PIJ project - fit Eriks model to Danish data

ute

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Purpose

Just look if the Danish data would give a much different model.

Code

Eriks model: formula

```
load("../cache/model_reduced_lean.RData")

model_reduced_lean$formula
```

```
## [1] "outcome ~ c_cns_disease + c_fluid_electrolyte_disorders + c_liver_disease + P_ASA + P_BMI + P_D
```

load DK data and refit model

```
load("../data/dkdata.RData")

dkfit <- glm(model_reduced_lean$formula, family = binomial(), data = dkdata)
#dk0fit <- glm(model_reduced_lean$formula, family = binomial(), data = dkdata0)
```

Put the coefficients from DK and SE into one table:

```
SE_DK_fit <- data.frame(
            SE_fit = model_reduced_lean$coefficients,
            DK_fit = dkfit$coefficients
            )

SE_DK_fit
```

```
##                                                       SE_fit       DK_fit
## (Intercept)                                        -6.30816188 -6.25822932
## c_cns_diseaseTRUE                                   0.69078094  0.78919222
## c_fluid_electrolyte_disordersTRUE                   0.41817214  0.27116800
## c_liver_diseaseTRUE                                 0.74841748  0.48058307
## P_ASAII                                             0.17935413  0.38466480
## P_ASAIII                                            0.44308164  0.50622486
## P_BMIoverweight                                     0.38824197  0.41752009
## P_BMIclass I obesity                                0.80531973  0.68729945
## P_BMIclass II-III obesity                           1.39987654  1.54869928
## P_DiaGrpSecondary osteoarthritis                    0.73652369  0.44092128
## P_DiaGrpSequelae after childhood hip disease        0.39169371 -0.52204964
## P_DiaGrpAvascular necrosis of the femoral head (AVN) 0.58384200  0.81895273
## P_DiaGrpInflammatory joint disease                  0.93572903  0.41482775
```

```
## P_SexMale                                      0.37483252   0.32039812
## c_arrhythmiaTRUE                               0.26580247   0.13808602
## c_lung_airways_diseaseTRUE                      0.27218426   0.29561924
## P_Age                                          0.02289251   0.01934869
```

A glance at the results

Some coefficients are comparable in size, others are quite different. There are particular discrepancies in the coefficients for the hip diagnostics, as well as for arrythmia, fluid_electrolyte_disorder and liver_disease. Also the effect of ASA II is somewhat different.

BMI, Age, Sex, cns_disease, lung_airways_disease look quite similar in both countries.