

Book: Measurement in medicine
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* GET FILE chapter 8, assignment, database PRAFAB.

* select patients who are improved.

```
USE ALL.  
COMPUTE filter_$=(GRS9 <= 3).  
VARIABLE LABEL filter_$ 'GRS9 <= 3 (FILTER)'.  
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.  
FORMAT filter_$ (f1.0).  
FILTER BY filter_$.  
EXECUTE .
```

* determine distribution changeT0-T2 (Subtracting T2 values from T0 values leads to positive change scores for the improved patients)

```
FREQUENCIES  
  VARIABLES=ChangeT0_T2  
  /ORDER= ANALYSIS .
```

* select patients who are not importantly improved

```
FILTER OFF.  
USE ALL.  
EXECUTE .  
USE ALL.  
COMPUTE filter_$=(GRS9 > 3 AND GRS9 < 7).  
VARIABLE LABEL filter_$ 'GRS9 > 3 AND GRS9 < 7 (FILTER)'.  
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.  
FORMAT filter_$ (f1.0).  
FILTER BY filter_$.  
EXECUTE .
```

* determine distribution over T0-T2 for the non importantly changed patients

```
FREQUENCIES  
  VARIABLES=ChangeT0_T2  
  /STATISTICS=MEAN STDDEV MIN MAX .
```

* determine the optimal ROC cut-off point of category GRS9 = 1-3 (n=296) versus GRS9 = 4-6 (n=227)
* we first create a new variable which we call ANCHOR, with
* ANCHOR = 1 when patients are importantly improved according to the anchor;
* ANCHOR = 0 when patients are not importantly changed according to the anchor; and
* ANCHOR = -1 when patients are importantly deteriorated according to the anchor.

```
IF (GRS9 <= 3) anchor = 1 .
```

```
EXECUTE .
IF (GRS9 =4 OR GRS9 =5 OR GRS9 =6) anchor = 0 .
EXECUTE .
IF (GRS9 >= 7) anchor = -1 .
EXECUTE .

FILTER OFF.
USE ALL.
EXECUTE .
USE ALL.
COMPUTE filter_$(GRS9 <= 6).
VARIABLE LABEL filter_$ 'GRS9 <= 6 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMAT filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE .
ROC
  changeT0_T2 BY ANCHOR (1)
  /PLOT = CURVE
  /PRINT = SE COORDINATES
  /CRITERIA = CUTOFF(INCLUDE) TESTPOS(LARGE) DISTRIBUTION(FREE) CI(95)
  /MISSING = EXCLUDE .
```