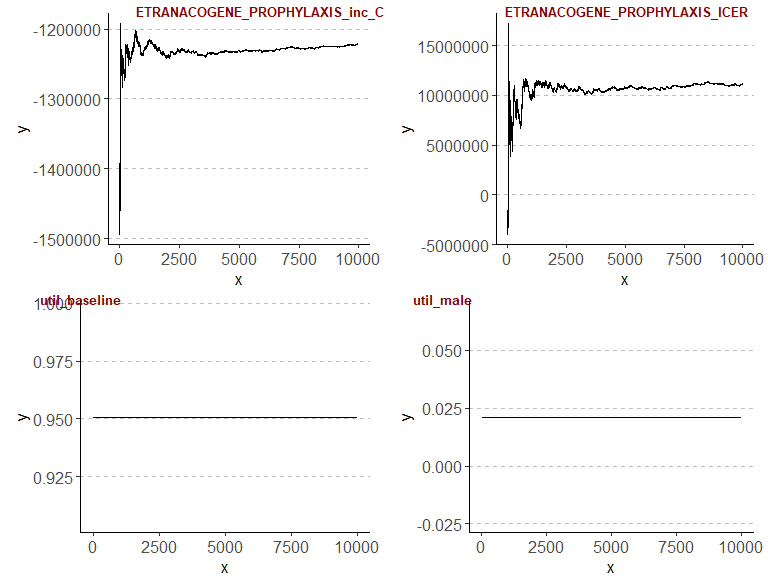
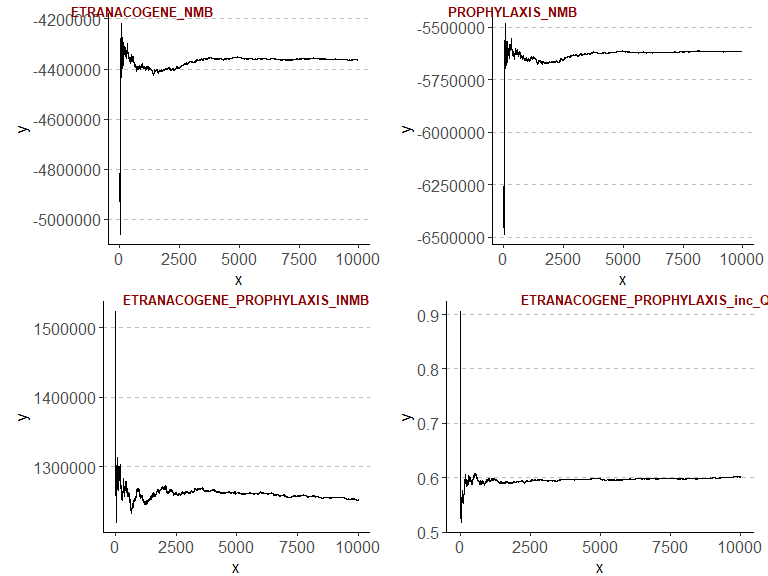
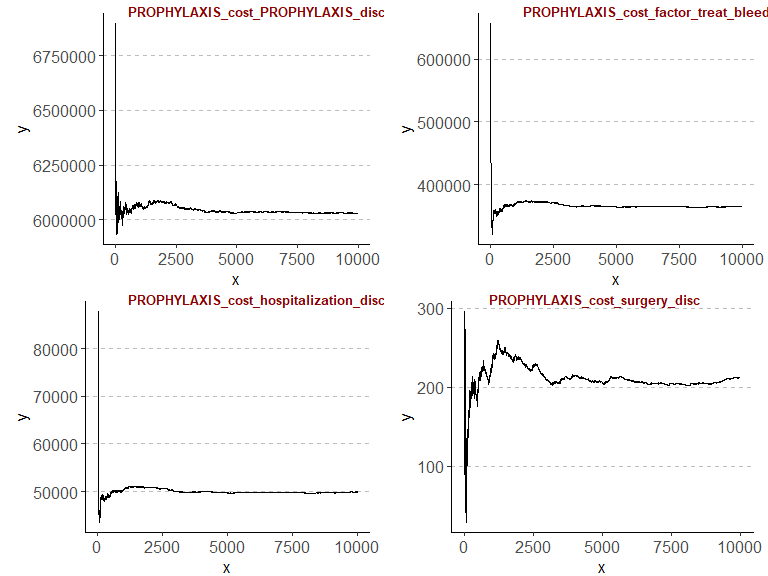
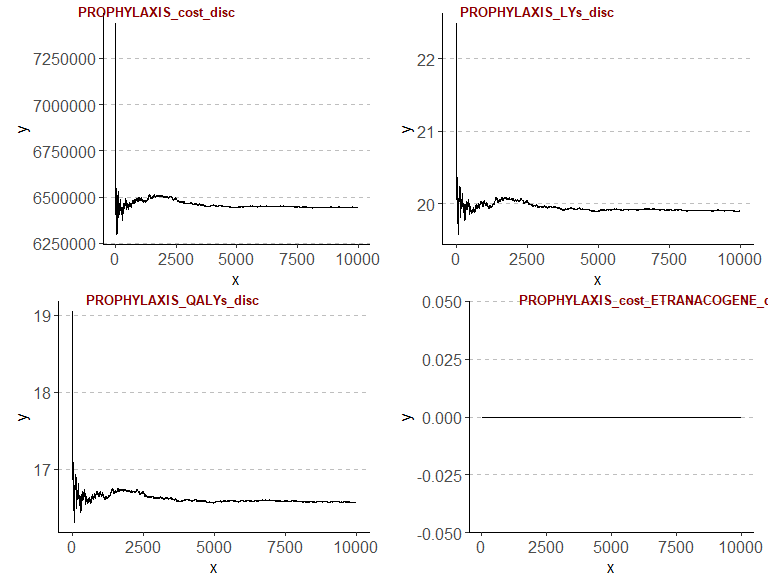
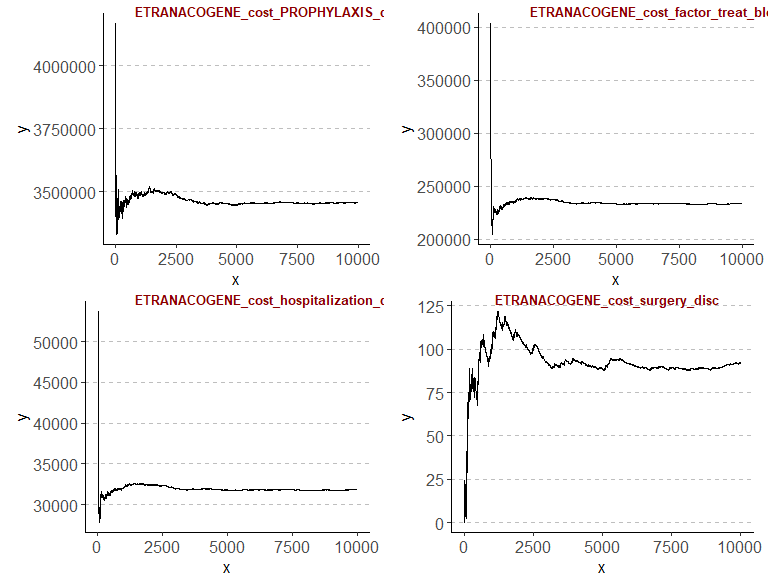
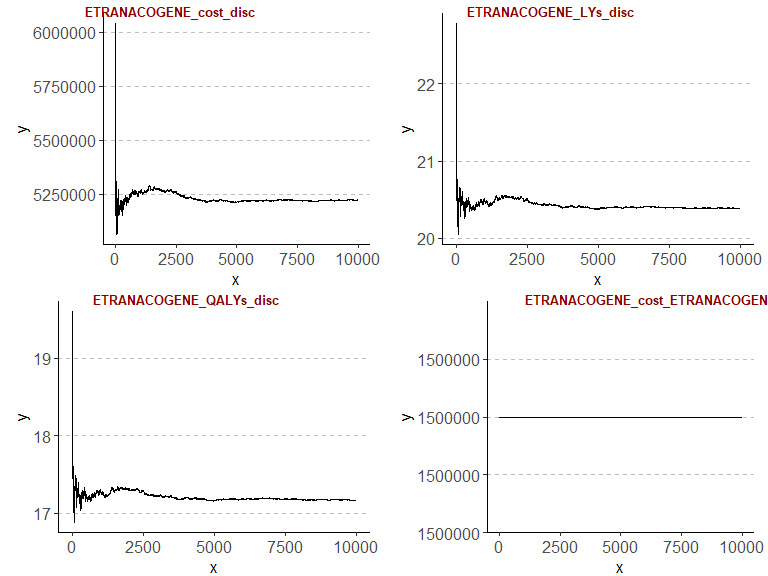
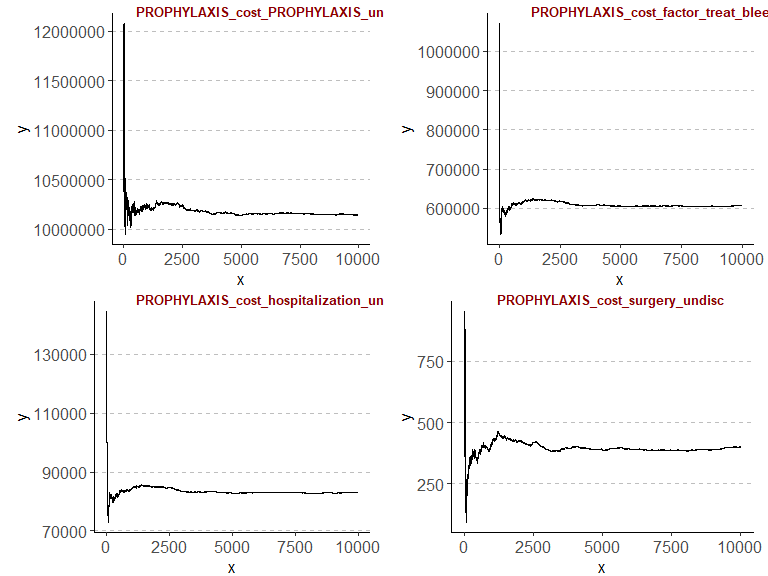
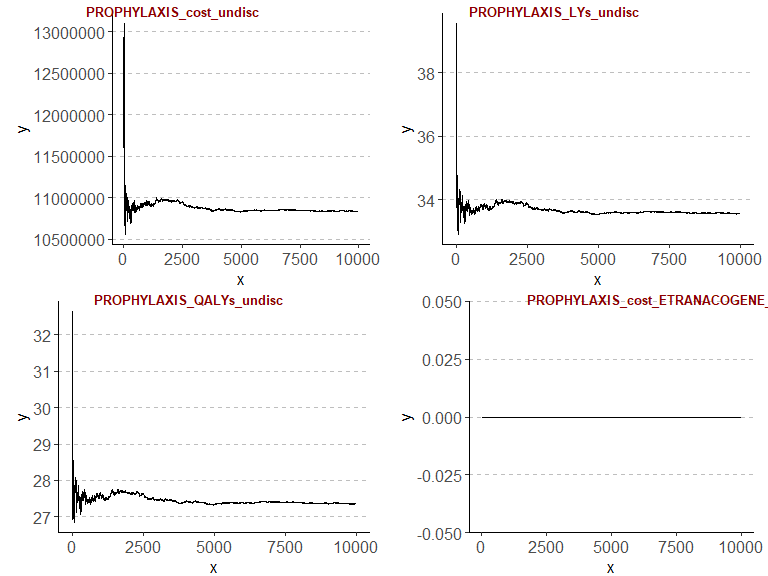
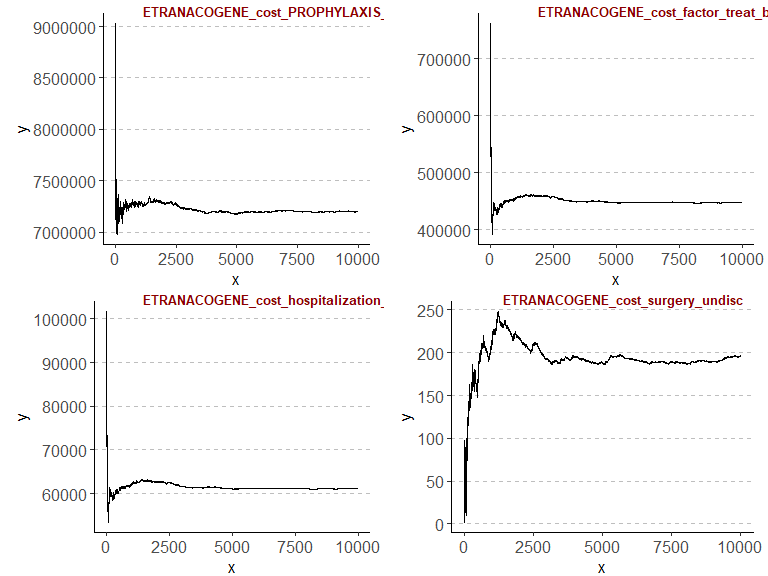
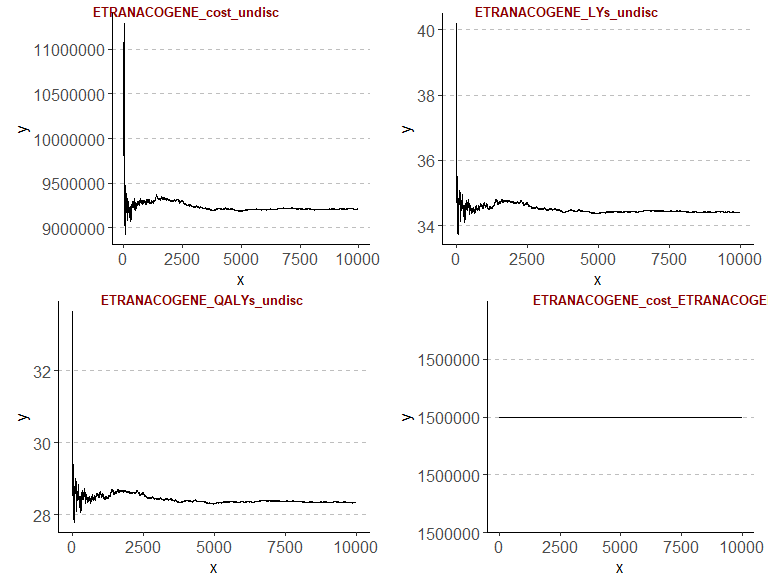
Analysis of HB CE deterministic model

Niklaus Meier

Juni 20, 2023

## [1] "These plots show the convergence of various outcomes as more patients are added to generate the running mean."



##   
##   
## | ETRA vs. PROPH inc. QALYs | ETRA vs. PROPH inc. Costs |  
## |:-------------------------:|:-------------------------:|  
## | 0 | 0 |  
## | 0 | 0 |  
## | 0 | 0 |  
## | 0 | 0 |  
## | 0 | 0 |  
## | 0 | 0 |  
## | 0 | 0 |  
## | 0 | 0 |  
## | 0 | 0 |  
## | 0 | 0 |  
##   
## Table: Diagnostics of convergence of running incremental outcomes over all patients in simulation. (continued below)  
##   
##   
##   
## | ETRA vs. PROPH inc. NMB |  
## |:-----------------------:|  
## | 0 |  
## | 0 |  
## | 0 |  
## | 0 |  
## | 0 |  
## | 0 |  
## | 0 |  
## | 0 |  
## | 0 |  
## | 0 |

## [1] "We used intervals of 1000 patients, and checked whether the running mean of the incremental outcomes change by more than 1%."

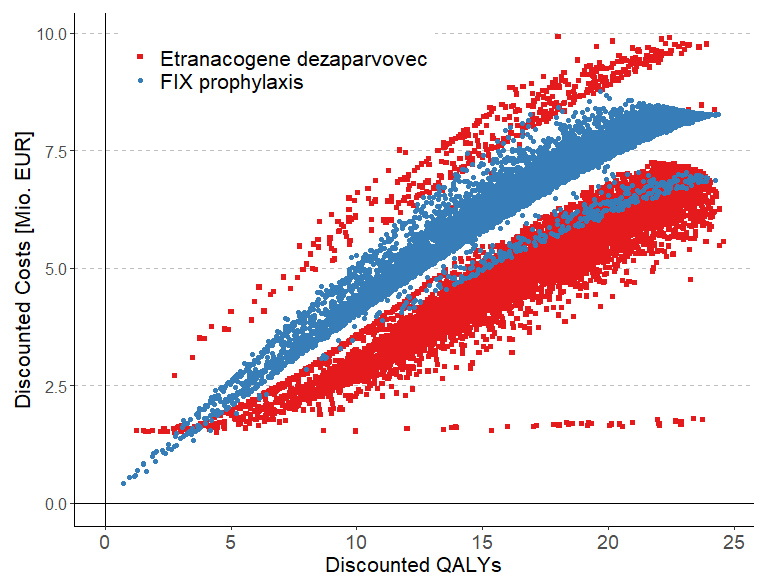
## [1] "A 0 means that we have reached a stable value, i.e. we have achieved convergence and have a sufficient sample size, using this interval and this percentage change as a measure of sufficient stability."

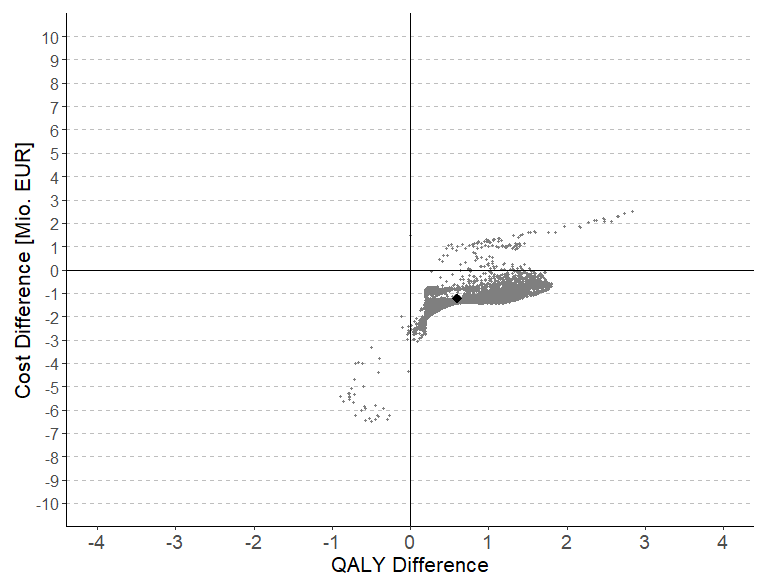
##   
##   
## | Treatment | LYs | QALYs | Costs | NMB | ICER |  
## |:------------:|:------:|:------:|:--------:|:---:|:----:|  
## | ETRANACOGENE | 34.4 | 28.34 | 9211920 | 0 | 0 |  
## | Prophylaxis | 33.56 | 27.36 | 10838802 | 0 | 0 |  
## | Increment | 0.8438 | 0.9773 | -1626882 | 0 | 0 |  
##   
## Table: Comparison undiscounted outcomes between ETRANACOGENE and Prophylaxis

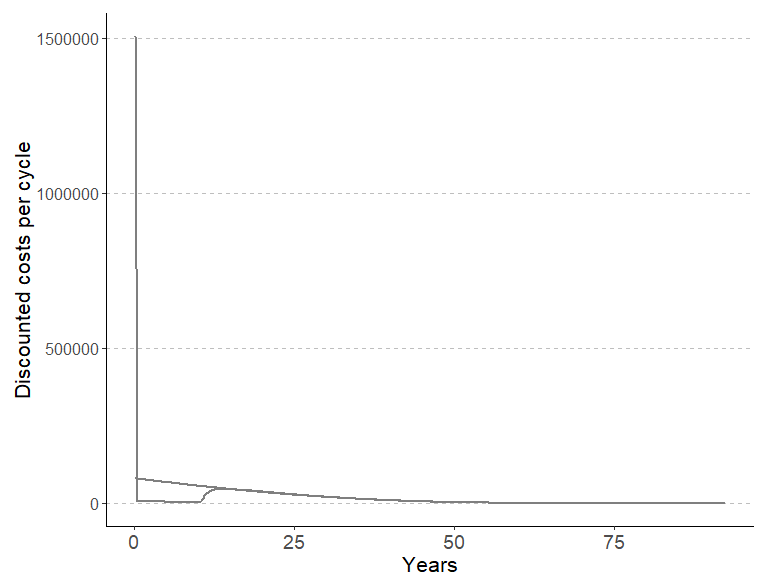
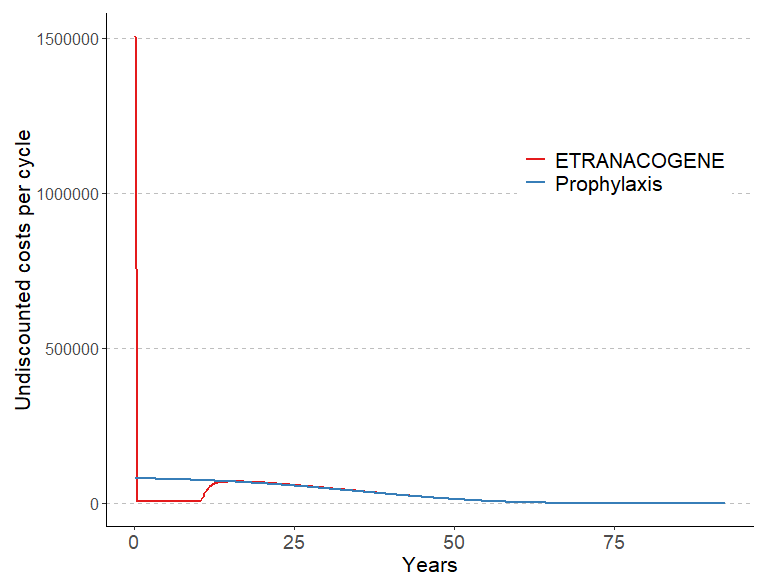
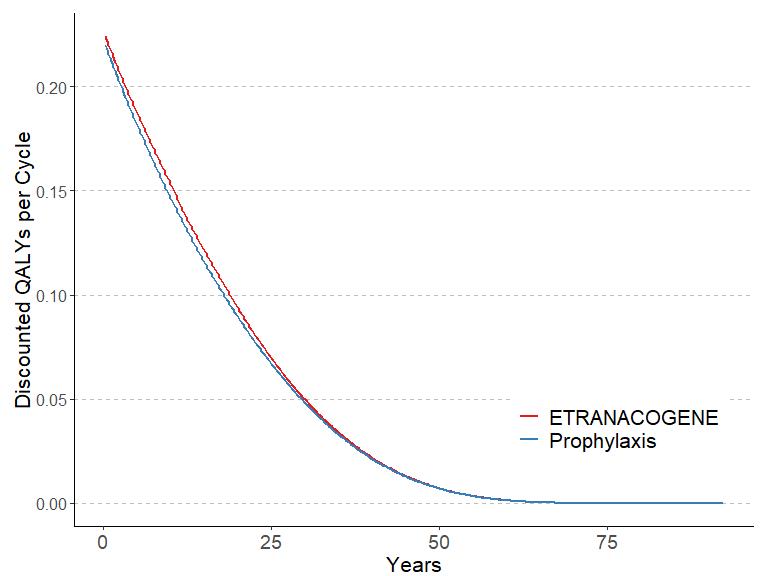
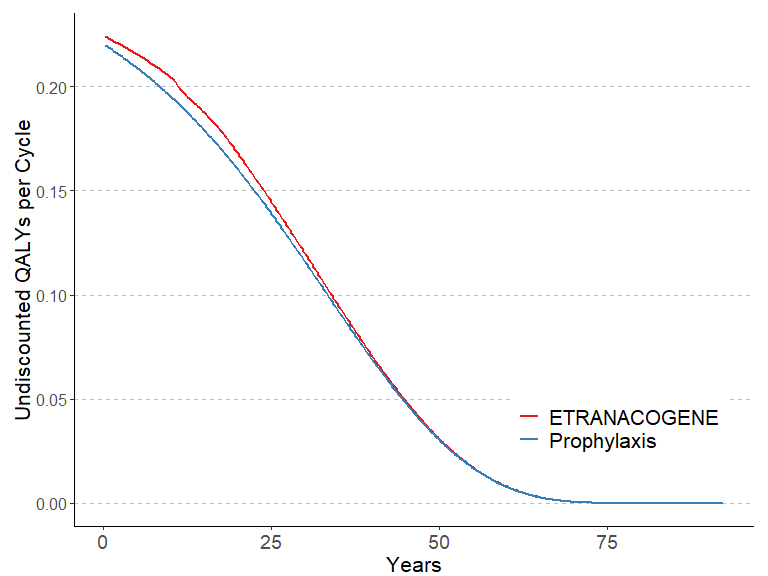
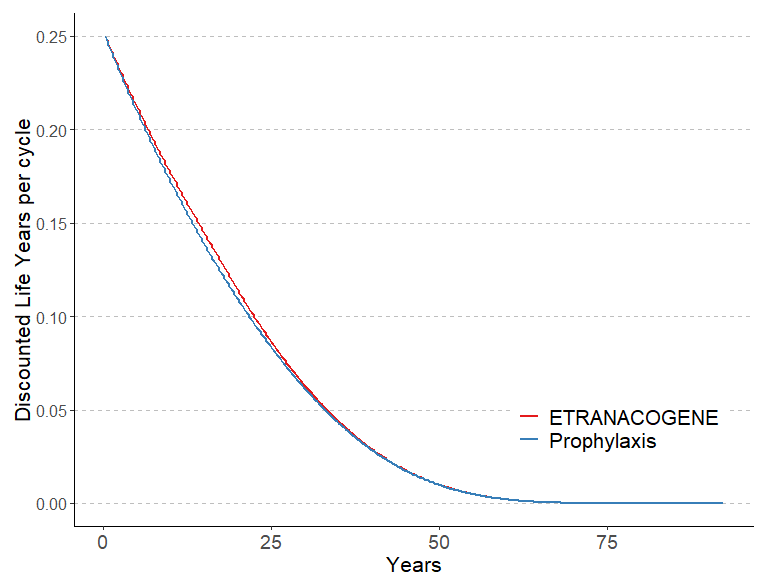
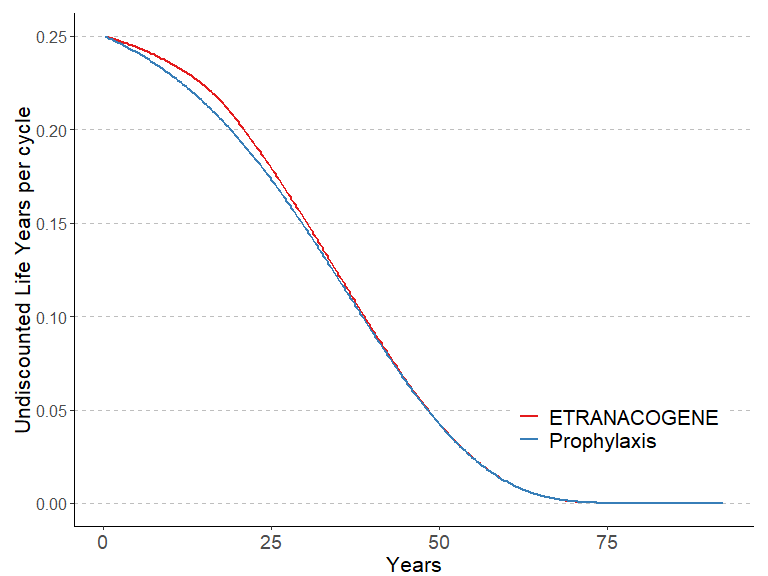
##   
##   
## | Treatment | LYs | QALYs | Costs | NMB | ICER |  
## |:------------:|:------:|:------:|:--------:|:--------:|:--------:|  
## | ETRANACOGENE | 20.39 | 17.17 | 5223105 | -4364641 | 0 |  
## | Prophylaxis | 19.9 | 16.57 | 6444970 | -5616597 | 0 |  
## | Increment | 0.4855 | 0.6018 | -1221865 | 1251956 | -2030303 |  
##   
## Table: Comparison discounted outcomes between ETRANACOGENE and Prophylaxis

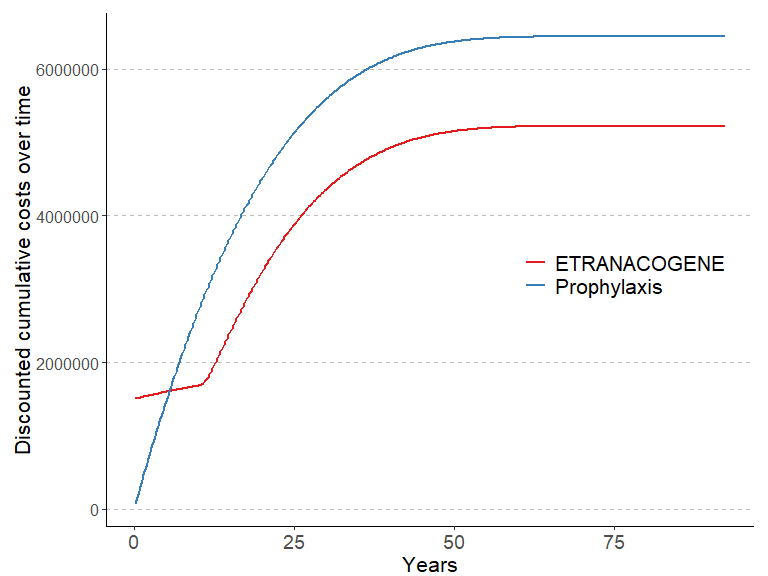
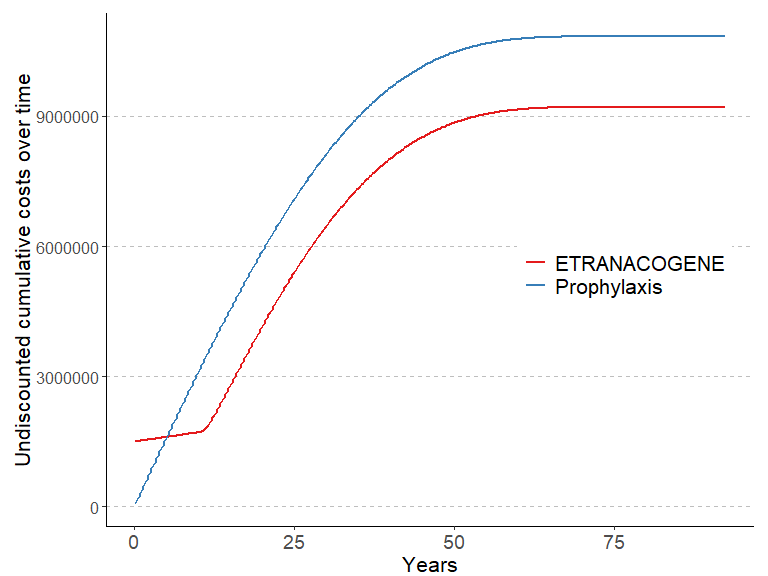
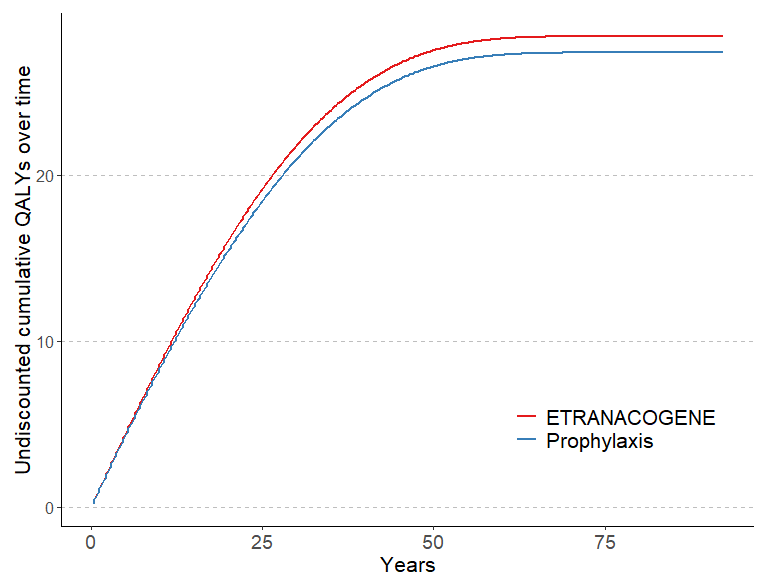
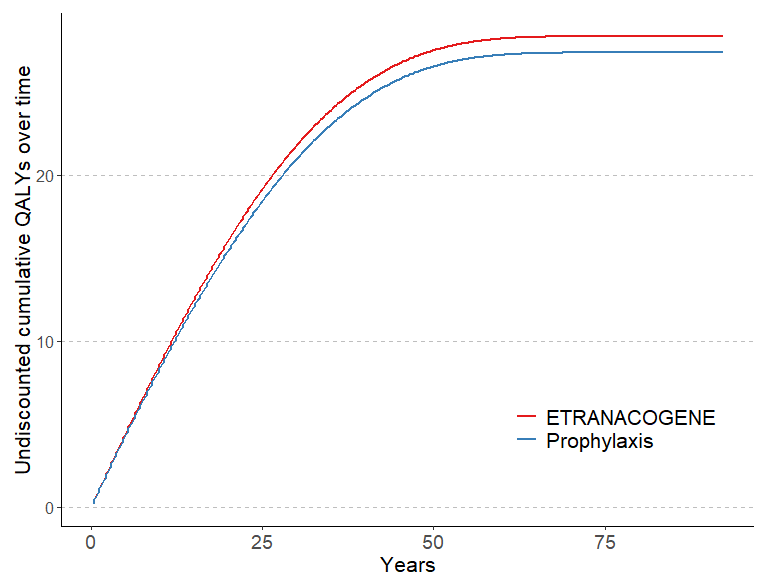
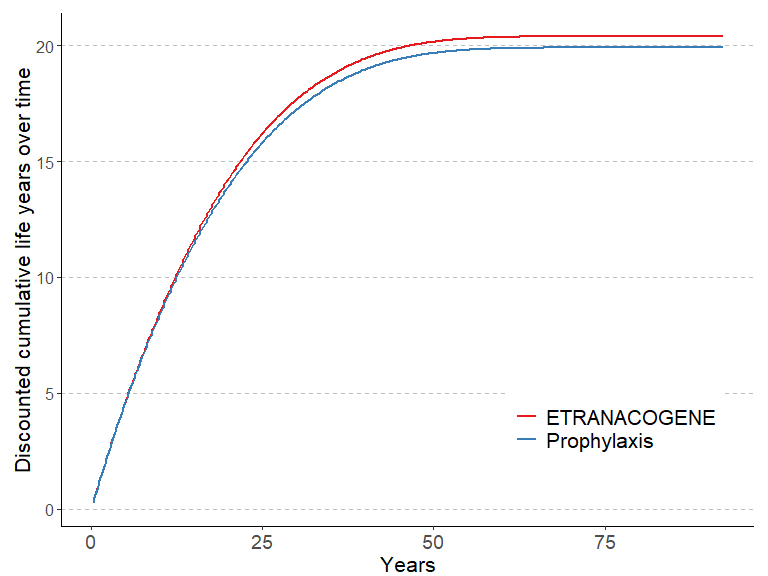
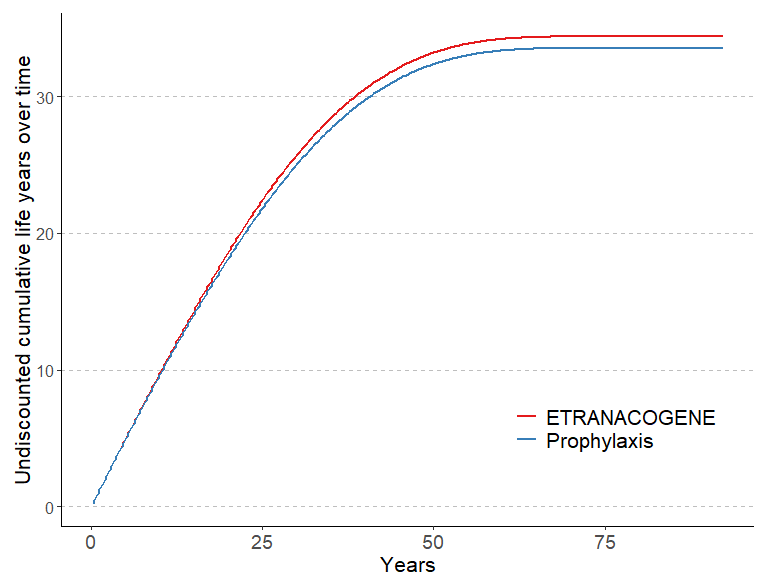
##   
##   
## | Treatment | ETRANACOGENE | FIX Prophylaxis |  
## |:---------------:|:------------:|:---------------:|  
## | ETRANACOGENE | 1500000 | 7202197 |  
## | FIX Prophylaxis | 0 | 10148127 |  
##   
## Table: Undiscounted costs broken down by category (continued below)  
##   
##   
##   
## | FIX for treatment of bleeds | Hospitalization | Surgery | Total |  
## |:---------------------------:|:---------------:|:-------:|:--------:|  
## | 448284 | 61242 | 196.2 | 9211920 |  
## | 607092 | 83182 | 400.4 | 10838802 |

##   
##   
## | Treatment | ETRANACOGENE | FIX Prophylaxis |  
## |:---------------:|:------------:|:---------------:|  
## | ETRANACOGENE | 1500000 | 3457338 |  
## | FIX Prophylaxis | 0 | 6029393 |  
##   
## Table: Discounted costs broken down by category (continued below)  
##   
##   
##   
## | FIX for treatment of bleeds | Hospitalization | Surgery | Total |  
## |:---------------------------:|:---------------:|:-------:|:-------:|  
## | 233835 | 31840 | 92.39 | 5223105 |  
## | 365434 | 49931 | 212.6 | 6444970 |









# System information

Sys.info()

sysname release version nodename machine login user effective\_user   
 "Windows" "10 x64" "build 19044" "M04486" "x86-64" "min1" "min1" "min1"

sessionInfo(package = NULL)

R version 4.3.0 (2023-04-21 ucrt) Platform: x86\_64-w64-mingw32/x64 (64-bit) Running under: Windows 10 x64 (build 19044)

Matrix products: default

locale: [1] LC\_COLLATE=German\_Switzerland.utf8 LC\_CTYPE=German\_Switzerland.utf8 LC\_MONETARY=German\_Switzerland.utf8 LC\_NUMERIC=C LC\_TIME=German\_Switzerland.utf8

time zone: Europe/Zurich tzcode source: internal

attached base packages: [1] stats graphics grDevices utils datasets methods base

other attached packages: [1] rmarkdown\_2.22 captioner\_2.2.3 ggrepel\_0.9.3 plyr\_1.8.8 ggpubr\_0.6.0 truncnorm\_1.0-9 lookup\_1.0 data.table\_1.14.8 pander\_0.6.5  
[10] RColorBrewer\_1.1-3 ggplot2\_3.4.2

loaded via a namespace (and not attached): [1] utf8\_1.2.3 generics\_0.1.3 tidyr\_1.3.0 rstatix\_0.7.2 digest\_0.6.31 magrittr\_2.0.3 evaluate\_0.21 grid\_4.3.0 fastmap\_1.1.1 backports\_1.4.1 purrr\_1.0.1  
[12] fansi\_1.0.4 scales\_1.2.1 abind\_1.4-5 cli\_3.6.1 rlang\_1.1.1 crayon\_1.5.2 cowplot\_1.1.1 munsell\_0.5.0 withr\_2.5.0 yaml\_2.3.7 tools\_4.3.0  
[23] ggsignif\_0.6.4 dplyr\_1.1.2 colorspace\_2.1-0 broom\_1.0.5 vctrs\_0.6.3 R6\_2.5.1 lifecycle\_1.0.3 car\_3.1-2 pkgconfig\_2.0.3 pillar\_1.9.0 gtable\_0.3.3  
[34] glue\_1.6.2 Rcpp\_1.0.10 highr\_0.10 xfun\_0.39 tibble\_3.2.1 tidyselect\_1.2.0 rstudioapi\_0.14 knitr\_1.43 farver\_2.1.1 htmltools\_0.5.5 carData\_3.0-5  
[45] labeling\_0.4.2 compiler\_4.3.0