

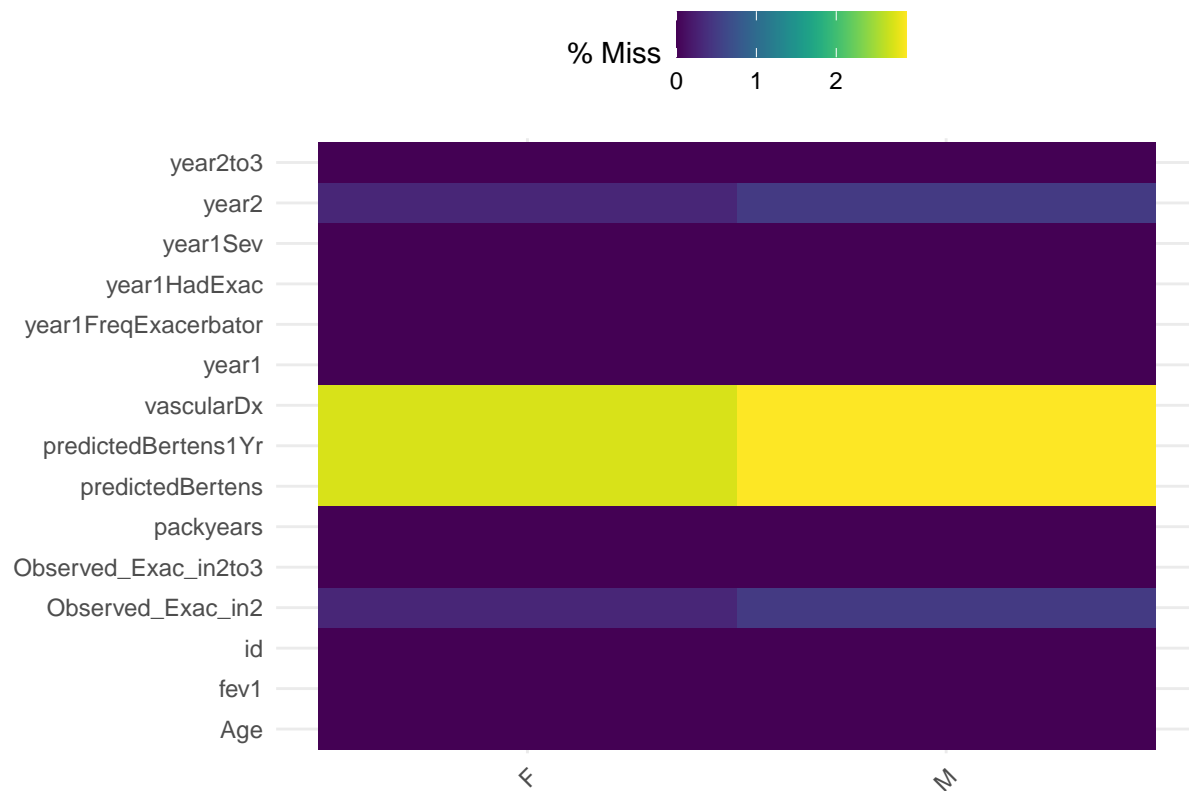
Bertens Validation

Amin Adibi

23/03/2021

Validation

Missing Values

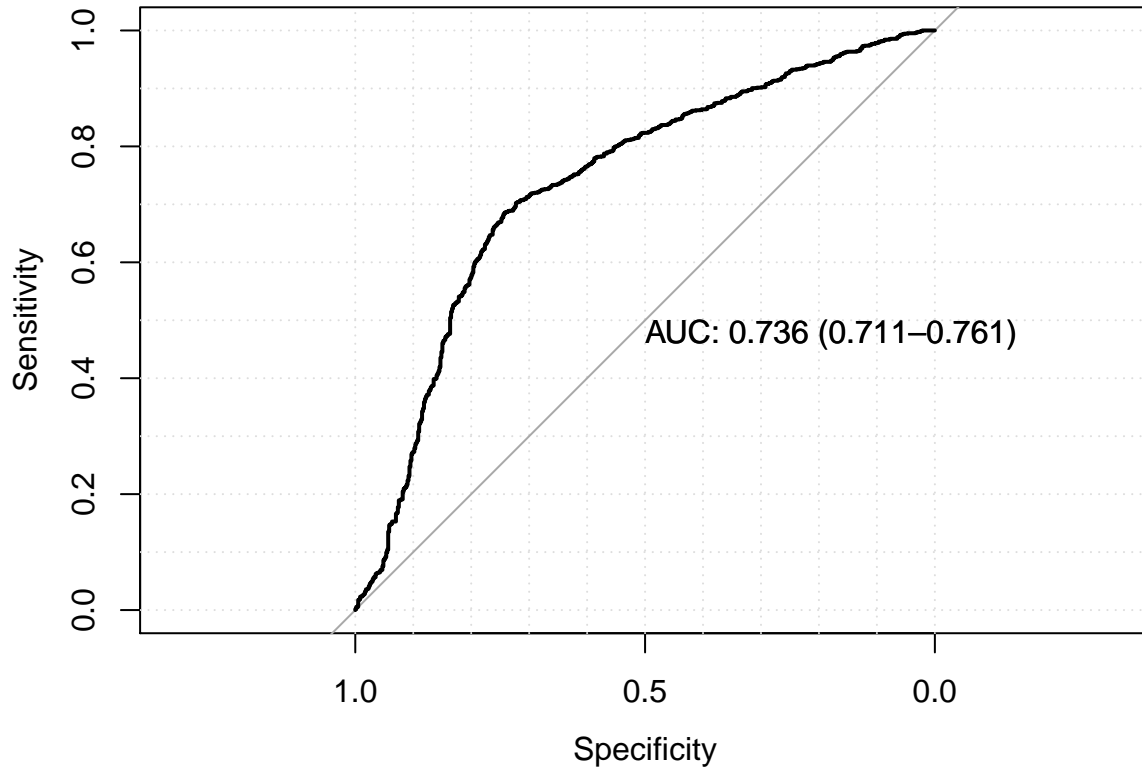


```
## # A tibble: 6 x 16
##   id      Age sex   fev1 packyears vascularDx year1 year1Sev year2 year2to3
##   <chr> <dbl> <chr> <dbl>    <dbl> <lg1>    <dbl>    <dbl> <dbl>    <dbl>
## 1 100033   60 M    33.6     27 FALSE      0      0      1      2
## 2 100051   70 M    54.1     68 FALSE      1      0      1      3
## 3 100120   72 F    43.2     20 FALSE      0      0      3      4
## 4 100219   67 F    28.4     40 FALSE      1      0      1      1
## 5 100235   62 M    44.4     50 FALSE      1      0      0      0
## 6 100411   75 M    45.9     22 FALSE      1      1      0      3
## # ... with 6 more variables: Observed_Exac_in2to3 <dbl>,
## #   Observed_Exac_in2 <dbl>, year1FreqExacerbator <dbl>, year1HadExac <dbl>,
## #   predictedBertens <dbl>, predictedBertens1Yr <dbl>
```

Two years, Bertens vs History - all COPD

```
## Setting levels: control = 0, case = 1
```

```
## Setting direction: controls < cases
```



```
##
```

```
## Call:
```

```
## roc.default(response = eclipseComplete$Observed_Exac_in2to3, predictor = eclipseComplete$predictedBertens)
```

```
##
```

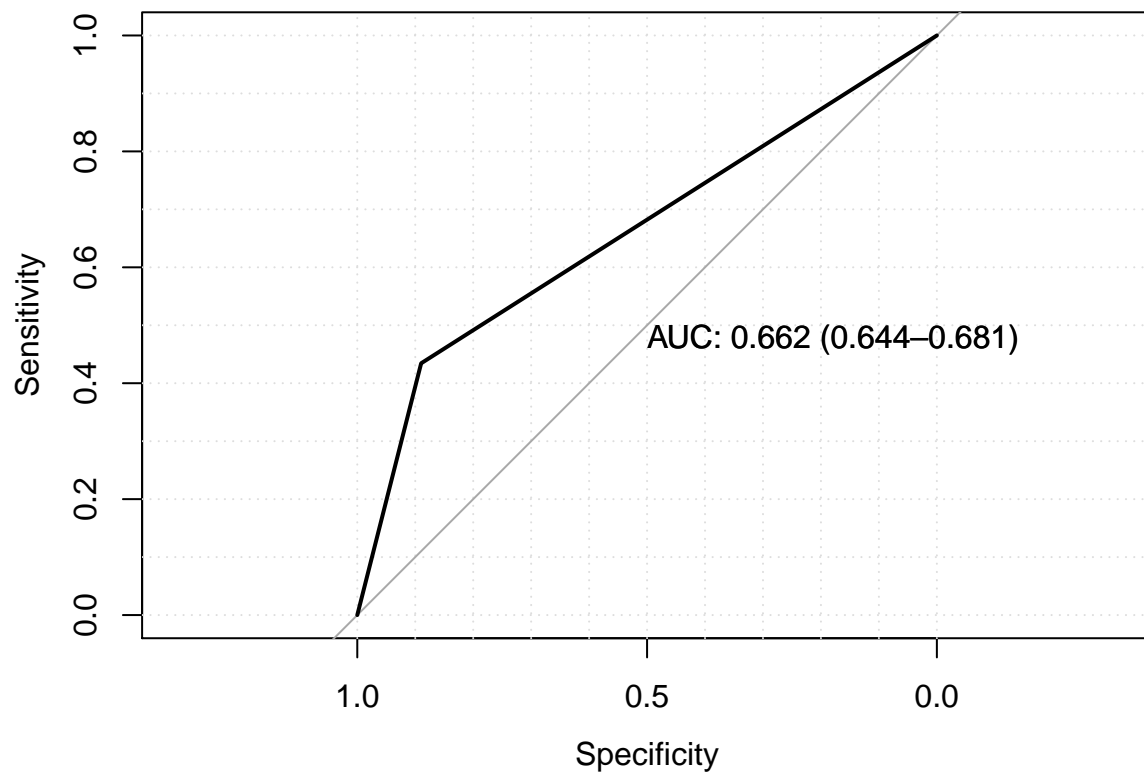
```
## Data: eclipseComplete$predictedBertens in 599 controls (eclipseComplete$Observed_Exac_in2to3 0) < 12
```

```
## Area under the curve: 0.7357
```

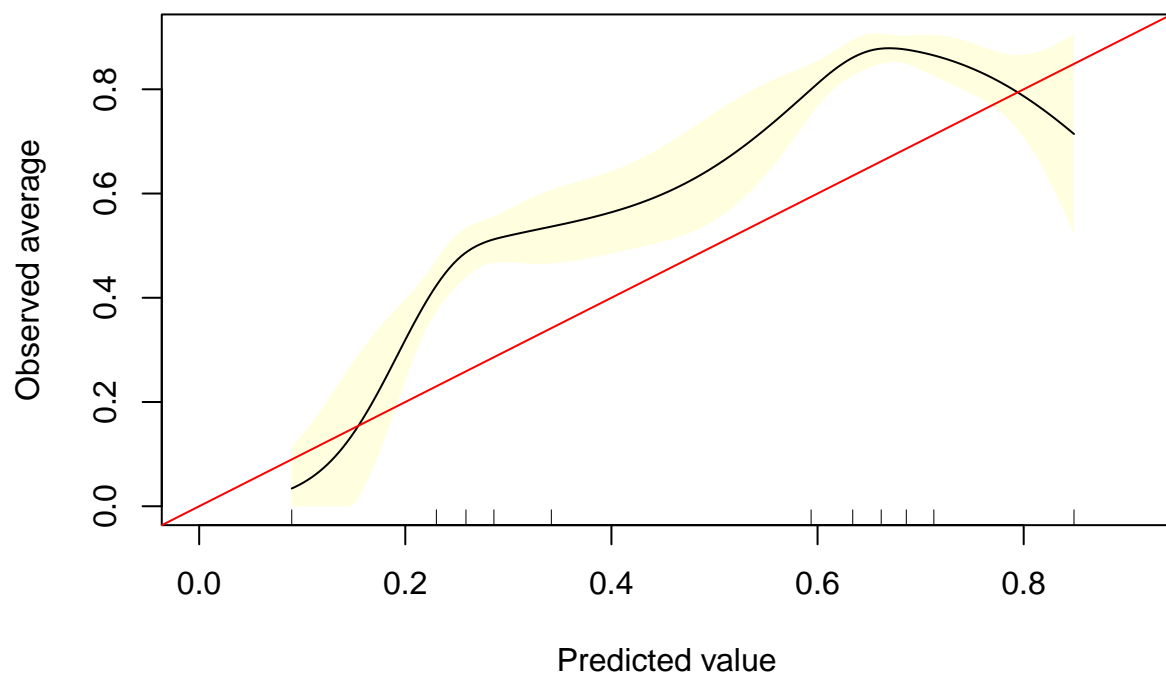
```
## 95% CI: 0.7107-0.7607 (DeLong)
```

```
## Setting levels: control = 0, case = 1
```

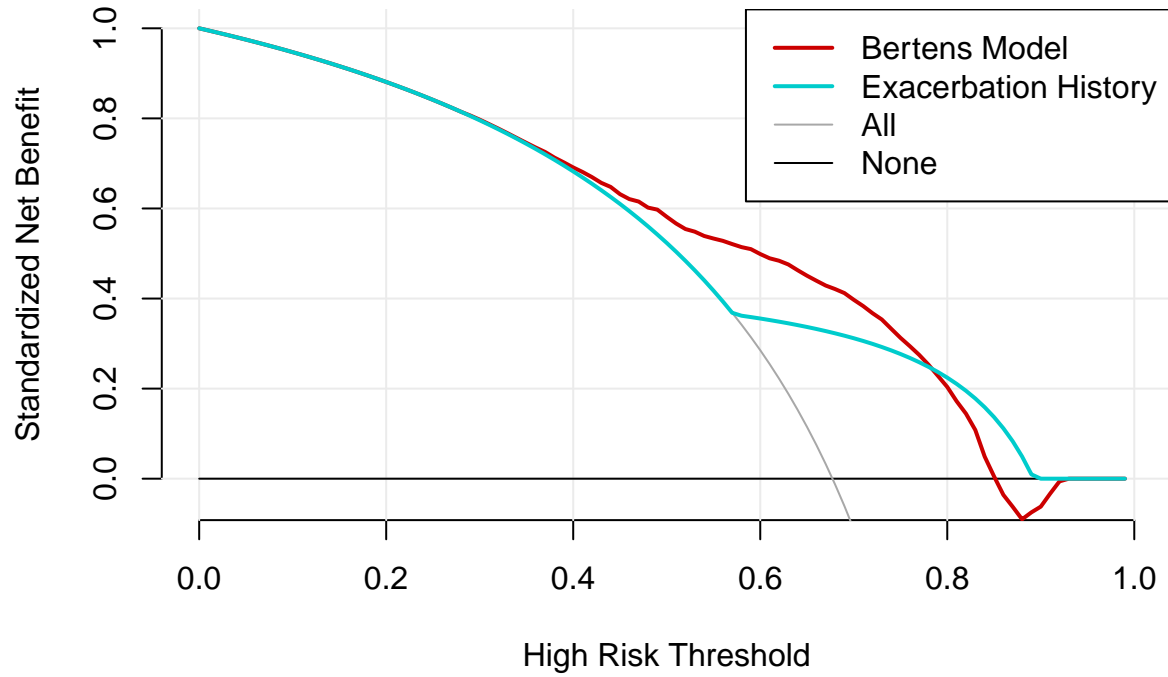
```
## Setting direction: controls < cases
```



```
##
## Call:
## roc.default(response = eclipseComplete$Observed_Exac_in2to3, predictor = eclipseComplete$year1Fr
##
## Data: eclipseComplete$year1FreqExacerbator in 599 controls (eclipseComplete$Observed_Exac_in2to3 0)
## Area under the curve: 0.6621
## 95% CI: 0.6435-0.6807 (DeLong)
```



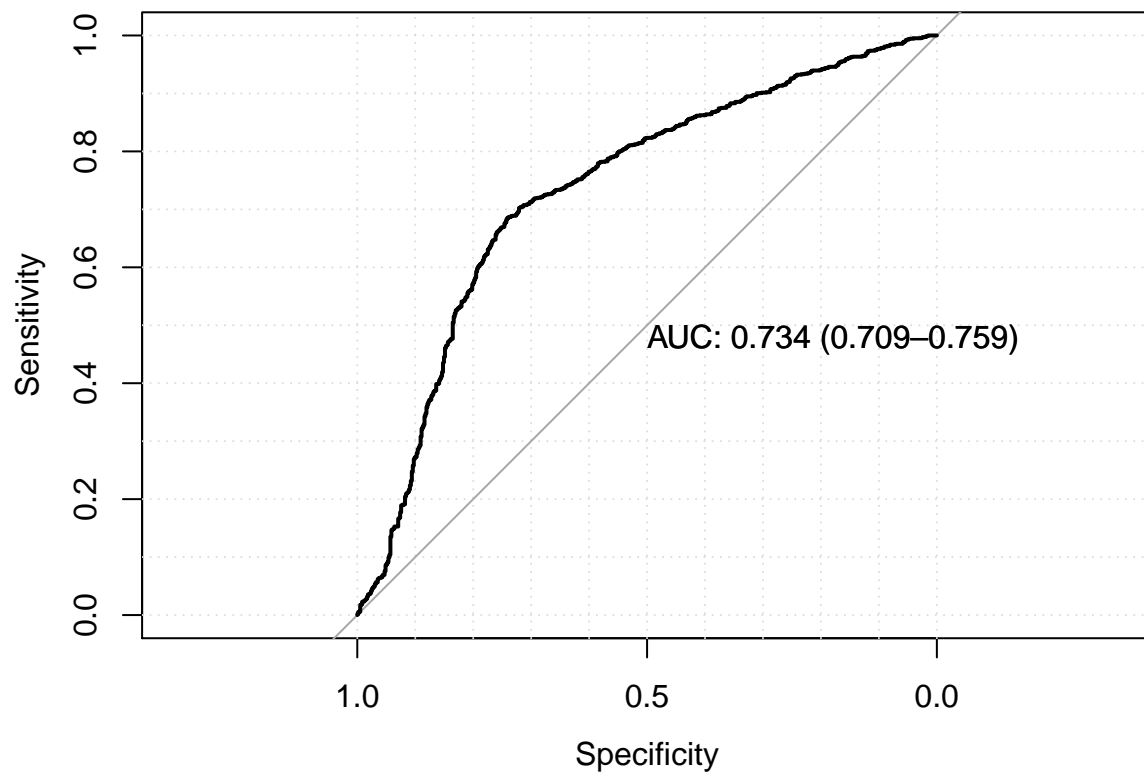
Note: When multiple decision curves are plotted, decision curves for 'All' are calculated using the p



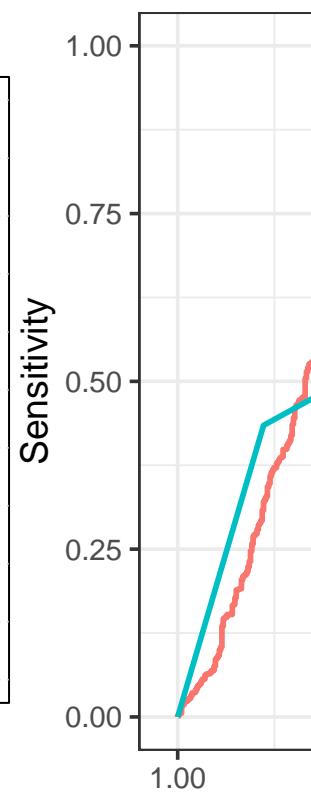
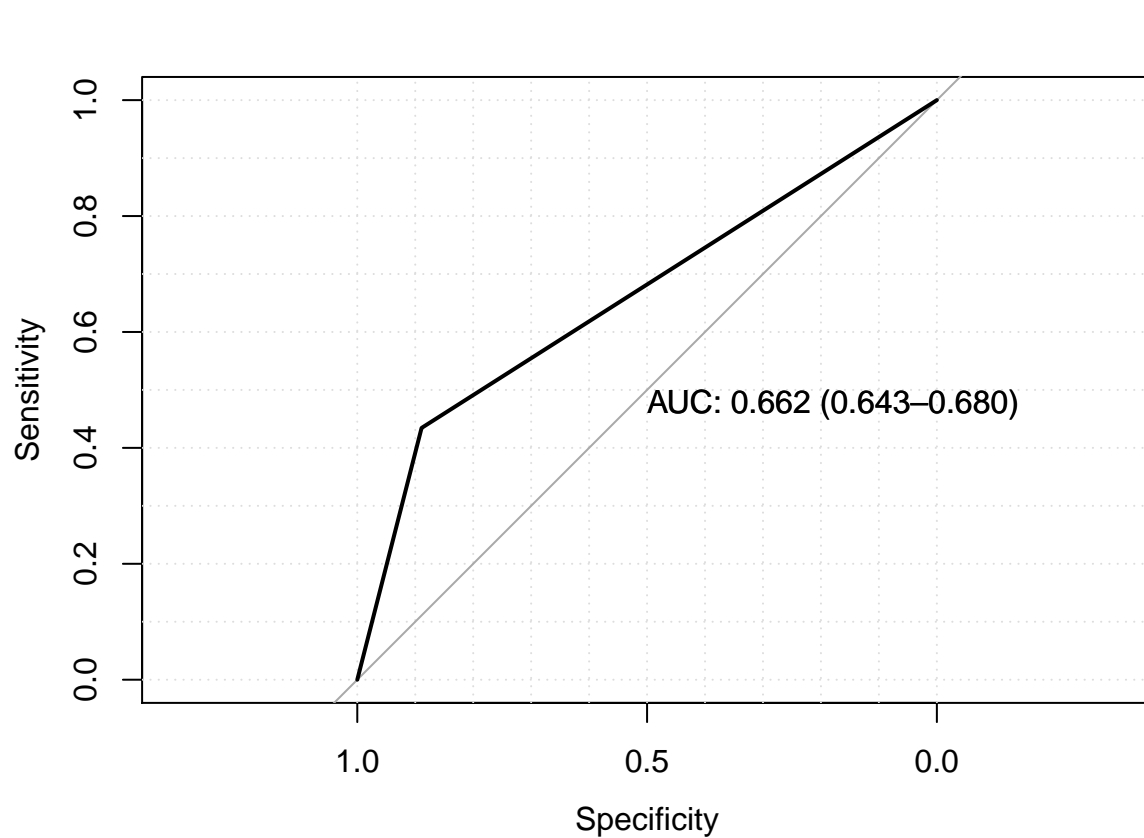
Two years - Smokers

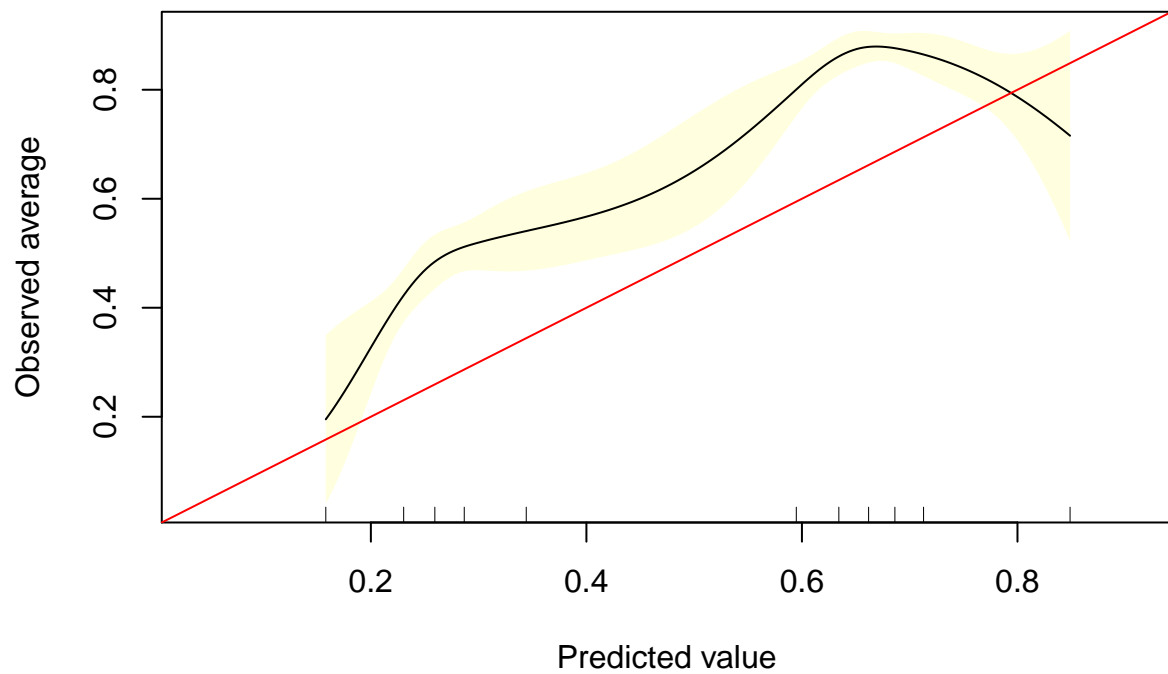
Setting levels: control = 0, case = 1

Setting direction: controls < cases

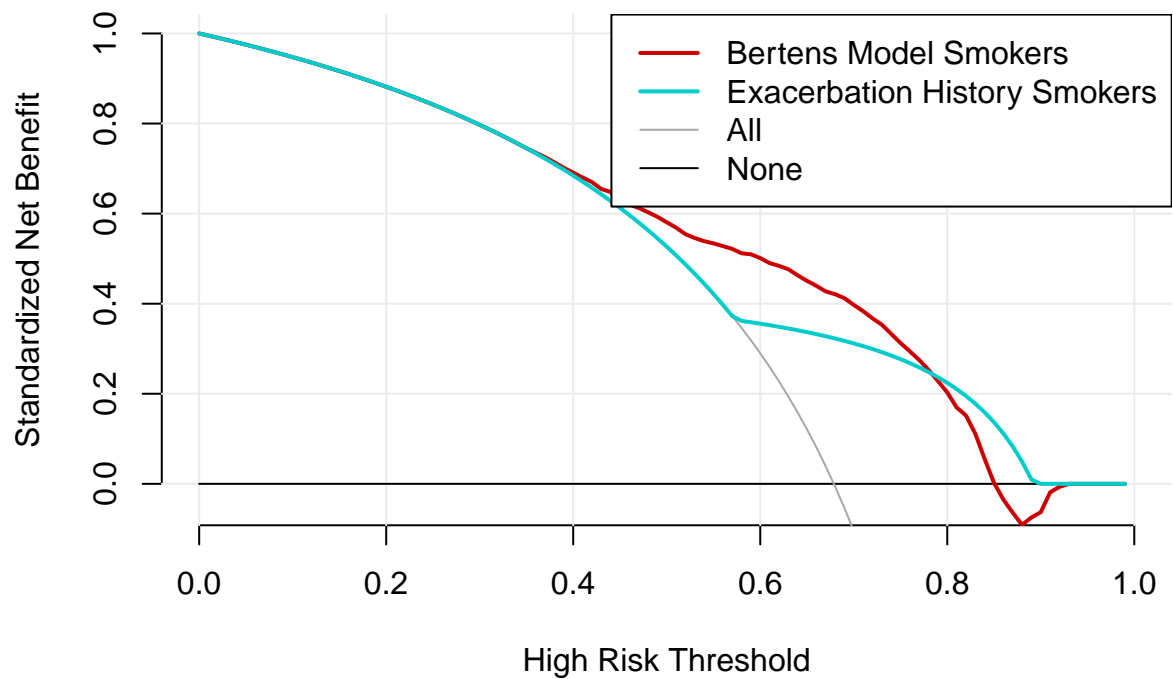


```
## Setting levels: control = 0, case = 1
## Setting direction: controls < cases
```





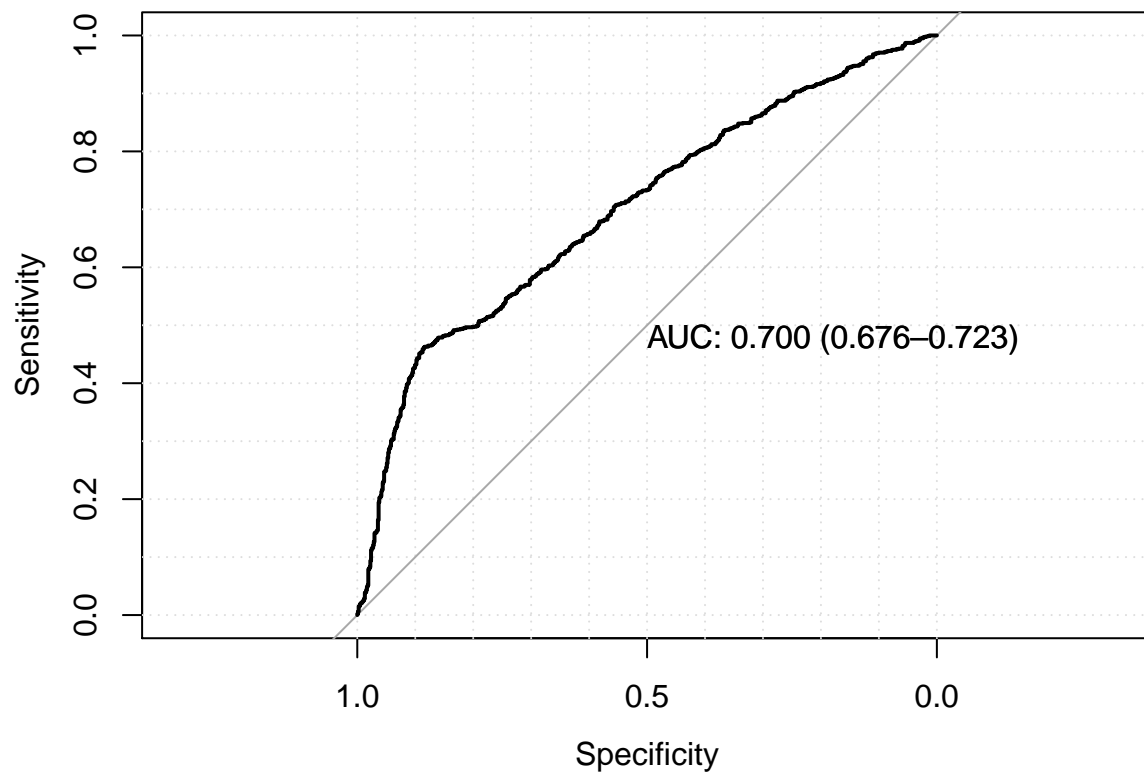
Note: When multiple decision curves are plotted, decision curves for 'All' are calculated using the p



One year predicitons

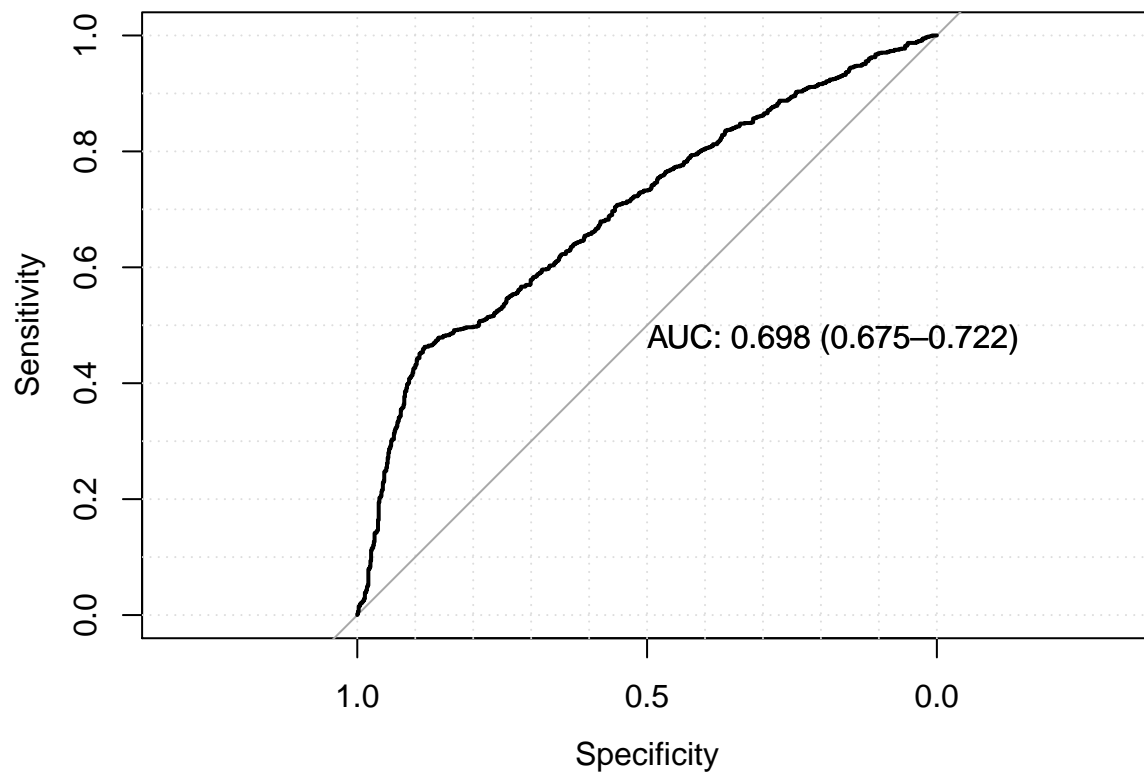
Setting levels: control = 0, case = 1

Setting direction: controls < cases



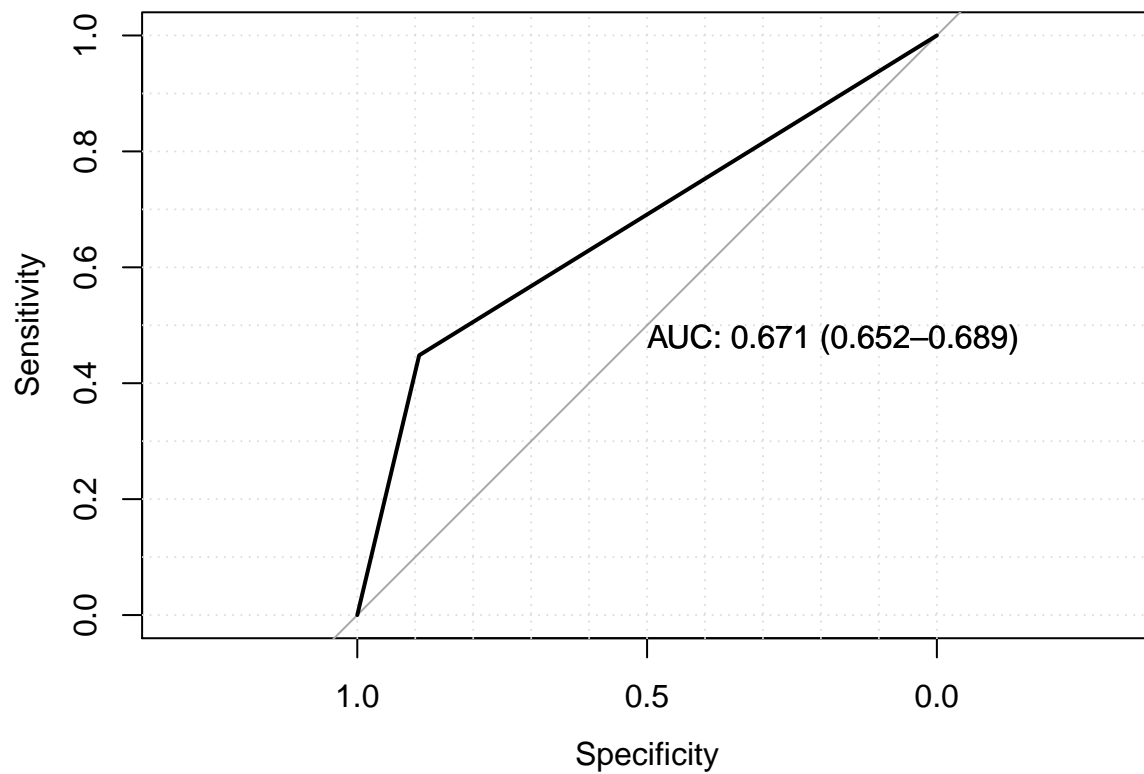
```
##
## Call:
## roc.default(response = eclipseComplete$Observed_Exac_in2, predictor = eclipseComplete$predictedBertens1Yr)
##
## Data: eclipseComplete$predictedBertens1Yr in 843 controls (eclipseComplete$Observed_Exac_in2 0) < 10
## Area under the curve: 0.6999
## 95% CI: 0.6763-0.7234 (DeLong)

## Setting levels: control = 0, case = 1
## Setting direction: controls < cases
```

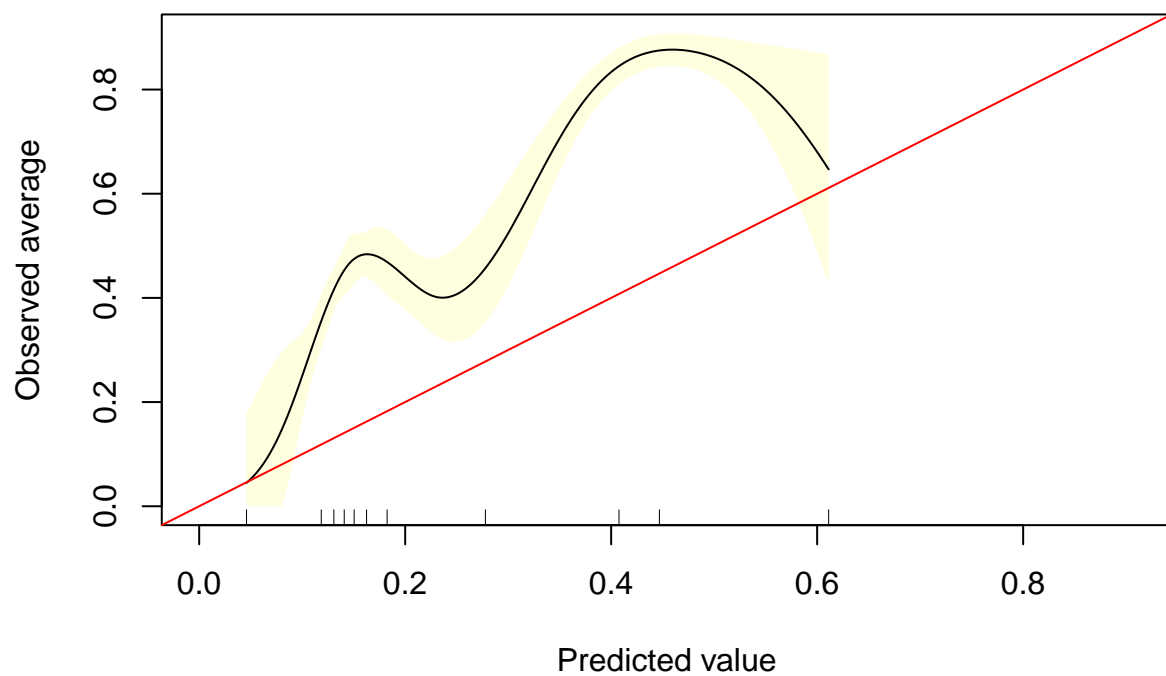


```
##
## Call:
## roc.default(response = eclipseCompleteSmokers$Observed_Exac_in2,      predictor = eclipseCompleteSmokers$predictedBertens1Yr)
##
## Data: eclipseCompleteSmokers$predictedBertens1Yr in 839 controls (eclipseCompleteSmokers$Observed_Exac_in2)
## Area under the curve: 0.6984
## 95% CI: 0.6748-0.7221 (DeLong)

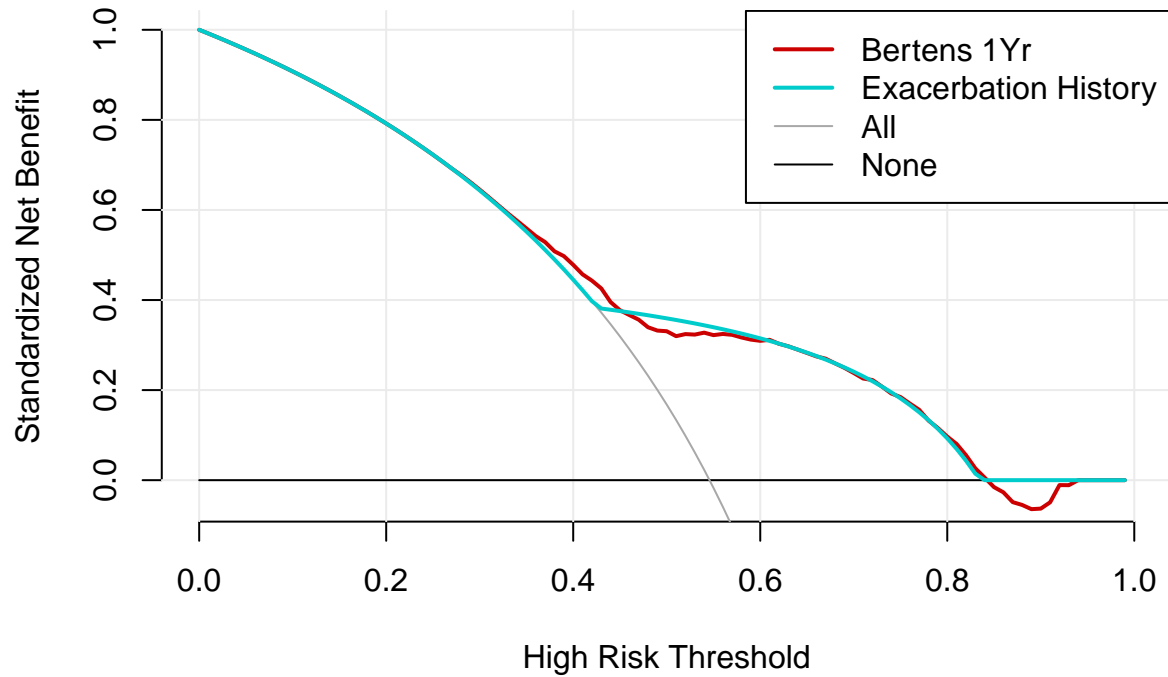
## Setting levels: control = 0, case = 1
## Setting direction: controls < cases
```

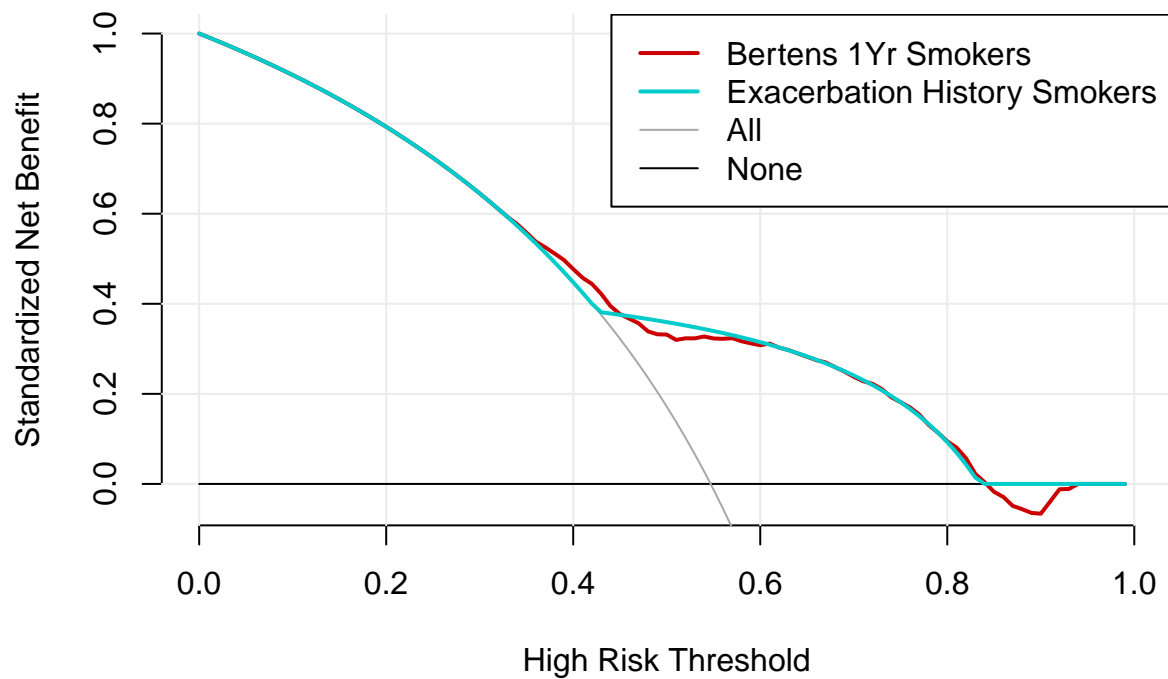
```
##
## Call:
## roc.default(response = eclipseComplete$Observed_Exac_in2, predictor = eclipseComplete$year1FreqExacer
##
## Data: eclipseComplete$year1FreqExacerbator in 843 controls (eclipseComplete$Observed_Exac_in2 0) < 1
## Area under the curve: 0.6707
## 95% CI: 0.6522-0.6892 (DeLong)
```



Note: When multiple decision curves are plotted, decision curves for 'All' are calculated using the p



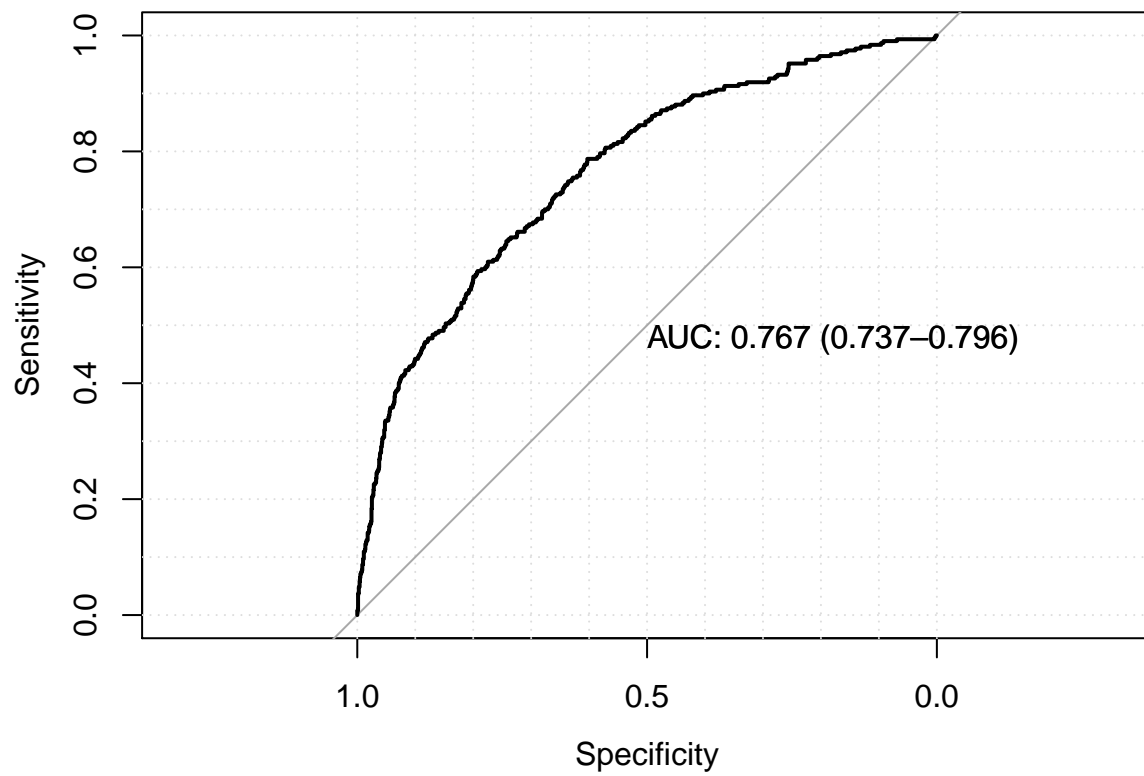
Note: When multiple decision curves are plotted, decision curves for 'All' are calculated using the p



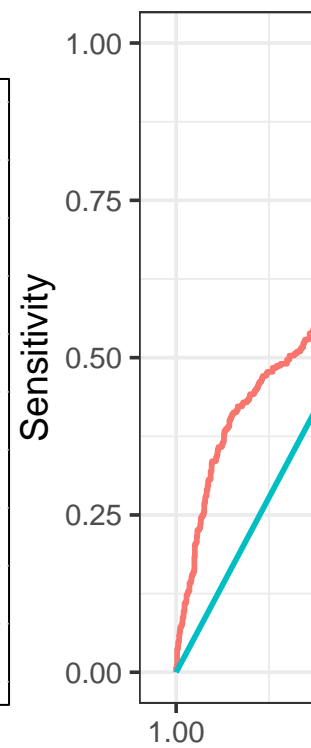
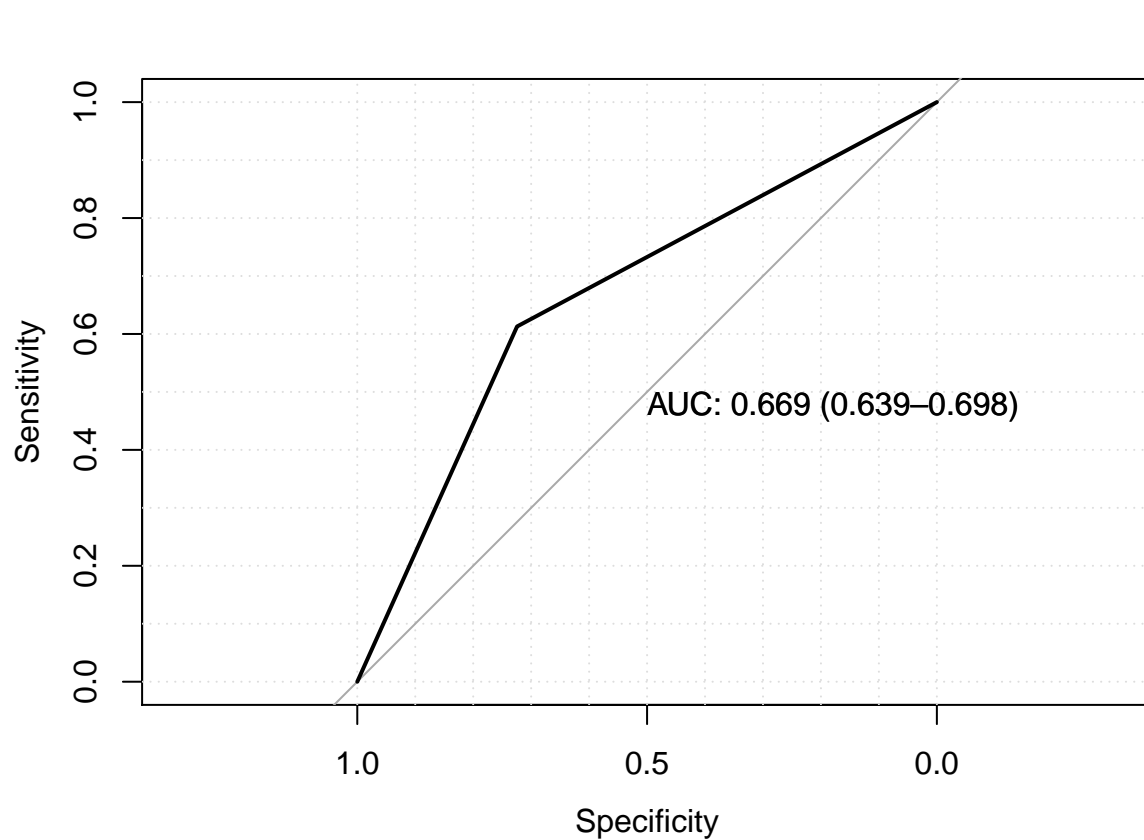
ACCEPT Severe

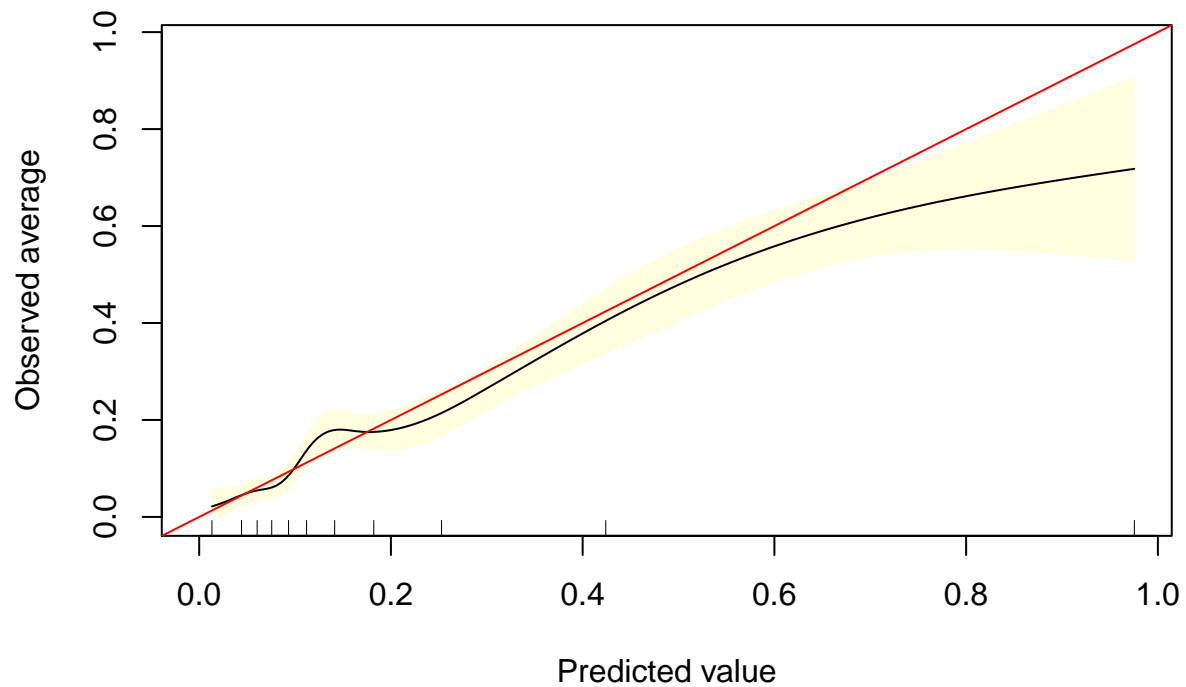
Setting levels: control = 0, case = 1

Setting direction: controls < cases

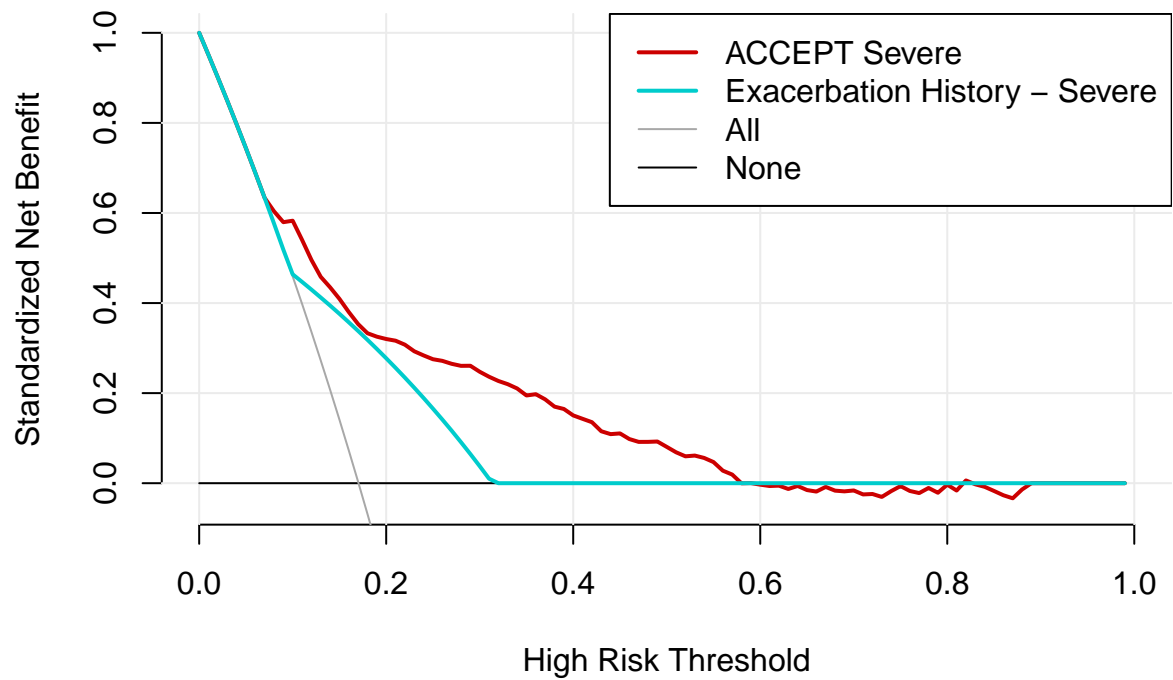


```
## Setting levels: control = 0, case = 1
## Setting direction: controls < cases
```



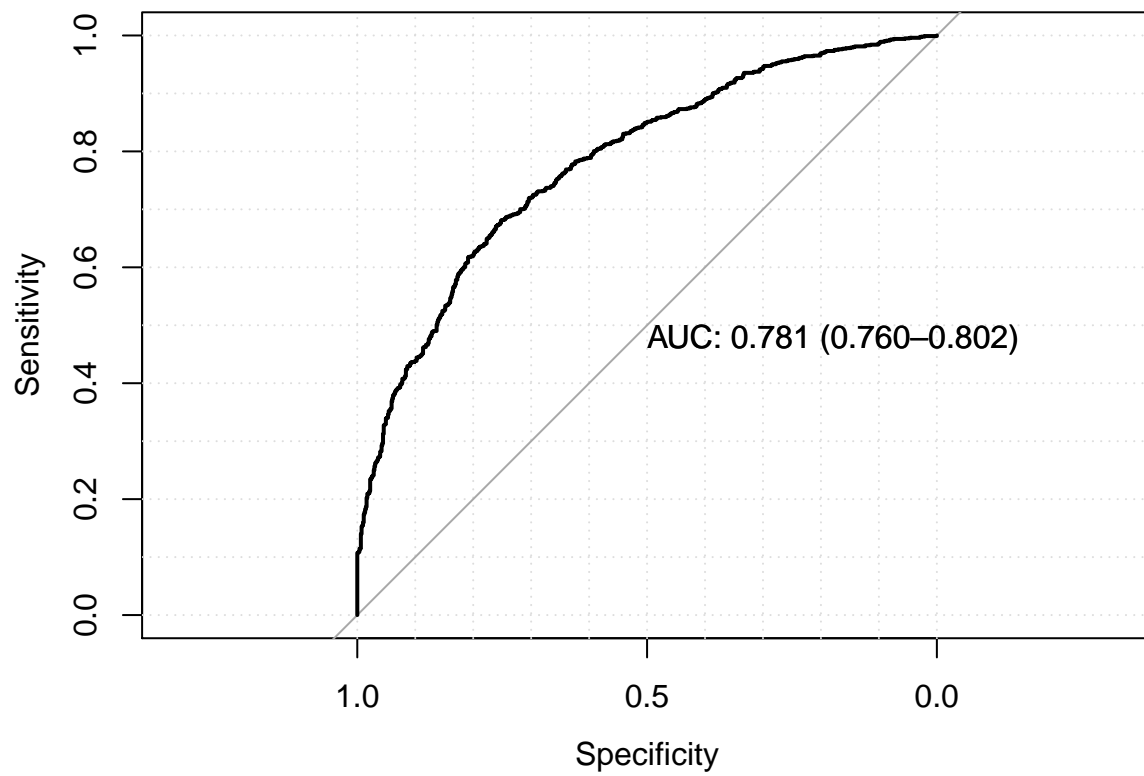


Note: When multiple decision curves are plotted, decision curves for 'All' are calculated using the p

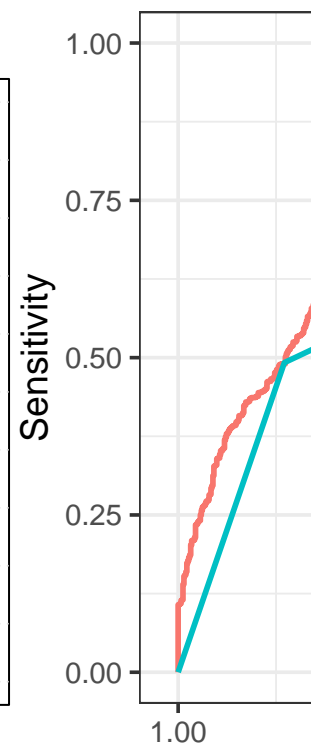
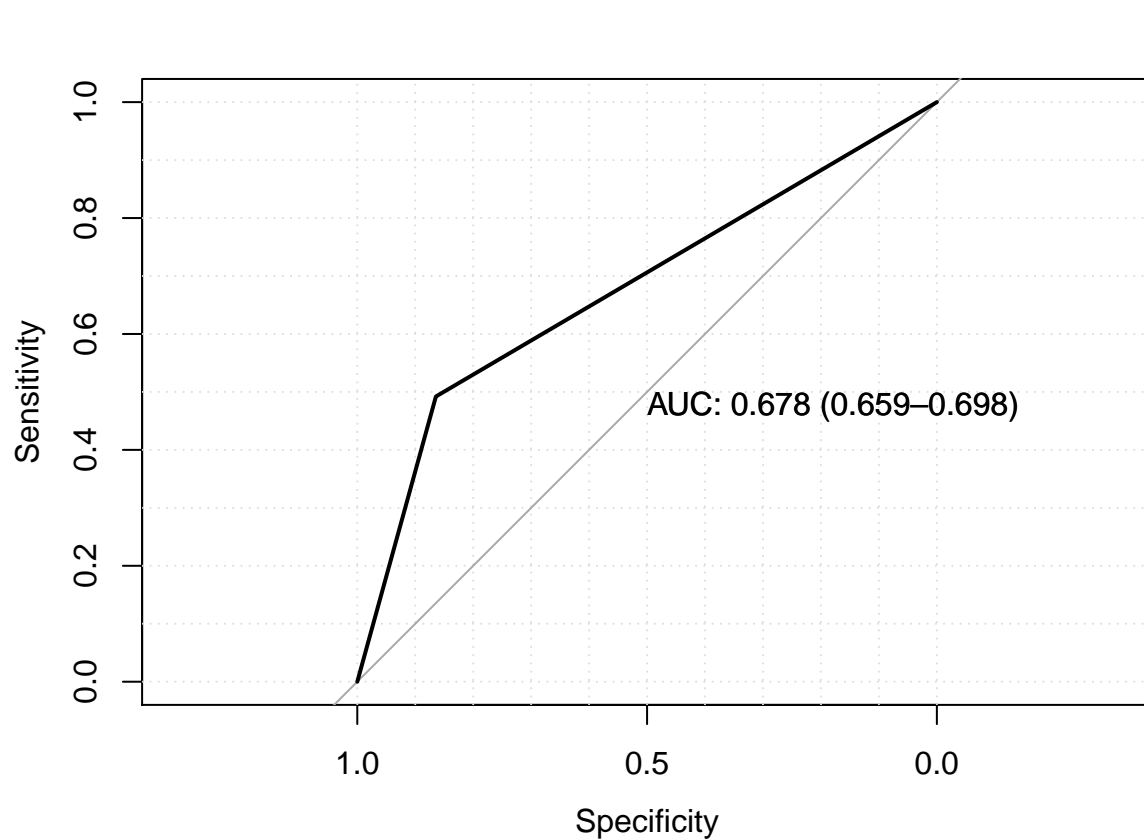


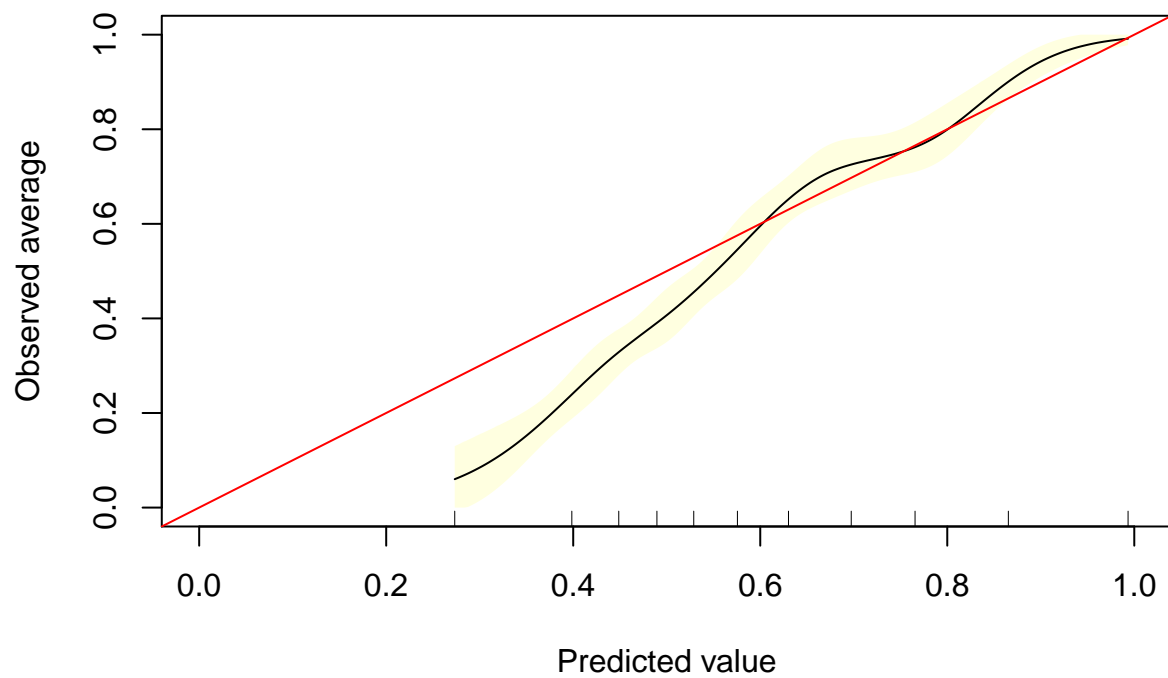
Setting levels: control = 0, case = 1

Setting direction: controls < cases

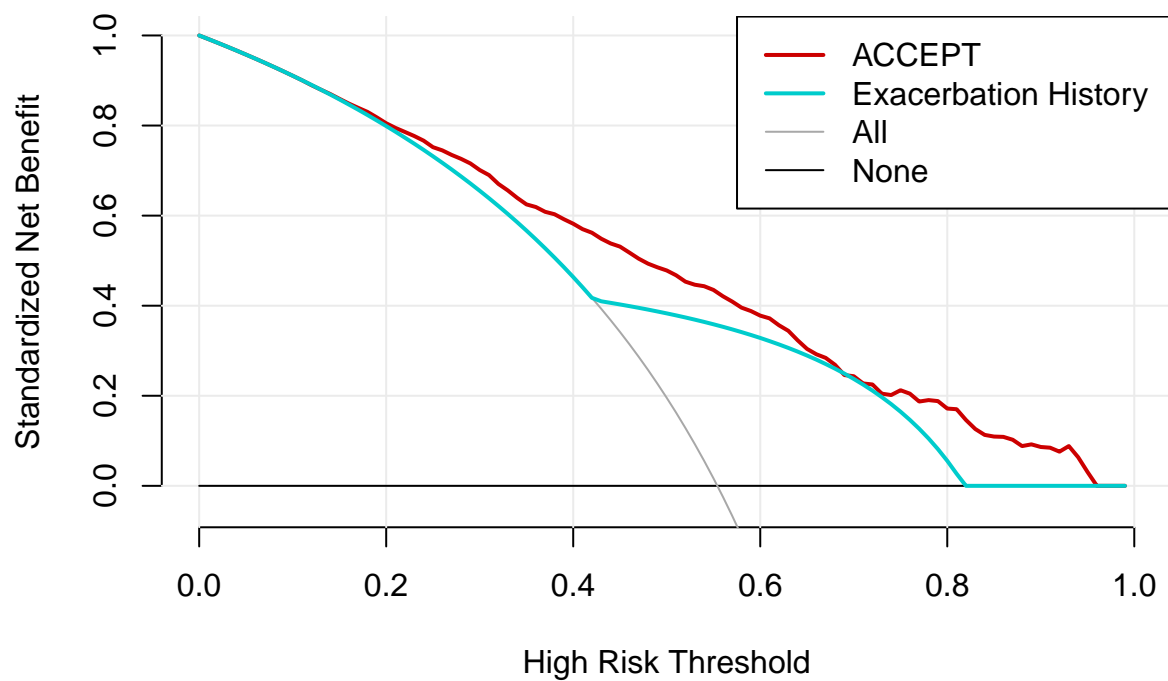


```
## Setting levels: control = 0, case = 1
## Setting direction: controls < cases
```





Note: When multiple decision curves are plotted, decision curves for 'All' are calculated using the p



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