF le -1 and f_srCHF le -1 and f_mCHF le -1) f_alg_CHF=-1.
VARIABLE LABELS f_alg_CHF 'F wave: congestive heart failure'.
VALUE LABELS f_alg_CHF
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****PERIPHERAL ARTERIAL DISEASE (PAD) at F*****.

*Selfreport diagnosis of PAD.

```

COMPUTE f_srPAD=-5.
IF (fartvei1 le -1) f_srPAD=-1.
IF ((fartvei1=2 or fartvei1=3) and fartvei5 le -1) f_srPAD=-1.
IF (fartvei1=0 or fartvei1=1) f_srPAD=0.
IF (fartvei7=1 or fdiabe09=1) f_srPAD=0.
IF (fartvei5=1 or fdiabe07=1) f_srPAD=0.
IF ((fartvei5=2 and fartvei7 le -1) or (fdiabe07=2 and fdiabe09 le -1)) f_srPAD=2.
IF (fartvei7=2 or fdiabe09=2) f_srPAD=1.
IF (ftpartv1=0 OR ftrartv1=0) f_srPAD=0.
IF (ftpartv1=1 OR ftrartv1=1) f_srPAD=2.
IF (fartvei1 le -1 and ftpartv1 le -1 and ftrartv1 le -1) f_srPAD=-1.
VARIABLE LABELS f_srPAD 'self reported diagnosis of peripheral artery disease'.
VALUE LABELS f_srPAD
    -1 'missing'
    0 'no'
    1 'yes'
    2 'possible'.

```

*Selfreport surgery.

```

COMPUTE f_surPAD=-3.
IF (fartvei1 le -1) f_surPAD=-1.
IF ((fartvei1=2 or fartvei1=3) and fartve8 le -1) f_surPAD=-1.
IF (fartve8=1) f_surPAD=0.
IF ((fartve8c=0 AND fartve8d=0) AND (fartve8b le 0)) f_surPAD=0.
IF (fartvei1=0 or fartvei1=1) f_surPAD=0.
IF ((fartve8c le 0 AND fartve8d le 0) AND (fartve8b=1)) f_surPAD=2.
IF (fartve8c=1 OR fartve8d=1) f_surPAD=1.
VARIABLE LABELS f_surPAD 'self reported surgery of peripheral arteries'.
VALUE LABELS f_surPAD
    -1 'missing'
    0 'no'
    1 'yes'
    2 'possible'.

```

*GP diagnosis of PAD.

```

COMPUTE f_gpPAD=-3.
IF (fgartvei le -1) f_gpPAD=-1.
IF (t6_year le -1) f_gpPAD=-1.
IF (fgartvei=0) f_gpPAD=0.
IF (fgartvei=1 and fgartvey ge 4) f_gpPAD=0.
IF (fgartvei=1 and fgartvey ge 3 and t6_year=2005) f_gpPAD=0.
IF (fgartvei=1 and (fgartvey ge 1 and fgartvey le 2)) f_gpPAD=1.
IF (fgartvei=1 and (fgartvey=3 and t6_YEAR=2006)) f_gpPAD=1.
IF (fgartvei=1 and fgartvey le -1) f_gpPAD=2.
IF (fgartvei=1 and fgartvey=1) f_gpPAD=1.
IF (egartvei=1) f_gpPAD=1.
IF (f_gpPAD=-1 AND hgartvei=0) f_gpPAD=0.
IF (f_gpPAD=-1 AND hgartvei=1 AND hgartvey ge 2) f_gpPAD=0.
IF (f_gpPAD=-1 AND hgartvei=1 AND hgartvey le 1) f_gpPAD=2.
VARIABLE LABELS f_gpPAD 'gp diagnosis: PAD'.
VALUE LABELS f_gpPAD
    -2 'dropout'
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*PAD algorithm: medication, GP diagnosis, SR and surgery combined.

```

COMPUTE f_alg_PAD=-3.
IF (f_surPAD=1) f_alg_PAD=1.
IF (f_surPAD le 0 and f_gpPAD=1 and (fgartves=1 or egartves=1 or hgartves=1)) f_alg_PAD=1.
IF (f_surPAD le 0 and f_gpPAD=1 and fgartves le 0 and f_srPAD=1) f_alg_PAD=1.
IF (f_surPAD le 0 and f_gpPAD=1 and fgartves le 0 and f_srPAD=0) f_alg_PAD=3.
IF (f_surPAD le 0 and f_gpPAD=1 and fgartves le 0 and f_srPAD le -1) f_alg_PAD=2.
IF (f_surPAD le 0 and f_gpPAD=1 and fgartves le 0 and f_srPAD=2) f_alg_PAD=1.
IF (f_surPAD le 0 and f_gpPAD=0 and f_srPAD=1) f_alg_PAD=3.
IF (f_surPAD le 0 and f_gpPAD=0 and f_srPAD=0) f_alg_PAD=0.
IF (f_surPAD le 0 and f_gpPAD=0 and f_srPAD le -1) f_alg_PAD=0.
IF (f_surPAD le 0 and f_gpPAD=0 and f_srPAD=2) f_alg_PAD=0.
IF (f_surPAD le 0 and f_gpPAD=2 and f_srPAD=1) f_alg_PAD=1.
IF (f_surPAD le 0 and f_gpPAD=2 and f_srPAD=0) f_alg_PAD=0.
IF (f_surPAD le 0 and f_gpPAD=2 and f_srPAD le -1) f_alg_PAD=-1.
IF (f_surPAD le 0 and f_gpPAD=2 and f_srPAD=2) f_alg_PAD=1.
IF (f_surPAD le 0 and f_gpPAD le -1 and f_srPAD=1) f_alg_PAD=2.
IF (f_surPAD le 0 and f_gpPAD le -1 and f_srPAD=0) f_alg_PAD=0.
IF (f_surPAD le 0 and f_gpPAD le -1 and f_srPAD le -1) f_alg_PAD=-1.
IF (f_surPAD le 0 and f_gpPAD le -1 and f_srPAD=2) f_alg_PAD=-1.
IF (f_surPAD=2 and f_gpPAD=1) f_alg_PAD=1.
IF (f_surPAD=2 and f_gpPAD=0 and f_srPAD=1) f_alg_PAD=1.
IF (f_surPAD=2 and f_gpPAD=0 and f_srPAD=0) f_alg_PAD=0.
IF (f_surPAD=2 and f_gpPAD=0 and f_srPAD le -1) f_alg_PAD=0.
IF (f_surPAD=2 and f_gpPAD=0 and f_srPAD=2) f_alg_PAD=3.
IF (f_surPAD=2 and f_gpPAD=2 and f_srPAD=1) f_alg_PAD=1.
IF (f_surPAD=2 and f_gpPAD le -1 and f_srPAD=1) f_alg_PAD=1.
IF (f_surPAD=2 and f_gpPAD le -1 and f_srPAD=0) f_alg_PAD=0.
IF (f_surPAD=2 and f_gpPAD le -1 and f_srPAD le -1) f_alg_PAD=-1.
IF (f_surPAD=2 and f_gpPAD le -1 and f_srPAD=2) f_alg_PAD=-1.

```

```
VARIABLE LABELS f_alg_PAD 'F wave algorithm: peripheral artery disease'.
VALUE LABELS f_alg_PAD
  -1 'missing'
  0 'no'
  1 'definite'
  2 'possible'
  3 'contradictory'.
```

```
*****CORONARY ARTERY DISEASE (CAD) at F*****.
```

```
*CAD Selfreport surgery.
COMPUTE f_surCAD=-3.
IF ((fhart01=2 or fhart01=3) and fhart15 le -1) f_surCAD=-1.
IF (fhart01 le -1) f_surCAD=-1.
IF (fhart15b le -1 AND fhart15c le -1) f_surCAD=-1.
IF (fhart15b=0 AND fhart15c=0) f_surCAD=0.
IF (fhart15=1) f_surCAD=0.
IF (fhart01=0 or fhart01=1) f_surCAD=0.
IF (fhart15b=1 OR fhart15c=1) f_surCAD=1.
VARIABLE LABELS f_surCAD 'self reported surgery of coronary arteries'.
VALUE LABELS f_surCAD
  -1 'missing'
  0 'no'
  1 'yes'.
```

```
*CAD selfreport (=Selfreport of AP or MI).
COMPUTE f_srCAD=-5.
IF (fhart01 le -1) f_srCAD=-1.
IF (f_srMI=0 AND f_srAP=2) f_srCAD=-1.
IF (f_srMI=0 AND f_srAP le -1) f_srCAD=-1.
IF (f_srMI le -1 AND f_srAP=0) f_srCAD=-1.
IF (f_srMI le -1 AND f_srAP=2) f_srCAD=-1.
IF (f_srMI le -1 AND f_srAP le -1) f_srCAD=-1.
IF (f_srMI=0 AND f_srAP=0) f_srCAD=0.
IF (fhart01=0 or fhart01=1) f_srCAD=0.
IF (f_srMI le -1 AND f_srAP=1) f_srCAD=1.
IF (f_srMI=1) f_srCAD=1.
IF (f_srAP=1) f_srCAD=1.
IF (ftphart1=0 or ftrhart1=0) f_srCAD=0.
VARIABLE LABELS f_srCAD 'self report: myocardial infarction OR angina pectoris'.
VALUE LABELS f_srCAD
  -1 'missing'
  0 'no'
  1 'yes'.
```

```
*GP diagnosis of CAD (gp diagnosis of AP or MI).
COMPUTE f_gpCAD=-5.
IF (f_gpMI le -1 AND f_gpAP=0) f_gpCAD=-1.
IF (f_gpMI=0 AND f_gpAP le -1) f_gpCAD=-1.
IF (f_gpMI le -1 AND f_gpAP le -1) f_gpCAD=-1.
IF (f_gpMI=0 AND f_gpAP=0) f_gpCAD=0.
IF (f_gpMI=0 AND f_gpAP=2) f_gpCAD=2.
IF (f_gpMI le -1 AND f_gpAP=2) f_gpCAD=2.
```

```

IF (f_gpMI=2 AND f_gpAP=0) f_gpCAD=2.
IF (f_gpMI=2 AND f_gpAP=2) f_gpCAD=2.
IF (f_gpMI=2 AND f_gpAP le -1) f_gpCAD=2.
IF (f_gpMI=1) f_gpCAD=1.
IF (f_gpAP=1) f_gpCAD=1.
IF (t6_year le -1) f_gpCAD=-2.
VARIABLE LABELS f_gpCAD 'self report: myocardial infarction OR angina pectoris'.
VALUE LABELS f_gpCAD
    -2 'dropout'
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*CAD algorithm: medication, GP diagnosis, SR and surgery combined.

```

COMPUTE f_alg_CAD=-3.
IF (f_mAP le 0 and f_surCAD le 0 and f_srMI le 0 and (f_srAP le 0 or f_srAP=2) and f_gpMI le 0)
f_alg_CAD=0.
IF (f_mAP le -1 and f_surCAD le -1 and f_srMI le -1 and f_srAP le -1 and f_gpAP le -1 and f_gpMI le -1)
f_alg_CAD=-1.
IF (f_mAP=0 and f_surCAD=0 and f_srMI=0 and f_srAP=0 and f_gpAP=0 and f_gpMI=0) f_alg_CAD=0.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_srAP=1 and (f_srMI le 0 and f_gpAP le 0 and f_gpMI le 0)))
f_alg_CAD=3.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_srMI=1 and (f_srAP le 0 and f_gpAP le 0 and f_gpMI le 0)))
f_alg_CAD=3.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_gpAP=1 and fgaps le 0 and (f_gpMI le 0 or f_gpMI=2) and
f_srAP le 0 and f_srMI le 0)) f_alg_CAD=3.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_gpMI=1 and fgmis le 0 and (f_gpAP le 0 or f_gpAP=2) and
f_srAP le 0 and f_srMI le 0)) f_alg_CAD=3.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_srAP=1 and (f_srMI le -1 and f_gpAP le -1 and f_gpMI le -1)))
f_alg_CAD=2.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_srMI=1 and (f_srAP le -1 and f_gpAP le -1 and f_gpMI le -1)))
f_alg_CAD=2.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_gpAP=1 and fgaps le 0 and f_gpMI le -1 and f_srAP le -1 and
f_srMI le -1)) f_alg_CAD=2.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_gpMI=1 and fgmis le 0 and f_gpAP le -1 and f_srAP le -1 and
f_srMI le -1)) f_alg_CAD=2.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_gpAP=2 and (f_gpMI le 0 or f_gpMI=2) and (f_srAP le 0 or
f_srAP=2) and f_srMI le 0)) f_alg_CAD=0.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_gpMI=2 and (f_gpAP le 0 or f_gpAP=2) and (f_srAP le 0 or
f_srAP=2) and f_srMI le 0)) f_alg_CAD=0.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_gpAP=2 and (f_gpMI le -1 or f_gpMI=2) and (f_srAP le -1 or
f_srAP=2) and f_srMI le -1)) f_alg_CAD=-1.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_gpMI=2 and (f_gpAP le -1 or f_gpAP=2) and (f_srAP le -1 or
f_srAP=2) and f_srMI le -1)) f_alg_CAD=-1.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_srAP=1 and (f_srMI=1 OR f_gpAP=1 OR f_gpMI=1)))
f_alg_CAD=1.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_srMI=1 and (f_srAP=1 OR f_gpAP=1 OR f_gpMI=1)))
f_alg_CAD=1.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_gpAP=1 and (fgaps=1 or egaps=1 or hgaps=1)))
f_alg_CAD=1.

```

```

IF ((f_mAP le 0 and f_surCAD le 0) and (f_gpMI=1 and (fgmis=1 or egmis=1 or hgmis=1)))
f_alg_CAD=1.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_gpAP=1 and fgaps le 0) and (f_srMI=1 or f_srAP=1 or
f_gpMI=1)) f_alg_CAD=1.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_gpMI=1 and fgmis le 0) and (f_srMI=1 or f_srAP=1 or
f_gpAP=1)) f_alg_CAD=1.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_srAP=1 and f_srMI le 0) and (f_gpAP=2 or f_gpMI=2))
f_alg_CAD=1.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_srMI=1) and (f_gpAP=2 or f_srAP=2 or f_gpMI=2))
f_alg_CAD=1.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_gpAP=1 and f_srMI le 0) and (f_srAP=2 and f_gpMI=2))
f_alg_CAD=1.
IF ((f_mAP le 0 and f_surCAD le 0) and (f_gpMI=1 and f_srMI le 0) and (f_gpAP=2 or f_srAP=2))
f_alg_CAD=1.
IF (f_mAP=1 or f_surCAD=1) f_alg_CAD=1.
VARIABLE LABELS f_alg_CAD 'F wave: coronary artery disease'.
VALUE LABELS f_alg_CAD
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****G wave*****.

*create a string variable that consists of the first 3 characters of the ATC code.

```

string g_3ATC1(a30).
COMPUTE g_3ATC1 = CHAR.SUBSTR(gmatc1,1,3) .
string g_3ATC2(a30).
COMPUTE g_3ATC2 = CHAR.SUBSTR(gmatc2,1,3) .
string g_3ATC3(a30).
COMPUTE g_3ATC3 = CHAR.SUBSTR(gmatc3,1,3) .
string g_3ATC4(a30).
COMPUTE g_3ATC4 = CHAR.SUBSTR(gmatc4,1,3) .
string g_3ATC5(a30).
COMPUTE g_3ATC5 = CHAR.SUBSTR(gmatc5,1,3) .
string g_3ATC6(a30).
COMPUTE g_3ATC6 = CHAR.SUBSTR(gmatc6,1,3) .
string g_3ATC7(a30).
COMPUTE g_3ATC7 = CHAR.SUBSTR(gmatc7,1,3) .
string g_3ATC8(a30).
COMPUTE g_3ATC8 = CHAR.SUBSTR(gmatc8,1,3) .
string g_3ATC9(a30).
COMPUTE g_3ATC9 = CHAR.SUBSTR(gmatc9,1,3) .
string g_3ATC10(a30).
COMPUTE g_3ATC10 = CHAR.SUBSTR(gmatc10,1,3) .
string g_3ATC11(a30).
COMPUTE g_3ATC11 = CHAR.SUBSTR(gmatc11,1,3) .
string g_3ATC12(a30).
COMPUTE g_3ATC12 = CHAR.SUBSTR(gmatc12,1,3) .
string g_3ATC13(a30).
COMPUTE g_3ATC13 = CHAR.SUBSTR(gmatc13,1,3) .
string g_3ATC14(a30).

```

```
COMPUTE g_3ATC14 = CHAR.SUBSTR(gmatc14,1,3) .
string g_3ATC15(a30).
COMPUTE g_3ATC15 = CHAR.SUBSTR(gmatc15,1,3) .
string g_3ATC16(a30).
COMPUTE g_3ATC16 = CHAR.SUBSTR(gmatc16,1,3) .
```

*create a string variable that consists of the first 4 characters of the ATC code.

```
string g_4ATC1(a30).
COMPUTE g_4ATC1 = CHAR.SUBSTR(gmatc1,1,4) .
string g_4ATC2(a30).
COMPUTE g_4ATC2 = CHAR.SUBSTR(gmatc2,1,4) .
string g_4ATC3(a30).
COMPUTE g_4ATC3 = CHAR.SUBSTR(gmatc3,1,4) .
string g_4ATC4(a30).
COMPUTE g_4ATC4 = CHAR.SUBSTR(gmatc4,1,4) .
string g_4ATC5(a30).
COMPUTE g_4ATC5 = CHAR.SUBSTR(gmatc5,1,4) .
string g_4ATC6(a30).
COMPUTE g_4ATC6 = CHAR.SUBSTR(gmatc6,1,4) .
string g_4ATC7(a30).
COMPUTE g_4ATC7 = CHAR.SUBSTR(gmatc7,1,4) .
string g_4ATC8(a30).
COMPUTE g_4ATC8 = CHAR.SUBSTR(gmatc8,1,4) .
string g_4ATC9(a30).
COMPUTE g_4ATC9 = CHAR.SUBSTR(gmatc9,1,4) .
string g_4ATC10(a30).
COMPUTE g_4ATC10 = CHAR.SUBSTR(gmatc10,1,4) .
string g_4ATC11(a30).
COMPUTE g_4ATC11 = CHAR.SUBSTR(gmatc11,1,4) .
string g_4ATC12(a30).
COMPUTE g_4ATC12 = CHAR.SUBSTR(gmatc12,1,4) .
string g_4ATC13(a30).
COMPUTE g_4ATC13 = CHAR.SUBSTR(gmatc13,1,4) .
string g_4ATC14(a30).
COMPUTE g_4ATC14 = CHAR.SUBSTR(gmatc14,1,4) .
string g_4ATC15(a30).
COMPUTE g_4ATC15 = CHAR.SUBSTR(gmatc15,1,4) .
string g_4ATC16(a30).
COMPUTE g_4ATC16 = CHAR.SUBSTR(gmatc16,1,4) .
```

*create a string variable that consists of the first 5 characters of the ATC code.

```
string g_5ATC1(a30).
COMPUTE g_5ATC1 = CHAR.SUBSTR(gmatc1,1,5) .
string g_5ATC2(a30).
COMPUTE g_5ATC2 = CHAR.SUBSTR(gmatc2,1,5) .
string g_5ATC3(a30).
COMPUTE g_5ATC3 = CHAR.SUBSTR(gmatc3,1,5) .
string g_5ATC4(a30).
COMPUTE g_5ATC4 = CHAR.SUBSTR(gmatc4,1,5) .
string g_5ATC5(a30).
COMPUTE g_5ATC5 = CHAR.SUBSTR(gmatc5,1,5) .
string g_5ATC6(a30).
```

```

COMPUTE g_5ATC6 = CHAR.SUBSTR(gmatc6,1,5) .
string g_5ATC7(a30).
COMPUTE g_5ATC7 = CHAR.SUBSTR(gmatc7,1,5) .
string g_5ATC8(a30).
COMPUTE g_5ATC8 = CHAR.SUBSTR(gmatc8,1,5) .
string g_5ATC9(a30).
COMPUTE g_5ATC9 = CHAR.SUBSTR(gmatc9,1,5) .
string g_5ATC10(a30).
COMPUTE g_5ATC10 = CHAR.SUBSTR(gmatc10,1,5) .
string g_5ATC11(a30).
COMPUTE g_5ATC11 = CHAR.SUBSTR(gmatc11,1,5) .
string g_5ATC12(a30).
COMPUTE g_5ATC12 = CHAR.SUBSTR(gmatc12,1,5) .
string g_5ATC13(a30).
COMPUTE g_5ATC13 = CHAR.SUBSTR(gmatc13,1,5) .
string g_5ATC14(a30).
COMPUTE g_5ATC14 = CHAR.SUBSTR(gmatc14,1,5) .
string g_5ATC15(a30).
COMPUTE g_5ATC15 = CHAR.SUBSTR(gmatc15,1,5) .
string g_5ATC16(a30).
COMPUTE g_5ATC16 = CHAR.SUBSTR(gmatc16,1,5) .
EXECUTE.

```

*create a variable: use of beta blocking agents (atc code C07, thus includes combination preparaten) yes/no.

```

compute gmed_beta=0.
if (gmvar13 le -1) gmed_beta=-1.
if (g_3ATC1='C07' OR g_3ATC2='C07' OR g_3ATC3='C07' OR g_3ATC4='C07' OR g_3ATC5='C07' OR
g_3ATC6='C07' OR
g_3ATC7='C07' OR g_3ATC8='C07' OR g_3ATC9='C07' OR g_3ATC10='C07' OR g_3ATC11='C07' OR
g_3ATC12='C07' OR g_3ATC13='C07' OR
g_3ATC14='C07' OR g_3ATC15='C07' OR g_3ATC16='C07') gmed_beta=1.
VARIABLE LABELS gmed_beta 'use of beta blocking agents'.
VALUE LABELS gmed_beta
    -1 'missing'
    0 'no'
    1 'yes'.
EXECUTE.

```

*create a variable: use of anticoagulant drugs (vitamine K antagonists, DOACs, dabigatran (atc codes B01AA, B01AF, B01AE)) yes/no.

```

compute gmed_stolling=0.
if (gmvar13 le -1) gmed_stolling=-1.
if (g_5ATC1='B01AA' OR g_5ATC2='B01AA' OR g_5ATC3='B01AA' OR g_5ATC4='B01AA' OR
g_5ATC5='B01AA' OR g_5ATC6='B01AA' OR
g_5ATC7='B01AA' OR g_5ATC8='B01AA' OR g_5ATC9='B01AA' OR g_5ATC10='B01AA' OR
g_5ATC11='B01AA' OR g_5ATC12='B01AA' OR g_5ATC13='B01AA' OR
g_5ATC14='B01AA' OR g_5ATC15='B01AA' OR g_5ATC16='B01AA') gmed_stolling=1.
if (g_5ATC1='B01AF' OR g_5ATC2='B01AF' OR g_5ATC3='B01AF' OR g_5ATC4='B01AF' OR
g_5ATC5='B01AF' OR g_5ATC6='B01AF' OR
g_5ATC7='B01AF' OR g_5ATC8='B01AF' OR g_5ATC9='B01AF' OR g_5ATC10='B01AF' OR
g_5ATC11='B01AF' OR g_5ATC12='B01AF' OR g_5ATC13='B01AF' OR

```

```
g_5ATC14='B01AF' OR g_5ATC15='B01AF' OR g_5ATC16='B01AF') gmed_stolling=1.
If (g_5ATC1='B01AE' OR g_5ATC2='B01AE' OR g_5ATC3='B01AE' OR g_5ATC4='B01AE' OR
g_5ATC5='B01AE' OR g_5ATC6='B01AE' OR
g_5ATC7='B01AE' OR g_5ATC8='B01AE' OR g_5ATC9='B01AE' OR g_5ATC10='B01AE' OR
g_5ATC11='B01AE' OR g_5ATC12='B01AE' OR g_5ATC13='B01AE' OR
g_5ATC14='B01AE' OR g_5ATC15='B01AE' OR g_5ATC16='B01AE') gmed_stolling=1.
VARIABLE LABELS gmed_stolling 'use of anticoagulants'.
VALUE LABELS gmed_stolling
    -1 'missing'
    0 'no'
    1 'yes'.
EXECUTE.
```

```
*combining anticoagulants and betablocking agents: use of both, yes/no.
compute gmed_stol_beta=-3.
If (gmed_stolling=-1) gmed_stol_beta=-1.
If (gmed_stolling=1 and gmed_beta=1) gmed_stol_beta=1.
If (gmed_stolling=0 or gmed_beta=0) gmed_stol_beta=0.
VARIABLE LABELS gmed_stol_beta 'use of both beta blocking agent AND anticoagulantia'.
VALUE LABELS gmed_stol_beta
    -1 'missing'
    0 'no'
    1 'yes'.
EXECUTE.
```

```
*some diuretics are combination preps and therefore (incorrectly) not included in the diuretics
variable.
*C07B C07C C07D C02L C09B C09D C08G
C09AX C09CX C01AA.
```

```
*C07B C07C C07D C02L C09B C09D C08G .
If (g_4ATC1='C07B' OR g_4ATC2='C07B' OR g_4ATC3='C07B' OR g_4ATC4='C07B' OR g_4ATC5='C07B'
OR g_4ATC6='C07B' OR
g_4ATC7='C07B' OR g_4ATC8='C07B' OR g_4ATC9='C07B' OR g_4ATC10='C07B' OR g_4ATC11='C07B'
OR g_4ATC12='C07B' OR g_4ATC13='C07B' OR
g_4ATC14='C07B' OR g_4ATC15='C07B' OR g_4ATC16='C07B') gmed_diu=1.
If (g_4ATC1='C07C' OR g_4ATC2='C07C' OR g_4ATC3='C07C' OR g_4ATC4='C07C' OR g_4ATC5='C07C'
OR g_4ATC6='C07C' OR
g_4ATC7='C07C' OR g_4ATC8='C07C' OR g_4ATC9='C07C' OR g_4ATC10='C07C' OR g_4ATC11='C07C'
OR g_4ATC12='C07C' OR g_4ATC13='C07C' OR
g_4ATC14='C07C' OR g_4ATC15='C07C' OR g_4ATC16='C07C') gmed_diu=1.
If (g_4ATC1='C07D' OR g_4ATC2='C07D' OR g_4ATC3='C07D' OR g_4ATC4='C07D' OR g_4ATC5='C07D'
OR g_4ATC6='C07D' OR
g_4ATC7='C07D' OR g_4ATC8='C07D' OR g_4ATC9='C07D' OR g_4ATC10='C07D' OR g_4ATC11='C07D'
OR g_4ATC12='C07D' OR g_4ATC13='C07D' OR
g_4ATC14='C07D' OR g_4ATC15='C07D' OR g_4ATC16='C07D') gmed_diu=1.
If (g_4ATC1='C02L' OR g_4ATC2='C02L' OR g_4ATC3='C02L' OR g_4ATC4='C02L' OR g_4ATC5='C02L'
OR g_4ATC6='C02L' OR
g_4ATC7='C02L' OR g_4ATC8='C02L' OR g_4ATC9='C02L' OR g_4ATC10='C02L' OR g_4ATC11='C02L'
OR g_4ATC12='C02L' OR g_4ATC13='C02L' OR
g_4ATC14='C02L' OR g_4ATC15='C02L' OR g_4ATC16='C02L') gmed_diu=1.
```

```

If (g_4ATC1='C09B' OR g_4ATC2='C09B' OR g_4ATC3='C09B' OR g_4ATC4='C09B' OR g_4ATC5='C09B'
OR g_4ATC6='C09B' OR
g_4ATC7='C09B' OR g_4ATC8='C09B' OR g_4ATC9='C09B' OR g_4ATC10='C09B' OR g_4ATC11='C09B'
OR g_4ATC12='C09B' OR g_4ATC13='C09B' OR
g_4ATC14='C09B' OR g_4ATC15='C09B' OR g_4ATC16='C09B') gmed_diu=1.
If (g_4ATC1='C09D' OR g_4ATC2='C09D' OR g_4ATC3='C09D' OR g_4ATC4='C09D' OR g_4ATC5='C09D'
OR g_4ATC6='C09D' OR
g_4ATC7='C09D' OR g_4ATC8='C09D' OR g_4ATC9='C09D' OR g_4ATC10='C09D' OR g_4ATC11='C09D'
OR g_4ATC12='C09D' OR g_4ATC13='C09D' OR
g_4ATC14='C09D' OR g_4ATC15='C09D' OR g_4ATC16='C09D') gmed_diu=1.
If (g_4ATC1='C08G' OR g_4ATC2='C08G' OR g_4ATC3='C08G' OR g_4ATC4='C08G' OR g_4ATC5='C08G'
OR g_4ATC6='C08G' OR
g_4ATC7='C08G' OR g_4ATC8='C08G' OR g_4ATC9='C08G' OR g_4ATC10='C08G' OR g_4ATC11='C08G'
OR g_4ATC12='C08G' OR g_4ATC13='C08G' OR
g_4ATC14='C08G' OR g_4ATC15='C08G' OR g_4ATC16='C08G') gmed_diu=1.
EXECUTE.

```

```
*C09AX C09CX C01AA.
```

```

If (g_5ATC1='C09AX' OR g_5ATC2='C09AX' OR g_5ATC3='C09AX' OR g_5ATC4='C09AX' OR
g_5ATC5='C09AX' OR g_5ATC6='C09AX' OR
g_5ATC7='C09AX' OR g_5ATC8='C09AX' OR g_5ATC9='C09AX' OR g_5ATC10='C09AX' OR
g_5ATC11='C09AX' OR g_5ATC12='C09AX' OR g_5ATC13='C09AX' OR
g_5ATC14='C09AX' OR g_5ATC15='C09AX' OR g_5ATC16='C09AX') gmed_diu=1.
If (g_5ATC1='C09CX' OR g_5ATC2='C09CX' OR g_5ATC3='C09CX' OR g_5ATC4='C09CX' OR
g_5ATC5='C09CX' OR g_5ATC6='C09CX' OR
g_5ATC7='C09CX' OR g_5ATC8='C09CX' OR g_5ATC9='C09CX' OR g_5ATC10='C09CX' OR
g_5ATC11='C09CX' OR g_5ATC12='C09CX' OR g_5ATC13='C09CX' OR
g_5ATC14='C09CX' OR g_5ATC15='C09CX' OR g_5ATC16='C09CX') gmed_diu=1.
If (g_5ATC1='C01AA' OR g_5ATC2='C01AA' OR g_5ATC3='C01AA' OR g_5ATC4='C01AA' OR
g_5ATC5='C01AA' OR g_5ATC6='C01AA' OR
g_5ATC7='C01AA' OR g_5ATC8='C01AA' OR g_5ATC9='C01AA' OR g_5ATC10='C01AA' OR
g_5ATC11='C01AA' OR g_5ATC12='C01AA' OR g_5ATC13='C01AA' OR
g_5ATC14='C01AA' OR g_5ATC15='C01AA' OR g_5ATC16='C01AA') gmed_diu=1.
EXECUTE.

```

```
*****year of interview (2008 or 2009).
```

```

COMPUTE t7_year=XDATE.YEAR(t7_dat).
VARIABLE LABELS t7_year "LASA main interview year (w7)".
VARIABLE LEVEL t7_year(SCALE).
FORMATS t7_year(F8.0).
VARIABLE WIDTH t7_year(8).
EXECUTE.

```

```
*****ARRHYTHMIA (ARI) at G*****.
```

```
*Selfreport surgery implantation of pacemaker.
```

```

COMPUTE g_surARI=-3.
IF (ghart15d le -1) g_surARI=-1.
IF (ghart01 le -1) g_surARI=-1.
IF (ghart15 le -1) g_surARI=-1.
IF (ghart01=0 or ghart01=1) g_surARI=0.
IF (ghart15d=0) g_surARI=0.
IF (ghart15=1) g_surARI=0.

```

```

IF (ghart15d=1) g_surARI=1.
VARIABLE LABELS g_surARI 'self report surgery: pacemaker'.
VALUE LABELS g_surARI
    -1 'missing'
    0 'no'
    1 'yes'.

```

*use of anti arrhythmic medication.

```

RECODE gmed_ARI (0=0) (1=1) (SYSMIS=-1) (-9=-1) (ELSE=copy) INTO g_mARI.
IF (gmed_ino=1) g_mARI=1.
IF (gmvar13=1) g_mARI=0.
IF (gmvar13 le -1) g_mARI=-1.
VARIABLE LABELS g_mARI 'use of antiarrhythmics'.
VALUE LABELS g_mARI
    -1 'missing'
    0 'no'
    1 'yes'.

```

*GP diagnosis of ARI.

```

COMPUTE g_gpARI=-3.
IF (fgarrth le -1) g_gpARI=-1.
IF (t7_year le -1) g_gpARI=-1.
IF (fgarrth=0) g_gpARI=0.
IF (fgarrth=1 and fgarrthy ge 7) g_gpARI=0.
IF (fgarrth=1 and fgarrthy ge 6 and t7_year=2008) g_gpARI=0.
IF (fgarrth=1 and (fgarrthy ge 1 and fgarrthy le 5)) g_gpARI=1.
IF (fgarrth=1 and (fgarrthy=6 and t7_YEAR=2009)) g_gpARI=1.
IF (fgarrth=1 and fgarrthy le -1) g_gpARI=2.
IF (fgarrth=1 and fgarrthy=1) g_gpARI=1.
IF (egarrth=1) g_gpARI=1.
If (g_gpARI=-1 AND hgarrth=0) g_gpARI=0.
If (g_gpARI=-1 AND hgarrth=1 AND hgarrthy ge 2) g_gpARI=0.
If (g_gpARI=-1 AND hgarrth=1 AND hgarrthy le 1) g_gpARI=2.
VARIABLE LABELS g_gpARI 'gp diagnosis: cardiac arrhythmia'.
VALUE LABELS g_gpARI
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*ARI algorithm: medication, GP diagnosis and SR implantation of pacemaker combined.

```

compute g_alg_ARI=-3.
IF (g_mARI=1) g_alg_ARI=1.
IF (g_mARI=0 and g_gpARI=1 and (gmed_stol_beta=1)) g_alg_ARI=1.
IF (g_mARI=0 and g_gpARI=1 and (gmed_stol_beta=0) and (fgarrths=1 or egarrths=1 or hgarrths=1))
g_alg_ARI=1.
IF (g_mARI=0 and g_gpARI=1 and (gmed_stol_beta=0) and fgarrths le 0 and g_surARI=1) g_alg_ARI=1.
IF (g_mARI=0 and g_gpARI=1 and (gmed_stol_beta=0) and fgarrths le 0 and g_surARI le 0)
g_alg_ARI=2.
IF (g_mARI=0 and g_gpARI=0 and g_surARI=1) g_alg_ARI=3.
IF (g_mARI=0 and g_gpARI=0 and g_surARI le 0) g_alg_ARI=0.
IF (g_mARI=0 and g_gpARI=2 and (gmed_stol_beta=1)) g_alg_ARI=1.

```

```

IF (g_mARI=0 and g_gpARI=2 and (gmed_stol_beta=0) and g_surARI=1) g_alg_ARI=1.
IF (g_mARI=0 and g_gpARI=2 and (gmed_stol_beta=0) and g_surARI le 0) g_alg_ARI=0.
IF (g_mARI=0 and g_gpARI=2 and (gmed_stol_beta=0) and g_surARI le -1) g_alg_ARI=0.
IF (g_mARI=0 and g_gpARI=-1 and g_surARI=1) g_alg_ARI=2.
IF (g_mARI=0 and g_gpARI=-1 and (gmed_stol_beta=0) and g_surARI=0) g_alg_ARI=0.
IF (g_mARI=0 and g_gpARI=-1 and (gmed_stol_beta=0) and g_surARI le -1) g_alg_ARI=-1.
IF (g_mARI=0 and g_gpARI=-1 and (gmed_stol_beta=1) and g_surARI le 0) g_alg_ARI=-1.
IF (g_mARI le -1 and g_gpARI=1 and (fgarrths=1 or egarrths=1 or hgarrths=1)) g_alg_ARI=1.
IF (g_mARI le -1 and g_gpARI=1 and fgarrths le 0 and g_surARI=1) g_alg_ARI=1.
IF (g_mARI le -1 and g_gpARI=1 and fgarrths le 0 and g_surARI le 0) g_alg_ARI=2.
IF (g_mARI le -1 and g_gpARI=0 and g_surARI=1) g_alg_ARI=3.
IF (g_mARI le -1 and g_gpARI=0 and g_surARI le 0) g_alg_ARI=0.
IF (g_mARI le -1 and g_gpARI=2 and g_surARI=1) g_alg_ARI=1.
IF (g_mARI le -1 and g_gpARI=2 and g_surARI le 0) g_alg_ARI=-1.
IF (g_mARI le -1 and g_gpARI le -1 and g_surARI=1) g_alg_ARI=2.
IF (g_mARI le -1 and g_gpARI le -1 and g_surARI le 0) g_alg_ARI=-1.
IF (g_alg_ARI=-1 and (gtrhart1=0 or gtphart1=0)) g_alg_ARI=0.
VARIABLE LABELS g_alg_ARI 'G wave: arrhythmia'.
VALUE LABELS g_alg_ARI
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****CEREBROVASCULAR ACCIDENT (CVA) at G*****.

*Selfreport diagnosis of CVA.

```

COMPUTE g_srCVA=-3.
IF (gcva01=2 or gcva01=3) g_srCVA=1.
IF (gcva01=0 or gcva01=1) g_srCVA=0.
IF (gtpcva01=1) g_srCVA=1.
IF (gtpcva01=0) g_srCVA=0.
IF (gtrcva01=1) g_srCVA=1.
IF (gtrcva01=0) g_srCVA=0.
IF (gcva01 le -1 and gtpcva01 le -1 and gtrcva01 le -1) g_srCVA=-1.
VARIABLE LABELS g_srCVA 'self report: CVA'.
VALUE LABELS g_srCVA
    -1 'missing'
    0 'no'
    1 'yes'.

```

*GP diagnosis of CVA.

```

COMPUTE g_gpCVA=-3.
IF (fgcva le -1) g_gpCVA=-1.
IF (t7_year le -1) g_gpCVA=-1.
IF (fgcva=0) g_gpCVA=0.
IF (fgcva=1 and fgcvey ge 7) g_gpCVA=0.
IF (fgcva=1 and fgcvey ge 6 and t7_year=2008) g_gpCVA=0.
IF (fgcva=1 and (fgcvey ge 1 and fgcvey le 5)) g_gpCVA=1.
IF (fgcva=1 and (fgcvey=6 and t7_YEAR=2009)) g_gpCVA=1.
IF (fgcva=1 and fgcvey le -1) g_gpCVA=2.
IF (fgcva=1 and fgcvey=1) g_gpCVA=1.

```

```

IF (egcva=1) g_gpCVA=1.
If (g_gpCVA=-1 AND hgcva=0) g_gpCVA=0.
If (g_gpCVA=-1 AND hgcva=1 AND hgcvay ge 2) g_gpCVA=0.
If (g_gpCVA=-1 AND hgcva=1 AND hgcvay le 1) g_gpCVA=2.
VARIABLE LABELS g_gpCVA 'gp diagnosis: CVA'.
VALUE LABELS g_gpCVA
    -2 'dropout'
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*CVA algorithm: GP diagnosis and SR combined.

```

COMPUTE g_alg_CVA=-3.
IF (g_gpCVA=1 and (fgcvas=1 or egcvas=1 or hgcvas=1)) g_alg_CVA=1.
IF (g_gpCVA=1 and fgcvas le 0 and g_srCVA=1) g_alg_CVA=1.
IF (g_gpCVA=1 and fgcvas le 0 and g_srCVA=0) g_alg_CVA=3.
IF (g_gpCVA=1 and fgcvas le 0 and g_srCVA le -1) g_alg_CVA=2.
IF (g_gpCVA=0 and g_srCVA=1) g_alg_CVA=3.
IF (g_gpCVA=0 and g_srCVA=0) g_alg_CVA=0.
IF (g_gpCVA=0 and g_srCVA le -1) g_alg_CVA=0.
IF (g_gpCVA=2 and g_srCVA=1) g_alg_CVA=1.
IF (g_gpCVA=2 and g_srCVA=0) g_alg_CVA=0.
IF (g_gpCVA=2 and g_srCVA le -1) g_alg_CVA=-1.
IF (g_gpCVA le -1 and g_srCVA=1) g_alg_CVA=2.
IF (g_gpCVA le -1 and g_srCVA=0) g_alg_CVA=0.
IF (g_gpCVA le -1 and g_srCVA le -1) g_alg_CVA=-1.
VARIABLE LABELS g_alg_CVA 'G wave: cerebrovascular accident'.
VALUE LABELS g_alg_CVA
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****MYOCARDIAL INFARCTION (MI) at G*****.

*Selfreport diagnosis of MI.

```

COMPUTE g_srMI=-5.
IF (ghart01 le -1) g_srMI=-1.
IF ((ghart01=2 or ghart01=3) and ghart05 le -1) g_srMI=-1.
IF (ghart05=1) g_srMI=0.
IF (ghart01=0 or ghart01=1) g_srMI=0.
IF (ghart05=2) g_srMI=1.
IF (gtphart1=0 or gtrhart1=0) g_srMI=0.
VARIABLE LABELS g_srMI 'self report: myocardial infarction'.
VALUE LABELS g_srMI
    -1 'missing'
    0 'no'
    1 'yes'.

```

*GP diagnosis of MI.

```

COMPUTE g_gpMI=-3.
IF (fgmi le -1) g_gpMI=-1.
IF (t7_year le -1) g_gpMI=-1.
IF (fgmi=0) g_gpMI=0.
IF (fgmi=1 and fgmiy ge 7) g_gpMI=0.
IF (fgmi=1 and fgmiy ge 6 and t7_year=2008) g_gpMI=0.
IF (fgmi=1 and (fgmiy ge 1 and fgmiy le 5)) g_gpMI=1.
IF (fgmi=1 and (fgmiy=6 and t7_YEAR=2009)) g_gpMI=1.
IF (fgmi=1 and fgmiy le -1) g_gpMI=2.
IF (fgmi=1 and fgmiy=1) g_gpMI=1.
IF (egmi=1) g_gpMI=1.
IF (g_gpMI=-1 AND hgmi=0) g_gpMI=0.
IF (g_gpMI=-1 AND hgmi=1 AND hgmiy ge 2) g_gpMI=0.
IF (g_gpMI=-1 AND hgmi=1 AND hgmiy le 1) g_gpMI=2.
VARIABLE LABELS g_gpMI 'gp diagnosis: MI'.
VALUE LABELS g_gpMI
    -2 'dropout'
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*MI algorithm: GP diagnosis and SR combined.

```

COMPUTE g_alg_MI=-3.
IF (g_gpMI=1 and (fgmis=1 or egmis=1 or hgmis=1)) g_alg_MI=1.
IF (g_gpMI=1 and fgmis le 0 and g_srMI=1) g_alg_MI=1.
IF (g_gpMI=1 and fgmis le 0 and g_srMI=0) g_alg_MI=3.
IF (g_gpMI=1 and fgmis le 0 and g_srMI le -1) g_alg_MI=2.
IF (g_gpMI=0 and g_srMI=1) g_alg_MI=3.
IF (g_gpMI=0 and g_srMI=0) g_alg_MI=0.
IF (g_gpMI=0 and g_srMI le -1) g_alg_MI=0.
IF (g_gpMI=2 and g_srMI=1) g_alg_MI=1.
IF (g_gpMI=2 and g_srMI=0) g_alg_MI=0.
IF (g_gpMI=2 and g_srMI le -1) g_alg_MI=-1.
IF (g_gpMI le -1 and g_srMI=1) g_alg_MI=2.
IF (g_gpMI le -1 and g_srMI=0) g_alg_MI=0.
IF (g_gpMI le -1 and g_srMI le -1) g_alg_MI=-1.
VARIABLE LABELS g_alg_MI 'G wave: myocardial infarction'.
VALUE LABELS g_alg_MI
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****ANGINA PECTORIS (AP) at G*****.

*Selfreport diagnosis of AP.

```

COMPUTE g_srAP=-5.
IF (ghart01 le -1) g_srAP=-1.
IF ((ghart01=2 or ghart01=3) and ghart10 le -1) g_srAP=-1.
IF (ghart01=0 or ghart01=1) g_srAP=0.

```

```

IF (ghart11=1 or gdiabe12=1) g_srAP=0.
if (((ghart01=2 or ghart01=3) and ghart10=1) OR ((gdiabe01=2 or gdiabe01=3) and gdiabe11=1))
g_srAP=0.
IF (((ghart01=2 or ghart01=3) and ghart10 ge 4) OR ((gdiabe01=2 or gdiabe01=3) and gdiabe11 ge 4))
g_srAP=0.
IF (((ghart01=2 or ghart01=3) and ghart10=2 and ghart11 le -1) OR ((gdiabe01=2 or gdiabe01=3) and
gdiabe11=2 and gdiabe12 le -1)) g_srAP=2.
IF (ghart11=2 or gdiabe12=2) g_srAP=1.
IF (ghart10=3 or gdiabe11=3) g_srAP=1.
IF (gtphart1=0 or gtrhart1=0) g_srAP=0.
VARIABLE LABELS g_srAP 'self report: angina pectoris'.
VALUE LABELS g_srAP
    -1 'missing'
    0 'no'
    1 'yes'
    2 'possible'.

```

```

*GP diagnosis of AP.
COMPUTE g_gpAP=-3.
IF (fgap le -1) g_gpAP=-1.
IF (t7_year le -1) g_gpAP=-1.
IF (fgap=0) g_gpAP=0.
IF (fgap=1 and fgapy ge 7) g_gpAP=0.
IF (fgap=1 and fgapy ge 6 and t7_year=2008) g_gpAP=0.
IF (fgap=1 and (fgapy ge 1 and fgapy le 5)) g_gpAP=1.
IF (fgap=1 and (fgapy=6 and t7_YEAR=2009)) g_gpAP=1.
IF (fgap=1 and fgapy le -1) g_gpAP=2.
IF (fgap=1 and fgapy=1) g_gpAP=1.
IF (egap=1) g_gpAP=1.
if (g_gpap=-1 AND hgap=0) g_gpap=0.
if (g_gpap=-1 AND hgap=1 AND hgapy ge 2) g_gpap=0.
if (g_gpap=-1 AND hgap=1 AND hgapy le 1) g_gpap=2.
VARIABLE LABELS g_gpAP 'gp diagnosis: angina pectoris'.
VALUE LABELS g_gpAP
    -2 'dropout'
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

```

*use of AP medication: nitrates.
RECODE gmed_ang (0=0) (1=1) (SYSMIS=-1) (-9=-1) (ELSE=copy) INTO g_mAP.
IF (gmvar13 le -1) g_mAP=-1.
IF (gmvar13=1) g_mAP=0.
VARIABLE LABELS g_mAP 'use of nitrates'.
VALUE LABELS g_mAP
    -1 'missing'
    0 'no'
    1 'yes'.

```

```

*AP algorithm: medication, GP diagnosis and SR combined.
COMPUTE g_alg_AP=-3.

```

```

IF (g_mAP=1) g_alg_AP=1.
IF (g_mAP le 0 and g_srAP=1 and g_gpAP=1) g_alg_AP=1.
IF (g_mAP le 0 and g_srAP=1 and g_gpAP=0) g_alg_AP=3.
IF (g_mAP le 0 and g_srAP=1 and g_gpAP=2) g_alg_AP=1.
IF (g_mAP le 0 and g_srAP=1 and g_gpAP le -1) g_alg_AP=2.
IF (g_mAP le 0 and g_srAP=0 and g_gpAP=1 and (fgaps=1 or egaps=1 or hgaps=1)) g_alg_AP=1.
IF (g_mAP le 0 and g_srAP=0 and g_gpAP=1 and fgaps le 0) g_alg_AP=3.
IF (g_mAP le 0 and g_srAP=0 and g_gpAP=0) g_alg_AP=0.
IF (g_mAP le 0 and g_srAP=0 and g_gpAP=2) g_alg_AP=0.
IF (g_mAP le 0 and g_srAP=0 and g_gpAP le -1) g_alg_AP=0.
IF (g_mAP le 0 and g_srAP=2 and g_gpAP=1) g_alg_AP=1.
IF (g_mAP le 0 and g_srAP=2 and g_gpAP=0) g_alg_AP=0.
IF (g_mAP le 0 and g_srAP=2 and g_gpAP=2) g_alg_AP=-1.
IF (g_mAP le 0 and g_srAP=2 and g_gpAP=-1) g_alg_AP=-1.
IF (g_mAP le 0 and g_srAP le -1 and g_gpAP=1 and (fgaps=1 or egaps=1 or hgaps=1)) g_alg_AP=1.
IF (g_mAP le 0 and g_srAP le -1 and g_gpAP=1 and fgaps le 0) g_alg_AP=2.
IF (g_mAP le 0 and g_srAP le -1 and g_gpAP=0) g_alg_AP=0.
IF (g_mAP le 0 and g_srAP le -1 and g_gpAP=2) g_alg_AP=-1.
IF (g_mAP le 0 and g_srAP le -1 and g_gpAP le -1) g_alg_AP=-1.
VARIABLE LABELS g_alg_AP 'G wave: angina pectoris'.
VALUE LABELS g_alg_AP
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****CONGESTIVE HEART FAILURE (CHF) at G*****.

*Selfreport diagnosis of CHF.

```

COMPUTE g_srCHF=-3.
IF (ghart01 le -1) g_srCHF=-1.
IF ((ghart01=2 or ghart01=3) and ghart12 le -1) g_srCHF=-1.
IF (ghart01=0 or ghart01=1) g_srCHF=0.
IF ((ghart01=2 or ghart01=3) and ghart12=1) g_srCHF=0.
IF ((ghart01=2 or ghart01=3) and ghart12=2) g_srCHF=1.
IF (gtphart1=0 or gtrhart1=0) g_srCHF=0.
VARIABLE LABELS g_srCHF 'self reported diagnosis of congestive heart failure'.
VALUE LABELS g_srCHF
    -1 'missing'
    0 'no'
    1 'yes'.

```

*GP diagnosis of CHF.

```

COMPUTE g_gpCHF=-3.
IF (fgchf le -1) g_gpCHF=-1.
IF (t7_year le -1) g_gpCHF=-1.
IF (fgchf=0) g_gpCHF=0.
IF (fgchf=1 and fgchfy ge 7) g_gpCHF=0.
IF (fgchf=1 and fgchfy ge 6 and t7_year=2008) g_gpCHF=0.
IF (fgchf=1 and (fgchfy ge 1 and fgchfy le 5)) g_gpCHF=1.
IF (fgchf=1 and (fgchfy=6 and t7_YEAR=2009)) g_gpCHF=1.
IF (fgchf=1 and fgchfy le -1) g_gpCHF=2.

```

```

IF (fgchf=1 and fgchfy=1) g_gpCHF=1.
IF (egchf=1) g_gpCHF=1.
IF (g_gpchf=-1 AND hgchf=0) g_gpchf=0.
IF (g_gpchf=-1 AND hgchf=1 AND hgchfy ge 2) g_gpchf=0.
IF (g_gpchf=-1 AND hgchf=1 AND hgchfy le 1) g_gpchf=2.
VARIABLE LABELS g_gpCHF 'gp diagnosis: congestive heart failure'.
VALUE LABELS g_gpCHF
    -2 'dropout'
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*CHF medication: diuretics, antihypertensives, nitrates, inotropics, beta blocking agents.

```

compute g_mCHF=0.
if (gmed_diu=1 and (gmed_hyp=1 or gmed_ang=1 or gmed_ino=1 or gmed_beta=1)) g_mCHF=1.
IF (gmvar13 le -1) g_mCHF=-1.
IF (gmvar13=1) g_mCHF=0.
VARIABLE LABELS g_mCHF 'medication for congestive heart failure'.
VALUE LABELS g_mCHF
    -1 'missing'
    0 'no'
    1 'yes'.

```

*CHF algorithm: medication, GP diagnosis and SR combined.

```

COMPUTE g_alg_CHF=-3.
IF (g_gpCHF=1 and (fgchfs=1 or egchfs=1 or hgchfs=1)) g_alg_CHF=1.
IF (g_gpCHF=1 and fgchfs le 0 and g_srCHF=1) g_alg_CHF=1.
IF (g_gpCHF=1 and fgchfs le 0 and g_srCHF le 0 and g_mCHF=1) g_alg_CHF=1.
IF (g_gpCHF=1 and fgchfs le 0 and g_srCHF=0 and g_mCHF=0) g_alg_CHF=2.
IF (g_gpCHF=1 and fgchfs le 0 and g_srCHF le 0 and g_mCHF le -1) g_alg_CHF=2.
IF (g_gpCHF=1 and fgchfs le 0 and g_srCHF le -1 and g_mCHF le 0) g_alg_CHF=2.
IF (g_gpCHF=0 and g_srCHF=1 and g_mCHF=1) g_alg_CHF=1.
IF (g_gpCHF=0 and g_srCHF=1 and g_mCHF le 0) g_alg_CHF=2.
IF (g_gpCHF=0 and g_srCHF le 0 and g_mCHF=1) g_alg_CHF=3.
IF (g_gpCHF=0 and g_srCHF le 0 and g_mCHF le 0) g_alg_CHF=0.
IF (g_gpCHF=2 and g_srCHF=1) g_alg_CHF=1.
IF (g_gpCHF=2 and g_srCHF le 0 and g_mCHF=1) g_alg_CHF=1.
IF (g_gpCHF=2 and g_srCHF le 0 and g_mCHF le 0) g_alg_CHF=0.
IF (g_gpCHF=2 and g_srCHF=0 and g_mCHF=-1) g_alg_CHF=-1.
IF (g_gpCHF=2 and g_srCHF le -1 and g_mCHF le -1) g_alg_CHF=-1.
IF (g_gpCHF le -1 and g_srCHF=1 and g_mCHF=1) g_alg_CHF=1.
IF (g_gpCHF le -1 and g_srCHF=1 and g_mCHF le 0) g_alg_CHF=2.
IF (g_gpCHF le -1 and g_srCHF=0 and g_mCHF=1) g_alg_CHF=2.
IF (g_gpCHF le -1 and g_srCHF=0 and g_mCHF le 0) g_alg_CHF=0.
IF (g_gpCHF le -1 and g_srCHF le -1 and g_mCHF=1) g_alg_CHF=2.
IF (g_gpCHF le -1 and g_srCHF le -1 and g_mCHF=0) g_alg_CHF=0.
IF (g_gpCHF le -1 and g_srCHF le -1 and g_mCHF le -1) g_alg_CHF=-1.
VARIABLE LABELS g_alg_CHF 'G wave: congestive heart failure'.
VALUE LABELS g_alg_CHF
    -1 'missing'
    0 'no'

```

- 1 'definite'
- 2 'possible'
- 3 'contradictory'.

*****PERIPHERAL ARTERIAL DISEASE (PAD) at G*****.

*Selfreport diagnosis of PAD.

COMPUTE g_srPAD=-5.

IF (gartvei1 le -1) g_srPAD=-1.

IF ((gartvei1=2 or gartvei1=3) and gartvei5 le -1) g_srPAD=-1.

IF (gartvei1=0 or gartvei1=1) g_srPAD=0.

IF (gartvei7=1 or gdiabe09=1) g_srPAD=0.

IF (gartvei5=1 or gdiabe07=1) g_srPAD=0.

IF ((gartvei5=2 and gartvei7 le -1) or (gdiabe07=2 and gdiabe09 le -1)) g_srPAD=2.

IF (gartvei7=2 or gdiabe09=2) g_srPAD=1.

IF (gtpartv1=0 OR gtrartv1=0) g_srPAD=0.

IF (gtpartv1=1 OR gtrartv1=1) g_srPAD=2.

IF (gartvei1 le -1 and gtpartv1 le -1 and gtrartv1 le -1) g_srPAD=-1.

VARIABLE LABELS g_srPAD 'self reported diagnosis of peripheral artery disease'.

VALUE LABELS g_srPAD

-1 'missing'

0 'no'

1 'yes'

2 'possible'.

*Selfreport surgery.

COMPUTE g_surPAD=-3.

IF (gartvei1 le -1) g_surPAD=-1.

IF ((gartvei1=2 or gartvei1=3) and gartve8 le -1) g_surPAD=-1.

IF (gartve8=1) g_surPAD=0.

IF ((gartve8c=0 AND gartve8d=0) AND (gartve8b le 0)) g_surPAD=0.

IF (gartvei1=0 or gartvei1=1) g_surPAD=0.

IF ((gartve8c le 0 AND gartve8d le 0) AND (gartve8b=1)) g_surPAD=2.

IF (gartve8c=1 OR gartve8d=1) g_surPAD=1.

VARIABLE LABELS g_surPAD 'self reported surgery of peripheral arteries'.

VALUE LABELS g_surPAD

-1 'missing'

0 'no'

1 'yes'

2 'possible'.

*GP diagnosis of PAD.

COMPUTE g_gpPAD=-3.

IF (fgartvei le -1) g_gpPAD=-1.

IF (t7_year le -1) g_gpPAD=-1.

IF (fgartvei=0) g_gpPAD=0.

IF (fgartvei=1 and fgartvey ge 7) g_gpPAD=0.

IF (fgartvei=1 and fgartvey ge 6 and t7_year=2008) g_gpPAD=0.

IF (fgartvei=1 and (fgartvey ge 1 and fgartvey le 5)) g_gpPAD=1.

IF (fgartvei=1 and (fgartvey=6 and t7_YEAR=2009)) g_gpPAD=1.

IF (fgartvei=1 and fgartvey le -1) g_gpPAD=2.

IF (fgartvei=1 and fgartvey=1) g_gpPAD=1.

IF (egartvei=1) g_gpPAD=1.

```

If (g_gpPAD=-1 AND hgartvei=0) g_gpPAD=0.
If (g_gpPAD=-1 AND hgartvei=1 AND hgartvey ge 2) g_gpPAD=0.
If (g_gpPAD=-1 AND hgartvei=1 AND hgartvey le 1) g_gpPAD=2.
VARIABLE LABELS g_gpPAD 'gp diagnosis: PAD'.
VALUE LABELS g_gpPAD
    -2 'dropout'
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*PAD algorithm: medication, GP diagnosis, SR and surgery combined.

```

COMPUTE g_alg_PAD=-3.
IF (g_surPAD=1) g_alg_PAD=1.
IF (g_surPAD le 0 and g_gpPAD=1 and (fgartves=1 or egartves=1 or hgartves=1)) g_alg_PAD=1.
IF (g_surPAD le 0 and g_gpPAD=1 and fgartves le 0 and g_srPAD=1) g_alg_PAD=1.
IF (g_surPAD le 0 and g_gpPAD=1 and fgartves le 0 and g_srPAD=0) g_alg_PAD=3.
IF (g_surPAD le 0 and g_gpPAD=1 and fgartves le 0 and g_srPAD le -1) g_alg_PAD=2.
IF (g_surPAD le 0 and g_gpPAD=1 and fgartves le 0 and g_srPAD=2) g_alg_PAD=1.
IF (g_surPAD le 0 and g_gpPAD=0 and g_srPAD=1) g_alg_PAD=3.
IF (g_surPAD le 0 and g_gpPAD=0 and g_srPAD=0) g_alg_PAD=0.
IF (g_surPAD le 0 and g_gpPAD=0 and g_srPAD le -1) g_alg_PAD=0.
IF (g_surPAD le 0 and g_gpPAD=0 and g_srPAD=2) g_alg_PAD=0.
IF (g_surPAD le 0 and g_gpPAD=2 and g_srPAD=1) g_alg_PAD=1.
IF (g_surPAD le 0 and g_gpPAD=2 and g_srPAD=0) g_alg_PAD=0.
IF (g_surPAD le 0 and g_gpPAD=2 and g_srPAD le -1) g_alg_PAD=-1.
IF (g_surPAD le 0 and g_gpPAD=2 and g_srPAD=2) g_alg_PAD=1.
IF (g_surPAD le 0 and g_gpPAD le -1 and g_srPAD=1) g_alg_PAD=2.
IF (g_surPAD le 0 and g_gpPAD le -1 and g_srPAD=0) g_alg_PAD=0.
IF (g_surPAD le 0 and g_gpPAD le -1 and g_srPAD le -1) g_alg_PAD=-1.
IF (g_surPAD le 0 and g_gpPAD le -1 and g_srPAD=2) g_alg_PAD=-1.
IF (g_surPAD=2 and g_gpPAD=1) g_alg_PAD=1.
IF (g_surPAD=2 and g_gpPAD=0 and g_srPAD=1) g_alg_PAD=1.
IF (g_surPAD=2 and g_gpPAD=0 and g_srPAD=0) g_alg_PAD=0.
IF (g_surPAD=2 and g_gpPAD=0 and g_srPAD le -1) g_alg_PAD=0.
IF (g_surPAD=2 and g_gpPAD=0 and g_srPAD=2) g_alg_PAD=3.
IF (g_surPAD=2 and g_gpPAD=2 and g_srPAD=1) g_alg_PAD=1.
IF (g_surPAD=2 and g_gpPAD le -1 and g_srPAD=1) g_alg_PAD=1.
IF (g_surPAD=2 and g_gpPAD le -1 and g_srPAD=0) g_alg_PAD=0.
IF (g_surPAD=2 and g_gpPAD le -1 and g_srPAD le -1) g_alg_PAD=-1.
IF (g_surPAD=2 and g_gpPAD le -1 and g_srPAD=2) g_alg_PAD=-1.
VARIABLE LABELS g_alg_PAD 'G wave algorithm: peripheral artery disease'.
VALUE LABELS g_alg_PAD
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****CORONARY ARTERY DISEASE (CAD) at G*****.

*CAD Selfreport surgery.

```

COMPUTE g_surCAD=-3.

```

```

IF ((ghart01=2 or ghart01=3) and ghart15 le -1) g_surCAD=-1.
IF (ghart01 le -1) g_surCAD=-1.
IF (ghart15b le -1 AND ghart15c le -1) g_surCAD=-1.
IF (ghart15b=0 AND ghart15c=0) g_surCAD=0.
IF (ghart15=1) g_surCAD=0.
IF (ghart01=0 or ghart01=1) g_surCAD=0.
IF (ghart15b=1 OR ghart15c=1) g_surCAD=1.
VARIABLE LABELS g_surCAD 'self reported surgery of coronary arteries'.
VALUE LABELS g_surCAD
    -1 'missing'
    0 'no'
    1 'yes'.

```

*CAD selfreport (=Selfreport of AP or MI).

```

COMPUTE g_srCAD=-5.
IF (ghart01 le -1) g_srCAD=-1.
IF (g_srMI=0 AND g_srAP=2) g_srCAD=-1.
IF (g_srMI=0 AND g_srAP le -1) g_srCAD=-1.
IF (g_srMI le -1 AND g_srAP=0) g_srCAD=-1.
IF (g_srMI le -1 AND g_srAP=2) g_srCAD=-1.
IF (g_srMI le -1 AND g_srAP le -1) g_srCAD=-1.
IF (g_srMI=0 AND g_srAP=0) g_srCAD=0.
IF (ghart01=0 or ghart01=1) g_srCAD=0.
IF (g_srMI le -1 AND g_srAP=1) g_srCAD=1.
IF (g_srMI=1) g_srCAD=1.
IF (g_srAP=1) g_srCAD=1.
IF (gtphart1=0 or gtrhart1=0) g_srCAD=0.
VARIABLE LABELS g_srCAD 'self report: myocardial infarction OR angina pectoris'.
VALUE LABELS g_srCAD
    -1 'missing'
    0 'no'
    1 'yes'.

```

*GP diagnosis of CAD (gp diagnosis of AP or MI).

```

COMPUTE g_gpCAD=-5.
IF (g_gpMI le -1 AND g_gpAP=0) g_gpCAD=-1.
IF (g_gpMI=0 AND g_gpAP le -1) g_gpCAD=-1.
IF (g_gpMI le -1 AND g_gpAP le -1) g_gpCAD=-1.
IF (g_gpMI=0 AND g_gpAP=0) g_gpCAD=0.
IF (g_gpMI=0 AND g_gpAP=2) g_gpCAD=2.
IF (g_gpMI le -1 AND g_gpAP=2) g_gpCAD=2.
IF (g_gpMI=2 AND g_gpAP=0) g_gpCAD=2.
IF (g_gpMI=2 AND g_gpAP=2) g_gpCAD=2.
IF (g_gpMI=2 AND g_gpAP le -1) g_gpCAD=2.
IF (g_gpMI=1) g_gpCAD=1.
IF (g_gpAP=1) g_gpCAD=1.
IF (t7_year le -1) g_gpCAD=-2.
VARIABLE LABELS g_gpCAD 'self report: myocardial infarction OR angina pectoris'.
VALUE LABELS g_gpCAD
    -2 'dropout'
    -1 'missing'
    0 'no'

```

- 1 'yes'
- 2 'diagnose = yes, but year = missing'.

*CAD algorithm: medication, GP diagnosis, SR and surgery combined.

COMPUTE g_alg_CAD=-3.

IF (g_mAP le 0 and g_surCAD le 0 and g_srMI le 0 and (g_srAP le 0 or g_srAP=2) and g_gpMI le 0) g_alg_CAD=0.

IF (g_mAP le -1 and g_surCAD le -1 and g_srMI le -1 and g_srAP le -1 and g_gpAP le -1 and g_gpMI le -1) g_alg_CAD=-1.

IF (g_mAP=0 and g_surCAD=0 and g_srMI=0 and g_srAP=0 and g_gpAP=0 and g_gpMI=0) g_alg_CAD=0.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_srAP=1 and (g_srMI le 0 and g_gpAP le 0 and g_gpMI le 0))) g_alg_CAD=3.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_srMI=1 and (g_srAP le 0 and g_gpAP le 0 and g_gpMI le 0))) g_alg_CAD=3.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_gpAP=1 and fgaps le 0 and (g_gpMI le 0 or g_gpMI=2) and g_srAP le 0 and g_srMI le 0)) g_alg_CAD=3.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_gpMI=1 and fgmis le 0 and (g_gpAP le 0 or g_gpAP=2) and g_srAP le 0 and g_srMI le 0)) g_alg_CAD=3.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_srAP=1 and (g_srMI le -1 and g_gpAP le -1 and g_gpMI le -1))) g_alg_CAD=2.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_srMI=1 and (g_srAP le -1 and g_gpAP le -1 and g_gpMI le -1))) g_alg_CAD=2.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_gpAP=1 and fgaps le 0 and g_gpMI le -1 and g_srAP le -1 and g_srMI le -1)) g_alg_CAD=2.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_gpMI=1 and fgmis le 0 and g_gpAP le -1 and g_srAP le -1 and g_srMI le -1)) g_alg_CAD=2.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_gpAP=2 and (g_gpMI le 0 or g_gpMI=2) and (g_srAP le 0 or g_srAP=2) and g_srMI le 0)) g_alg_CAD=0.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_gpMI=2 and (g_gpAP le 0 or g_gpAP=2) and (g_srAP le 0 or g_srAP=2) and g_srMI le 0)) g_alg_CAD=0.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_gpAP=2 and (g_gpMI le -1 or g_gpMI=2) and (g_srAP le -1 or g_srAP=2) and g_srMI le -1)) g_alg_CAD=-1.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_gpMI=2 and (g_gpAP le -1 or g_gpAP=2) and (g_srAP le -1 or g_srAP=2) and g_srMI le -1)) g_alg_CAD=-1.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_srAP=1 and (g_srMI=1 OR g_gpAP=1 OR g_gpMI=1))) g_alg_CAD=1.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_srMI=1 and (g_srAP=1 OR g_gpAP=1 OR g_gpMI=1))) g_alg_CAD=1.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_gpAP=1 and (fgaps=1 or egaps=1 or hgaps=1))) g_alg_CAD=1.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_gpMI=1 and (fgmis=1 or egmis=1 or hgmis=1))) g_alg_CAD=1.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_gpAP=1 and fgaps le 0) and (g_srMI=1 or g_srAP=1 or g_gpMI=1)) g_alg_CAD=1.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_gpMI=1 and fgmis le 0) and (g_srMI=1 or g_srAP=1 or g_gpAP=1)) g_alg_CAD=1.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_srAP=1 and g_srMI le 0) and (g_gpAP=2 or g_gpMI=2)) g_alg_CAD=1.

IF ((g_mAP le 0 and g_surCAD le 0) and (g_srMI=1) and (g_gpAP=2 or g_srAP=2 or g_gpMI=2)) g_alg_CAD=1.

```

IF ((g_mAP le 0 and g_surCAD le 0) and (g_gpAP=1 and g_srMI le 0) and (g_srAP=2 and g_gpMI=2))
g_alg_CAD=1.
IF ((g_mAP le 0 and g_surCAD le 0) and (g_gpMI=1 and g_srMI le 0) and (g_gpAP=2 or g_srAP=2))
g_alg_CAD=1.
IF (g_mAP=1 or g_surCAD=1) g_alg_CAD=1.
VARIABLE LABELS g_alg_CAD 'G wave: coronary artery disease'.
VALUE LABELS g_alg_CAD
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****H wave*****.

*create a string variable that consists of the first 3 characters of the ATC code.

```

string h_3ATC1(a30).
COMPUTE h_3ATC1 = CHAR.SUBSTR(hmatc1,1,3) .
string h_3ATC2(a30).
COMPUTE h_3ATC2 = CHAR.SUBSTR(hmatc2,1,3) .
string h_3ATC3(a30).
COMPUTE h_3ATC3 = CHAR.SUBSTR(hmatc3,1,3) .
string h_3ATC4(a30).
COMPUTE h_3ATC4 = CHAR.SUBSTR(hmatc4,1,3) .
string h_3ATC5(a30).
COMPUTE h_3ATC5 = CHAR.SUBSTR(hmatc5,1,3) .
string h_3ATC6(a30).
COMPUTE h_3ATC6 = CHAR.SUBSTR(hmatc6,1,3) .
string h_3ATC7(a30).
COMPUTE h_3ATC7 = CHAR.SUBSTR(hmatc7,1,3) .
string h_3ATC8(a30).
COMPUTE h_3ATC8 = CHAR.SUBSTR(hmatc8,1,3) .
string h_3ATC9(a30).
COMPUTE h_3ATC9 = CHAR.SUBSTR(hmatc9,1,3) .
string h_3ATC10(a30).
COMPUTE h_3ATC10 = CHAR.SUBSTR(hmatc10,1,3) .
string h_3ATC11(a30).
COMPUTE h_3ATC11 = CHAR.SUBSTR(hmatc11,1,3) .
string h_3ATC12(a30).
COMPUTE h_3ATC12 = CHAR.SUBSTR(hmatc12,1,3) .
string h_3ATC13(a30).
COMPUTE h_3ATC13 = CHAR.SUBSTR(hmatc13,1,3) .
string h_3ATC14(a30).
COMPUTE h_3ATC14 = CHAR.SUBSTR(hmatc14,1,3) .
string h_3ATC15(a30).
COMPUTE h_3ATC15 = CHAR.SUBSTR(hmatc15,1,3) .
string h_3ATC16(a30).
COMPUTE h_3ATC16 = CHAR.SUBSTR(hmatc16,1,3) .
string h_3ATC17(a30).
COMPUTE h_3ATC17 = CHAR.SUBSTR(hmatc17,1,3) .
string h_3ATC18(a30).
COMPUTE h_3ATC18 = CHAR.SUBSTR(hmatc18,1,3) .

```

```
string h_3ATC19(a30).
COMPUTE h_3ATC19 = CHAR.SUBSTR(hmatc19,1,3) .
string h_3ATC20(a30).
COMPUTE h_3ATC20 = CHAR.SUBSTR(hmatc20,1,3) .
```

*create a string variable that consists of the first 4 characters of the ATC code.

```
string h_4ATC1(a30).
COMPUTE h_4ATC1 = CHAR.SUBSTR(hmatc1,1,4) .
string h_4ATC2(a30).
COMPUTE h_4ATC2 = CHAR.SUBSTR(hmatc2,1,4) .
string h_4ATC3(a30).
COMPUTE h_4ATC3 = CHAR.SUBSTR(hmatc3,1,4) .
string h_4ATC4(a30).
COMPUTE h_4ATC4 = CHAR.SUBSTR(hmatc4,1,4) .
string h_4ATC5(a30).
COMPUTE h_4ATC5 = CHAR.SUBSTR(hmatc5,1,4) .
string h_4ATC6(a30).
COMPUTE h_4ATC6 = CHAR.SUBSTR(hmatc6,1,4) .
string h_4ATC7(a30).
COMPUTE h_4ATC7 = CHAR.SUBSTR(hmatc7,1,4) .
string h_4ATC8(a30).
COMPUTE h_4ATC8 = CHAR.SUBSTR(hmatc8,1,4) .
string h_4ATC9(a30).
COMPUTE h_4ATC9 = CHAR.SUBSTR(hmatc9,1,4) .
string h_4ATC10(a30).
COMPUTE h_4ATC10 = CHAR.SUBSTR(hmatc10,1,4) .
string h_4ATC11(a30).
COMPUTE h_4ATC11 = CHAR.SUBSTR(hmatc11,1,4) .
string h_4ATC12(a30).
COMPUTE h_4ATC12 = CHAR.SUBSTR(hmatc12,1,4) .
string h_4ATC13(a30).
COMPUTE h_4ATC13 = CHAR.SUBSTR(hmatc13,1,4) .
string h_4ATC14(a30).
COMPUTE h_4ATC14 = CHAR.SUBSTR(hmatc14,1,4) .
string h_4ATC15(a30).
COMPUTE h_4ATC15 = CHAR.SUBSTR(hmatc15,1,4) .
string h_4ATC16(a30).
COMPUTE h_4ATC16 = CHAR.SUBSTR(hmatc16,1,4) .
string h_4ATC17(a30).
COMPUTE h_4ATC17 = CHAR.SUBSTR(hmatc17,1,4) .
string h_4ATC18(a30).
COMPUTE h_4ATC18 = CHAR.SUBSTR(hmatc18,1,4) .
string h_4ATC19(a30).
COMPUTE h_4ATC19 = CHAR.SUBSTR(hmatc19,1,4) .
string h_4ATC20(a30).
COMPUTE h_4ATC20 = CHAR.SUBSTR(hmatc20,1,4) .
```

*create a string variable that consists of the first 5 characters of the ATC code.

```
string h_5ATC1(a30).
COMPUTE h_5ATC1 = CHAR.SUBSTR(hmatc1,1,5) .
string h_5ATC2(a30).
```

```

COMPUTE h_5ATC2 = CHAR.SUBSTR(hmatc2,1,5) .
string h_5ATC3(a30).
COMPUTE h_5ATC3 = CHAR.SUBSTR(hmatc3,1,5) .
string h_5ATC4(a30).
COMPUTE h_5ATC4 = CHAR.SUBSTR(hmatc4,1,5) .
string h_5ATC5(a30).
COMPUTE h_5ATC5 = CHAR.SUBSTR(hmatc5,1,5) .
string h_5ATC6(a30).
COMPUTE h_5ATC6 = CHAR.SUBSTR(hmatc6,1,5) .
string h_5ATC7(a30).
COMPUTE h_5ATC7 = CHAR.SUBSTR(hmatc7,1,5) .
string h_5ATC8(a30).
COMPUTE h_5ATC8 = CHAR.SUBSTR(hmatc8,1,5) .
string h_5ATC9(a30).
COMPUTE h_5ATC9 = CHAR.SUBSTR(hmatc9,1,5) .
string h_5ATC10(a30).
COMPUTE h_5ATC10 = CHAR.SUBSTR(hmatc10,1,5) .
string h_5ATC11(a30).
COMPUTE h_5ATC11 = CHAR.SUBSTR(hmatc11,1,5) .
string h_5ATC12(a30).
COMPUTE h_5ATC12 = CHAR.SUBSTR(hmatc12,1,5) .
string h_5ATC13(a30).
COMPUTE h_5ATC13 = CHAR.SUBSTR(hmatc13,1,5) .
string h_5ATC14(a30).
COMPUTE h_5ATC14 = CHAR.SUBSTR(hmatc14,1,5) .
string h_5ATC15(a30).
COMPUTE h_5ATC15 = CHAR.SUBSTR(hmatc15,1,5) .
string h_5ATC16(a30).
COMPUTE h_5ATC16 = CHAR.SUBSTR(hmatc16,1,5) .
string h_5ATC17(a30).
COMPUTE h_5ATC17 = CHAR.SUBSTR(hmatc17,1,5) .
string h_5ATC18(a30).
COMPUTE h_5ATC18 = CHAR.SUBSTR(hmatc18,1,5) .
string h_5ATC19(a30).
COMPUTE h_5ATC19 = CHAR.SUBSTR(hmatc19,1,5) .
string h_5ATC20(a30).
COMPUTE h_5ATC20 = CHAR.SUBSTR(hmatc20,1,5) .
EXECUTE.

```

*create a variable: use of beta blocking agents (atc code C07, thus includes combination preparaten) yes/no.

```
compute hmed_beta=0.
```

```
if (hmvar13 le -1) hmed_beta=-1.
```

```
if (h_3ATC1='C07' OR h_3ATC2='C07' OR h_3ATC3='C07' OR h_3ATC4='C07' OR h_3ATC5='C07' OR
h_3ATC6='C07' OR
```

```
h_3ATC7='C07' OR h_3ATC8='C07' OR h_3ATC9='C07' OR h_3ATC10='C07' OR h_3ATC11='C07' OR
h_3ATC12='C07' OR h_3ATC13='C07' OR
```

```
h_3ATC14='C07' OR h_3ATC15='C07' OR h_3ATC16='C07' OR h_3ATC17='C07' OR h_3ATC18='C07' OR
h_3ATC19='C07' OR h_3ATC20='C07') hmed_beta=1.
```

```
VARIABLE LABELS hmed_beta 'use of beta blocking agents'.
```

```
VALUE LABELS hmed_beta
```

```
-1 'missing'
```

```
0 'no'
1 'yes'.
EXECUTE.
```

*create a variable: use of anticoagulant drugs (vitamine K antagonists, DOACs, dabigatran (atc codes B01AA, B01AF, B01AE)) yes/no.

```
compute hmed_stolling=0.
```

```
if (hmvar13 le -1) hmed_stolling=-1.
```

```
if (h_5ATC1='B01AA' OR h_5ATC2='B01AA' OR h_5ATC3='B01AA' OR h_5ATC4='B01AA' OR
h_5ATC5='B01AA' OR h_5ATC6='B01AA' OR
h_5ATC7='B01AA' OR h_5ATC8='B01AA' OR h_5ATC9='B01AA' OR h_5ATC10='B01AA' OR
h_5ATC11='B01AA' OR h_5ATC12='B01AA' OR h_5ATC13='B01AA' OR
h_5ATC14='B01AA' OR h_5ATC15='B01AA' OR h_5ATC16='B01AA' OR h_5ATC17='B01AA' OR
h_5ATC18='B01AA' OR h_5ATC19='B01AA' OR h_5ATC20='B01AA') hmed_stolling=1.
```

```
if (h_5ATC1='B01AF' OR h_5ATC2='B01AF' OR h_5ATC3='B01AF' OR h_5ATC4='B01AF' OR
h_5ATC5='B01AF' OR h_5ATC6='B01AF' OR
h_5ATC7='B01AF' OR h_5ATC8='B01AF' OR h_5ATC9='B01AF' OR h_5ATC10='B01AF' OR
h_5ATC11='B01AF' OR h_5ATC12='B01AF' OR h_5ATC13='B01AF' OR
h_5ATC14='B01AF' OR h_5ATC15='B01AF' OR h_5ATC16='B01AF' OR h_5ATC17='B01AF' OR
h_5ATC18='B01AF' OR h_5ATC19='B01AF' OR h_5ATC20='B01AF') hmed_stolling=1.
```

```
if (h_5ATC1='B01AE' OR h_5ATC2='B01AE' OR h_5ATC3='B01AE' OR h_5ATC4='B01AE' OR
h_5ATC5='B01AE' OR h_5ATC6='B01AE' OR
h_5ATC7='B01AE' OR h_5ATC8='B01AE' OR h_5ATC9='B01AE' OR h_5ATC10='B01AE' OR
h_5ATC11='B01AE' OR h_5ATC12='B01AE' OR h_5ATC13='B01AE' OR
h_5ATC14='B01AE' OR h_5ATC15='B01AE' OR h_5ATC16='B01AE' OR h_5ATC17='B01AE' OR
h_5ATC18='B01AE' OR h_5ATC19='B01AE' OR h_5ATC20='B01AE') hmed_stolling=1.
```

```
VARIABLE LABELS hmed_stolling 'use of anticoagulants'.
```

```
VALUE LABELS hmed_stolling
```

```
  -1 'missing'
```

```
  0 'no'
```

```
  1 'yes'.
```

```
EXECUTE.
```

*combining anticoagulants and betablocking agents: use of both, yes/no.

```
compute hmed_stol_beta=-3.
```

```
if (hmed_stolling=-1) hmed_stol_beta=-1.
```

```
if (hmed_stolling=1 and hmed_beta=1) hmed_stol_beta=1.
```

```
if (hmed_stolling=0 or hmed_beta=0) hmed_stol_beta=0.
```

```
VARIABLE LABELS hmed_stol_beta 'use of both beta blocking agent AND anticoagulantia'.
```

```
VALUE LABELS hmed_stol_beta
```

```
  -1 'missing'
```

```
  0 'no'
```

```
  1 'yes'.
```

```
EXECUTE.
```

*some diuretics are combination preps and therefore (incorrectly) not included in the diuretics variable.

```
*C07B C07C C07D C02L C09B C09D C08G
C09AX C09CX C01AA.
```

```
*C07B C07C C07D C02L C09B C09D C08G .
```

If (h_4ATC1='C07B' OR h_4ATC2='C07B' OR h_4ATC3='C07B' OR h_4ATC4='C07B' OR h_4ATC5='C07B'
OR h_4ATC6='C07B' OR
h_4ATC7='C07B' OR h_4ATC8='C07B' OR h_4ATC9='C07B' OR h_4ATC10='C07B' OR h_4ATC11='C07B'
OR h_4ATC12='C07B' OR h_4ATC13='C07B' OR
h_4ATC14='C07B' OR h_4ATC15='C07B' OR h_4ATC16='C07B' OR h_4ATC17='C07B' OR
h_4ATC18='C07B' OR h_4ATC19='C07B' OR h_4ATC20='C07B') hmed_diu=1.
If (h_4ATC1='C07C' OR h_4ATC2='C07C' OR h_4ATC3='C07C' OR h_4ATC4='C07C' OR h_4ATC5='C07C'
OR h_4ATC6='C07C' OR
h_4ATC7='C07C' OR h_4ATC8='C07C' OR h_4ATC9='C07C' OR h_4ATC10='C07C' OR h_4ATC11='C07C'
OR h_4ATC12='C07C' OR h_4ATC13='C07C' OR
h_4ATC14='C07C' OR h_4ATC15='C07C' OR h_4ATC16='C07C' OR h_4ATC17='C07C' OR
h_4ATC18='C07C' OR h_4ATC19='C07C' OR h_4ATC20='C07C') hmed_diu=1.
If (h_4ATC1='C07D' OR h_4ATC2='C07D' OR h_4ATC3='C07D' OR h_4ATC4='C07D' OR
h_4ATC5='C07D' OR h_4ATC6='C07D' OR
h_4ATC7='C07D' OR h_4ATC8='C07D' OR h_4ATC9='C07D' OR h_4ATC10='C07D' OR
h_4ATC11='C07D' OR h_4ATC12='C07D' OR h_4ATC13='C07D' OR
h_4ATC14='C07D' OR h_4ATC15='C07D' OR h_4ATC16='C07D' OR h_4ATC17='C07D' OR
h_4ATC18='C07D' OR h_4ATC19='C07D' OR h_4ATC20='C07D') hmed_diu=1.
If (h_4ATC1='C02L' OR h_4ATC2='C02L' OR h_4ATC3='C02L' OR h_4ATC4='C02L' OR h_4ATC5='C02L'
OR h_4ATC6='C02L' OR
h_4ATC7='C02L' OR h_4ATC8='C02L' OR h_4ATC9='C02L' OR h_4ATC10='C02L' OR h_4ATC11='C02L'
OR h_4ATC12='C02L' OR h_4ATC13='C02L' OR
h_4ATC14='C02L' OR h_4ATC15='C02L' OR h_4ATC16='C02L' OR h_4ATC17='C02L' OR
h_4ATC18='C02L' OR h_4ATC19='C02L' OR h_4ATC20='C02L') hmed_diu=1.
If (h_4ATC1='C09B' OR h_4ATC2='C09B' OR h_4ATC3='C09B' OR h_4ATC4='C09B' OR h_4ATC5='C09B'
OR h_4ATC6='C09B' OR
h_4ATC7='C09B' OR h_4ATC8='C09B' OR h_4ATC9='C09B' OR h_4ATC10='C09B' OR h_4ATC11='C09B'
OR h_4ATC12='C09B' OR h_4ATC13='C09B' OR
h_4ATC14='C09B' OR h_4ATC15='C09B' OR h_4ATC16='C09B' OR h_4ATC17='C09B' OR
h_4ATC18='C09B' OR h_4ATC19='C09B' OR h_4ATC20='C09B') hmed_diu=1.
If (h_4ATC1='C09D' OR h_4ATC2='C09D' OR h_4ATC3='C09D' OR h_4ATC4='C09D' OR
h_4ATC5='C09D' OR h_4ATC6='C09D' OR
h_4ATC7='C09D' OR h_4ATC8='C09D' OR h_4ATC9='C09D' OR h_4ATC10='C09D' OR
h_4ATC11='C09D' OR h_4ATC12='C09D' OR h_4ATC13='C09D' OR
h_4ATC14='C09D' OR h_4ATC15='C09D' OR h_4ATC16='C09D' OR h_4ATC17='C09D' OR
h_4ATC18='C09D' OR h_4ATC19='C09D' OR h_4ATC20='C09D') hmed_diu=1.
If (h_4ATC1='C08G' OR h_4ATC2='C08G' OR h_4ATC3='C08G' OR h_4ATC4='C08G' OR
h_4ATC5='C08G' OR h_4ATC6='C08G' OR
h_4ATC7='C08G' OR h_4ATC8='C08G' OR h_4ATC9='C08G' OR h_4ATC10='C08G' OR
h_4ATC11='C08G' OR h_4ATC12='C08G' OR h_4ATC13='C08G' OR
h_4ATC14='C08G' OR h_4ATC15='C08G' OR h_4ATC16='C08G' OR h_4ATC17='C08G' OR
h_4ATC18='C08G' OR h_4ATC19='C08G' OR h_4ATC20='C08G') hmed_diu=1.
EXECUTE.

*C09AX C09CX C01AA.

If (h_5ATC1='C09AX' OR h_5ATC2='C09AX' OR h_5ATC3='C09AX' OR h_5ATC4='C09AX' OR
h_5ATC5='C09AX' OR h_5ATC6='C09AX' OR
h_5ATC7='C09AX' OR h_5ATC8='C09AX' OR h_5ATC9='C09AX' OR h_5ATC10='C09AX' OR
h_5ATC11='C09AX' OR h_5ATC12='C09AX' OR h_5ATC13='C09AX' OR
h_5ATC14='C09AX' OR h_5ATC15='C09AX' OR h_5ATC16='C09AX' OR h_5ATC17='C09AX' OR
h_5ATC18='C09AX' OR h_5ATC19='C09AX' OR h_5ATC20='C09AX') hmed_diu=1.

```

If (h_5ATC1='C09CX' OR h_5ATC2='C09CX' OR h_5ATC3='C09CX' OR h_5ATC4='C09CX' OR
h_5ATC5='C09CX' OR h_5ATC6='C09CX' OR
h_5ATC7='C09CX' OR h_5ATC8='C09CX' OR h_5ATC9='C09CX' OR h_5ATC10='C09CX' OR
h_5ATC11='C09CX' OR h_5ATC12='C09CX' OR h_5ATC13='C09CX' OR
h_5ATC14='C09CX' OR h_5ATC15='C09CX' OR h_5ATC16='C09CX' OR h_5ATC17='C09CX' OR
h_5ATC18='C09CX' OR h_5ATC19='C09CX' OR h_5ATC20='C09CX') hmed_diu=1.
If (h_5ATC1='C01AA' OR h_5ATC2='C01AA' OR h_5ATC3='C01AA' OR h_5ATC4='C01AA' OR
h_5ATC5='C01AA' OR h_5ATC6='C01AA' OR
h_5ATC7='C01AA' OR h_5ATC8='C01AA' OR h_5ATC9='C01AA' OR h_5ATC10='C01AA' OR
h_5ATC11='C01AA' OR h_5ATC12='C01AA' OR h_5ATC13='C01AA' OR
h_5ATC14='C01AA' OR h_5ATC15='C01AA' OR h_5ATC16='C01AA' OR h_5ATC17='C01AA' OR
h_5ATC18='C01AA' OR h_5ATC19='C01AA' OR h_5ATC20='C01AA') hmed_diu=1.
EXECUTE.

```

*****year of interview (2011 or 2012).

```

COMPUTE t8_year=XDATE.YEAR(t8_dat).
VARIABLE LABELS t8_year "LASA main interview year (w8)".
VARIABLE LEVEL t8_year(SCALE).
FORMATS t8_year(F8.0).
VARIABLE WIDTH t8_year(8).
EXECUTE.

```

*****ARRHYTHMIA (ARI) at H*****.

*Selfreport surgery implantation of pacemaker.

```

COMPUTE h_surARI=-3.
IF (hhart15d le -1) h_surARI=-1.
IF (hhart01 le -1) h_surARI=-1.
IF (hhart15 le -1) h_surARI=-1.
IF (hhart01=0 or hhart01=1) h_surARI=0.
IF (hhart15d=0) h_surARI=0.
IF (hhart15=1) h_surARI=0.
IF (hhart15d=1) h_surARI=1.
VARIABLE LABELS h_surARI 'self report surgery: pacemaker'.
VALUE LABELS h_surARI
    -1 'missing'
    0 'no'
    1 'yes'.

```

*use of anti arrhythmic medication.

```

RECODE hmed_ARI (0=0) (1=1) (SYSMIS=-1) (-9=-1) (ELSE=copy) INTO h_mARI.
IF (hmed_ino=1) h_mARI=1.
IF (hmvar13=1) h_mARI=0.
IF (hmvar13 le -1) h_mARI=-1.
VARIABLE LABELS h_mARI 'use of antiarrhythmics'.
VALUE LABELS h_mARI
    -1 'missing'
    0 'no'
    1 'yes'.

```

*GP diagnosis of ARI.

```

COMPUTE h_gpARI=-3.
IF (hgarrth le -1) h_gpARI=-1.

```

```

IF (t8_year le -1) h_gpARI=-1.
IF (hgarrth=0) h_gpARI=0.
IF (hgarrth=1 and hgarrthy ge 5) h_gpARI=0.
IF (hgarrth=1 and hgarrthy ge 4 and t8_year=2011) h_gpARI=0.
IF (hgarrth=1 and (hgarrthy ge 1 and hgarrthy le 3)) h_gpARI=1.
IF (hgarrth=1 and (hgarrthy=4 and t8_YEAR=2012)) h_gpARI=1.
IF (hgarrth=1 and hgarrthy le -1) h_gpARI=2.
IF (hgarrth=1 and hgarrthy=1) h_gpARI=1.
IF (fgarrth=1) h_gpARI=1.
IF (egarrth=1) h_gpARI=1.
VARIABLE LABELS h_gpARI 'gp diagnosis: cardiac arrhythmia'.
VALUE LABELS h_gpARI
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*ARI algorithm: medication, GP diagnosis and SR implantation of pacemaker combined.

```

compute h_alg_ARI=-3.
IF (h_mARI=1) h_alg_ARI=1.
IF (h_mARI=0 and h_gpARI=1 and (hmed_stol_beta=1)) h_alg_ARI=1.
IF (h_mARI=0 and h_gpARI=1 and (hmed_stol_beta=0) and (egarrths=1 or fgarrths=1 or hgarrths=1))
h_alg_ARI=1.
IF (h_mARI=0 and h_gpARI=1 and (hmed_stol_beta=0) and hgarrths le 0 and h_surARI=1)
h_alg_ARI=1.
IF (h_mARI=0 and h_gpARI=1 and (hmed_stol_beta=0) and hgarrths le 0 and h_surARI le 0)
h_alg_ARI=2.
IF (h_mARI=0 and h_gpARI=0 and h_surARI=1) h_alg_ARI=3.
IF (h_mARI=0 and h_gpARI=0 and h_surARI le 0) h_alg_ARI=0.
IF (h_mARI=0 and h_gpARI=2 and (hmed_stol_beta=1)) h_alg_ARI=1.
IF (h_mARI=0 and h_gpARI=2 and (hmed_stol_beta=0) and h_surARI=1) h_alg_ARI=1.
IF (h_mARI=0 and h_gpARI=2 and (hmed_stol_beta=0) and h_surARI le 0) h_alg_ARI=0.
IF (h_mARI=0 and h_gpARI=2 and (hmed_stol_beta=0) and h_surARI le -1) h_alg_ARI=0.
IF (h_mARI=0 and h_gpARI=-1 and h_surARI=1) h_alg_ARI=2.
IF (h_mARI=0 and h_gpARI=-1 and (hmed_stol_beta=0) and h_surARI=0) h_alg_ARI=0.
IF (h_mARI=0 and h_gpARI=-1 and (hmed_stol_beta=0) and h_surARI le -1) h_alg_ARI=-1.
IF (h_mARI=0 and h_gpARI=-1 and (hmed_stol_beta=1) and h_surARI le 0) h_alg_ARI=-1.
IF (h_mARI le -1 and h_gpARI=1 and (egarrths=1 or fgarrths=1 or hgarrths=1)) h_alg_ARI=1.
IF (h_mARI le -1 and h_gpARI=1 and hgarrths le 0 and h_surARI=1) h_alg_ARI=1.
IF (h_mARI le -1 and h_gpARI=1 and hgarrths le 0 and h_surARI le 0) h_alg_ARI=2.
IF (h_mARI le -1 and h_gpARI=0 and h_surARI=1) h_alg_ARI=3.
IF (h_mARI le -1 and h_gpARI=0 and h_surARI le 0) h_alg_ARI=0.
IF (h_mARI le -1 and h_gpARI=2 and h_surARI=1) h_alg_ARI=1.
IF (h_mARI le -1 and h_gpARI=2 and h_surARI le 0) h_alg_ARI=-1.
IF (h_mARI le -1 and h_gpARI le -1 and h_surARI=1) h_alg_ARI=2.
IF (h_mARI le -1 and h_gpARI le -1 and h_surARI le 0) h_alg_ARI=-1.
IF (h_alg_ARI=-1 and (htrhart1=0 or htphart1=0)) h_alg_ARI=0.
VARIABLE LABELS h_alg_ARI 'H wave: arrhythmia'.
VALUE LABELS h_alg_ARI
    -1 'missing'
    0 'no'
    1 'definite'

```

- 2 'possible'
- 3 'contradictory'.

*****CEREBROVASCULAR ACCIDENT (CVA) at H*****.

*Selfreport diagnosis of CVA.

```

COMPUTE h_srCVA=-3.
IF (hcva01=2 or hcva01=3) h_srCVA=1.
IF (hcva01=0 or hcva01=1) h_srCVA=0.
IF (htpcva01=1) h_srCVA=1.
IF (htpcva01=0) h_srCVA=0.
IF (htrcva01=1) h_srCVA=1.
IF (htrcva01=0) h_srCVA=0.
IF (hcva01 le -1 and htpcva01 le -1 and htrcva01 le -1) h_srCVA=-1.
VARIABLE LABELS h_srCVA 'self report: CVA'.
VALUE LABELS h_srCVA
  -1 'missing'
  0 'no'
  1 'yes'.

```

*GP diagnosis of CVA.

```

COMPUTE h_gpCVA=-3.
IF (hgcva le -1) h_gpCVA=-1.
IF (t8_year le -1) h_gpCVA=-1.
IF (hgcva=0) h_gpCVA=0.
IF (hgcva=1 and hgcvey ge 5) h_gpCVA=0.
IF (hgcva=1 and hgcvey ge 4 and t8_year=2011) h_gpCVA=0.
IF (hgcva=1 and (hgcvey ge 1 and hgcvey le 3)) h_gpCVA=1.
IF (hgcva=1 and (hgcvey=4 and t8_YEAR=2012)) h_gpCVA=1.
IF (hgcva=1 and hgcvey le -1) h_gpCVA=2.
IF (hgcva=1 and hgcvey=1) h_gpCVA=1.
IF (fgcva=1) h_gpCVA=1.
IF (egcva=1) h_gpCVA=1.
VARIABLE LABELS h_gpCVA 'gp diagnosis: CVA'.
VALUE LABELS h_gpCVA
  -2 'dropout'
  -1 'missing'
  0 'no'
  1 'yes'
  2 'diagnose = yes, but year = missing'.

```

*CVA algorithm: GP diagnosis and SR combined.

```

COMPUTE h_alg_CVA=-3.
IF (h_gpCVA=1 and (egcvas=1 or fgcvas=1 or hgcvas=1)) h_alg_CVA=1.
IF (h_gpCVA=1 and hgcvas le 0 and h_srCVA=1) h_alg_CVA=1.
IF (h_gpCVA=1 and hgcvas le 0 and h_srCVA=0) h_alg_CVA=3.
IF (h_gpCVA=1 and hgcvas le 0 and h_srCVA le -1) h_alg_CVA=2.
IF (h_gpCVA=0 and h_srCVA=1) h_alg_CVA=3.
IF (h_gpCVA=0 and h_srCVA=0) h_alg_CVA=0.
IF (h_gpCVA=0 and h_srCVA le -1) h_alg_CVA=0.
IF (h_gpCVA=2 and h_srCVA=1) h_alg_CVA=1.
IF (h_gpCVA=2 and h_srCVA=0) h_alg_CVA=0.
IF (h_gpCVA=2 and h_srCVA le -1) h_alg_CVA=-1.

```

```

IF (h_gpCVA le -1 and h_srCVA=1) h_alg_CVA=2.
IF (h_gpCVA le -1 and h_srCVA=0) h_alg_CVA=0.
IF (h_gpCVA le -1 and h_srCVA le -1) h_alg_CVA=-1.
VARIABLE LABELS h_alg_CVA 'H wave: cerebrovascular accident'.
VALUE LABELS h_alg_CVA
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****MYOCARDIAL INFARCTION (MI) at H*****.

```

*Selfreport diagnosis of MI.
COMPUTE h_srMI=-5.
IF (hhart01 le -1) h_srMI=-1.
IF ((hhart01=2 or hhart01=3) and hhart05 le -1) h_srMI=-1.
IF (hhart05=1) h_srMI=0.
IF (hhart01=0 or hhart01=1) h_srMI=0.
IF (hhart05=2) h_srMI=1.
IF (htphart1=0 or htrhart1=0) h_srMI=0.
VARIABLE LABELS h_srMI 'self report: myocardial infarction'.
VALUE LABELS h_srMI
    -1 'missing'
    0 'no'
    1 'yes'.

```

```

*GP diagnosis of MI.
COMPUTE h_gpMI=-3.
IF (hgmiy le -1) h_gpMI=-1.
IF (t8_year le -1) h_gpMI=-1.
IF (hgmi=0) h_gpMI=0.
IF (hgmi=1 and hgmiy ge 5) h_gpMI=0.
IF (hgmi=1 and hgmiy ge 4 and t8_year=2011) h_gpMI=0.
IF (hgmi=1 and (hgmiy ge 1 and hgmiy le 3)) h_gpMI=1.
IF (hgmi=1 and (hgmiy=4 and t8_YEAR=2012)) h_gpMI=1.
IF (hgmi=1 and hgmiy le -1) h_gpMI=2.
IF (hgmi=1 and hgmiy=1) h_gpMI=1.
IF (fgmi=1) h_gpMI=1.
IF (egmi=1) h_gpMI=1.
VARIABLE LABELS h_gpMI 'gp diagnosis: MI'.
VALUE LABELS h_gpMI
    -2 'dropout'
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

```

*MI algorithm: GP diagnosis and SR combined.
COMPUTE h_alg_MI=-3.
IF (h_gpMI=1 and (egmis=1 or fgmis=1 or hgmis=1)) h_alg_MI=1.
IF (h_gpMI=1 and hgmis le 0 and h_srMI=1) h_alg_MI=1.

```

```

IF (h_gpMI=1 and hgmis le 0 and h_srMI=0) h_alg_MI=3.
IF (h_gpMI=1 and hgmis le 0 and h_srMI le -1) h_alg_MI=2.
IF (h_gpMI=0 and h_srMI=1) h_alg_MI=3.
IF (h_gpMI=0 and h_srMI=0) h_alg_MI=0.
IF (h_gpMI=0 and h_srMI le -1) h_alg_MI=0.
IF (h_gpMI=2 and h_srMI=1) h_alg_MI=1.
IF (h_gpMI=2 and h_srMI=0) h_alg_MI=0.
IF (h_gpMI=2 and h_srMI le -1) h_alg_MI=-1.
IF (h_gpMI le -1 and h_srMI=1) h_alg_MI=2.
IF (h_gpMI le -1 and h_srMI=0) h_alg_MI=0.
IF (h_gpMI le -1 and h_srMI le -1) h_alg_MI=-1.
VARIABLE LABELS h_alg_MI 'H wave: myocardial infarction'.
VALUE LABELS h_alg_MI
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****ANGINA PECTORIS (AP) at H*****.

*Selfreport diagnosis of AP.

```

COMPUTE h_srAP=-5.
IF (hhart01 le -1) h_srAP=-1.
IF ((hhart01=2 or hhart01=3) and hhart10 le -1) h_srAP=-1.
IF (hhart01=0 or hhart01=1) h_srAP=0.
IF (hhart11=1 or hdiabe12=1) h_srAP=0.
if (((hhart01=2 or hhart01=3) and hhart10=1) OR ((hdiabe01=2 or hdiabe01=3) and hdiabe11=1))
h_srAP=0.
IF (((hhart01=2 or hhart01=3) and hhart10 ge 4) OR ((hdiabe01=2 or hdiabe01=3) and hdiabe11 ge 4))
h_srAP=0.
IF (((hhart01=2 or hhart01=3) and hhart10=2 and hhart11 le -1) OR ((hdiabe01=2 or hdiabe01=3) and
hdiabe11=2 and hdiabe12 le -1)) h_srAP=2.
IF (hhart11=2 or hdiabe12=2) h_srAP=1.
IF (hhart10=3 or hdiabe11=3) h_srAP=1.
IF (htphart1=0 or htrhart1=0) h_srAP=0.
VARIABLE LABELS h_srAP 'self report: angina pectoris'.
VALUE LABELS h_srAP
    -1 'missing'
    0 'no'
    1 'yes'
    2 'possible'.

```

*GP diagnosis of AP.

```

COMPUTE h_gpAP=-3.
IF (hgap le -1) h_gpAP=-1.
IF (t8_year le -1) h_gpAP=-1.
IF (hgap=0) h_gpAP=0.
IF (hgap=1 and hgapy ge 5) h_gpAP=0.
IF (hgap=1 and hgapy ge 4 and t8_year=2011) h_gpAP=0.
IF (hgap=1 and (hgapy ge 1 and hgapy le 3)) h_gpAP=1.
IF (hgap=1 and (hgapy=4 and t8_YEAR=2012)) h_gpAP=1.

```

```

IF (hgap=1 and hgapy le -1) h_gpAP=2.
IF (hgap=1 and hgapy=1) h_gpAP=1.
IF (fgap=1) h_gpAP=1.
IF (egap=1) h_gpAP=1.
VARIABLE LABELS h_gpAP 'gp diagnosis: angina pectoris'.
VALUE LABELS h_gpAP
    -2 'dropout'
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*use of AP medication: nitrates.

```

RECODE hmed_ang (0=0) (1=1) (SYSMIS=-1) (-9=-1) (ELSE=copy) INTO h_mAP.
IF (hmvar13 le -1) h_mAP=-1.
IF (hmvar13=1) h_mAP=0.
VARIABLE LABELS h_mAP 'use of nitrates'.
VALUE LABELS h_mAP
    -1 'missing'
    0 'no'
    1 'yes'.

```

*AP algorithm: medication, GP diagnosis and SR combined.

```

COMPUTE h_alg_AP=-3.
IF (h_mAP=1) h_alg_AP=1.
IF (h_mAP le 0 and h_srAP=1 and h_gpAP=1) h_alg_AP=1.
IF (h_mAP le 0 and h_srAP=1 and h_gpAP=0) h_alg_AP=3.
IF (h_mAP le 0 and h_srAP=1 and h_gpap=2) h_alg_AP=1.
IF (h_mAP le 0 and h_srAP=1 and h_gpAP le -1) h_alg_AP=2.
IF (h_mAP le 0 and h_srAP=0 and h_gpAP=1 and (egaps=1 or fgaps=1 or hgaps=1)) h_alg_AP=1.
IF (h_mAP le 0 and h_srAP=0 and h_gpAP=1 and hgaps le 0) h_alg_AP=3.
IF (h_mAP le 0 and h_srAP=0 and h_gpAP=0) h_alg_AP=0.
IF (h_mAP le 0 and h_srAP=0 and h_gpap=2) h_alg_AP=0.
IF (h_mAP le 0 and h_srAP=0 and h_gpAP le -1) h_alg_AP=0.
IF (h_mAP le 0 and h_srAP=2 and h_gpAP=1) h_alg_AP=1.
IF (h_mAP le 0 and h_srAP=2 and h_gpAP=0) h_alg_AP=0.
IF (h_mAP le 0 and h_srAP=2 and h_gpAP=2) h_alg_AP=-1.
IF (h_mAP le 0 and h_srAP=2 and h_gpap=-1) h_alg_AP=-1.
IF (h_mAP le 0 and h_srAP le -1 and h_gpAP=1 and (egaps=1 or fgaps=1 or hgaps=1)) h_alg_AP=1.
IF (h_mAP le 0 and h_srAP le -1 and h_gpAP=1 and hgaps le 0) h_alg_AP=2.
IF (h_mAP le 0 and h_srAP le -1 and h_gpAP=0) h_alg_AP=0.
IF (h_mAP le 0 and h_srAP le -1 and h_gpap=2) h_alg_AP=-1.
IF (h_mAP le 0 and h_srAP le -1 and h_gpAP le -1) h_alg_AP=-1.
VARIABLE LABELS h_alg_AP 'H wave: angina pectoris'.
VALUE LABELS h_alg_AP
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****CONGESTIVE HEART FAILURE (CHF) at H*****.

*Selfreport diagnosis of CHF.

COMPUTE h_srCHF=-3.

IF (hheart01 le -1) h_srCHF=-1.

IF ((hheart01=2 or hheart01=3) and hheart12 le -1) h_srCHF=-1.

IF (hheart01=0 or hheart01=1) h_srCHF=0.

IF ((hheart01=2 or hheart01=3) and hheart12=1) h_srCHF=0.

IF ((hheart01=2 or hheart01=3) and hheart12=2) h_srCHF=1.

IF (htphart1=0 or htrheart1=0) h_srCHF=0.

VARIABLE LABELS h_srCHF 'self reported diagnosis of congestive heart failure'.

VALUE LABELS h_srCHF

-1 'missing'

0 'no'

1 'yes'.

*GP diagnosis of CHF.

COMPUTE h_gpCHF=-3.

IF (hgchf le -1) h_gpCHF=-1.

IF (t8_year le -1) h_gpCHF=-1.

IF (hgchf=0) h_gpCHF=0.

IF (hgchf=1 and hgchfy ge 5) h_gpCHF=0.

IF (hgchf=1 and hgchfy ge 4 and t8_year=2011) h_gpCHF=0.

IF (hgchf=1 and (hgchfy ge 1 and hgchfy le 3)) h_gpCHF=1.

IF (hgchf=1 and (hgchfy=4 and t8_YEAR=2012)) h_gpCHF=1.

IF (hgchf=1 and hgchfy le -1) h_gpCHF=2.

IF (hgchf=1 and hgchfy=1) h_gpCHF=1.

IF (fgchf=1) h_gpCHF=1.

IF (egchf=1) h_gpCHF=1.

VARIABLE LABELS h_gpCHF 'gp diagnosis: congestive heart failure'.

VALUE LABELS h_gpCHF

-2 'dropout'

-1 'missing'

0 'no'

1 'yes'

2 'diagnose = yes, but year = missing'.

*CHF medication: diuretics, antihypertensives, nitrates, inotropics, beta blocking agents.

compute h_mCHF=0.

if (hmed_diu=1 and (hmed_hyp=1 or hmed_ang=1 or hmed_ino=1 or hmed_beta=1)) h_mCHF=1.

IF (hmvar13 le -1) h_mCHF=-1.

IF (hmvar13=1) h_mCHF=0.

VARIABLE LABELS h_mCHF 'medication for congestive heart failure'.

VALUE LABELS h_mCHF

-1 'missing'

0 'no'

1 'yes'.

*CHF algorithm: medication, GP diagnosis and SR combined.

COMPUTE h_alg_CHF=-3.

IF (h_gpCHF=1 and (egchfs=1 or fgchfs=1 or hgchfs=1)) h_alg_CHF=1.

IF (h_gpCHF=1 and hgchfs le 0 and h_srCHF=1) h_alg_CHF=1.

IF (h_gpCHF=1 and hgchfs le 0 and h_srCHF le 0 and h_mCHF=1) h_alg_CHF=1.

IF (h_gpCHF=1 and hgchfs le 0 and h_srCHF=0 and h_mCHF=0) h_alg_CHF=2.

```

IF (h_gpCHF=1 and hgchfs le 0 and h_srCHF le 0 and h_mCHF le -1) h_alg_CHF=2.
IF (h_gpCHF=1 and hgchfs le 0 and h_srCHF le -1 and h_mCHF le 0) h_alg_CHF=2.
IF (h_gpCHF=0 and h_srCHF=1 and h_mCHF=1) h_alg_CHF=1.
IF (h_gpCHF=0 and h_srCHF=1 and h_mCHF le 0) h_alg_CHF=2.
IF (h_gpCHF=0 and h_srCHF le 0 and h_mCHF=1) h_alg_CHF=3.
IF (h_gpCHF=0 and h_srCHF le 0 and h_mCHF le 0) h_alg_CHF=0.
IF (h_gpCHF=2 and h_srCHF=1) h_alg_CHF=1.
IF (h_gpCHF=2 and h_srCHF le 0 and h_mCHF=1) h_alg_CHF=1.
IF (h_gpCHF=2 and h_srCHF le 0 and h_mCHF le 0) h_alg_CHF=0.
IF (h_gpCHF=2 and h_srCHF= 0 and h_mCHF=-1) h_alg_CHF=-1.
IF (h_gpCHF=2 and h_srCHF le -1 and h_mCHF le -1) h_alg_CHF=-1.
IF (h_gpCHF le -1 and h_srCHF=1 and h_mCHF=1) h_alg_CHF=1.
IF (h_gpCHF le -1 and h_srCHF=1 and h_mCHF le 0) h_alg_CHF=2.
IF (h_gpCHF le -1 and h_srCHF=0 and h_mCHF=1) h_alg_CHF=2.
IF (h_gpCHF le -1 and h_srCHF=0 and h_mCHF le 0) h_alg_CHF=0.
IF (h_gpCHF le -1 and h_srCHF le -1 and h_mCHF=1) h_alg_CHF=2.
IF (h_gpCHF le -1 and h_srCHF le -1 and h_mCHF=0) h_alg_CHF=0.
IF (h_gpCHF le -1 and h_srCHF le -1 and h_mCHF le -1) h_alg_CHF=-1.
VARIABLE LABELS h_alg_CHF 'H wave: congestive heart failure'.
VALUE LABELS h_alg_CHF
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****PERIPHERAL ARTERIAL DISEASE (PAD) at H*****.

*Selfreport diagnosis of PAD.

```
COMPUTE h_srPAD=-5.
```

```
IF (hartvei1 le -1) h_srPAD=-1.
```

```
IF ((hartvei1=2 or hartvei1=3) and hartvei5 le -1) h_srPAD=-1.
```

```
IF (hartvei1=0 or hartvei1=1) h_srPAD=0.
```

```
IF (hartvei7=1 or hdiabe09=1) h_srPAD=0.
```

```
IF (hartvei5=1 or hdiabe07=1) h_srPAD=0.
```

```
IF ((hartvei5=2 and hartvei7 le -1) or (hdiabe07=2 and hdiabe09 le -1)) h_srPAD=2.
```

```
IF (hartvei7=2 or hdiabe09=2) h_srPAD=1.
```

```
IF (htpartv1=0 OR htrartv1=0) h_srPAD=0.
```

```
IF (htpartv1=1 OR htrartv1=1) h_srPAD=2.
```

```
IF (hartvei1 le -1 and htpartv1 le -1 and htrartv1 le -1) h_srPAD=-1.
```

```
VARIABLE LABELS h_srPAD 'self reported diagnosis of peripheral artery disease'.
```

```
VALUE LABELS h_srPAD
```

```
    -1 'missing'
```

```
    0 'no'
```

```
    1 'yes'
```

```
    2 'possible'.
```

*Selfreport surgery.

```
COMPUTE h_surPAD=-3.
```

```
IF (hartvei1 le -1) h_surPAD=-1.
```

```
IF ((hartvei1=2 or hartvei1=3) and hartve8 le -1) h_surPAD=-1.
```

```
IF (hartve8=1) h_surPAD=0.
```

```
IF ((hartve8c=0 AND hartve8d=0) AND (hartve8b le 0)) h_surPAD=0.
```

```

IF (hartvei1=0 or hartvei1=1) h_surPAD=0.
IF ((hartve8c le 0 AND hartve8d le 0) AND (hartve8b=1)) h_surPAD=2.
IF (hartve8c=1 OR hartve8d=1) h_surPAD=1.
VARIABLE LABELS h_surPAD 'self reported surgery of peripheral arteries'.
VALUE LABELS h_surPAD
    -1 'missing'
    0 'no'
    1 'yes'
    2 'possible'.

```

*GP diagnosis of PAD.

```

COMPUTE h_gpPAD=-3.
IF (hgartvei le -1) h_gpPAD=-1.
IF (t8_year le -1) h_gpPAD=-1.
IF (hgartvei=0) h_gpPAD=0.
IF (hgartvei=1 and hgartvey ge 5) h_gpPAD=0.
IF (hgartvei=1 and hgartvey ge 4 and t8_year=2011) h_gpPAD=0.
IF (hgartvei=1 and (hgartvey ge 1 and hgartvey le 3)) h_gpPAD=1.
IF (hgartvei=1 and (hgartvey=4 and t8_YEAR=2012)) h_gpPAD=1.
IF (hgartvei=1 and hgartvey le -1) h_gpPAD=2.
IF (hgartvei=1 and hgartvey=1) h_gpPAD=1.
IF (fgartvei=1) h_gpPAD=1.
IF (egartvei=1) h_gpPAD=1.
VARIABLE LABELS h_gpPAD 'gp diagnosis: PAD'.
VALUE LABELS h_gpPAD
    -2 'dropout'
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*PAD algorithm: medication, GP diagnosis, SR and surgery combined.

```

COMPUTE h_alg_PAD=-3.
IF (h_surPAD=1) h_alg_PAD=1.
IF (h_surPAD le 0 and h_gpPAD=1 and (egartves=1 or fgartves=1 or hgartves=1)) h_alg_PAD=1.
IF (h_surPAD le 0 and h_gpPAD=1 and hgartves le 0 and h_srPAD=1) h_alg_PAD=1.
IF (h_surPAD le 0 and h_gpPAD=1 and hgartves le 0 and h_srPAD=0) h_alg_PAD=3.
IF (h_surPAD le 0 and h_gpPAD=1 and hgartves le 0 and h_srPAD le -1) h_alg_PAD=2.
IF (h_surPAD le 0 and h_gpPAD=1 and hgartves le 0 and h_srPAD=2) h_alg_PAD=1.
IF (h_surPAD le 0 and h_gpPAD=0 and h_srPAD=1) h_alg_PAD=3.
IF (h_surPAD le 0 and h_gpPAD=0 and h_srPAD=0) h_alg_PAD=0.
IF (h_surPAD le 0 and h_gpPAD=0 and h_srPAD le -1) h_alg_PAD=0.
IF (h_surPAD le 0 and h_gpPAD=0 and h_srPAD=2) h_alg_PAD=0.
IF (h_surPAD le 0 and h_gpPAD=2 and h_srPAD=1) h_alg_PAD=1.
IF (h_surPAD le 0 and h_gpPAD=2 and h_srPAD=0) h_alg_PAD=0.
IF (h_surPAD le 0 and h_gpPAD=2 and h_srPAD le -1) h_alg_PAD=-1.
IF (h_surPAD le 0 and h_gpPAD=2 and h_srPAD=2) h_alg_PAD=1.
IF (h_surPAD le 0 and h_gpPAD le -1 and h_srPAD=1) h_alg_PAD=2.
IF (h_surPAD le 0 and h_gpPAD le -1 and h_srPAD=0) h_alg_PAD=0.
IF (h_surPAD le 0 and h_gpPAD le -1 and h_srPAD le -1) h_alg_PAD=-1.
IF (h_surPAD le 0 and h_gpPAD le -1 and h_srPAD=2) h_alg_PAD=-1.
IF (h_surPAD=2 and h_gpPAD=1) h_alg_PAD=1.

```

```

IF (h_surPAD=2 and h_gpPAD=0 and h_srPAD=1) h_alg_PAD=1.
IF (h_surPAD=2 and h_gpPAD=0 and h_srPAD=0) h_alg_PAD=0.
IF (h_surPAD=2 and h_gpPAD=0 and h_srPAD le -1) h_alg_PAD=0.
IF (h_surPAD=2 and h_gpPAD=0 and h_srPAD=2) h_alg_PAD=3.
IF (h_surPAD=2 and h_gpPAD=2 and h_srPAD=1) h_alg_PAD=1.
IF (h_surPAD=2 and h_gpPAD le -1 and h_srPAD=1) h_alg_PAD=1.
IF (h_surPAD=2 and h_gpPAD le -1 and h_srPAD=0) h_alg_PAD=0.
IF (h_surPAD=2 and h_gpPAD le -1 and h_srPAD le -1) h_alg_PAD=-1.
IF (h_surPAD=2 and h_gpPAD le -1 and h_srPAD=2) h_alg_PAD=-1.
VARIABLE LABELS h_alg_PAD 'H wave algorithm: peripheral artery disease'.
VALUE LABELS h_alg_PAD
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****CORONARY ARTERY DISEASE (CAD) at H*****.

```

*CAD Selfreport surgery.
COMPUTE h_surCAD=-3.
IF ((hhart01=2 or hhart01=3) and hhart15 le -1) h_surCAD=-1.
IF (hhart01 le -1) h_surCAD=-1.
IF (hhart15b le -1 AND hhart15c le -1) h_surCAD=-1.
IF (hhart15b=0 AND hhart15c=0) h_surCAD=0.
IF (hhart15=1) h_surCAD=0.
IF (hhart01=0 or hhart01=1) h_surCAD=0.
IF (hhart15b=1 OR hhart15c=1) h_surCAD=1.
VARIABLE LABELS h_surCAD 'self reported surgery of coronary arteries'.
VALUE LABELS h_surCAD
    -1 'missing'
    0 'no'
    1 'yes'.

```

```

*CAD selfreport (=Selfreport of AP or MI).
COMPUTE h_srCAD=-5.
IF (hhart01 le -1) h_srCAD=-1.
IF (h_srMI=0 AND h_srAP=2) h_srCAD=-1.
IF (h_srMI=0 AND h_srAP le -1) h_srCAD=-1.
IF (h_srMI le -1 AND h_srAP=0) h_srCAD=-1.
IF (h_srMI le -1 AND h_srAP=2) h_srCAD=-1.
IF (h_srMI le -1 AND h_srAP le -1) h_srCAD=-1.
IF (h_srMI=0 AND h_srAP=0) h_srCAD=0.
IF (hhart01=0 or hhart01=1) h_srCAD=0.
IF (h_srMI le -1 AND h_srAP=1) h_srCAD=1.
IF (h_srMI=1) h_srCAD=1.
IF (h_srAP=1) h_srCAD=1.
IF (htphart1=0 or htrhart1=0) h_srCAD=0.
VARIABLE LABELS h_srCAD 'self report: myocardial infarction OR angina pectoris'.
VALUE LABELS h_srCAD
    -1 'missing'
    0 'no'
    1 'yes'.

```

*GP diagnosis of CAD (gp diagnosis of AP or MI).

COMPUTE h_gpCAD=-5.

IF (h_gpMI le -1 AND h_gpAP=0) h_gpCAD=-1.

IF (h_gpMI=0 AND h_gpAP le -1) h_gpCAD=-1.

IF (h_gpMI le -1 AND h_gpAP le -1) h_gpCAD=-1.

IF (h_gpMI=0 AND h_gpAP=0) h_gpCAD=0.

IF (h_gpMI=0 AND h_gpAP=2) h_gpCAD=2.

IF (h_gpMI le -1 AND h_gpAP=2) h_gpCAD=2.

IF (h_gpMI=2 AND h_gpAP=0) h_gpCAD=2.

IF (h_gpMI=2 AND h_gpAP=2) h_gpCAD=2.

IF (h_gpMI=2 AND h_gpAP le -1) h_gpCAD=2.

IF (h_gpMI=1) h_gpCAD=1.

IF (h_gpAP=1) h_gpCAD=1.

IF (t8_year le -1) h_gpCAD=-2.

VARIABLE LABELS h_gpCAD 'self report: myocardial infarction OR angina pectoris'.

VALUE LABELS h_gpCAD

-2 'dropout'

-1 'missing'

0 'no'

1 'yes'

2 'diagnose = yes, but year = missing'.

*CAD algorithm: medication, GP diagnosis, SR and surgery combined.

COMPUTE h_alg_CAD=-3.

IF (h_mAP le 0 and h_surCAD le 0 and h_srMI le 0 and (h_srAP le 0 or h_srAP=2) and h_gpMI le 0)
h_alg_CAD=0.

IF (h_mAP le -1 and h_surCAD le -1 and h_srMI le -1 and h_srAP le -1 and h_gpAP le -1 and h_gpMI le
-1) h_alg_CAD=-1.

IF (h_mAP=0 and h_surCAD=0 and h_srMI=0 and h_srAP=0 and h_gpAP=0 and h_gpMI=0)
h_alg_CAD=0.

IF ((h_mAP le 0 and h_surCAD le 0) and (h_srAP=1 and (h_srMI le 0 and h_gpAP le 0 and h_gpMI le
0))) h_alg_CAD=3.

IF ((h_mAP le 0 and h_surCAD le 0) and (h_srMI=1 and (h_srAP le 0 and h_gpAP le 0 and h_gpMI le
0))) h_alg_CAD=3.

IF ((h_mAP le 0 and h_surCAD le 0) and (h_gpAP=1 and hgaps le 0 and (h_gpMI le 0 or h_gpMI=2) and
h_srAP le 0 and h_srMI le 0)) h_alg_CAD=3.

IF ((h_mAP le 0 and h_surCAD le 0) and (h_gpMI=1 and hgmis le 0 and (h_gpAP le 0 or h_gpAP=2) and
h_srAP le 0 and h_srMI le 0)) h_alg_CAD=3.

IF ((h_mAP le 0 and h_surCAD le 0) and (h_srAP=1 and (h_srMI le -1 and h_gpAP le -1 and h_gpMI le -
1))) h_alg_CAD=2.

IF ((h_mAP le 0 and h_surCAD le 0) and (h_srMI=1 and (h_srAP le -1 and h_gpAP le -1 and h_gpMI le -
1))) h_alg_CAD=2.

IF ((h_mAP le 0 and h_surCAD le 0) and (h_gpAP=1 and hgaps le 0 and h_gpMI le -1 and h_srAP le -1
and h_srMI le -1)) h_alg_CAD=2.

IF ((h_mAP le 0 and h_surCAD le 0) and (h_gpMI=1 and hgmis le 0 and h_gpAP le -1 and h_srAP le -1
and h_srMI le -1)) h_alg_CAD=2.

IF ((h_mAP le 0 and h_surCAD le 0) and (h_gpAP=2 and (h_gpMI le 0 or h_gpMI=2) and (h_srAP le 0
or h_srAP=2) and h_srMI le 0)) h_alg_CAD=0.

IF ((h_mAP le 0 and h_surCAD le 0) and (h_gpMI=2 and (h_gpAP le 0 or h_gpAP=2) and (h_srAP le 0
or h_srAP=2) and h_srMI le 0)) h_alg_CAD=0.

```

IF ((h_mAP le 0 and h_surCAD le 0) and (h_gpAP=2 and (h_gpMI le -1 or h_gpMI=2) and (h_srAP le -1
or h_srAP=2) and h_srMI le -1)) h_alg_CAD=-1.
IF ((h_mAP le 0 and h_surCAD le 0) and (h_gpMI=2 and (h_gpAP le -1 or h_gpAP=2) and (h_srAP le -1
or h_srAP=2) and h_srMI le -1)) h_alg_CAD=-1.
IF ((h_mAP le 0 and h_surCAD le 0) and (h_srAP=1 and (h_srMI=1 OR h_gpAP=1 OR h_gpMI=1)))
h_alg_CAD=1.
IF ((h_mAP le 0 and h_surCAD le 0) and (h_srMI=1 and (h_srAP=1 OR h_gpAP=1 OR h_gpMI=1)))
h_alg_CAD=1.
IF ((h_mAP le 0 and h_surCAD le 0) and (h_gpAP=1 and (egaps=1 or fgaps=1 or hgaps=1)))
h_alg_CAD=1.
IF ((h_mAP le 0 and h_surCAD le 0) and (h_gpMI=1 and (egmis=1 or fgmis=1 or hgmis=1)))
h_alg_CAD=1.
IF ((h_mAP le 0 and h_surCAD le 0) and (h_gpAP=1 and hgaps le 0) and (h_srMI=1 or h_srAP=1 or
h_gpMI=1)) h_alg_CAD=1.
IF ((h_mAP le 0 and h_surCAD le 0) and (h_gpMI=1 and hgmis le 0) and (h_srMI=1 or h_srAP=1 or
h_gpAP=1)) h_alg_CAD=1.
IF ((h_mAP le 0 and h_surCAD le 0) and (h_srAP=1 and h_srMI le 0) and (h_gpAP=2 or h_gpMI=2))
h_alg_CAD=1.
IF ((h_mAP le 0 and h_surCAD le 0) and (h_srMI=1) and (h_gpAP=2 or h_srAP=2 or h_gpMI=2))
h_alg_CAD=1.
IF ((h_mAP le 0 and h_surCAD le 0) and (h_gpAP=1 and h_srMI le 0) and (h_srAP=2 and h_gpMI=2))
h_alg_CAD=1.
IF ((h_mAP le 0 and h_surCAD le 0) and (h_gpMI=1 and h_srMI le 0) and (h_gpAP=2 or h_srAP=2))
h_alg_CAD=1.
IF (h_mAP=1 or h_surCAD=1) h_alg_CAD=1.
VARIABLE LABELS h_alg_CAD 'H wave: coronary artery disease'.
VALUE LABELS h_alg_CAD
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****| wave*****.

*create a string variable that consists of the first 3 characters of the ATC code.

```

string i_3ATC1(a30).
COMPUTE i_3ATC1 = CHAR.SUBSTR(imatc1,1,3) .
string i_3ATC2(a30).
COMPUTE i_3ATC2 = CHAR.SUBSTR(imatc2,1,3) .
string i_3ATC3(a30).
COMPUTE i_3ATC3 = CHAR.SUBSTR(imatc3,1,3) .
string i_3ATC4(a30).
COMPUTE i_3ATC4 = CHAR.SUBSTR(imatc4,1,3) .
string i_3ATC5(a30).
COMPUTE i_3ATC5 = CHAR.SUBSTR(imatc5,1,3) .
string i_3ATC6(a30).
COMPUTE i_3ATC6 = CHAR.SUBSTR(imatc6,1,3) .
string i_3ATC7(a30).
COMPUTE i_3ATC7 = CHAR.SUBSTR(imatc7,1,3) .
string i_3ATC8(a30).

```

```
COMPUTE i_3ATC8 = CHAR.SUBSTR(imatc8,1,3) .
string i_3ATC9(a30).
COMPUTE i_3ATC9 = CHAR.SUBSTR(imatc9,1,3) .
string i_3ATC10(a30).
COMPUTE i_3ATC10 = CHAR.SUBSTR(imatc10,1,3) .
string i_3ATC11(a30).
COMPUTE i_3ATC11 = CHAR.SUBSTR(imatc11,1,3) .
string i_3ATC12(a30).
COMPUTE i_3ATC12 = CHAR.SUBSTR(imatc12,1,3) .
string i_3ATC13(a30).
COMPUTE i_3ATC13 = CHAR.SUBSTR(imatc13,1,3) .
string i_3ATC14(a30).
COMPUTE i_3ATC14 = CHAR.SUBSTR(imatc14,1,3) .
string i_3ATC15(a30).
COMPUTE i_3ATC15 = CHAR.SUBSTR(imatc15,1,3) .
string i_3ATC16(a30).
COMPUTE i_3ATC16 = CHAR.SUBSTR(imatc16,1,3) .
string i_3ATC17(a30).
COMPUTE i_3ATC17 = CHAR.SUBSTR(imatc17,1,3) .
string i_3ATC18(a30).
COMPUTE i_3ATC18 = CHAR.SUBSTR(imatc18,1,3) .
string i_3ATC19(a30).
COMPUTE i_3ATC19 = CHAR.SUBSTR(imatc19,1,3) .
string i_3ATC20(a30).
COMPUTE i_3ATC20 = CHAR.SUBSTR(imatc20,1,3) .
string i_3ATC21(a30).
COMPUTE i_3ATC21 = CHAR.SUBSTR(imatc21,1,3) .
string i_3ATC22(a30).
COMPUTE i_3ATC22 = CHAR.SUBSTR(imatc22,1,3) .
string i_3ATC23(a30).
COMPUTE i_3ATC23 = CHAR.SUBSTR(imatc23,1,3) .
string i_3ATC24(a30).
COMPUTE i_3ATC24 = CHAR.SUBSTR(imatc24,1,3) .
EXECUTE.
```

*create a string variable that consists of the first 4 characters of the ATC code.

```
string i_4ATC1(a30).
COMPUTE i_4ATC1 = CHAR.SUBSTR(imatc1,1,4) .
string i_4ATC2(a30).
COMPUTE i_4ATC2 = CHAR.SUBSTR(imatc2,1,4) .
string i_4ATC3(a30).
COMPUTE i_4ATC3 = CHAR.SUBSTR(imatc3,1,4) .
string i_4ATC4(a30).
COMPUTE i_4ATC4 = CHAR.SUBSTR(imatc4,1,4) .
string i_4ATC5(a30).
COMPUTE i_4ATC5 = CHAR.SUBSTR(imatc5,1,4) .
string i_4ATC6(a30).
COMPUTE i_4ATC6 = CHAR.SUBSTR(imatc6,1,4) .
string i_4ATC7(a30).
COMPUTE i_4ATC7 = CHAR.SUBSTR(imatc7,1,4) .
string i_4ATC8(a30).
COMPUTE i_4ATC8 = CHAR.SUBSTR(imatc8,1,4) .
```

```
string i_4ATC9(a30).
COMPUTE i_4ATC9 = CHAR.SUBSTR(imatc9,1,4) .
string i_4ATC10(a30).
COMPUTE i_4ATC10 = CHAR.SUBSTR(imatc10,1,4) .
string i_4ATC11(a30).
COMPUTE i_4ATC11 = CHAR.SUBSTR(imatc11,1,4) .
string i_4ATC12(a30).
COMPUTE i_4ATC12 = CHAR.SUBSTR(imatc12,1,4) .
string i_4ATC13(a30).
COMPUTE i_4ATC13 = CHAR.SUBSTR(imatc13,1,4) .
string i_4ATC14(a30).
COMPUTE i_4ATC14 = CHAR.SUBSTR(imatc14,1,4) .
string i_4ATC15(a30).
COMPUTE i_4ATC15 = CHAR.SUBSTR(imatc15,1,4) .
string i_4ATC16(a30).
COMPUTE i_4ATC16 = CHAR.SUBSTR(imatc16,1,4) .
string i_4ATC17(a30).
COMPUTE i_4ATC17 = CHAR.SUBSTR(imatc17,1,4) .
string i_4ATC18(a30).
COMPUTE i_4ATC18 = CHAR.SUBSTR(imatc18,1,4) .
string i_4ATC19(a30).
COMPUTE i_4ATC19 = CHAR.SUBSTR(imatc19,1,4) .
string i_4ATC20(a30).
COMPUTE i_4ATC20 = CHAR.SUBSTR(imatc20,1,4) .
string i_4ATC21(a30).
COMPUTE i_4ATC21 = CHAR.SUBSTR(imatc21,1,4) .
string i_4ATC22(a30).
COMPUTE i_4ATC22 = CHAR.SUBSTR(imatc22,1,4) .
string i_4ATC23(a30).
COMPUTE i_4ATC23 = CHAR.SUBSTR(imatc23,1,4) .
string i_4ATC24(a30).
COMPUTE i_4ATC24 = CHAR.SUBSTR(imatc24,1,4) .
EXECUTE.
```

*create a string variable that consists of the first 5 characters of the ATC code.

```
string i_5ATC1(a30).
COMPUTE i_5ATC1 = CHAR.SUBSTR(imatc1,1,5) .
string i_5ATC2(a30).
COMPUTE i_5ATC2 = CHAR.SUBSTR(imatc2,1,5) .
string i_5ATC3(a30).
COMPUTE i_5ATC3 = CHAR.SUBSTR(imatc3,1,5) .
string i_5ATC4(a30).
COMPUTE i_5ATC4 = CHAR.SUBSTR(imatc4,1,5) .
string i_5ATC5(a30).
COMPUTE i_5ATC5 = CHAR.SUBSTR(imatc5,1,5) .
string i_5ATC6(a30).
COMPUTE i_5ATC6 = CHAR.SUBSTR(imatc6,1,5) .
string i_5ATC7(a30).
COMPUTE i_5ATC7 = CHAR.SUBSTR(imatc7,1,5) .
string i_5ATC8(a30).
COMPUTE i_5ATC8 = CHAR.SUBSTR(imatc8,1,5) .
string i_5ATC9(a30).
```

```

COMPUTE i_5ATC9 = CHAR.SUBSTR(imatc9,1,5) .
string i_5ATC10(a30).
COMPUTE i_5ATC10 = CHAR.SUBSTR(imatc10,1,5) .
string i_5ATC11(a30).
COMPUTE i_5ATC11 = CHAR.SUBSTR(imatc11,1,5) .
string i_5ATC12(a30).
COMPUTE i_5ATC12 = CHAR.SUBSTR(imatc12,1,5) .
string i_5ATC13(a30).
COMPUTE i_5ATC13 = CHAR.SUBSTR(imatc13,1,5) .
string i_5ATC14(a30).
COMPUTE i_5ATC14 = CHAR.SUBSTR(imatc14,1,5) .
string i_5ATC15(a30).
COMPUTE i_5ATC15 = CHAR.SUBSTR(imatc15,1,5) .
string i_5ATC16(a30).
COMPUTE i_5ATC16 = CHAR.SUBSTR(imatc16,1,5) .
string i_5ATC17(a30).
COMPUTE i_5ATC17 = CHAR.SUBSTR(imatc17,1,5) .
string i_5ATC18(a30).
COMPUTE i_5ATC18 = CHAR.SUBSTR(imatc18,1,5) .
string i_5ATC19(a30).
COMPUTE i_5ATC19 = CHAR.SUBSTR(imatc19,1,5) .
string i_5ATC20(a30).
COMPUTE i_5ATC20 = CHAR.SUBSTR(imatc20,1,5) .
string i_5ATC21(a30).
COMPUTE i_5ATC21 = CHAR.SUBSTR(imatc21,1,5) .
string i_5ATC22(a30).
COMPUTE i_5ATC22 = CHAR.SUBSTR(imatc22,1,5) .
string i_5ATC23(a30).
COMPUTE i_5ATC23 = CHAR.SUBSTR(imatc23,1,5) .
string i_5ATC24(a30).
COMPUTE i_5ATC24 = CHAR.SUBSTR(imatc24,1,5) .
EXECUTE.

```

*create a variable: use of beta blocking agents (atc code C07, thus includes combination preparaten)
yes/no.

```
compute imed_beta=0.
```

```
If (imvar13 le -1) imed_beta=-1.
```

```
If (i_3ATC1='C07' OR i_3ATC2='C07' OR i_3ATC3='C07' OR i_3ATC4='C07' OR i_3ATC5='C07' OR  
i_3ATC6='C07' OR
```

```
i_3ATC7='C07' OR i_3ATC8='C07' OR i_3ATC9='C07' OR i_3ATC10='C07' OR i_3ATC11='C07' OR  
i_3ATC12='C07' OR i_3ATC13='C07' OR
```

```
i_3ATC14='C07' OR i_3ATC15='C07' OR i_3ATC16='C07' OR i_3ATC17='C07' OR i_3ATC18='C07' OR  
i_3ATC19='C07' OR i_3ATC20='C07' OR
```

```
i_3ATC21='C07' OR i_3ATC22='C07' OR i_3ATC23='C07' OR i_3ATC24='C07') imed_beta=1.
```

```
VARIABLE LABELS imed_beta 'use of beta blocking agents'.
```

```
VALUE LABELS imed_beta
```

```
    -1 'missing'
```

```
     0 'no'
```

```
     1 'yes'.
```

```
EXECUTE.
```

*create a variable: use of anticoagulant drugs (vitamine K antagonists, DOACs, dabigatran (atc codes B01AA, B01AF, B01AE)) yes/no.

compute imed_stolling=0.

If (imvar13 le -1) imed_stolling=-1.

If (i_5ATC1='B01AA' OR i_5ATC2='B01AA' OR i_5ATC3='B01AA' OR i_5ATC4='B01AA' OR
i_5ATC5='B01AA' OR i_5ATC6='B01AA' OR
i_5ATC7='B01AA' OR i_5ATC8='B01AA' OR i_5ATC9='B01AA' OR i_5ATC10='B01AA' OR
i_5ATC11='B01AA' OR i_5ATC12='B01AA' OR i_5ATC13='B01AA' OR
i_5ATC14='B01AA' OR i_5ATC15='B01AA' OR i_5ATC16='B01AA' OR i_5ATC17='B01AA' OR
i_5ATC18='B01AA' OR i_5ATC19='B01AA' OR i_5ATC20='B01AA' OR
i_5ATC21='B01AA' OR i_5ATC22='B01AA' OR i_5ATC23='B01AA' OR i_5ATC24='B01AA')

imed_stolling=1.

If (i_5ATC1='B01AF' OR i_5ATC2='B01AF' OR i_5ATC3='B01AF' OR i_5ATC4='B01AF' OR
i_5ATC5='B01AF' OR i_5ATC6='B01AF' OR
i_5ATC7='B01AF' OR i_5ATC8='B01AF' OR i_5ATC9='B01AF' OR i_5ATC10='B01AF' OR
i_5ATC11='B01AF' OR i_5ATC12='B01AF' OR i_5ATC13='B01AF' OR
i_5ATC14='B01AF' OR i_5ATC15='B01AF' OR i_5ATC16='B01AF' OR i_5ATC17='B01AF' OR
i_5ATC18='B01AF' OR i_5ATC19='B01AF' OR i_5ATC20='B01AF' OR
i_5ATC21='B01AF' OR i_5ATC22='B01AF' OR i_5ATC23='B01AF' OR i_5ATC24='B01AF')

imed_stolling=1.

If (i_5ATC1='B01AE' OR i_5ATC2='B01AE' OR i_5ATC3='B01AE' OR i_5ATC4='B01AE' OR
i_5ATC5='B01AE' OR i_5ATC6='B01AE' OR
i_5ATC7='B01AE' OR i_5ATC8='B01AE' OR i_5ATC9='B01AE' OR i_5ATC10='B01AE' OR
i_5ATC11='B01AE' OR i_5ATC12='B01AE' OR i_5ATC13='B01AE' OR
i_5ATC14='B01AE' OR i_5ATC15='B01AE' OR i_5ATC16='B01AE' OR i_5ATC17='B01AE' OR
i_5ATC18='B01AE' OR i_5ATC19='B01AE' OR i_5ATC20='B01AE' OR
i_5ATC21='B01AE' OR i_5ATC22='B01AE' OR i_5ATC23='B01AE' OR i_5ATC24='B01AE')

imed_stolling=1.

VARIABLE LABELS imed_stolling 'use of anticoagulants'.

VALUE LABELS imed_stolling

-1 'missing'

0 'no'

1 'yes'.

EXECUTE.

*combining anticoagulants and betablocking agents: use of both, yes/no.

compute imed_stol_beta=-3.

If (imed_stolling=-1) imed_stol_beta=-1.

If (imed_stolling=1 and imed_beta=1) imed_stol_beta=1.

If (imed_stolling=0 or imed_beta=0) imed_stol_beta=0.

VARIABLE LABELS imed_stol_beta 'use of both beta blocking agent AND anticoagulantia'.

VALUE LABELS imed_stol_beta

-1 'missing'

0 'no'

1 'yes'.

EXECUTE.

*some diuretics are combination preps and therefore (incorrectly) not included in the diuretics variable.

*C07B C07C C07D C02L C09B C09D C08G
C09AX C09CX C01AA.

*C07B C07C C07D C02L C09B C09D C08G .
If (i_4ATC1='C07B' OR i_4ATC2='C07B' OR i_4ATC3='C07B' OR i_4ATC4='C07B' OR i_4ATC5='C07B' OR
i_4ATC6='C07B' OR
i_4ATC7='C07B' OR i_4ATC8='C07B' OR i_4ATC9='C07B' OR i_4ATC10='C07B' OR i_4ATC11='C07B' OR
i_4ATC12='C07B' OR i_4ATC13='C07B' OR
i_4ATC14='C07B' OR i_4ATC15='C07B' OR i_4ATC16='C07B' OR i_4ATC17='C07B' OR i_4ATC18='C07B'
OR i_4ATC19='C07B' OR i_4ATC20='C07B' OR
i_4ATC21='C07B' OR i_4ATC22='C07B' OR i_4ATC23='C07B' OR i_4ATC24='C07B') imed_diu=1.
If (i_4ATC1='C07C' OR i_4ATC2='C07C' OR i_4ATC3='C07C' OR i_4ATC4='C07C' OR i_4ATC5='C07C' OR
i_4ATC6='C07C' OR
i_4ATC7='C07C' OR i_4ATC8='C07C' OR i_4ATC9='C07C' OR i_4ATC10='C07C' OR i_4ATC11='C07C' OR
i_4ATC12='C07C' OR i_4ATC13='C07C' OR
i_4ATC14='C07C' OR i_4ATC15='C07C' OR i_4ATC16='C07C' OR i_4ATC17='C07C' OR i_4ATC18='C07C'
OR i_4ATC19='C07C' OR i_4ATC20='C07C' OR
i_4ATC21='C07C' OR i_4ATC22='C07C' OR i_4ATC23='C07C' OR i_4ATC24='C07C') imed_diu=1.
If (i_4ATC1='C07D' OR i_4ATC2='C07D' OR i_4ATC3='C07D' OR i_4ATC4='C07D' OR i_4ATC5='C07D'
OR i_4ATC6='C07D' OR
i_4ATC7='C07D' OR i_4ATC8='C07D' OR i_4ATC9='C07D' OR i_4ATC10='C07D' OR i_4ATC11='C07D'
OR i_4ATC12='C07D' OR i_4ATC13='C07D' OR
i_4ATC14='C07D' OR i_4ATC15='C07D' OR i_4ATC16='C07D' OR i_4ATC17='C07D' OR
i_4ATC18='C07D' OR i_4ATC19='C07D' OR i_4ATC20='C07D' OR
i_4ATC21='C07D' OR i_4ATC22='C07D' OR i_4ATC23='C07D' OR i_4ATC24='C07D') imed_diu=1.
If (i_4ATC1='C02L' OR i_4ATC2='C02L' OR i_4ATC3='C02L' OR i_4ATC4='C02L' OR i_4ATC5='C02L' OR
i_4ATC6='C02L' OR
i_4ATC7='C02L' OR i_4ATC8='C02L' OR i_4ATC9='C02L' OR i_4ATC10='C02L' OR i_4ATC11='C02L' OR
i_4ATC12='C02L' OR i_4ATC13='C02L' OR
i_4ATC14='C02L' OR i_4ATC15='C02L' OR i_4ATC16='C02L' OR i_4ATC17='C02L' OR i_4ATC18='C02L'
OR i_4ATC19='C02L' OR i_4ATC20='C02L' OR
i_4ATC21='C02L' OR i_4ATC22='C02L' OR i_4ATC23='C02L' OR i_4ATC24='C02L') imed_diu=1.
If (i_4ATC1='C09B' OR i_4ATC2='C09B' OR i_4ATC3='C09B' OR i_4ATC4='C09B' OR i_4ATC5='C09B' OR
i_4ATC6='C09B' OR
i_4ATC7='C09B' OR i_4ATC8='C09B' OR i_4ATC9='C09B' OR i_4ATC10='C09B' OR i_4ATC11='C09B' OR
i_4ATC12='C09B' OR i_4ATC13='C09B' OR
i_4ATC14='C09B' OR i_4ATC15='C09B' OR i_4ATC16='C09B' OR i_4ATC17='C09B' OR i_4ATC18='C09B'
OR i_4ATC19='C09B' OR i_4ATC20='C09B' OR
i_4ATC21='C09B' OR i_4ATC22='C09B' OR i_4ATC23='C09B' OR i_4ATC24='C09B') imed_diu=1.
If (i_4ATC1='C09D' OR i_4ATC2='C09D' OR i_4ATC3='C09D' OR i_4ATC4='C09D' OR i_4ATC5='C09D'
OR i_4ATC6='C09D' OR
i_4ATC7='C09D' OR i_4ATC8='C09D' OR i_4ATC9='C09D' OR i_4ATC10='C09D' OR i_4ATC11='C09D'
OR i_4ATC12='C09D' OR i_4ATC13='C09D' OR
i_4ATC14='C09D' OR i_4ATC15='C09D' OR i_4ATC16='C09D' OR i_4ATC17='C09D' OR
i_4ATC18='C09D' OR i_4ATC19='C09D' OR i_4ATC20='C09D' OR
i_4ATC21='C09D' OR i_4ATC22='C09D' OR i_4ATC23='C09D' OR i_4ATC24='C09D') imed_diu=1.
If (i_4ATC1='C08G' OR i_4ATC2='C08G' OR i_4ATC3='C08G' OR i_4ATC4='C08G' OR i_4ATC5='C08G'
OR i_4ATC6='C08G' OR
i_4ATC7='C08G' OR i_4ATC8='C08G' OR i_4ATC9='C08G' OR i_4ATC10='C08G' OR i_4ATC11='C08G'
OR i_4ATC12='C08G' OR i_4ATC13='C08G' OR
i_4ATC14='C08G' OR i_4ATC15='C08G' OR i_4ATC16='C08G' OR i_4ATC17='C08G' OR
i_4ATC18='C08G' OR i_4ATC19='C08G' OR i_4ATC20='C08G' OR
i_4ATC21='C08G' OR i_4ATC22='C08G' OR i_4ATC23='C08G' OR i_4ATC24='C08G') imed_diu=1.
EXECUTE.

```

*C09AX C09CX C01AA.
If (i_5ATC1='C09AX' OR i_5ATC2='C09AX' OR i_5ATC3='C09AX' OR i_5ATC4='C09AX' OR
i_5ATC5='C09AX' OR i_5ATC6='C09AX' OR
i_5ATC7='C09AX' OR i_5ATC8='C09AX' OR i_5ATC9='C09AX' OR i_5ATC10='C09AX' OR
i_5ATC11='C09AX' OR i_5ATC12='C09AX' OR i_5ATC13='C09AX' OR
i_5ATC14='C09AX' OR i_5ATC15='C09AX' OR i_5ATC16='C09AX' OR i_5ATC17='C09AX' OR
i_5ATC18='C09AX' OR i_5ATC19='C09AX' OR i_5ATC20='C09AX' OR
i_5ATC21='C09AX' OR i_5ATC22='C09AX' OR i_5ATC23='C09AX' OR i_5ATC24='C09AX') imed_diu=1.
If (i_5ATC1='C09CX' OR i_5ATC2='C09CX' OR i_5ATC3='C09CX' OR i_5ATC4='C09CX' OR
i_5ATC5='C09CX' OR i_5ATC6='C09CX' OR
i_5ATC7='C09CX' OR i_5ATC8='C09CX' OR i_5ATC9='C09CX' OR i_5ATC10='C09CX' OR
i_5ATC11='C09CX' OR i_5ATC12='C09CX' OR i_5ATC13='C09CX' OR
i_5ATC14='C09CX' OR i_5ATC15='C09CX' OR i_5ATC16='C09CX' OR i_5ATC17='C09CX' OR
i_5ATC18='C09CX' OR i_5ATC19='C09CX' OR i_5ATC20='C09CX' OR
i_5ATC21='C09CX' OR i_5ATC22='C09CX' OR i_5ATC23='C09CX' OR i_5ATC24='C09CX') imed_diu=1.
If (i_5ATC1='C01AA' OR i_5ATC2='C01AA' OR i_5ATC3='C01AA' OR i_5ATC4='C01AA' OR
i_5ATC5='C01AA' OR i_5ATC6='C01AA' OR
i_5ATC7='C01AA' OR i_5ATC8='C01AA' OR i_5ATC9='C01AA' OR i_5ATC10='C01AA' OR
i_5ATC11='C01AA' OR i_5ATC12='C01AA' OR i_5ATC13='C01AA' OR
i_5ATC14='C01AA' OR i_5ATC15='C01AA' OR i_5ATC16='C01AA' OR i_5ATC17='C01AA' OR
i_5ATC18='C01AA' OR i_5ATC19='C01AA' OR i_5ATC20='C01AA' OR
i_5ATC21='C01AA' OR i_5ATC22='C01AA' OR i_5ATC23='C01AA' OR i_5ATC24='C01AA') imed_diu=1.
EXECUTE.

```

```

*****year of interview (2015 or 2016).
COMPUTE t9_year=XDATE.YEAR(t9_dat).
VARIABLE LABELS t9_year "LASA main interview year (w9)".
VARIABLE LEVEL t9_year(SCALE).
FORMATS t9_year(F8.0).
VARIABLE WIDTH t9_year(8).
EXECUTE.

```

```

*****ARRHYTHMIA (ARI) at I*****.

```

```

*Selfreport surgery implantation of pacemaker.
COMPUTE i_surARI=-3.
IF (ihart15d le -1) i_surARI=-1.
IF (ihart01 le -1) i_surARI=-1.
IF (ihart15 le -1) i_surARI=-1.
IF (ihart01=0 or ihart01=1) i_surARI=0.
IF (ihart15d=0) i_surARI=0.
IF (ihart15=1) i_surARI=0.
IF (ihart15d=1) i_surARI=1.
VARIABLE LABELS i_surARI 'self report surgery: pacemaker'.
VALUE LABELS i_surARI
    -1 'missing'
    0 'no'
    1 'yes'.

```

```

*use of anti arrhythmic medication.
RECODE imed_ARI (0=0) (1=1) (SYSMIS=-1) (-9=-1) (ELSE=copy) INTO i_mARI.
IF (imed_ino=1) i_mARI=1.
IF (imvar13=1) i_mARI=0.

```

```

IF (imvar13 le -1) i_mARI=-1.
VARIABLE LABELS i_mARI 'use of antiarrhythmics'.
VALUE LABELS i_mARI
    -1 'missing'
    0 'no'
    1 'yes'.

```

*GP diagnosis of ARI.

```

COMPUTE i_gpARI=-3.
IF (hgarrth le -1) i_gpARI=-1.
IF (t9_year le -1) i_gpARI=-1.
IF (hgarrth=0) i_gpARI=0.
IF (hgarrth=1 and hgarrthy ge 9) i_gpARI=0.
IF (hgarrth=1 and hgarrthy ge 8 and t9_year=2015) i_gpARI=0.
IF (hgarrth=1 and (hgarrthy ge 1 and hgarrthy le 7)) i_gpARI=1.
IF (hgarrth=1 and (hgarrthy=8 and t9_YEAR=2016)) i_gpARI=1.
IF (hgarrth=1 and hgarrthy le -1) i_gpARI=2.
IF (hgarrth=1 and hgarrthy=1) i_gpARI=1.
IF (fgarrth=1) i_gpARI=1.
IF (egarrth=1) i_gpARI=1..
VARIABLE LABELS i_gpARI 'gp diagnosis: cardiac arrhythmia'.
VALUE LABELS i_gpARI
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*ARI algorithm: medication, GP diagnosis and SR implantation of pacemaker combined.

```

compute i_alg_ARI=-3.
IF (i_mARI=1) i_alg_ARI=1.
IF (i_mARI=0 and i_gpARI=1 and (imed_stol_beta=1)) i_alg_ARI=1.
IF (i_mARI=0 and i_gpARI=1 and (imed_stol_beta=0) and (egarrths=1 or fgarrths=1 or hgarrths=1))
i_alg_ARI=1.
IF (i_mARI=0 and i_gpARI=1 and (imed_stol_beta=0) and hgarrths le 0 and i_surARI=1) i_alg_ARI=1.
IF (i_mARI=0 and i_gpARI=1 and (imed_stol_beta=0) and hgarrths le 0 and i_surARI le 0) i_alg_ARI=2.
IF (i_mARI=0 and i_gpARI=0 and i_surARI=1) i_alg_ARI=3.
IF (i_mARI=0 and i_gpARI=0 and i_surARI le 0) i_alg_ARI=0.
IF (i_mARI=0 and i_gpARI=2 and (imed_stol_beta=1)) i_alg_ARI=1.
IF (i_mARI=0 and i_gpARI=2 and (imed_stol_beta=0) and i_surARI=1) i_alg_ARI=1.
IF (i_mARI=0 and i_gpARI=2 and (imed_stol_beta=0) and i_surARI le 0) i_alg_ARI=0.
IF (i_mARI=0 and i_gpARI=2 and (imed_stol_beta=0) and i_surARI le -1) i_alg_ARI=0.
IF (i_mARI=0 and i_gpARI=-1 and i_surARI=1) i_alg_ARI=2.
IF (i_mARI=0 and i_gpARI=-1 and (imed_stol_beta=0) and i_surARI=0) i_alg_ARI=0.
IF (i_mARI=0 and i_gpARI=-1 and (imed_stol_beta=0) and i_surARI le -1) i_alg_ARI=-1.
IF (i_mARI=0 and i_gpARI=-1 and (imed_stol_beta=1) and i_surARI le 0) i_alg_ARI=-1.
IF (i_mARI le -1 and i_gpARI=1 and (egarrths=1 or fgarrths=1 or hgarrths=1)) i_alg_ARI=1.
IF (i_mARI le -1 and i_gpARI=1 and hgarrths le 0 and i_surARI=1) i_alg_ARI=1.
IF (i_mARI le -1 and i_gpARI=1 and hgarrths le 0 and i_surARI le 0) i_alg_ARI=2.
IF (i_mARI le -1 and i_gpARI=0 and i_surARI=1) i_alg_ARI=3.
IF (i_mARI le -1 and i_gpARI=0 and i_surARI le 0) i_alg_ARI=0.
IF (i_mARI le -1 and i_gpARI=2 and i_surARI=1) i_alg_ARI=1.
IF (i_mARI le -1 and i_gpARI=2 and i_surARI le 0) i_alg_ARI=-1.

```

```

IF (i_mARI le -1 and i_gpARI le -1 and i_surARI=1) i_alg_ARI=2.
IF (i_mARI le -1 and i_gpARI le -1 and i_surARI le 0) i_alg_ARI=-1.
IF (i_alg_ARI=-1 and (itrhart1=0 or itphart1=0)) i_alg_ARI=0.
VARIABLE LABELS i_alg_ARI 'I wave: arrhythmia'.
VALUE LABELS i_alg_ARI
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****CEREBROVASCULAR ACCIDENT (CVA) at I*****.

*Selfreport diagnosis of CVA.

```

COMPUTE i_srCVA=-3.
IF (icva01=2 or icva01=3) i_srCVA=1.
IF (icva01=0 or icva01=1) i_srCVA=0.
IF (itpcva01=1) i_srCVA=1.
IF (itpcva01=0) i_srCVA=0.
IF (itrcva01=1) i_srCVA=1.
IF (itrcva01=0) i_srCVA=0.
IF (icva01 le -1 and itpcva01 le -1 and itrcva01 le -1) i_srCVA=-1.
VARIABLE LABELS i_srCVA 'self report: CVA'.
VALUE LABELS i_srCVA
    -1 'missing'
    0 'no'
    1 'yes'.

```

*GP diagnosis of CVA.

```

COMPUTE i_gpCVA=-3.
IF (hgcva le -1) i_gpCVA=-1.
IF (t9_year le -1) i_gpCVA=-1.
IF (hgcva=0) i_gpCVA=0.
IF (hgcva=1 and hgcvey ge 9) i_gpCVA=0.
IF (hgcva=1 and hgcvey ge 8 and t9_year=2015) i_gpCVA=0.
IF (hgcva=1 and (hgcvey ge 1 and hgcvey le 7)) i_gpCVA=1.
IF (hgcva=1 and (hgcvey=8 and t9_YEAR=2016)) i_gpCVA=1.
IF (hgcva=1 and hgcvey le -1) i_gpCVA=2.
IF (hgcva=1 and hgcvey=1) i_gpCVA=1.
IF (fgcva=1) i_gpCVA=1.
IF (egcva=1) i_gpCVA=1.
VARIABLE LABELS i_gpCVA 'gp diagnosis: CVA'.
VALUE LABELS i_gpCVA
    -2 'dropout'
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*CVA algorithm: GP diagnosis and SR combined.

```

COMPUTE i_alg_CVA=-3.
IF (i_gpCVA=1 and (egcvas=1 or fgcvas=1 or hgcvas=1)) i_alg_CVA=1.
IF (i_gpCVA=1 and hgcvas le 0 and i_srCVA=1) i_alg_CVA=1.

```

```

IF (i_gpCVA=1 and hgcvas le 0 and i_srCVA=0) i_alg_CVA=3.
IF (i_gpCVA=1 and hgcvas le 0 and i_srCVA le -1) i_alg_CVA=2.
IF (i_gpCVA=0 and i_srCVA=1) i_alg_CVA=3.
IF (i_gpCVA=0 and i_srCVA=0) i_alg_CVA=0.
IF (i_gpCVA=0 and i_srCVA le -1) i_alg_CVA=0.
IF (i_gpCVA=2 and i_srCVA=1) i_alg_CVA=1.
IF (i_gpCVA=2 and i_srCVA=0) i_alg_CVA=0.
IF (i_gpCVA=2 and i_srCVA le -1) i_alg_CVA=-1.
IF (i_gpCVA le -1 and i_srCVA=1) i_alg_CVA=2.
IF (i_gpCVA le -1 and i_srCVA=0) i_alg_CVA=0.
IF (i_gpCVA le -1 and i_srCVA le -1) i_alg_CVA=-1.
VARIABLE LABELS i_alg_CVA 'I wave: cerebrovascular accident'.
VALUE LABELS i_alg_CVA
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****MYOCARDIAL INFARCTION (MI) at I*****.

*Selfreport diagnosis of MI.

```

COMPUTE i_srMI=-5.
IF (ihart01 le -1) i_srMI=-1.
IF ((ihart01=2 or ihart01=3) and ihart05 le -1) i_srMI=-1.
IF (ihart05=1) i_srMI=0.
IF (ihart01=0 or ihart01=1) i_srMI=0.
IF (ihart05=2) i_srMI=1.
IF (itphart1=0 or itrhart1=0) i_srMI=0.
VARIABLE LABELS i_srMI 'self report: myocardial infarction'.
VALUE LABELS i_srMI
    -1 'missing'
    0 'no'
    1 'yes'.

```

*GP diagnosis of MI.

```

COMPUTE i_gpMI=-3.
IF (hgmiy le -1) i_gpMI=-1.
IF (t9_year le -1) i_gpMI=-1.
IF (hgmi=0) i_gpMI=0.
IF (hgmi=1 and hgmiy ge 9) i_gpMI=0.
IF (hgmi=1 and hgmiy ge 8 and t9_year=2015) i_gpMI=0.
IF (hgmi=1 and (hgmiy ge 1 and hgmiy le 7)) i_gpMI=1.
IF (hgmi=1 and (hgmiy=8 and t9_YEAR=2016)) i_gpMI=1.
IF (hgmi=1 and hgmiy le -1) i_gpMI=2.
IF (hgmi=1 and hgmiy=1) i_gpMI=1.
IF (fgmi=1) i_gpMI=1.
IF (egmi=1) i_gpMI=1.
VARIABLE LABELS i_gpMI 'gp diagnosis: MI'.
VALUE LABELS i_gpMI
    -2 'dropout'
    -1 'missing'

```

0 'no'
1 'yes'
2 'diagnose = yes, but year = missing'.

*MI algorithm: GP diagnosis and SR combined.

```
COMPUTE i_alg_MI=-3.  
IF (i_gpMI=1 and (egmis=1 or fgmis=1 or hgmis=1)) i_alg_MI=1.  
IF (i_gpMI=1 and hgmis le 0 and i_srMI=1) i_alg_MI=1.  
IF (i_gpMI=1 and hgmis le 0 and i_srMI=0) i_alg_MI=3.  
IF (i_gpMI=1 and hgmis le 0 and i_srMI le -1) i_alg_MI=2.  
IF (i_gpMI=0 and i_srMI=1) i_alg_MI=3.  
IF (i_gpMI=0 and i_srMI=0) i_alg_MI=0.  
IF (i_gpMI=0 and i_srMI le -1) i_alg_MI=0.  
IF (i_gpMI=2 and i_srMI=1) i_alg_MI=1.  
IF (i_gpMI=2 and i_srMI=0) i_alg_MI=0.  
IF (i_gpMI=2 and i_srMI le -1) i_alg_MI=-1.  
IF (i_gpMI le -1 and i_srMI=1) i_alg_MI=2.  
IF (i_gpMI le -1 and i_srMI=0) i_alg_MI=0.  
IF (i_gpMI le -1 and i_srMI le -1) i_alg_MI=-1.  
VARIABLE LABELS i_alg_MI 'I wave: myocardial infarction'.  
VALUE LABELS i_alg_MI  
    -1 'missing'  
    0 'no'  
    1 'definite'  
    2 'possible'  
    3 'contradictory'.
```

*****ANGINA PECTORIS (AP) at I*****.

*Selfreport diagnosis of AP.

```
COMPUTE i_srAP=-5.  
IF (ihart01 le -1) i_srAP=-1.  
IF ((ihart01=2 or ihart01=3) and ihart10 le -1) i_srAP=-1.  
IF (ihart01=0 or ihart01=1) i_srAP=0.  
IF (ihart11=1 or idiabe12=1) i_srAP=0.  
if (((ihart01=2 or ihart01=3) and ihart10=1) OR ((idiabe01=2 or idiabe01=3) and idiabe11=1))  
i_srAP=0.  
IF (((ihart01=2 or ihart01=3) and ihart10 ge 4) OR ((idiabe01=2 or idiabe01=3) and idiabe11 ge 4))  
i_srAP=0.  
IF (((ihart01=2 or ihart01=3) and ihart10=2 and ihart11 le -1) OR ((idiabe01=2 or idiabe01=3) and  
idiabe11=2 and idiabe12 le -1)) i_srAP=2.  
IF (ihart11=2 or idiabe12=2) i_srAP=1.  
IF (ihart10=3 or idiabe11=3) i_srAP=1.  
IF (itphart1=0 or itrhart1=0) i_srAP=0.  
VARIABLE LABELS i_srAP 'self report: angina pectoris'.  
VALUE LABELS i_srAP  
    -1 'missing'  
    0 'no'  
    1 'yes'  
    2 'possible'.
```

*GP diagnosis of AP.

```

COMPUTE i_gpAP=-3.
IF (hgap le -1) i_gpAP=-1.
IF (t9_year le -1) i_gpAP=-1.
IF (hgap=0) i_gpAP=0.
IF (hgap=1 and hgapy ge 9) i_gpAP=0.
IF (hgap=1 and hgapy ge 8 and t9_year=2015) i_gpAP=0.
IF (hgap=1 and (hgapy ge 1 and hgapy le 7)) i_gpAP=1.
IF (hgap=1 and (hgapy=8 and t9_YEAR=2016)) i_gpAP=1.
IF (hgap=1 and hgapy le -1) i_gpAP=2.
IF (hgap=1 and hgapy=1) i_gpAP=1.
IF (fgap=1) i_gpAP=1.
IF (egap=1) i_gpAP=1.
VARIABLE LABELS i_gpAP 'gp diagnosis: angina pectoris'.
VALUE LABELS i_gpAP
    -2 'dropout'
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*use of AP medication: nitrates.

```

RECODE imed_ang (0=0) (1=1) (SYSMIS=-1) (-9=-1) (ELSE=copy) INTO i_mAP.
IF (imvar13 le -1) i_mAP=-1.
IF (imvar13=1) i_mAP=0.
VARIABLE LABELS i_mAP 'use of nitrates'.
VALUE LABELS i_mAP
    -1 'missing'
    0 'no'
    1 'yes'.

```

*AP algorithm: medication, GP diagnosis and SR combined.

```

COMPUTE i_alg_AP=-3.
IF (i_mAP=1) i_alg_AP=1.
IF (i_mAP le 0 and i_srAP=1 and i_gpAP=1) i_alg_AP=1.
IF (i_mAP le 0 and i_srAP=1 and i_gpAP=0) i_alg_AP=3.
IF (i_mAP le 0 and i_srAP=1 and i_gpap=2) i_alg_AP=1.
IF (i_mAP le 0 and i_srAP=1 and i_gpAP le -1) i_alg_AP=2.
IF (i_mAP le 0 and i_srAP=0 and i_gpAP=1 and (egaps=1 or fgaps=1 or hgaps=1)) i_alg_AP=1.
IF (i_mAP le 0 and i_srAP=0 and i_gpAP=1 and hgaps le 0) i_alg_AP=3.
IF (i_mAP le 0 and i_srAP=0 and i_gpAP=0) i_alg_AP=0.
IF (i_mAP le 0 and i_srAP=0 and i_gpap=2) i_alg_AP=0.
IF (i_mAP le 0 and i_srAP=0 and i_gpAP le -1) i_alg_AP=0.
IF (i_mAP le 0 and i_srAP=2 and i_gpAP=1) i_alg_AP=1.
IF (i_mAP le 0 and i_srAP=2 and i_gpAP=0) i_alg_AP=0.
IF (i_mAP le 0 and i_srAP=2 and i_gpAP=2) i_alg_AP=-1.
IF (i_mAP le 0 and i_srAP=2 and i_gpap=-1) i_alg_AP=-1.
IF (i_mAP le 0 and i_srAP le -1 and i_gpAP=1 and (egaps=1 or fgaps=1 or hgaps=1)) i_alg_AP=1.
IF (i_mAP le 0 and i_srAP le -1 and i_gpAP=1 and hgaps le 0) i_alg_AP=2.
IF (i_mAP le 0 and i_srAP le -1 and i_gpAP=0) i_alg_AP=0.
IF (i_mAP le 0 and i_srAP le -1 and i_gpap=2) i_alg_AP=-1.
IF (i_mAP le 0 and i_srAP le -1 and i_gpAP le -1) i_alg_AP=-1.
VARIABLE LABELS i_alg_AP 'I wave: angina pectoris'.

```

```
VALUE LABELS i_alg_AP
  -1 'missing'
  0 'no'
  1 'definite'
  2 'possible'
  3 'contradictory'.
```

*****CONGESTIVE HEART FAILURE (CHF) at I*****.

*Selfreport diagnosis of CHF.

```
COMPUTE i_srCHF=-3.
```

```
IF (ihart01 le -1) i_srCHF=-1.
```

```
IF ((ihart01=2 or ihart01=3) and ihart12 le -1) i_srCHF=-1.
```

```
IF (ihart01=0 or ihart01=1) i_srCHF=0.
```

```
IF ((ihart01=2 or ihart01=3) and ihart12=1) i_srCHF=0.
```

```
IF ((ihart01=2 or ihart01=3) and ihart12=2) i_srCHF=1.
```

```
IF (itphart1=0 or itrhart1=0) i_srCHF=0.
```

```
VARIABLE LABELS i_srCHF 'self reported diagnosis of congestive heart failure'.
```

```
VALUE LABELS i_srCHF
```

```
  -1 'missing'
```

```
  0 'no'
```

```
  1 'yes'.
```

*GP diagnosis of CHF.

```
COMPUTE i_gpCHF=-3.
```

```
IF (hgchf le -1) i_gpCHF=-1.
```

```
IF (t9_year le -1) i_gpCHF=-1.
```

```
IF (hgchf=0) i_gpCHF=0.
```

```
IF (hgchf=1 and hgchfy ge 9) i_gpCHF=0.
```

```
IF (hgchf=1 and hgchfy ge 8 and t9_year=2015) i_gpCHF=0.
```

```
IF (hgchf=1 and (hgchfy ge 1 and hgchfy le 7)) i_gpCHF=1.
```

```
IF (hgchf=1 and (hgchfy=8 and t9_YEAR=2016)) i_gpCHF=1.
```

```
IF (hgchf=1 and hgchfy le -1) i_gpCHF=2.
```

```
IF (hgchf=1 and hgchfy=1) i_gpCHF=1.
```

```
IF (fgchf=1) i_gpCHF=1.
```

```
IF (egchf=1) i_gpCHF=1.
```

```
VARIABLE LABELS i_gpCHF 'gp diagnosis: congestive heart failure'.
```

```
VALUE LABELS i_gpCHF
```

```
  -2 'dropout'
```

```
  -1 'missing'
```

```
  0 'no'
```

```
  1 'yes'
```

```
  2 'diagnose = yes, but year = missing'.
```

*CHF medication: diuretics, antihypertensives, nitrates, inotropics, beta blocking agents.

```
compute i_mCHF=0.
```

```
if (imed_diu=1 and (imed_hyp=1 or imed_ang=1 or imed_ino=1 or imed_beta=1)) i_mCHF=1.
```

```
IF (imvar13 le -1) i_mCHF=-1.
```

```
IF (imvar13=1) i_mCHF=0.
```

```
VARIABLE LABELS i_mCHF 'medication for congestive heart failure'.
```

```
VALUE LABELS i_mCHF
```

```
  -1 'missing'
```

```
  0 'no'
```

1 'yes'.

*CHF algorithm: medication, GP diagnosis and SR combined.

COMPUTE i_alg_CHF=-3.

IF (i_gpCHF=1 and (egchfs=1 or fgchfs=1 or hgchfs=1)) i_alg_CHF=1.

IF (i_gpCHF=1 and hgchfs le 0 and i_srCHF=1) i_alg_CHF=1.

IF (i_gpCHF=1 and hgchfs le 0 and i_srCHF le 0 and i_mCHF=1) i_alg_CHF=1.

IF (i_gpCHF=1 and hgchfs le 0 and i_srCHF=0 and i_mCHF=0) i_alg_CHF=2.

IF (i_gpCHF=1 and hgchfs le 0 and i_srCHF le 0 and i_mCHF le -1) i_alg_CHF=2.

IF (i_gpCHF=1 and hgchfs le 0 and i_srCHF le -1 and i_mCHF le 0) i_alg_CHF=2.

IF (i_gpCHF=0 and i_srCHF=1 and i_mCHF=1) i_alg_CHF=1.

IF (i_gpCHF=0 and i_srCHF=1 and i_mCHF le 0) i_alg_CHF=2.

IF (i_gpCHF=0 and i_srCHF le 0 and i_mCHF=1) i_alg_CHF=3.

IF (i_gpCHF=0 and i_srCHF le 0 and i_mCHF le 0) i_alg_CHF=0.

IF (i_gpCHF=2 and i_srCHF=1) i_alg_CHF=1.

IF (i_gpCHF=2 and i_srCHF le 0 and i_mCHF=1) i_alg_CHF=1.

IF (i_gpCHF=2 and i_srCHF le 0 and i_mCHF le 0) i_alg_CHF=0.

IF (i_gpCHF=2 and i_srCHF=0 and i_mCHF=-1) i_alg_CHF=-1.

IF (i_gpCHF=2 and i_srCHF le -1 and i_mCHF le -1) i_alg_CHF=-1.

IF (i_gpCHF le -1 and i_srCHF=1 and i_mCHF=1) i_alg_CHF=1.

IF (i_gpCHF le -1 and i_srCHF=1 and i_mCHF le 0) i_alg_CHF=2.

IF (i_gpCHF le -1 and i_srCHF=0 and i_mCHF=1) i_alg_CHF=2.

IF (i_gpCHF le -1 and i_srCHF=0 and i_mCHF le 0) i_alg_CHF=0.

IF (i_gpCHF le -1 and i_srCHF le -1 and i_mCHF=1) i_alg_CHF=2.

IF (i_gpCHF le -1 and i_srCHF le -1 and i_mCHF=0) i_alg_CHF=0.

IF (i_gpCHF le -1 and i_srCHF le -1 and i_mCHF le -1) i_alg_CHF=-1.

VARIABLE LABELS i_alg_CHF 'I wave: congestive heart failure'.

VALUE LABELS i_alg_CHF

-1 'missing'

0 'no'

1 'definite'

2 'possible'

3 'contradictory'.

*****PERIPHERAL ARTERIAL DISEASE (PAD) at *****.

*Selfreport diagnosis of PAD.

COMPUTE i_srPAD=-5.

IF (iartvei1 le -1) i_srPAD=-1.

IF ((iartvei1=2 or iartvei1=3) and iartvei5 le -1) i_srPAD=-1.

IF (iartvei1=0 or iartvei1=1) i_srPAD=0.

IF (iartvei7=1 or idiabe09=1) i_srPAD=0.

IF (iartvei5=1 or idiabe07=1) i_srPAD=0.

IF ((iartvei5=2 and iartvei7 le -1) or (idiabe07=2 and idiabe09 le -1)) i_srPAD=2.

IF (iartvei7=2 or idiabe09=2) i_srPAD=1.

IF (itpartv1=0 OR itrartv1=0) i_srPAD=0.

IF (itpartv1=1 OR itrartv1=1) i_srPAD=2.

IF (iartvei1 le -1 and itpartv1 le -1 and itrartv1 le -1) i_srPAD=-1.

VARIABLE LABELS i_srPAD 'self reported diagnosis of peripheral artery disease'.

VALUE LABELS i_srPAD

-1 'missing'

0 'no'

1 'yes'

2 'possible'.

*Selfreport surgery.

```
COMPUTE i_surPAD=-3.  
IF (iartvei1 le -1) i_surPAD=-1.  
IF ((iartvei1=2 or iartvei1=3) and iartve8 le -1) i_surPAD=-1.  
IF (iartve8=1) i_surPAD=0.  
IF ((iartve8c=0 AND iartve8d=0) AND (iartve8b le 0)) i_surPAD=0.  
IF (iartvei1=0 or iartvei1=1) i_surPAD=0.  
IF ((iartve8c le 0 AND iartve8d le 0) AND (iartve8b=1)) i_surPAD=2.  
IF (iartve8c=1 OR iartve8d=1) i_surPAD=1.  
VARIABLE LABELS i_surPAD 'self reported surgery of peripheral arteries'.  
VALUE LABELS i_surPAD  
    -1 'missing'  
    0 'no'  
    1 'yes'  
    2 'possible'.
```

*GP diagnosis of PAD.

```
COMPUTE i_gpPAD=-3.  
IF (hgartvei le -1) i_gpPAD=-1.  
IF (t9_year le -1) i_gpPAD=-1.  
IF (hgartvei=0) i_gpPAD=0.  
IF (hgartvei=1 and hgartvey ge 9) i_gpPAD=0.  
IF (hgartvei=1 and hgartvey ge 8 and t9_year=2015) i_gpPAD=0.  
IF (hgartvei=1 and (hgartvey ge 1 and hgartvey le 7)) i_gpPAD=1.  
IF (hgartvei=1 and (hgartvey=8 and t9_YEAR=2016)) i_gpPAD=1.  
IF (hgartvei=1 and hgartvey le -1) i_gpPAD=2.  
IF (hgartvei=1 and hgartvey=1) i_gpPAD=1.  
IF (fgartvei=1) i_gpPAD=1.  
IF (egartvei=1) i_gpPAD=1.  
VARIABLE LABELS i_gpPAD 'gp diagnosis: PAD'.  
VALUE LABELS i_gpPAD  
    -2 'dropout'  
    -1 'missing'  
    0 'no'  
    1 'yes'  
    2 'diagnose = yes, but year = missing'.
```

*PAD algorithm: medication, GP diagnosis, SR and surgery combined.

```
COMPUTE i_alg_PAD=-3.  
IF (i_surPAD=1) i_alg_PAD=1.  
IF (i_surPAD le 0 and i_gpPAD=1 and (egartves=1 or fgartves=1 or hgartves=1)) i_alg_PAD=1.  
IF (i_surPAD le 0 and i_gpPAD=1 and hgartves le 0 and i_srPAD=1) i_alg_PAD=1.  
IF (i_surPAD le 0 and i_gpPAD=1 and hgartves le 0 and i_srPAD=0) i_alg_PAD=3.  
IF (i_surPAD le 0 and i_gpPAD=1 and hgartves le 0 and i_srPAD le -1) i_alg_PAD=2.  
IF (i_surPAD le 0 and i_gpPAD=1 and hgartves le 0 and i_srPAD=2) i_alg_PAD=1.  
IF (i_surPAD le 0 and i_gpPAD=0 and i_srPAD=1) i_alg_PAD=3.  
IF (i_surPAD le 0 and i_gpPAD=0 and i_srPAD=0) i_alg_PAD=0.  
IF (i_surPAD le 0 and i_gpPAD=0 and i_srPAD le -1) i_alg_PAD=0.  
IF (i_surPAD le 0 and i_gpPAD=0 and i_srPAD=2) i_alg_PAD=0.  
IF (i_surPAD le 0 and i_gpPAD=2 and i_srPAD=1) i_alg_PAD=1.
```

```

IF (i_surPAD le 0 and i_gpPAD=2 and i_srPAD=0) i_alg_PAD=0.
IF (i_surPAD le 0 and i_gpPAD=2 and i_srPAD le -1) i_alg_PAD=-1.
IF (i_surPAD le 0 and i_gpPAD=2 and i_srPAD=2) i_alg_PAD=1.
IF (i_surPAD le 0 and i_gpPAD le -1 and i_srPAD=1) i_alg_PAD=2.
IF (i_surPAD le 0 and i_gpPAD le -1 and i_srPAD=0) i_alg_PAD=0.
IF (i_surPAD le 0 and i_gpPAD le -1 and i_srPAD le -1) i_alg_PAD=-1.
IF (i_surPAD le 0 and i_gpPAD le -1 and i_srPAD=2) i_alg_PAD=-1.
IF (i_surPAD=2 and i_gpPAD=1) i_alg_PAD=1.
IF (i_surPAD=2 and i_gpPAD=0 and i_srPAD=1) i_alg_PAD=1.
IF (i_surPAD=2 and i_gpPAD=0 and i_srPAD=0) i_alg_PAD=0.
IF (i_surPAD=2 and i_gpPAD=0 and i_srPAD le -1) i_alg_PAD=0.
IF (i_surPAD=2 and i_gpPAD=0 and i_srPAD=2) i_alg_PAD=3.
IF (i_surPAD=2 and i_gpPAD=2 and i_srPAD=1) i_alg_PAD=1.
IF (i_surPAD=2 and i_gpPAD le -1 and i_srPAD=1) i_alg_PAD=1.
IF (i_surPAD=2 and i_gpPAD le -1 and i_srPAD=0) i_alg_PAD=0.
IF (i_surPAD=2 and i_gpPAD le -1 and i_srPAD le -1) i_alg_PAD=-1.
IF (i_surPAD=2 and i_gpPAD le -1 and i_srPAD=2) i_alg_PAD=-1.
VARIABLE LABELS i_alg_PAD 'I wave algorithm: peripheral artery disease'.
VALUE LABELS i_alg_PAD
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****CORONARY ARTERY DISEASE (CAD) at I*****.

*CAD Selfreport surgery.

```

COMPUTE i_surCAD=-3.
IF ((ihart01=2 or ihart01=3) and ihart15 le -1) i_surCAD=-1.
IF (ihart01 le -1) i_surCAD=-1.
IF (ihart15b le -1 AND ihart15c le -1) i_surCAD=-1.
IF (ihart15b=0 AND ihart15c=0) i_surCAD=0.
IF (ihart15=1) i_surCAD=0.
IF (ihart01=0 or ihart01=1) i_surCAD=0.
IF (ihart15b=1 OR ihart15c=1) i_surCAD=1.
VARIABLE LABELS i_surCAD 'self reported surgery of coronary arteries'.
VALUE LABELS i_surCAD
    -1 'missing'
    0 'no'
    1 'yes'.

```

*CAD selfreport (=Selfreport of AP or MI).

```

COMPUTE i_srCAD=-5.
IF (ihart01 le -1) i_srCAD=-1.
IF (i_srMI=0 AND i_srAP=2) i_srCAD=-1.
IF (i_srMI=0 AND i_srAP le -1) i_srCAD=-1.
IF (i_srMI le -1 AND i_srAP=0) i_srCAD=-1.
IF (i_srMI le -1 AND i_srAP=2) i_srCAD=-1.
IF (i_srMI le -1 AND i_srAP le -1) i_srCAD=-1.
IF (i_srMI=0 AND i_srAP=0) i_srCAD=0.
IF (ihart01=0 or ihart01=1) i_srCAD=0.
IF (i_srMI le -1 AND i_srAP=1) i_srCAD=1.

```

```

IF (i_srMI=1) i_srCAD=1.
IF (i_srAP=1) i_srCAD=1.
IF (itphart1=0 or itrhart1=0) i_srCAD=0.
VARIABLE LABELS i_srCAD 'self report: myocardial infarction OR angina pectoris'.
VALUE LABELS i_srCAD
    -1 'missing'
    0 'no'
    1 'yes'.

```

*GP diagnosis of CAD (gp diagnosis of AP or MI).

```

COMPUTE i_gpCAD=-5.
IF (i_gpMI le -1 AND i_gpAP=0) i_gpCAD=-1.
IF (i_gpMI=0 AND i_gpAP le -1) i_gpCAD=-1.
IF (i_gpMI le -1 AND i_gpAP le -1) i_gpCAD=-1.
IF (i_gpMI=0 AND i_gpAP=0) i_gpCAD=0.
IF (i_gpMI=0 AND i_gpAP=2) i_gpCAD=2.
IF (i_gpMI le -1 AND i_gpAP=2) i_gpCAD=2.
IF (i_gpMI=2 AND i_gpAP=0) i_gpCAD=2.
IF (i_gpMI=2 AND i_gpAP=2) i_gpCAD=2.
IF (i_gpMI=2 AND i_gpAP le -1) i_gpCAD=2.
IF (i_gpMI=1) i_gpCAD=1.
IF (i_gpAP=1) i_gpCAD=1.
IF (t9_year le -1) i_gpCAD=-2.
VARIABLE LABELS i_gpCAD 'self report: myocardial infarction OR angina pectoris'.
VALUE LABELS i_gpCAD
    -2 'dropout'
    -1 'missing'
    0 'no'
    1 'yes'
    2 'diagnose = yes, but year = missing'.

```

*CAD algorithm: medication, GP diagnosis, SR and surgery combined.

```

COMPUTE i_alg_CAD=-3.
IF (i_mAP le 0 and i_surCAD le 0 and i_srMI le 0 and (i_srAP le 0 or i_srAP=2) and i_gpMI le 0)
i_alg_CAD=0.
IF (i_mAP le -1 and i_surCAD le -1 and i_srMI le -1 and i_srAP le -1 and i_gpAP le -1 and i_gpMI le -1)
i_alg_CAD=-1.
IF (i_mAP=0 and i_surCAD=0 and i_srMI=0 and i_srAP=0 and i_gpAP=0 and i_gpMI=0) i_alg_CAD=0.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_srAP=1 and (i_srMI le 0 and i_gpAP le 0 and i_gpMI le 0)))
i_alg_CAD=3.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_srMI=1 and (i_srAP le 0 and i_gpAP le 0 and i_gpMI le 0)))
i_alg_CAD=3.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_gpAP=1 and hgaps le 0 and (i_gpMI le 0 or i_gpMI=2) and
i_srAP le 0 and i_srMI le 0)) i_alg_CAD=3.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_gpMI=1 and hgmis le 0 and (i_gpAP le 0 or i_gpAP=2) and
i_srAP le 0 and i_srMI le 0)) i_alg_CAD=3.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_srAP=1 and (i_srMI le -1 and i_gpAP le -1 and i_gpMI le -1)))
i_alg_CAD=2.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_srMI=1 and (i_srAP le -1 and i_gpAP le -1 and i_gpMI le -1)))
i_alg_CAD=2.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_gpAP=1 and hgaps le 0 and i_gpMI le -1 and i_srAP le -1 and
i_srMI le -1)) i_alg_CAD=2.

```

```

IF ((i_mAP le 0 and i_surCAD le 0) and (i_gpMI=1 and hgmis le 0 and i_gpAP le -1 and i_srAP le -1 and
i_srMI le -1)) i_alg_CAD=2.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_gpAP=2 and (i_gpMI le 0 or i_gpMI=2) and (i_srAP le 0 or
i_srAP=2) and i_srMI le 0)) i_alg_CAD=0.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_gpMI=2 and (i_gpAP le 0 or i_gpAP=2) and (i_srAP le 0 or
i_srAP=2) and i_srMI le 0)) i_alg_CAD=0.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_gpAP=2 and (i_gpMI le -1 or i_gpMI=2) and (i_srAP le -1 or
i_srAP=2) and i_srMI le -1)) i_alg_CAD=-1.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_gpMI=2 and (i_gpAP le -1 or i_gpAP=2) and (i_srAP le -1 or
i_srAP=2) and i_srMI le -1)) i_alg_CAD=-1.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_srAP=1 and (i_srMI=1 OR i_gpAP=1 OR i_gpMI=1)))
i_alg_CAD=1.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_srMI=1 and (i_srAP=1 OR i_gpAP=1 OR i_gpMI=1)))
i_alg_CAD=1.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_gpAP=1 and (egaps=1 or fgaps=1 or hgaps=1))) i_alg_CAD=1.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_gpMI=1 and (egmis=1 or fgmis=1 or hgmis=1))) i_alg_CAD=1.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_gpAP=1 and hgaps le 0) and (i_srMI=1 or i_srAP=1 or
i_gpMI=1)) i_alg_CAD=1.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_gpMI=1 and hgmis le 0) and (i_srMI=1 or i_srAP=1 or
i_gpAP=1)) i_alg_CAD=1.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_srAP=1 and i_srMI le 0) and (i_gpAP=2 or i_gpMI=2))
i_alg_CAD=1.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_srMI=1) and (i_gpAP=2 or i_srAP=2 or i_gpMI=2))
i_alg_CAD=1.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_gpAP=1 and i_srMI le 0) and (i_srAP=2 and i_gpMI=2))
i_alg_CAD=1.
IF ((i_mAP le 0 and i_surCAD le 0) and (i_gpMI=1 and i_srMI le 0) and (i_gpAP=2 or i_srAP=2))
i_alg_CAD=1.
IF (i_mAP=1 or i_surCAD=1) i_alg_CAD=1.
VARIABLE LABELS i_alg_CAD 'I wave: coronary artery disease'.
VALUE LABELS i_alg_CAD
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'.

```

*****CVD longitudinal cleaning*****

*optional: once definite CVD always CVD.

*arrhythmia.

RECODE f_alg_ARI (ELSE=Copy) INTO f_alg_ARI_ruw.

VARIABLE LABELS f_alg_ARI_ruw 'ARI at F, unadjusted for ARI status at previous waves'.

RECODE g_alg_ARI (ELSE=Copy) INTO g_alg_ARI_ruw.

VARIABLE LABELS g_alg_ARI_ruw 'ARI at G, unadjusted for ARI status at previous waves'.

RECODE h_alg_ARI (ELSE=Copy) INTO h_alg_ARI_ruw.

VARIABLE LABELS h_alg_ARI_ruw 'ARI at H, unadjusted for ARI status at previous waves'.

RECODE i_alg_ARI (ELSE=Copy) INTO i_alg_ARI_ruw.

VARIABLE LABELS i_alg_ARI_ruw 'ARI at i, unadjusted for ARI status at previous waves'.

IF (b2_ARI=1) f_alg_ARI=1.

IF (f_alg_ARI=1) g_alg_ARI=1.

IF (g_alg_ARI=1) h_alg_ARI=1.

IF (h_alg_ARI=1) i_alg_ARI=1.

*MI.

RECODE f_alg_MI (ELSE=Copy) INTO f_alg_MI_ruw.

VARIABLE LABELS f_alg_MI_ruw 'MI at F, unadjusted for MI status at previous waves'.

RECODE g_alg_MI (ELSE=Copy) INTO g_alg_MI_ruw.

VARIABLE LABELS g_alg_MI_ruw 'MI at G, unadjusted for MI status at previous waves'.

RECODE h_alg_MI (ELSE=Copy) INTO h_alg_MI_ruw.

VARIABLE LABELS h_alg_MI_ruw 'MI at H, unadjusted for MI status at previous waves'.

RECODE i_alg_MI (ELSE=Copy) INTO i_alg_MI_ruw.

VARIABLE LABELS i_alg_MI_ruw 'MI at I, unadjusted for MI status at previous waves'.

IF (b2_MI=1) f_alg_MI=1.

IF (f_alg_MI=1) g_alg_MI=1.

IF (g_alg_MI=1) h_alg_MI=1.

IF (h_alg_MI=1) i_alg_MI=1.

*AP.

RECODE f_alg_AP (ELSE=Copy) INTO f_alg_AP_ruw.

VARIABLE LABELS f_alg_AP_ruw 'AP at F, unadjusted for AP status at previous waves'.

RECODE g_alg_AP (ELSE=Copy) INTO g_alg_AP_ruw.

VARIABLE LABELS g_alg_AP_ruw 'AP at G, unadjusted for AP status at previous waves'.

RECODE h_alg_AP (ELSE=Copy) INTO h_alg_AP_ruw.

VARIABLE LABELS h_alg_AP_ruw 'AP at H, unadjusted for AP status at previous waves'.

RECODE i_alg_AP (ELSE=Copy) INTO i_alg_AP_ruw.

VARIABLE LABELS i_alg_AP_ruw 'AP at I, unadjusted for AP status at previous waves'.

IF (b2_AP=1) f_alg_AP=1.

IF (f_alg_AP=1) g_alg_AP=1.

IF (g_alg_AP=1) h_alg_AP=1.

IF (h_alg_AP=1) i_alg_AP=1.

*CVA.

RECODE f_alg_CVA (ELSE=Copy) INTO f_alg_CVA_ruw.

VARIABLE LABELS f_alg_CVA_ruw 'CVA at F, unadjusted for CVA status at previous waves'.

RECODE g_alg_CVA (ELSE=Copy) INTO g_alg_CVA_ruw.

VARIABLE LABELS g_alg_CVA_ruw 'CVA at G, unadjusted for CVA status at previous waves'.

RECODE h_alg_CVA (ELSE=Copy) INTO h_alg_CVA_ruw.

VARIABLE LABELS h_alg_CVA_ruw 'CVA at H, unadjusted for CVA status at previous waves'.

RECODE i_alg_CVA (ELSE=Copy) INTO i_alg_CVA_ruw.

VARIABLE LABELS i_alg_CVA_ruw 'CVA at I, unadjusted for CVA status at previous waves'.

IF (b2_CVA=1) f_alg_CVA=1.

IF (f_alg_CVA=1) g_alg_CVA=1.

IF (g_alg_CVA=1) h_alg_CVA=1.

IF (h_alg_CVA=1) i_alg_CVA=1.

*CHF.

RECODE f_alg_CHF (ELSE=Copy) INTO f_alg_CHF_ruw.

VARIABLE LABELS f_alg_CHF_ruw 'CHF at F, unadjusted for CHF status at previous waves'.

RECODE g_alg_CHF (ELSE=Copy) INTO g_alg_CHF_ruw.

VARIABLE LABELS g_alg_CHF_ruw 'CHF at G, unadjusted for CHF status at previous waves'.

```
RECODE h_alg_CHF (ELSE=Copy) INTO h_alg_CHF_ruw.
VARIABLE LABELS h_alg_CHF_ruw 'CHF at H, unadjusted for CHF status at previous waves'.
RECODE i_alg_CHF (ELSE=Copy) INTO i_alg_CHF_ruw.
VARIABLE LABELS i_alg_CHF_ruw 'CHF at I, unadjusted for CHF status at previous waves'.
```

```
IF (b2_CHF=1) f_alg_CHF=1.
IF (f_alg_CHF=1) g_alg_CHF=1.
IF (g_alg_CHF=1) h_alg_CHF=1.
IF (h_alg_CHF=1) i_alg_CHF=1.
```

*PAD.

```
RECODE f_alg_PAD (ELSE=Copy) INTO f_alg_PAD_ruw.
VARIABLE LABELS f_alg_PAD_ruw 'PAD at F, unadjusted for PAD status at previous waves'.
RECODE g_alg_PAD (ELSE=Copy) INTO g_alg_PAD_ruw.
VARIABLE LABELS g_alg_PAD_ruw 'PAD at G, unadjusted for PAD status at previous waves'.
RECODE h_alg_PAD (ELSE=Copy) INTO h_alg_PAD_ruw.
VARIABLE LABELS h_alg_PAD_ruw 'PAD at H, unadjusted for PAD status at previous waves'.
RECODE i_alg_PAD (ELSE=Copy) INTO i_alg_PAD_ruw.
VARIABLE LABELS i_alg_PAD_ruw 'PAD at H, unadjusted for PAD status at previous waves'.
```

```
IF (b2_PAD=1) f_alg_PAD=1.
IF (f_alg_PAD=1) g_alg_PAD=1.
IF (g_alg_PAD=1) h_alg_PAD=1.
IF (h_alg_PAD=1) i_alg_PAD=1.
```

*CAD.

```
RECODE f_alg_CAD (ELSE=Copy) INTO f_alg_CAD_ruw.
VARIABLE LABELS f_alg_CAD_ruw 'CAD at F, unadjusted for CAD status at previous waves'.
RECODE g_alg_CAD (ELSE=Copy) INTO g_alg_CAD_ruw.
VARIABLE LABELS g_alg_CAD_ruw 'CAD at G, unadjusted for CAD status at previous waves'.
RECODE h_alg_CAD (ELSE=Copy) INTO h_alg_CAD_ruw.
VARIABLE LABELS h_alg_CAD_ruw 'CAD at H, unadjusted for CAD status at previous waves'.
RECODE i_alg_CAD (ELSE=Copy) INTO i_alg_CAD_ruw.
VARIABLE LABELS i_alg_CAD_ruw 'CAD at I, unadjusted for CAD status at previous waves'.
```

```
IF (b2_CAD=1) f_alg_CAD=1.
IF (f_alg_CAD=1) g_alg_CAD=1.
IF (g_alg_CAD=1) h_alg_CAD=1.
IF (h_alg_CAD=1) i_alg_CAD=1.
```

*****CVD Defining dropouts*****.

*Used LASA datafiles and variables: LASAZ002 / cresult, dresult, eresult, fresult, gresult, hresult, iresult.

*ARI.

.*

```
RECODE f_alg_ARI (ELSE=Copy) INTO f_ARI.
IF (fresult le 4) f_ARI=5.
VARIABLE LABELS f_ARI 'cardiac arrhythmia at F wave, dropouts defined'.
VALUE LABELS f_ARI
    -1 'missing'
    0 'no'
    1 'definite'
```

2 'possible'
3 'contradictory'
5 'drop-out'.

*G wave.

RECODE g_alg_ARI (ELSE=Copy) INTO g_ARI.

IF (gresult le 4) g_ARI=5.

VARIABLE LABELS g_ARI 'cardiac arrhythmia at G wave, dropouts defined'.

VALUE LABELS g_ARI

-1 'missing'
0 'no'
1 'definite'
2 'possible'
3 'contradictory'
5 'drop-out'.

*H wave.

RECODE h_alg_ARI (ELSE=Copy) INTO h_ARI.

IF (hresult le 4) h_ARI=5.

VARIABLE LABELS h_ARI 'cardiac arrhythmia at H wave, dropouts defined'.

VALUE LABELS h_ARI

-1 'missing'
0 'no'
1 'definite'
2 'possible'
3 'contradictory'
5 'drop-out'.

*I wave.

RECODE i_alg_ARI (ELSE=Copy) INTO i_ARI.

IF (iresult le 4) i_ARI=5.

VARIABLE LABELS i_ARI 'cardiac arrhythmia at I wave, dropouts defined'.

VALUE LABELS i_ARI

-1 'missing'
0 'no'
1 'definite'
2 'possible'
3 'contradictory'
5 'drop-out'.

*MI.

*F wave.

RECODE f_alg_MI (ELSE=Copy) INTO f_MI.

IF (fresult le 4) f_MI=5.

VARIABLE LABELS f_MI 'myocardial infarction at F wave, dropouts defined'.

VALUE LABELS f_MI

-1 'missing'
0 'no'
1 'definite'
2 'possible'
3 'contradictory'
5 'drop-out'.

*G wave.

```
RECODE g_alg_MI (ELSE=Copy) INTO g_MI.
IF (gresult le 4) g_MI=5.
VARIABLE LABELS g_MI 'myocardial infarction at G wave, dropouts defined'.
VALUE LABELS g_MI
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'
    5 'drop-out'.
```

*H wave.

```
RECODE h_alg_MI (ELSE=Copy) INTO h_MI.
IF (hresult le 4) h_MI=5.
VARIABLE LABELS h_MI 'myocardial infarction at H wave, dropouts defined'.
VALUE LABELS h_MI
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'
    5 'drop-out'.
```

*I wave.

```
RECODE i_alg_MI (ELSE=Copy) INTO i_MI.
IF (iresult le 4) i_MI=5.
VARIABLE LABELS i_MI 'myocardial infarction at I wave, dropouts defined'.
VALUE LABELS i_MI
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'
    5 'drop-out'.
```

*AP.

*F wave.

```
RECODE f_alg_AP (ELSE=Copy) INTO f_AP.
IF (fresult le 4) f_AP=5.
VARIABLE LABELS f_AP 'angina pectoris at F wave, dropouts defined'.
VALUE LABELS f_AP
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'
    5 'drop-out'.
```

*G wave.

```
RECODE g_alg_AP (ELSE=Copy) INTO g_AP.
IF (gresult le 4) g_AP=5.
VARIABLE LABELS g_AP 'angina pectoris at G wave, dropouts defined'.
VALUE LABELS g_AP
    -1 'missing'
    0 'no'
```

1 'definite'
2 'possible'
3 'contradictory'
5 'drop-out'.

*H wave.

RECODE h_alg_AP (ELSE=Copy) INTO h_AP.

IF (hresult le 4) h_AP=5.

VARIABLE LABELS h_AP 'angina pectoris at H wave, dropouts defined'.

VALUE LABELS h_AP

-1 'missing'
0 'no'
1 'definite'
2 'possible'
3 'contradictory'
5 'drop-out'.

*I wave.

RECODE i_alg_AP (ELSE=Copy) INTO i_AP.

IF (iresult le 4) i_AP=5.

VARIABLE LABELS i_AP 'angina pectoris at I wave, dropouts defined'.

VALUE LABELS i_AP

-1 'missing'
0 'no'
1 'definite'
2 'possible'
3 'contradictory'
5 'drop-out'.

*CVA.

*F wave.

RECODE f_alg_CVA (ELSE=Copy) INTO f_CVA.

IF (fresult le 4) f_CVA=5.

VARIABLE LABELS f_CVA 'cerebrovascular accident at F wave, dropouts defined'.

VALUE LABELS f_CVA

-1 'missing'
0 'no'
1 'definite'
2 'possible'
3 'contradictory'
5 'drop-out'.

*G wave.

RECODE g_alg_CVA (ELSE=Copy) INTO g_CVA.

IF (gresult le 4) g_CVA=5.

VARIABLE LABELS g_CVA 'cerebrovascular accident at G wave, dropouts defined'.

VALUE LABELS g_CVA

-1 'missing'
0 'no'
1 'definite'
2 'possible'
3 'contradictory'
5 'drop-out'.

*H wave.

```
RECODE h_alg_CVA (ELSE=Copy) INTO h_CVA.
IF (hresult le 4) h_CVA=5.
VARIABLE LABELS h_CVA 'cerebrovascular accident at H wave, dropouts defined'.
VALUE LABELS h_CVA
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'
    5 'drop-out'.
```

*I wave.

```
RECODE i_alg_CVA (ELSE=Copy) INTO i_CVA.
IF (iresult le 4) i_CVA=5.
VARIABLE LABELS i_CVA 'cerebrovascular accident at I wave, dropouts defined'.
VALUE LABELS i_CVA
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'
    5 'drop-out'.
```

*CHF.

*F wave.

```
RECODE f_alg_CHF (ELSE=Copy) INTO f_CHF.
IF (fresult le 4) f_CHF=5.
VARIABLE LABELS f_CHF 'congestive heart failure at F wave, dropouts defined'.
VALUE LABELS f_CHF
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'
    5 'drop-out'.
```

*G wave.

```
RECODE g_alg_CHF (ELSE=Copy) INTO g_CHF.
IF (gresult le 4) g_CHF=5.
VARIABLE LABELS g_CHF 'congestive heart failure at G wave, dropouts defined'.
VALUE LABELS g_CHF
    -1 'missing'
    0 'no'
    1 'definite'
    2 'possible'
    3 'contradictory'
    5 'drop-out'.
```

*H wave.

```
RECODE h_alg_CHF (ELSE=Copy) INTO h_CHF.
IF (hresult le 4) h_CHF=5.
VARIABLE LABELS h_CHF 'congestive heart failure at G wave, dropouts defined'.
VALUE LABELS h_CHF
    -1 'missing'
```

0 'no'
1 'definite'
2 'possible'
3 'contradictory'
5 'drop-out'.

*I wave.

RECODE i_alg_CHF (ELSE=Copy) INTO i_CHF.

IF (iresult le 4) i_CHF=5.

VARIABLE LABELS i_CHF 'congestive heart failure at I wave, dropouts defined'.

VALUE LABELS i_CHF

-1 'missing'

0 'no'

1 'definite'

2 'possible'

3 'contradictory'

5 'drop-out'.

*PAD.

*F wave.

RECODE f_alg_PAD (ELSE=Copy) INTO f_PAD.

IF (fresult le 4) f_PAD=5.

VARIABLE LABELS f_PAD 'peripheral artery failure at F wave, dropouts defined'.

VALUE LABELS f_PAD

-1 'missing'

0 'no'

1 'definite'

2 'possible'

3 'contradictory'

5 'drop-out'.

*G wave.

RECODE g_alg_PAD (ELSE=Copy) INTO g_PAD.

IF (gresult le 4) g_PAD=5.

VARIABLE LABELS g_PAD 'peripheral artery failure at G wave, dropouts defined'.

VALUE LABELS g_PAD

-1 'missing'

0 'no'

1 'definite'

2 'possible'

3 'contradictory'

5 'drop-out'.

*H wave.

RECODE h_alg_PAD (ELSE=Copy) INTO h_PAD.

IF (hresult le 4) h_PAD=5.

VARIABLE LABELS h_PAD 'peripheral artery failure at H wave, dropouts defined'.

VALUE LABELS h_PAD

-1 'missing'

0 'no'

1 'definite'

2 'possible'

3 'contradictory'

5 'drop-out'.

*I wave.

RECODE i_alg_PAD (ELSE=Copy) INTO i_PAD.

IF (iresult le 4) i_PAD=5.

VARIABLE LABELS i_PAD 'peripheral artery failure at I wave, dropouts defined'.

VALUE LABELS i_PAD

-1 'missing'

0 'no'

1 'definite'

2 'possible'

3 'contradictory'

5 'drop-out'.

*CAD.

*F wave.

RECODE f_alg_CAD (ELSE=Copy) INTO f_CAD.

IF (fresult le 4) f_CAD=5.

VARIABLE LABELS f_CAD 'coronary artery disease at F wave, dropouts defined'.

VALUE LABELS f_CAD

-1 'missing'

0 'no'

1 'definite'

2 'possible'

3 'contradictory'

5 'drop-out'.

*G wave.

RECODE g_alg_CAD (ELSE=Copy) INTO g_CAD.

IF (gresult le 4) g_CAD=5.

VARIABLE LABELS g_CAD 'coronary artery disease at G wave, dropouts defined'.

VALUE LABELS g_CAD

-1 'missing'

0 'no'

1 'definite'

2 'possible'

3 'contradictory'

5 'drop-out'.

*H wave.

RECODE h_alg_CAD (ELSE=Copy) INTO h_CAD.

IF (hresult le 4) h_CAD=5.

VARIABLE LABELS h_CAD 'coronary artery disease at H wave, dropouts defined'.

VALUE LABELS h_CAD

-1 'missing'

0 'no'

1 'definite'

2 'possible'

3 'contradictory'

5 'drop-out'.

*I wave.

RECODE i_alg_CAD (ELSE=Copy) INTO i_CAD.

IF (iresult le 4) i_CAD=5.

VARIABLE LABELS i_CAD 'coronary artery disease at I wave, dropouts defined'.

VALUE LABELS i_CAD

- 1 'missing'
- 0 'no'
- 1 'definite'
- 2 'possible'
- 3 'contradictory'
- 5 'drop-out'.

formats bresult bhart01 bhart05 bhart10 bhart11 bhart12 bhart13 bhart15 bhart15b bhart15c
 bhart15d bdiabe01 bdiabe07 bdiabe09 bdiabe11 bdiabe12 bcva01 bartvei1 bartvei5 bartvei7
 bartve8b bartve8c bartve8d
 fhart01 fhart05 fhart10 fhart11 fhart12 fhart13 fdiabe01 fdiabe07 fdiabe09 fdiabe11 fdiabe12 fcva01
 fartvei1 fartvei5
 fartvei7 fhart15 fhart15d fhart15c fhart15b fartve8b fartve8d fartve8c fartve8 fgap fgapy fgaps
 fgarrth fgarrthy fgarrths fgcva fgcvey fgcvas fgartvei fgartvey fgartves fgmi fgmiy fgmis fgchf fgchfy
 fgchfs fmed_ang fmed_ari fmed_diu fmed_ino fmed_hyp
 fmvar13 fresult ftpcva01 ftphart1 ftpartv1 ftrcva01 ftrhart1 ftrartv1 ghart01 ghart05 ghart10 ghart11
 ghart12 ghart13 gdiabe01 gdiabe07 gdiabe09 gdiabe11 gdiabe12 gcva01 gartvei1 gartvei5 gartvei7
 ghart15 ghart15d ghart15c ghart15b
 gartve8b gartve8d gartve8c gartve8 gmed_ang gmed_ari gmed_diu gmed_ino gmed_hyp GMVAR13
 gresult gtpcva01 gtphart1 gtpartv1 gtrcva01 gtrhart1 gtrartv1 hgap hgapy hgaps hgarrth hgarrthy
 hgarrths
 hgcva hgcvey hgcvas hgartvei hgartvey hgartves hgmi hgmiy hgmis hgchf hgchfy hgchfs HHART01
 HHART05 HHART10 HHART11 HHART12 HHART13 HDIABE01 HDIABE07 HDIABE09 HDIABE11
 HDIABE12 HCVA01 HARTVEI1 HARTVEI5 HARTVEI7
 HHART15 HHART15D HHART15C HHART15B HARTVE8B HARTVE8D HARTVE8C HARTVE8 HMed_ang
 HMed_ari HMed_diu HMed_ino HMed_hyp HMVAR13 hresult htpcva01 htphart1 htpartv1 htrcva01
 htrhart1 htrartv1 t9_dat IHART01 IHART05 IHART10 IHART11
 IHART12 IHART13 IDIABE01 IDIABE07 IDIABE09 IDIABE11 IDIABE12 ICVA01 IARTVEI1 IARTVEI5
 IARTVEI7 IHART15 IHART15D IHART15C IHART15B IARTVE8B IARTVE8D IARTVE8C IARTVE8 IMed_ang
 IMed_ari IMed_diu IMed_ino IMed_hyp IMVAR13
 ireresult itpcva01 itphart1 itpartv1 itrcva01 itrhart1 itrartv1 bmed_beta bmed_stolling bmed_stol_beta
 t2_YEAR b2_mARI b2_gpARI b2_ARI b2_srCVA b2_gpCVA b2_CVA b2_srMI b2_gpMI b2_MI b2_srAP
 b2_gpAP b2_mAP b2_AP b2_srCHF b2_gpCHF
 b2_mCHF b2_CHF b2_srPAD b2_surPAD b2_gpPAD b2_PAD b2_surCAD b2_srCAD b2_gpCAD b2_CAD
 fmed_beta fmed_stolling fmed_stol_beta t6_year f_surARI f_mARI f_gpARI f_alg_ARI f_srCVA
 f_gpCVA f_alg_CVA f_srMI f_gpMI f_alg_MI f_srAP f_gpAP f_mAP f_alg_AP f_srCHF f_gpCHF f_mCHF
 f_alg_CHF f_srPAD f_surPAD f_gpPAD f_alg_PAD f_surCAD
 f_srCAD f_gpCAD f_alg_CAD gmed_beta gmed_stolling gmed_stol_beta t7_year g_surARI g_mARI
 g_gpARI g_alg_ARI g_srCVA g_gpCVA g_alg_CVA g_srMI g_gpMI g_alg_MI g_srAP g_gpAP g_mAP
 g_alg_AP g_srCHF g_gpCHF g_mCHF g_alg_CHF
 g_srPAD g_surPAD g_gpPAD g_alg_PAD g_surCAD g_srCAD g_gpCAD g_alg_CAD hmed_beta
 hmed_stolling hmed_stol_beta t8_year h_surARI h_mARI h_gpARI h_alg_ARI h_srCVA h_gpCVA
 h_alg_CVA h_srMI h_gpMI h_alg_MI h_srAP h_gpAP h_mAP
 h_alg_AP h_srCHF h_gpCHF h_mCHF h_alg_CHF h_srPAD h_surPAD h_gpPAD h_alg_PAD h_surCAD
 h_srCAD h_gpCAD h_alg_CAD imed_beta imed_stolling imed_stol_beta T9_year i_surARI i_mARI
 i_gpARI i_alg_ARI i_srCVA i_gpCVA i_alg_CVA i_srMI
 i_gpMI i_alg_MI i_srAP i_gpAP i_mAP i_alg_AP i_srCHF i_gpCHF i_mCHF i_alg_CHF i_srPAD i_surPAD
 i_gpPAD i_alg_PAD i_surCAD i_srCAD i_gpCAD i_alg_CAD f_alg_ARI_ruw g_alg_ARI_ruw
 h_alg_ARI_ruw
 i_alg_ARI_ruw f_alg_MI_ruw g_alg_MI_ruw h_alg_MI_ruw i_alg_MI_ruw f_alg_AP_ruw
 g_alg_AP_ruw h_alg_AP_ruw i_alg_AP_ruw

f_alg_CVA_ruw g_alg_CVA_ruw h_alg_CVA_ruw i_alg_CVA_ruw f_alg_CHF_ruw g_alg_CHF_ruw
h_alg_CHF_ruw i_alg_CHF_ruw f_alg_PAD_ruw
g_alg_PAD_ruw h_alg_PAD_ruw i_alg_PAD_ruw f_alg_CAD_ruw g_alg_CAD_ruw h_alg_CAD_ruw
i_alg_CAD_ruw f_ARI g_ARI h_ARI i_ARI f_MI g_MI h_MI i_MI
f_AP g_AP h_AP i_AP f_CVA g_CVA h_CVA i_CVA f_CHF g_CHF h_CHF i_CHF f_PAD g_PAD h_PAD
i_PAD f_CAD g_CAD h_CAD i_CAD (f2).

*additional cleaning to reduce missing data.

*ari.

if (b2_ari=-1 and f_ari=-1 and g_ari=-1 and h_ari=-1 and i_ari=0) h_ari=0.
if (b2_ari=-1 and f_ari=-1 and g_ari=-1 and h_ari=0) g_ari=0.
if (b2_ari=-1 and f_ari=-1 and g_ari=0) f_ari=0.
if (b2_ari=-1 and f_ari=-1 and g_ari=0) f_ari=0.
if (b2_ari=-1 and f_ari=0) b2_ari=0.
if (b2_ari=-1 and f_ari=-1 and g_ari=0) b2_ari=0.
if (b2_ari=-1 and f_ari=-1 and g_ari=0) f_ari=0.
if (b2_ari=0 and f_ari=-1 and g_ari=0) f_ari=0.
if (b2_ari=0 and f_ari=-1 and g_ari=-1 and h_ari=0) f_ari=0.
if (f_ari=0 and g_ari=-1 and h_ari=-1 and i_ari=0) h_ari=0.
if (b2_ari=0 and f_ari=0 and g_ari=-1 and h_ari=0) g_ari=0.
if (g_ari=0 and h_ari=-1 and i_ari=0) h_ari=0.
EXECUTE.

*mi.

if (b2_mi=-1 and f_mi=-1 and g_mi=-1 and h_mi=-1 and i_mi=0) h_mi=0.
if (b2_mi=-1 and f_mi=-1 and g_mi=-1 and h_mi=0) g_mi=0.
if (b2_mi=-1 and f_mi=-1 and g_mi=0) f_mi=0.
if (b2_mi=-1 and f_mi=-1 and g_mi=0) f_mi=0.
if (b2_mi=-1 and f_mi=0) b2_mi=0.
if (b2_mi=-1 and f_mi=-1 and g_mi=0) b2_mi=0.
if (b2_mi=-1 and f_mi=-1 and g_mi=0) f_mi=0.
if (b2_mi=0 and f_mi=-1 and g_mi=0) f_mi=0.
if (b2_mi=0 and f_mi=-1 and g_mi=-1 and h_mi=0) f_mi=0.
if (f_mi=0 and g_mi=-1 and h_mi=-1 and i_mi=0) h_mi=0.
if (b2_mi=0 and f_mi=0 and g_mi=-1 and h_mi=0) g_mi=0.
if (g_mi=0 and h_mi=-1 and i_mi=0) h_mi=0.
EXECUTE.

*ap.

if (b2_ap=-1 and f_ap=-1 and g_ap=-1 and h_ap=-1 and i_ap=0) h_ap=0.
if (b2_ap=-1 and f_ap=-1 and g_ap=-1 and h_ap=0) g_ap=0.
if (b2_ap=-1 and f_ap=-1 and g_ap=0) f_ap=0.
if (b2_ap=-1 and f_ap=-1 and g_ap=0) f_ap=0.
if (b2_ap=-1 and f_ap=0) b2_ap=0.
if (b2_ap=-1 and f_ap=-1 and g_ap=0) b2_ap=0.
if (b2_ap=-1 and f_ap=-1 and g_ap=0) f_ap=0.
if (b2_ap=0 and f_ap=-1 and g_ap=0) f_ap=0.
if (b2_ap=0 and f_ap=-1 and g_ap=-1 and h_ap=0) f_ap=0.
if (f_ap=0 and g_ap=-1 and h_ap=-1 and i_ap=0) h_ap=0.
if (b2_ap=0 and f_ap=0 and g_ap=-1 and h_ap=0) g_ap=0.
if (g_ap=0 and h_ap=-1 and i_ap=0) h_ap=0.
EXECUTE.

*cva.

if (b2_cva=-1 and f_cva=-1 and g_cva=-1 and h_cva=-1 and i_cva=0) h_cva=0.
if (b2_cva=-1 and f_cva=-1 and g_cva=-1 and h_cva=0) g_cva=0.
if (b2_cva=-1 and f_cva=-1 and g_cva=0) f_cva=0.
if (b2_cva=-1 and f_cva=-1 and g_cva=0) f_cva=0.
if (b2_cva=-1 and f_cva=0) b2_cva=0.
if (b2_cva=-1 and f_cva=-1 and g_cva=0) b2_cva=0.
if (b2_cva=-1 and f_cva=-1 and g_cva=0) f_cva=0.
if (b2_cva=0 and f_cva=-1 and g_cva=0) f_cva=0.
if (b2_cva=0 and f_cva=-1 and g_cva=-1 and h_cva=0) f_cva=0.
if (f_cva=0 and g_cva=-1 and h_cva=-1 and i_cva=0) h_cva=0.
if (b2_cva=0 and f_cva=0 and g_cva=-1 and h_cva=0) g_cva=0.
if (g_cva=0 and h_cva=-1 and i_cva=0) h_cva=0.
EXECUTE.

*chf.

if (b2_chf=-1 and f_chf=-1 and g_chf=-1 and h_chf=-1 and i_chf=0) h_chf=0.
if (b2_chf=-1 and f_chf=-1 and g_chf=-1 and h_chf=0) g_chf=0.
if (b2_chf=-1 and f_chf=-1 and g_chf=0) f_chf=0.
if (b2_chf=-1 and f_chf=-1 and g_chf=0) f_chf=0.
if (b2_chf=-1 and f_chf=0) b2_chf=0.
if (b2_chf=-1 and f_chf=-1 and g_chf=0) b2_chf=0.
if (b2_chf=-1 and f_chf=-1 and g_chf=0) f_chf=0.
if (b2_chf=0 and f_chf=-1 and g_chf=0) f_chf=0.
if (b2_chf=0 and f_chf=-1 and g_chf=-1 and h_chf=0) f_chf=0.
if (f_chf=0 and g_chf=-1 and h_chf=-1 and i_chf=0) h_chf=0.
if (b2_chf=0 and f_chf=0 and g_chf=-1 and h_chf=0) g_chf=0.
if (g_chf=0 and h_chf=-1 and i_chf=0) h_chf=0.
EXECUTE.

*pad.

if (b2_pad=-1 and f_pad=-1 and g_pad=-1 and h_pad=-1 and i_pad=0) h_pad=0.
if (b2_pad=-1 and f_pad=-1 and g_pad=-1 and h_pad=0) g_pad=0.
if (b2_pad=-1 and f_pad=-1 and g_pad=0) f_pad=0.
if (b2_pad=-1 and f_pad=-1 and g_pad=0) f_pad=0.
if (b2_pad=-1 and f_pad=0) b2_pad=0.
if (b2_pad=-1 and f_pad=-1 and g_pad=0) b2_pad=0.
if (b2_pad=-1 and f_pad=-1 and g_pad=0) f_pad=0.
if (b2_pad=0 and f_pad=-1 and g_pad=0) f_pad=0.
if (b2_pad=0 and f_pad=-1 and g_pad=-1 and h_pad=0) f_pad=0.
if (f_pad=0 and g_pad=-1 and h_pad=-1 and i_pad=0) h_pad=0.
if (b2_pad=0 and f_pad=0 and g_pad=-1 and h_pad=0) g_pad=0.
if (g_pad=0 and h_pad=-1 and i_pad=0) h_pad=0.
EXECUTE.

*cad.

if (b2_cad=-1 and f_cad=-1 and g_cad=-1 and h_cad=-1 and i_cad=0) h_cad=0.
if (b2_cad=-1 and f_cad=-1 and g_cad=-1 and h_cad=0) g_cad=0.
if (b2_cad=-1 and f_cad=-1 and g_cad=0) f_cad=0.
if (b2_cad=-1 and f_cad=-1 and g_cad=0) f_cad=0.
if (b2_cad=-1 and f_cad=0) b2_cad=0.

```
if (b2_cad=-1 and f_cad=-1 and g_cad=0) b2_cad=0.
if (b2_cad=-1 and f_cad=-1 and g_cad=0) f_cad=0.
if (b2_cad=0 and f_cad=-1 and g_cad=0) f_cad=0.
if (b2_cad=0 and f_cad=-1 and g_cad=-1 and h_cad=0) f_cad=0.
if (f_cad=0 and g_cad=-1 and h_cad=-1 and i_cad=0) h_cad=0.
if (b2_cad=0 and f_cad=0 and g_cad=-1 and h_cad=0) g_cad=0.
if (g_cad=0 and h_cad=-1 and i_cad=0) h_cad=0.
EXECUTE.
```

*CVD var: any type of CVD.

Compute b2_CVD=-3.

VARIABLE LABELS b2_CVD 'any CVD at b'.

EXECUTE.

```
IF (b2_MI=1 or b2_AP=1 or b2_ARI=1 or b2_CVA=1 or b2_PAD=1 or b2_CAD=1 or b2_CHF=1)
b2_CVD=1.
```

```
IF (b2_MI=0 AND b2_AP=0 AND b2_ARI=0 AND b2_CVA=0 AND b2_PAD=0 AND b2_CAD=0 AND
b2_CHF=0) b2_CVD=0.
```

```
IF (b2_MI=-1 AND b2_AP=-1 AND b2_ARI=-1 AND b2_CVA=-1 AND b2_PAD=-1 AND b2_CAD=-1 AND
b2_CHF=-1) b2_CVD=-1.
```

```
IF (b2_CVD=-3 and (b2_MI=2 or b2_AP=2 or b2_ARI=2 or b2_CVA=2 or b2_PAD=2 or b2_CAD=2 or
b2_CHF=2)) b2_CVD=2.
```

```
IF (b2_CVD=-3 and (b2_MI=3 or b2_AP=3 or b2_ARI=3 or b2_CVA=3 or b2_PAD=3 or b2_CAD=3 or
b2_CHF=3)) b2_CVD=3.
```

EXECUTE.

VALUE LABELS b2_CVD

0 'no cvd'

1 'Definite'

2 'possible'

3 'contradictory'

-1 'missing'

-3 'combination of no and missing'.

EXECUTE.

Compute f_CVD=-3.

VARIABLE LABELS f_CVD 'any CVD at f'.

EXECUTE.

```
IF (f_MI=1 or f_AP=1 or f_ARI=1 or f_CVA=1 or f_PAD=1 or f_CAD=1 or f_CHF=1) f_CVD=1.
```

```
IF (f_MI=0 AND f_AP=0 AND f_ARI=0 AND f_CVA=0 AND f_PAD=0 AND f_CAD=0 AND f_CHF=0)
f_CVD=0.
```

```
IF (f_MI=-1 AND f_AP=-1 AND f_ARI=-1 AND f_CVA=-1 AND f_PAD=-1 AND f_CAD=-1 AND f_CHF=-1)
f_CVD=-1.
```

```
IF (f_CVD=-3 and (f_MI=2 or f_AP=2 or f_ARI=2 or f_CVA=2 or f_PAD=2 or f_CAD=2 or f_CHF=2))
f_CVD=2.
```

```
IF (f_CVD=-3 and (f_MI=3 or f_AP=3 or f_ARI=3 or f_CVA=3 or f_PAD=3 or f_CAD=3 or f_CHF=3))
f_CVD=3.
```

```
IF (f_MI=5 AND f_AP=5 AND f_ARI=5 AND f_CVA=5 AND f_PAD=5 AND f_CAD=5 AND f_CHF=5)
f_CVD=5.
```

EXECUTE.

VALUE LABELS f_CVD

0 'no cvd'

1 'Definite'

2 'possible'

3 'contradictory'
5 'dropout'
-1 'missing'
-3 'combination of no and missing'.
EXECUTE.

Compute g_CVD=-3.

VARIABLE LABELS g_CVD 'any CVD at g'.

EXECUTE.

IF (g_MI=1 or g_AP=1 or g_ARI=1 or g_CVA=1 or g_PAD=1 or g_CAD=1 or g_CHF=1) g_CVD=1.

IF (g_MI=0 AND g_AP=0 AND g_ARI=0 AND g_CVA=0 AND g_PAD=0 AND g_CAD=0 AND g_CHF=0)
g_CVD=0.

IF (g_MI=-1 AND g_AP=-1 AND g_ARI=-1 AND g_CVA=-1 AND g_PAD=-1 AND g_CAD=-1 AND g_CHF=-1)
g_CVD=-1.

IF (g_CVD=-3 and (g_MI=2 or g_AP=2 or g_ARI=2 or g_CVA=2 or g_PAD=2 or g_CAD=2 or g_CHF=2))
g_CVD=2.

IF (g_CVD=-3 and (g_MI=3 or g_AP=3 or g_ARI=3 or g_CVA=3 or g_PAD=3 or g_CAD=3 or g_CHF=3))
g_CVD=3.

IF (g_MI=5 AND g_AP=5 AND g_ARI=5 AND g_CVA=5 AND g_PAD=5 AND g_CAD=5 AND g_CHF=5)
g_CVD=5.

EXECUTE.

VALUE LABELS g_CVD

0 'no cvd'

1 'Definite'

2 'possible'

3 'contradictory'

5 'dropout'

-1 'missing'

-3 'combination of no and missing'.

EXECUTE.

Compute h_CVD=-3.

VARIABLE LABELS h_CVD 'any CVD at h'.

EXECUTE.

IF (h_MI=1 or h_AP=1 or h_ARI=1 or h_CVA=1 or h_PAD=1 or h_CAD=1 or h_CHF=1) h_CVD=1.

IF (h_MI=0 AND h_AP=0 AND h_ARI=0 AND h_CVA=0 AND h_PAD=0 AND h_CAD=0 AND h_CHF=0)
h_CVD=0.

IF (h_MI=-1 AND h_AP=-1 AND h_ARI=-1 AND h_CVA=-1 AND h_PAD=-1 AND h_CAD=-1 AND h_CHF=-1)
h_CVD=-1.

IF (h_CVD=-3 and (h_MI=2 or h_AP=2 or h_ARI=2 or h_CVA=2 or h_PAD=2 or h_CAD=2 or h_CHF=2))
h_CVD=2.

IF (h_CVD=-3 and (h_MI=3 or h_AP=3 or h_ARI=3 or h_CVA=3 or h_PAD=3 or h_CAD=3 or h_CHF=3))
h_CVD=3.

IF (h_MI=5 AND h_AP=5 AND h_ARI=5 AND h_CVA=5 AND h_PAD=5 AND h_CAD=5 AND h_CHF=5)
h_CVD=5.

EXECUTE.

VALUE LABELS h_CVD

0 'no cvd'

1 'Definite'

2 'possible'

3 'contradictory'

5 'dropout'

```
-1 'missing'  
-3 'combination of no and missing'.  
EXECUTE.
```

```
Compute i_CVD=-3.
```

```
VARIABLE LABELS i_CVD 'any CVD at i'.
```

```
EXECUTE.
```

```
IF (i_MI=1 or i_AP=1 or i_ARI=1 or i_CVA=1 or i_PAD=1 or i_CAD=1 or i_CHF=1) i_CVD=1.
```

```
IF (i_MI=0 AND i_AP=0 AND i_ARI=0 AND i_CVA=0 AND i_PAD=0 AND i_CAD=0 AND i_CHF=0)  
i_CVD=0.
```

```
IF (i_MI=-1 AND i_AP=-1 AND i_ARI=-1 AND i_CVA=-1 AND i_PAD=-1 AND i_CAD=-1 AND i_CHF=-1)  
i_CVD=-1.
```

```
IF (i_CVD=-3 and (i_MI=2 or i_AP=2 or i_ARI=2 or i_CVA=2 or i_PAD=2 or i_CAD=2 or i_CHF=2))  
i_CVD=2.
```

```
IF (i_CVD=-3 and (i_MI=3 or i_AP=3 or i_ARI=3 or i_CVA=3 or i_PAD=3 or i_CAD=3 or i_CHF=3))  
i_CVD=3.
```

```
IF (i_MI=5 AND i_AP=5 AND i_ARI=5 AND i_CVA=5 AND i_PAD=5 AND i_CAD=5 AND i_CHF=5)  
i_CVD=5.
```

```
EXECUTE.
```

```
VALUE LABELS i_CVD
```

```
0 'no cvd'
```

```
1 'Definite'
```

```
2 'possible'
```

```
3 'contradictory'
```

```
5 'dropout'
```

```
-1 'missing'
```

```
-3 'combination of no and missing'.
```

```
EXECUTE.
```

```
VARIABLE LEVEL f_alg_ARI_ruw g_alg_ARI_ruw h_alg_ARI_ruw i_alg_ARI_ruw f_alg_MI_ruw
```

```
g_alg_MI_ruw h_alg_MI_ruw i_alg_MI_ruw f_alg_AP_ruw g_alg_AP_ruw h_alg_AP_ruw
```

```
i_alg_AP_ruw
```

```
f_alg_CVA_ruw g_alg_CVA_ruw h_alg_CVA_ruw i_alg_CVA_ruw f_alg_CHF_ruw g_alg_CHF_ruw
```

```
h_alg_CHF_ruw i_alg_CHF_ruw f_alg_PAD_ruw g_alg_PAD_ruw h_alg_PAD_ruw i_alg_PAD_ruw
```

```
f_alg_CAD_ruw g_alg_CAD_ruw h_alg_CAD_ruw i_alg_CAD_ruw b2_ARI f_ARI g_ARI h_ARI i_ARI
```

```
b2_MI f_MI g_MI h_MI i_MI b2_AP f_AP g_AP h_AP i_AP
```

```
b2_CVA f_CVA g_CVA h_CVA i_CVA b2_CHF f_CHF g_CHF h_CHF i_CHF
```

```
b2_PAD f_PAD g_PAD h_PAD i_PAD b2_CAD f_CAD g_CAD h_CAD i_CAD
```

```
b2_CVD f_CVD g_CVD h_CVD i_CVD (NOMINAL).
```

```
*datafile with all variables used (original and created variables).
```

```
SAVE OUTFILE='*your directory here*\CVD_2_total.sav'
```

```
/COMPRESSED.
```

```
*datafile with only the final CVD diagnoses at B2, F, G, H, I of second cohort.
```

```
SAVE OUTFILE='*your directory here*\LASAZH02.sav'
```

```
/KEEP= respnr f_alg_ARI_ruw g_alg_ARI_ruw h_alg_ARI_ruw i_alg_ARI_ruw f_alg_MI_ruw
```

```
g_alg_MI_ruw h_alg_MI_ruw i_alg_MI_ruw f_alg_AP_ruw g_alg_AP_ruw h_alg_AP_ruw
```

```
i_alg_AP_ruw
```

```
f_alg_CVA_ruw g_alg_CVA_ruw h_alg_CVA_ruw i_alg_CVA_ruw f_alg_CHF_ruw g_alg_CHF_ruw
```

```
h_alg_CHF_ruw i_alg_CHF_ruw f_alg_PAD_ruw g_alg_PAD_ruw h_alg_PAD_ruw i_alg_PAD_ruw
```

f_alg_CAD_ruw g_alg_CAD_ruw h_alg_CAD_ruw i_alg_CAD_ruw b2_ARI f_ARI g_ARI h_ARI i_ARI
b2_MI f_MI g_MI h_MI i_MI b2_AP f_AP g_AP h_AP i_AP
b2_CVA f_CVA g_CVA h_CVA i_CVA b2_CHF f_CHF g_CHF h_CHF i_CHF
b2_PAD f_PAD g_PAD h_PAD i_PAD b2_CAD f_CAD g_CAD h_CAD i_CAD
b2_CVD f_CVD g_CVD h_CVD i_CVD
/COMPRESSED.