

# Generating plots in the documentation (section Examples)

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## Objective

Generate the plots for the LaTeX user guide

## Setup

loading libraries

Install package in development mode

```
dev_mode() # development mode

## Dev mode: ON
install.packages(pkgs=file.path(workDir,"npde_3.0.tar.gz"),repos=NULL)

## Installing package into '/home/eco/R-dev'
## (as 'lib' is unspecified)
library(npde)
```

## Run examples

- remove warnings (name.ipred empty, etc...) **Romain**

```
## [1] "name covariates is empty"
## [1] "name cens is empty"
## [1] "name miss is empty"
## [1] "name ipred is empty"
## -----
## Distribution of npde :
##      nb of obs: 120
##      mean= 0.0668   (SE= 0.095 )
##      variance= 1.074   (SE= 0.14 )
##      skewness= 0.511
##      kurtosis= 0.2912
## -----
##
## Statistical tests
##      t-test                : 0.481
##      Fisher variance test   : 0.55
```

```

## SW test of normality : 0.00273 **
## Global adjusted p-value : 0.00819 **
## ---
## Signif. codes: '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1
## -----

## [1] "name covariates is empty"
## [1] "name miss is empty"
## [1] "name ipred is empty"
## -----
## Distribution of npde :
## nb of obs: 300
## mean= -0.05062 (SE= 0.053 )
## variance= 0.8294 (SE= 0.068 )
## skewness= 0.2203
## kurtosis= -0.1524
## -----
##
## Statistical tests
## t-test : 0.336
## Fisher variance test : 0.0285 *
## SW test of normality : 0.0898 .
## Global adjusted p-value : 0.0854 .
## ---
## Signif. codes: '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1
## -----

## [1] "name covariates is empty"
## [1] "name miss is empty"
## [1] "name ipred is empty"
## -----
## Distribution of npde :
## nb of obs: 169
## mean= 0.1433 (SE= 0.07 )
## variance= 0.8186 (SE= 0.089 )
## skewness= -0.03812
## kurtosis= -0.3733
## -----
##
## Statistical tests
## t-test : 0.041 *
## Fisher variance test : 0.0822 .
## SW test of normality : 0.687
## Global adjusted p-value : 0.123
## ---
## Signif. codes: '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1
## -----

## [1] "name covariates is empty"
## [1] "name miss is empty"
## [1] "name ipred is empty"
## -----
## Distribution of npde :
## nb of obs: 300
## mean= 0.03101 (SE= 0.057 )

```

```

##      variance= 0.9715   (SE= 0.079 )
##      skewness= -0.006498
##      kurtosis= 0.8122
## -----
##
## Statistical tests
##      t-test           : 0.586
##      Fisher variance test : 0.746
##      SW test of normality : 0.00121 **
##      Global adjusted p-value : 0.00364 **
## ---
## Signif. codes: '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1
## -----

## [1] "name covariates is empty"
## [1] "name miss is empty"
## -----
## Distribution of npde :
##      nb of obs: 300
##      mean= 0.03058   (SE= 0.062 )
##      variance= 1.164   (SE= 0.095 )
##      skewness= 0.04433
##      kurtosis= -0.05092
## -----
##
## Statistical tests
##      t-test           : 0.624
##      Fisher variance test : 0.0539 .
##      SW test of normality : 0.973
##      Global adjusted p-value : 0.162
## ---
## Signif. codes: '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1
## -----

## [1] "name cens is empty"
## [1] "name miss is empty"
## [1] "name ipred is empty"
## -----
## Distribution of npde :
##      nb of obs: 247
##      mean= 0.03419   (SE= 0.06 )
##      variance= 0.8753   (SE= 0.079 )
##      skewness= -0.1149
##      kurtosis= -0.0497
## -----
##
## Statistical tests
##      t-test           : 0.566
##      Fisher variance test : 0.157
##      SW test of normality : 0.371
##      Global adjusted p-value : 0.471
## ---
## Signif. codes: '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1
## -----

```

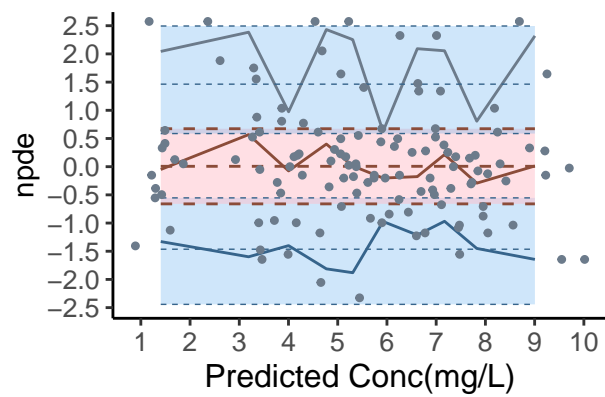
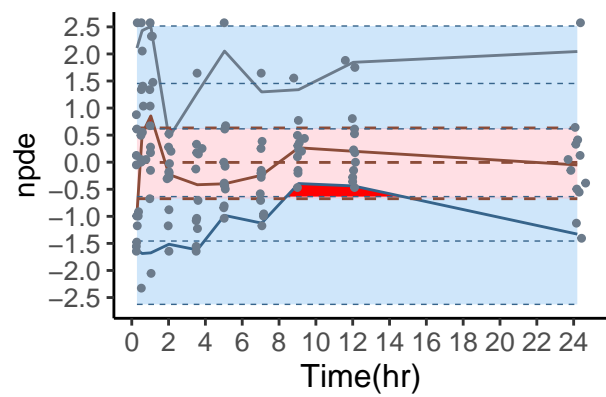
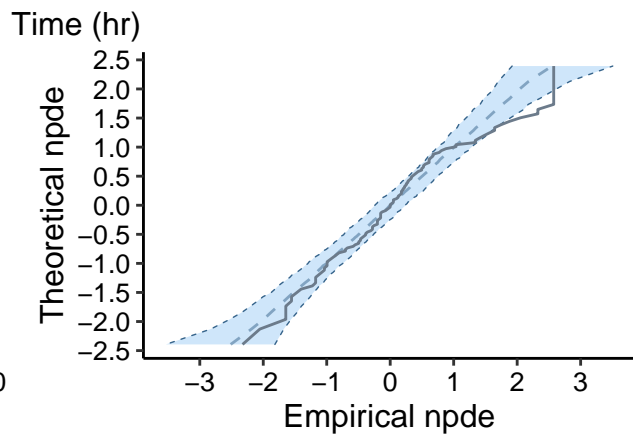
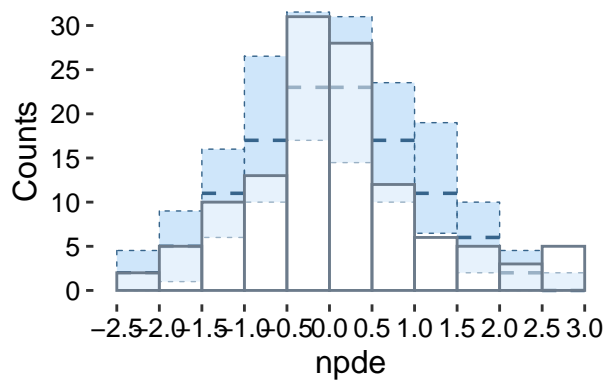
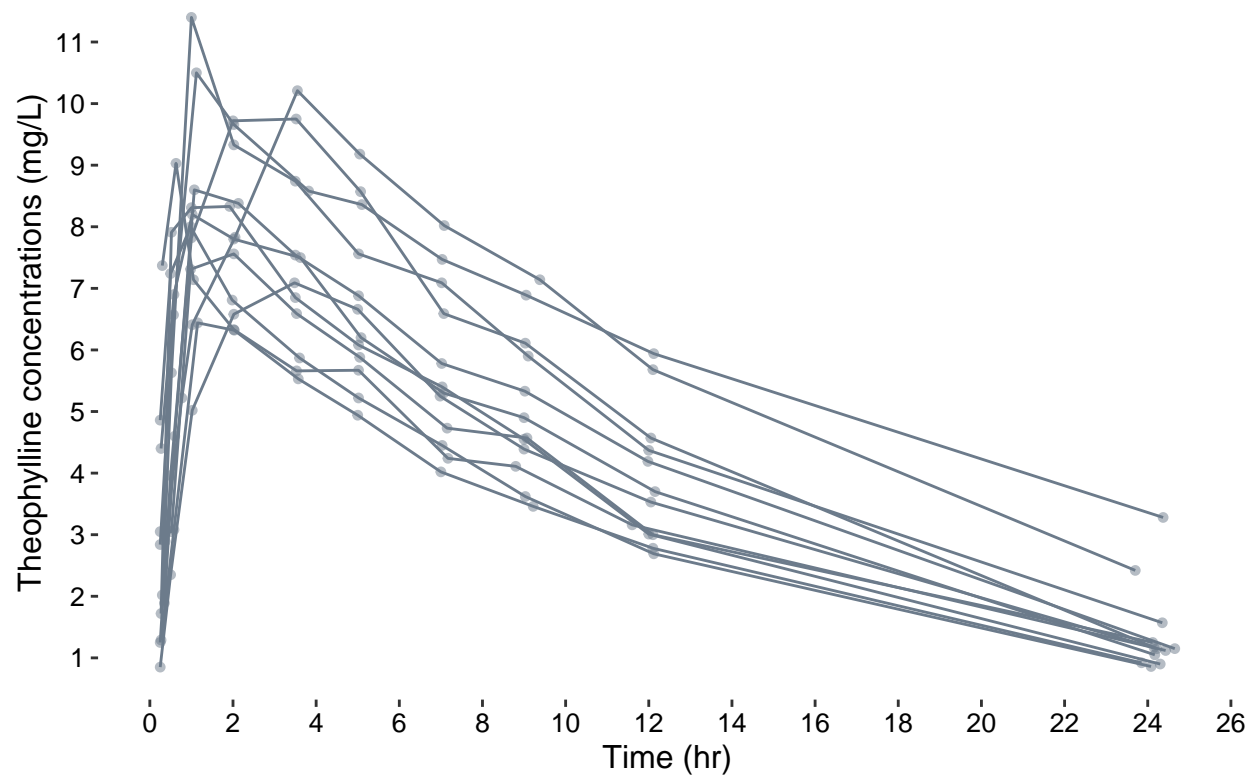
```
## [1] "name cens is empty"
## [1] "name miss is empty"
## [1] "name ipred is empty"
## -----
## Distribution of npde :
##      nb of obs: 247
##      mean= 0.02928   (SE= 0.059 )
##      variance= 0.8549 (SE= 0.077 )
##      skewness= -0.07211
##      kurtosis= -0.4172
## -----
##
## Statistical tests
##      t-test                : 0.619
##      Fisher variance test   : 0.096 .
##      SW test of normality   : 0.368
##      Global adjusted p-value : 0.288
## ---
## Signif. codes: '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1
## -----
```

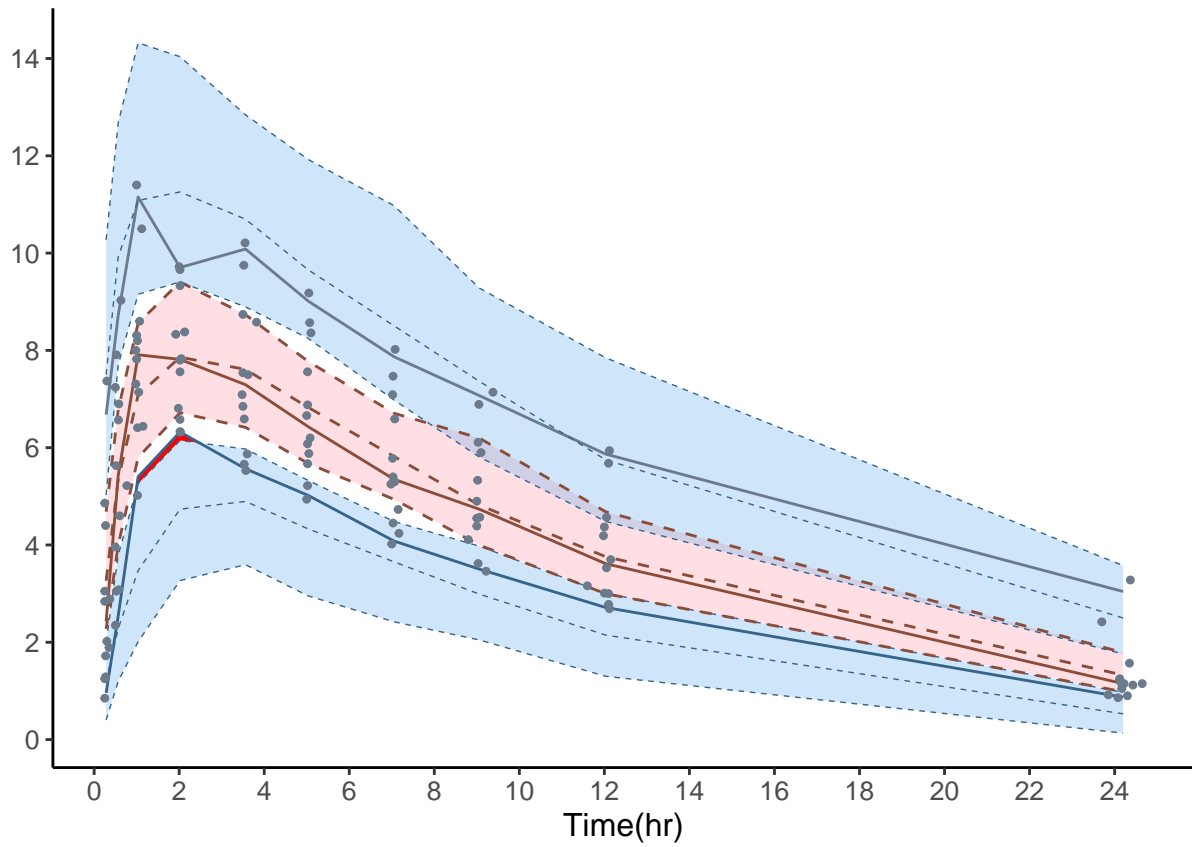
## Theophylline example

- data **Romain**
  - manquent les titres des axes, les axes
- VPC, scatterplot **Eco fait**
  - modifié pour que le tracé des percentiles observés soit fait avec les linetype et size de lobs (pas des bandes), par contre la couleur matche celle de la bande de prédiction correspondante

```
## Warning: Removed 12 rows containing missing values (geom_point).
```

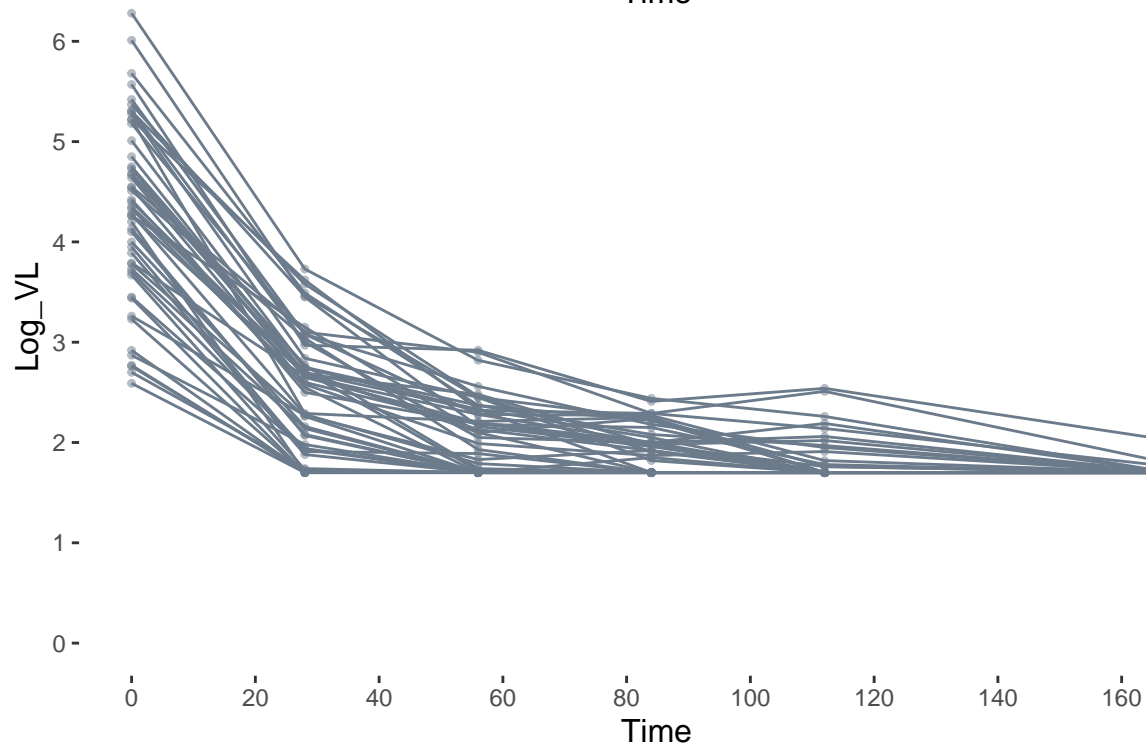
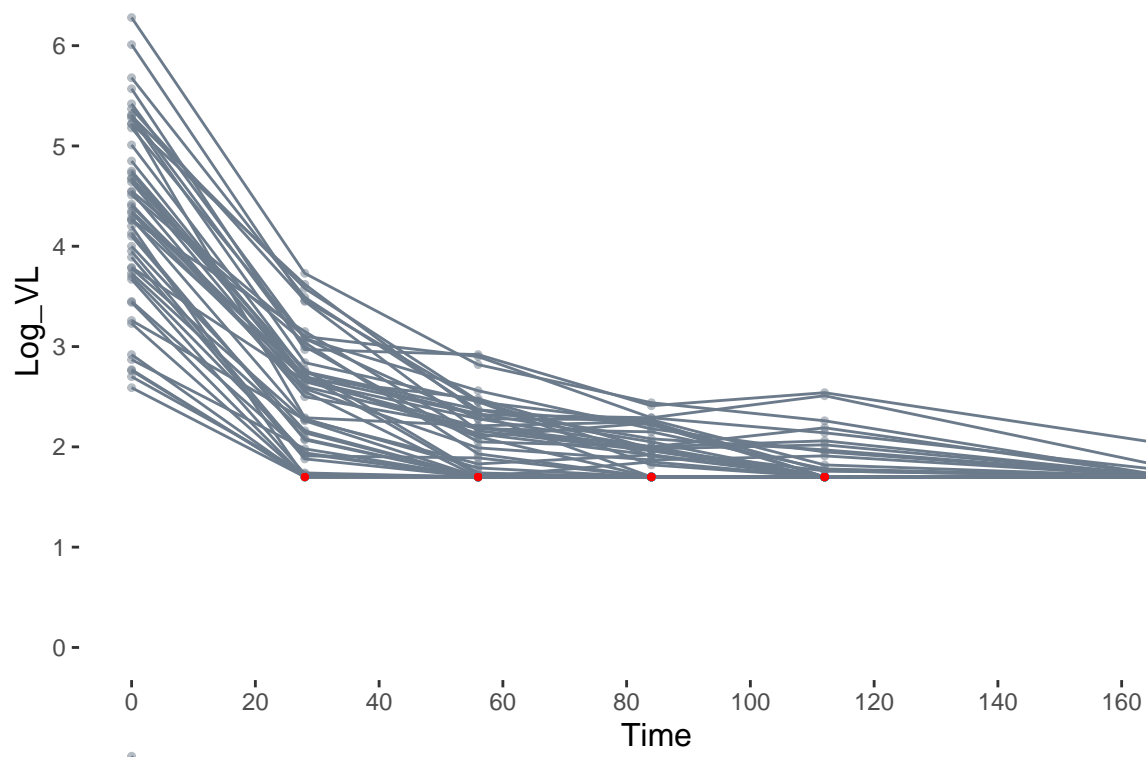
```
## Warning: Removed 12 row(s) containing missing values (geom_path).
```

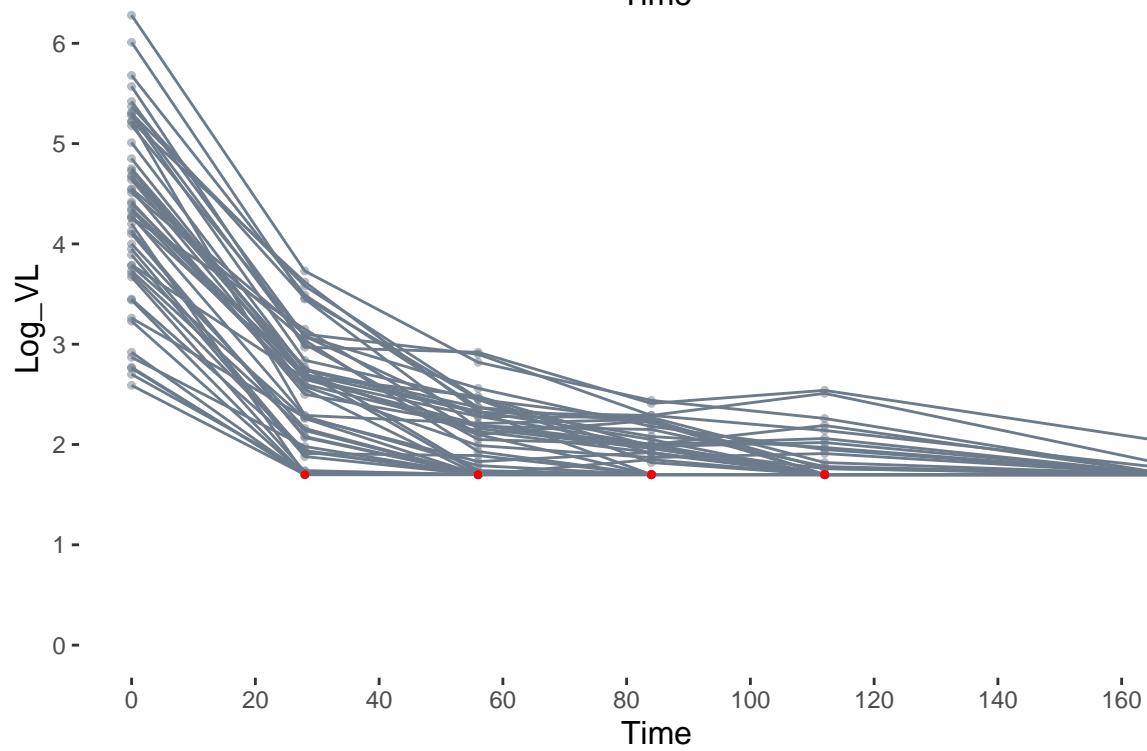
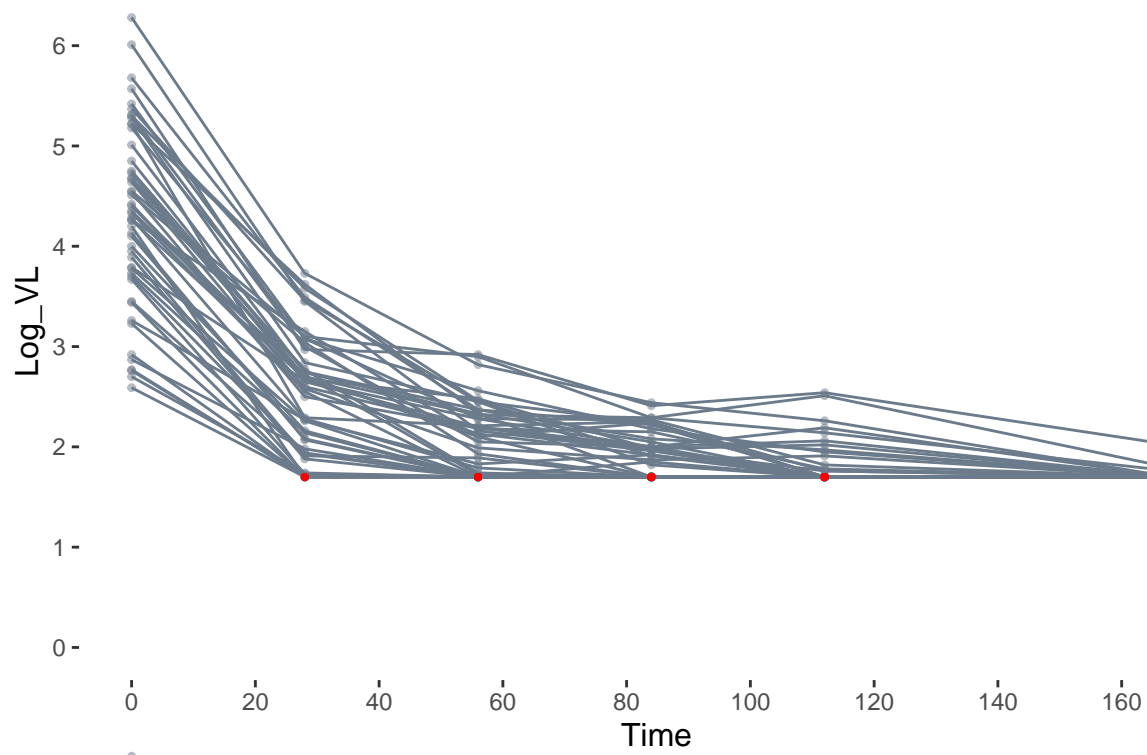




## Viral load example

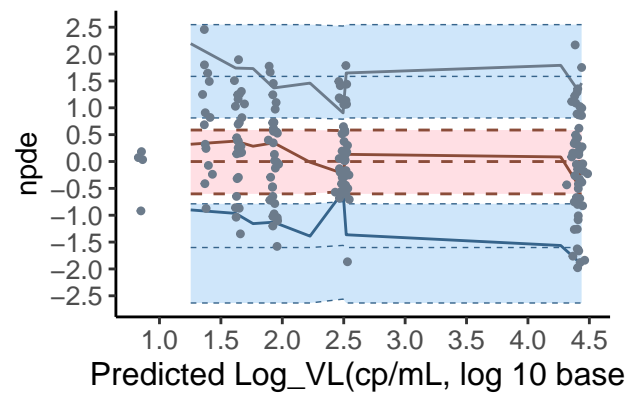
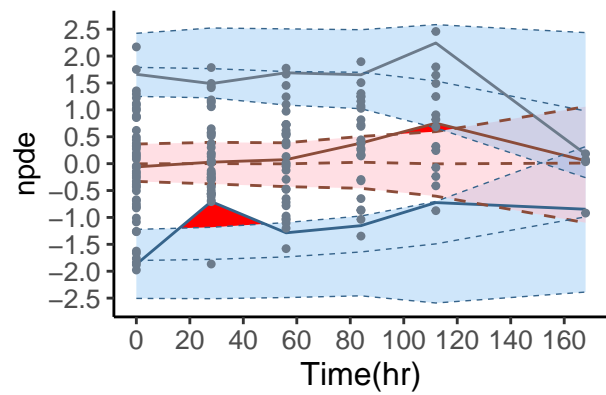
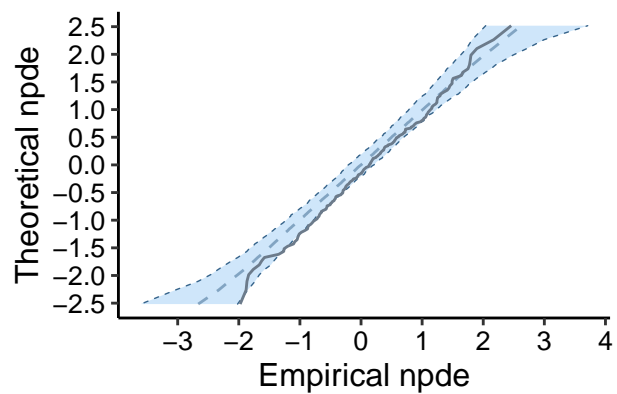
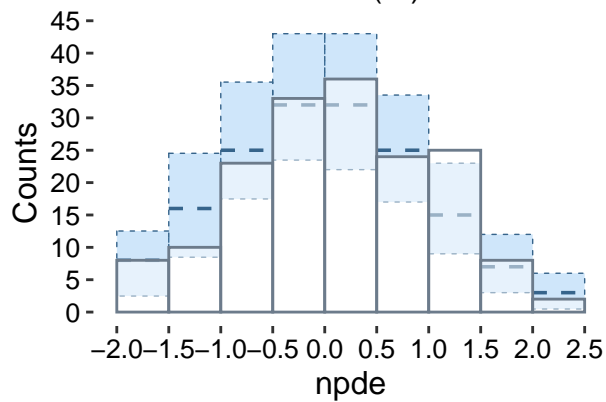
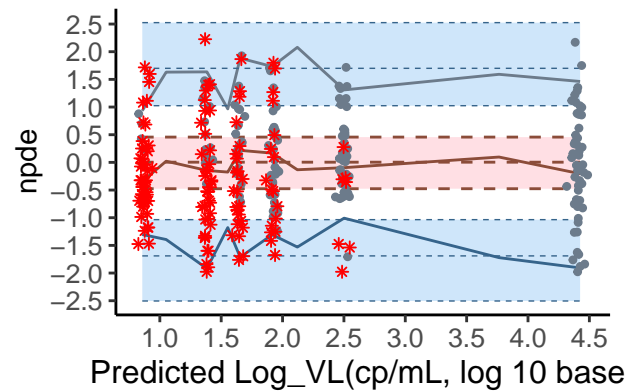
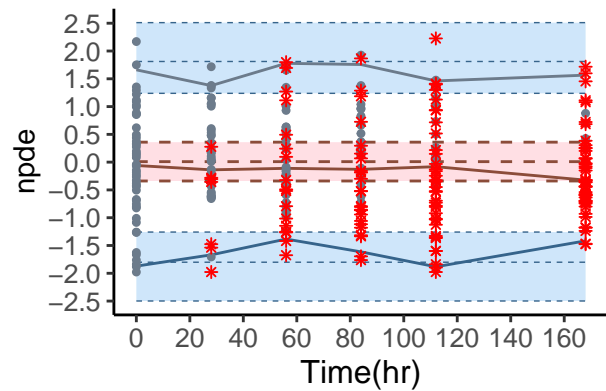
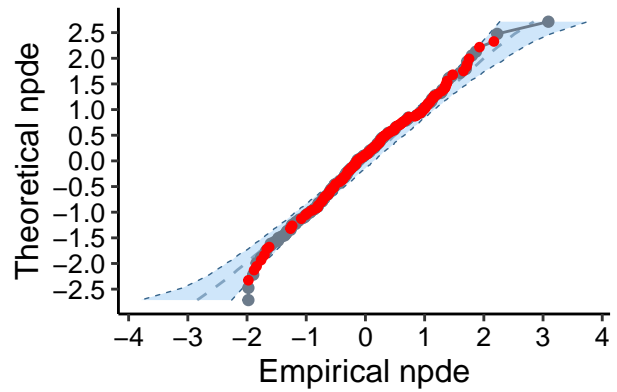
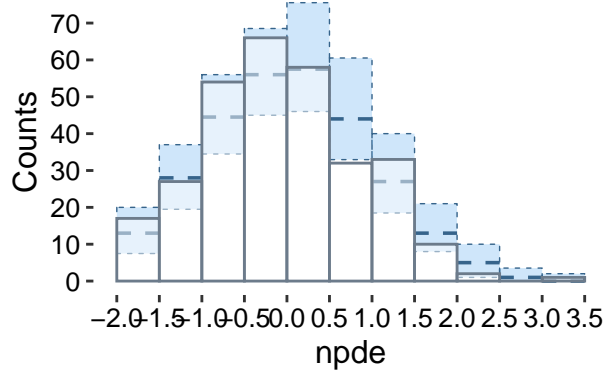
- data
  - mêmes problèmes que plus haut
  - line.loq doesn't work **Romain**
  - besoin de faire un waffle plot avec les 4 objets data, **Romain TODO** possible ? (sinon sauver 4 graphes)

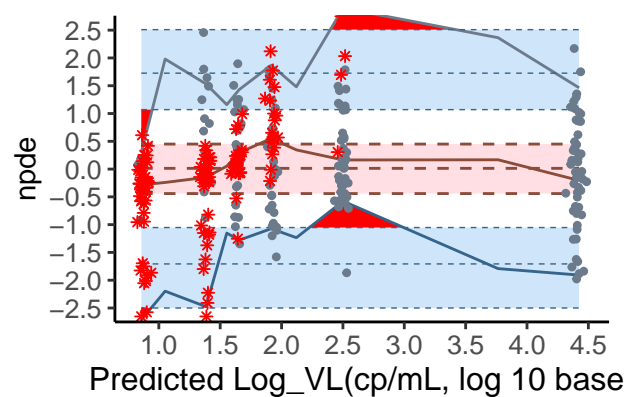
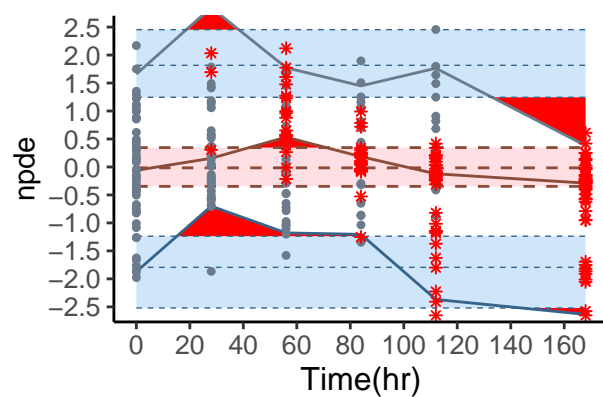
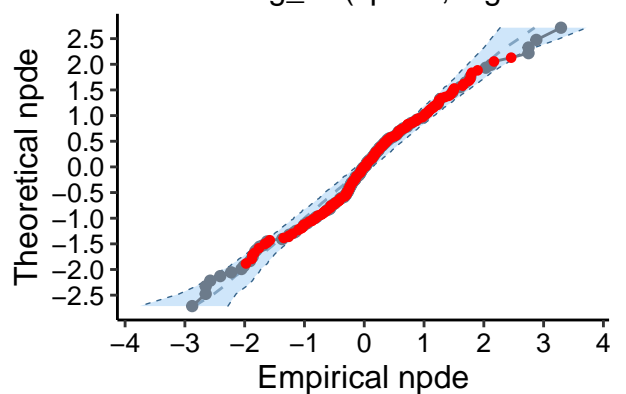
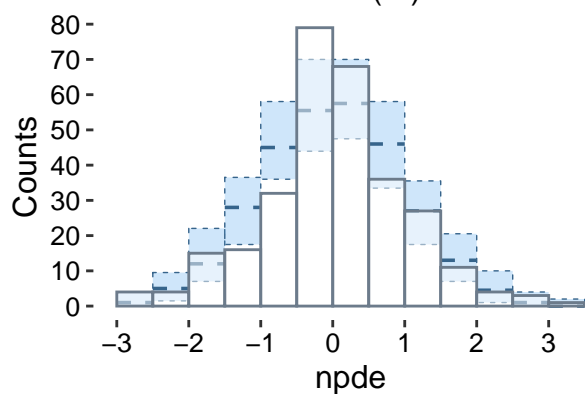
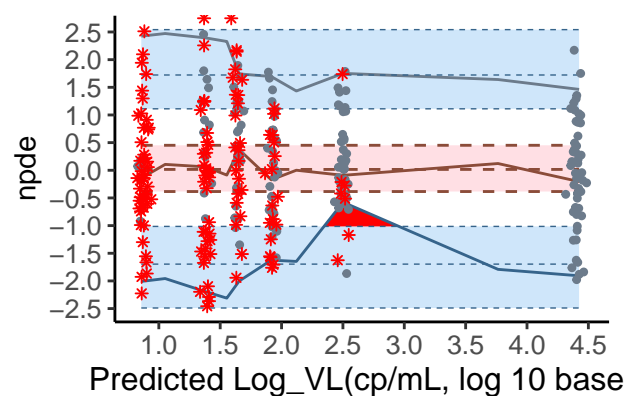
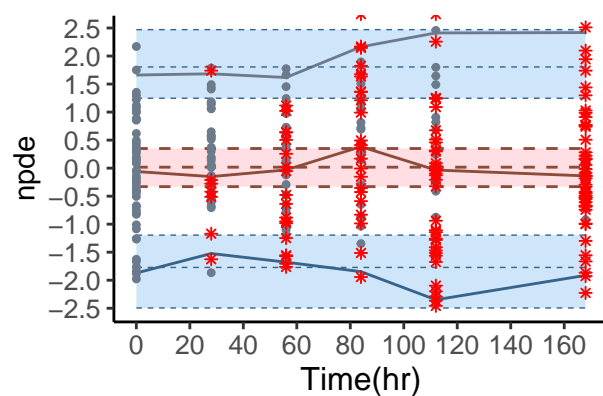
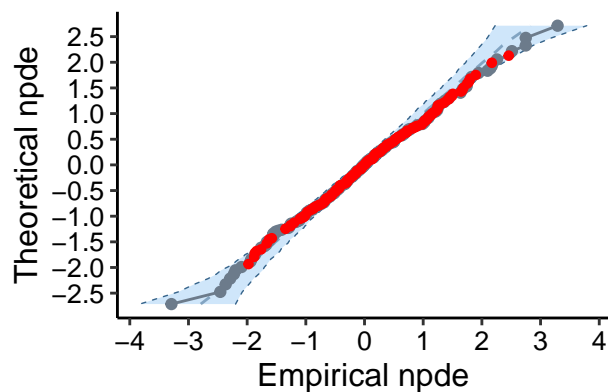
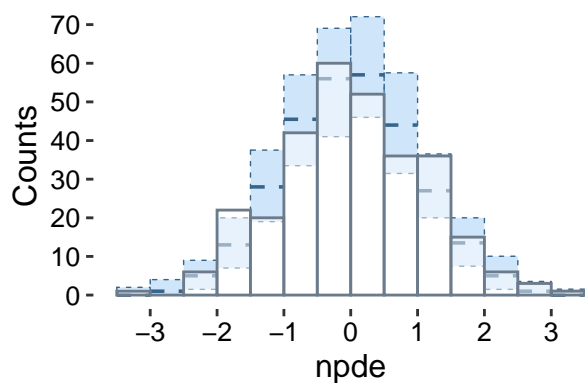


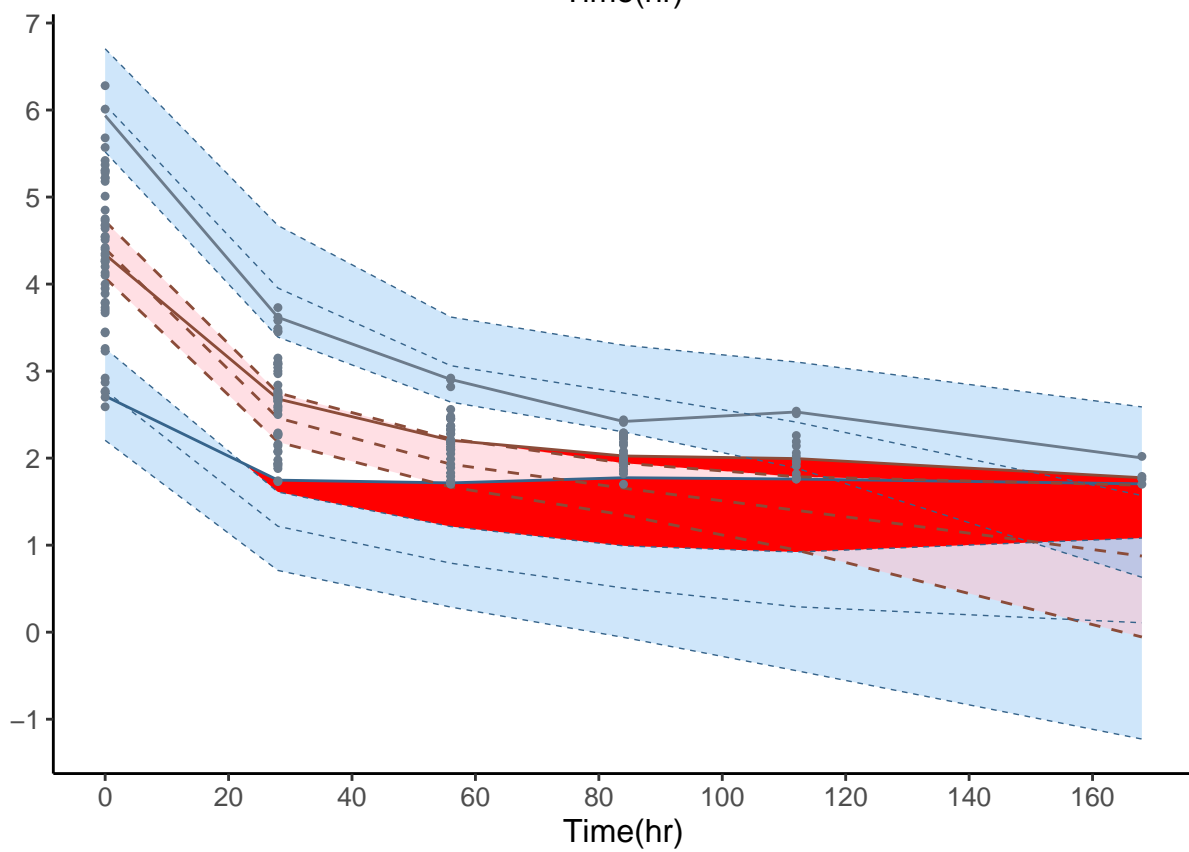
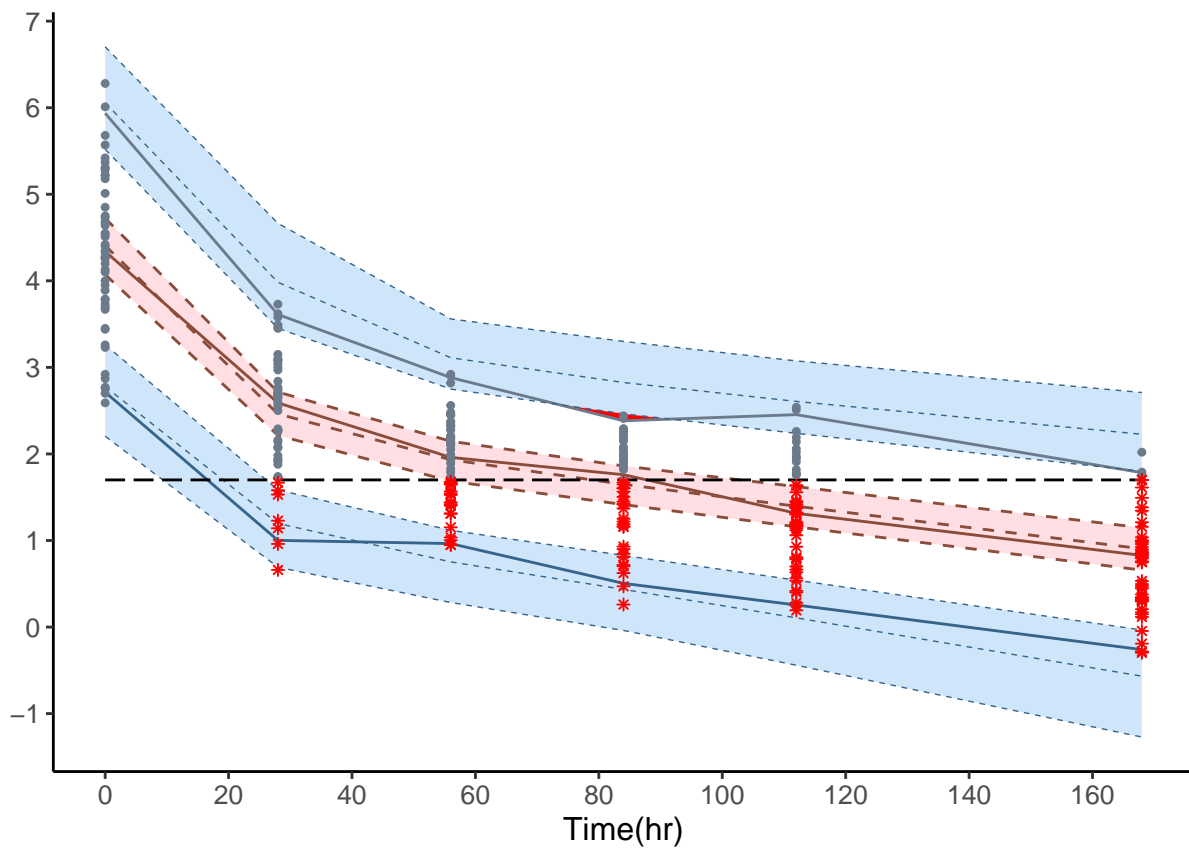


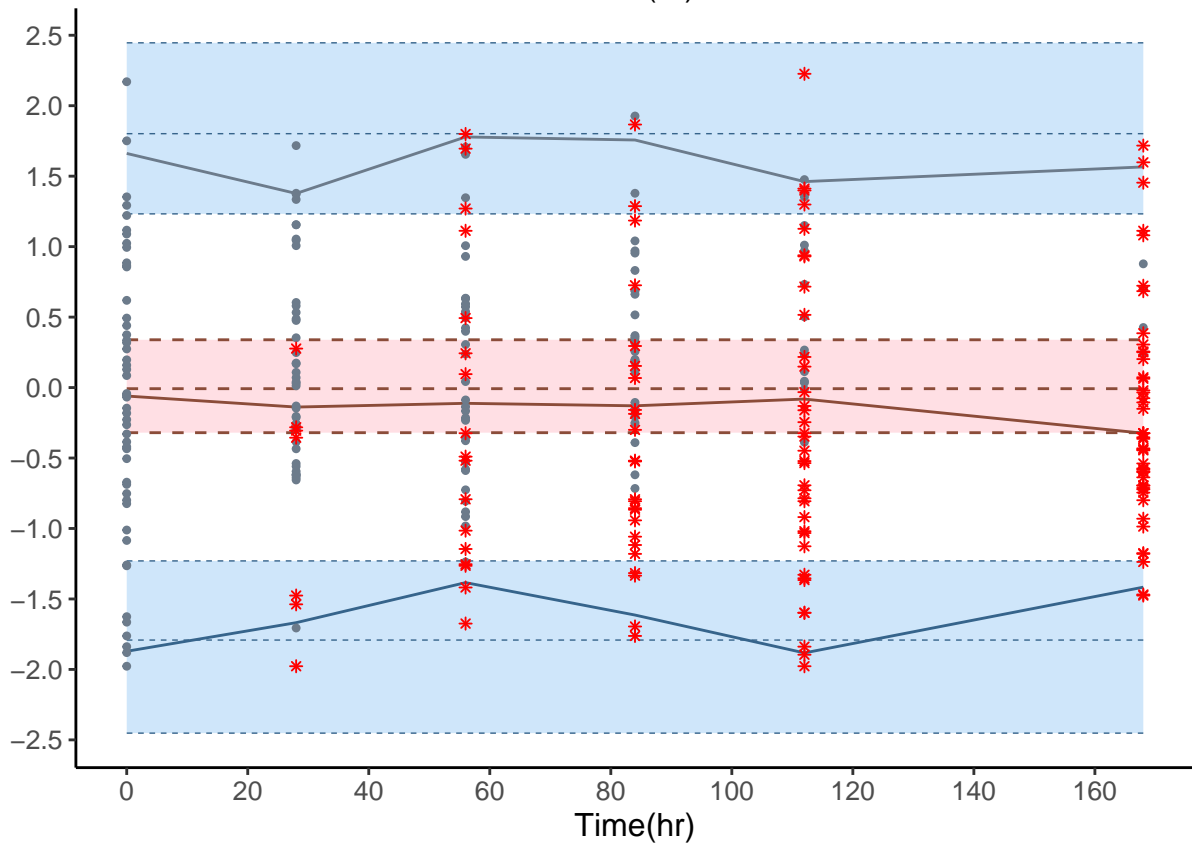
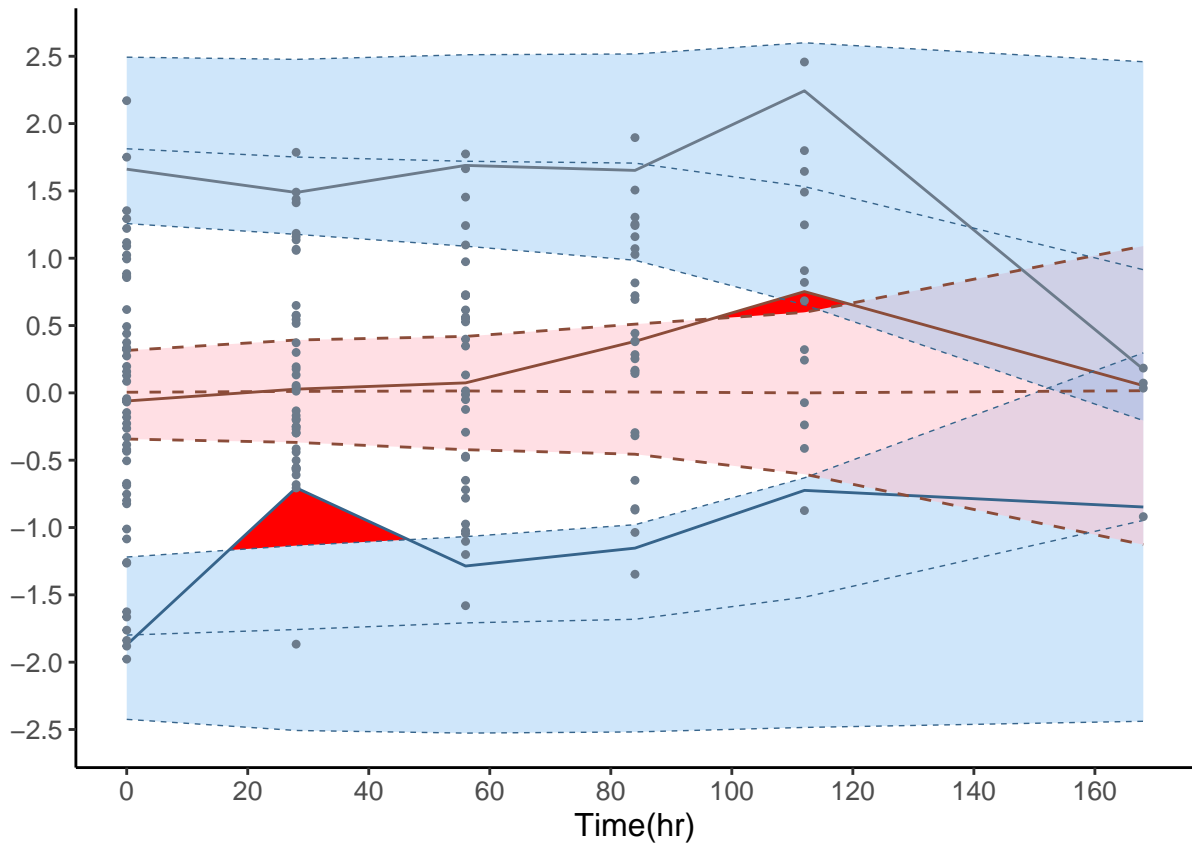
- scatterplots and VPC
  - pb with VPC of x50 **Eco fait**
- possibilité d'utiliser un grid.arrange pour les 2 derniers graphes ? **Romain**









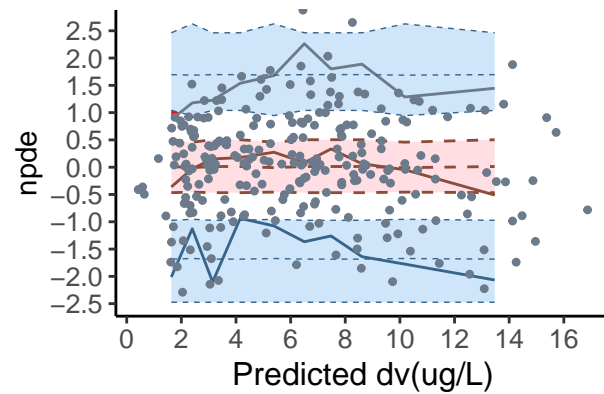
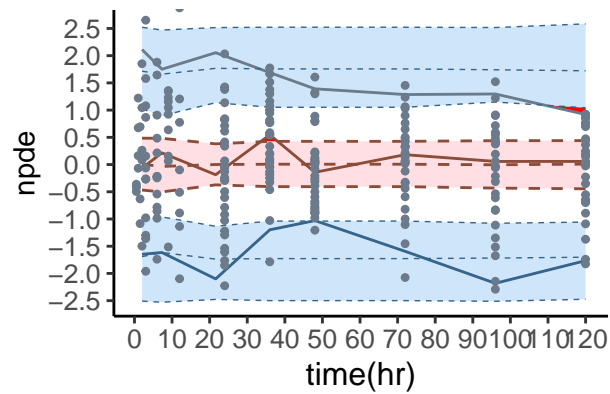
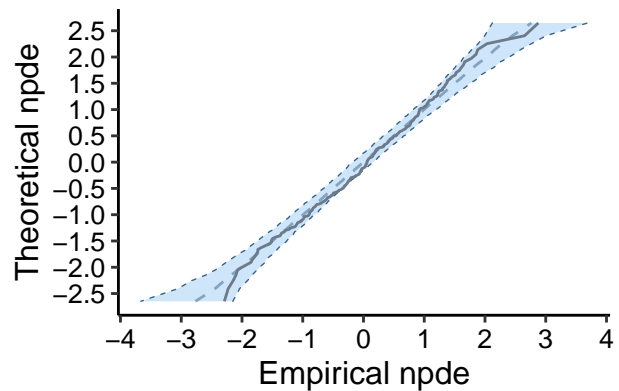
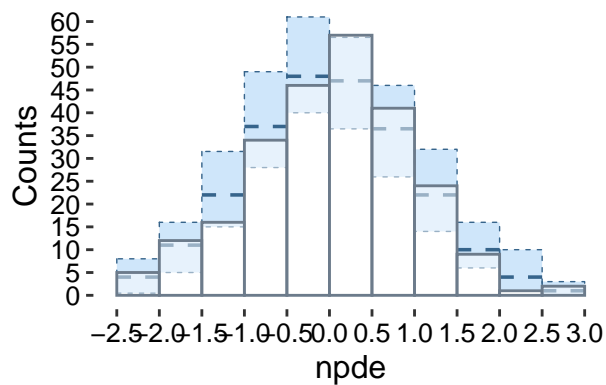


- $P(Y < LOQ)$  currently fails **Romain**

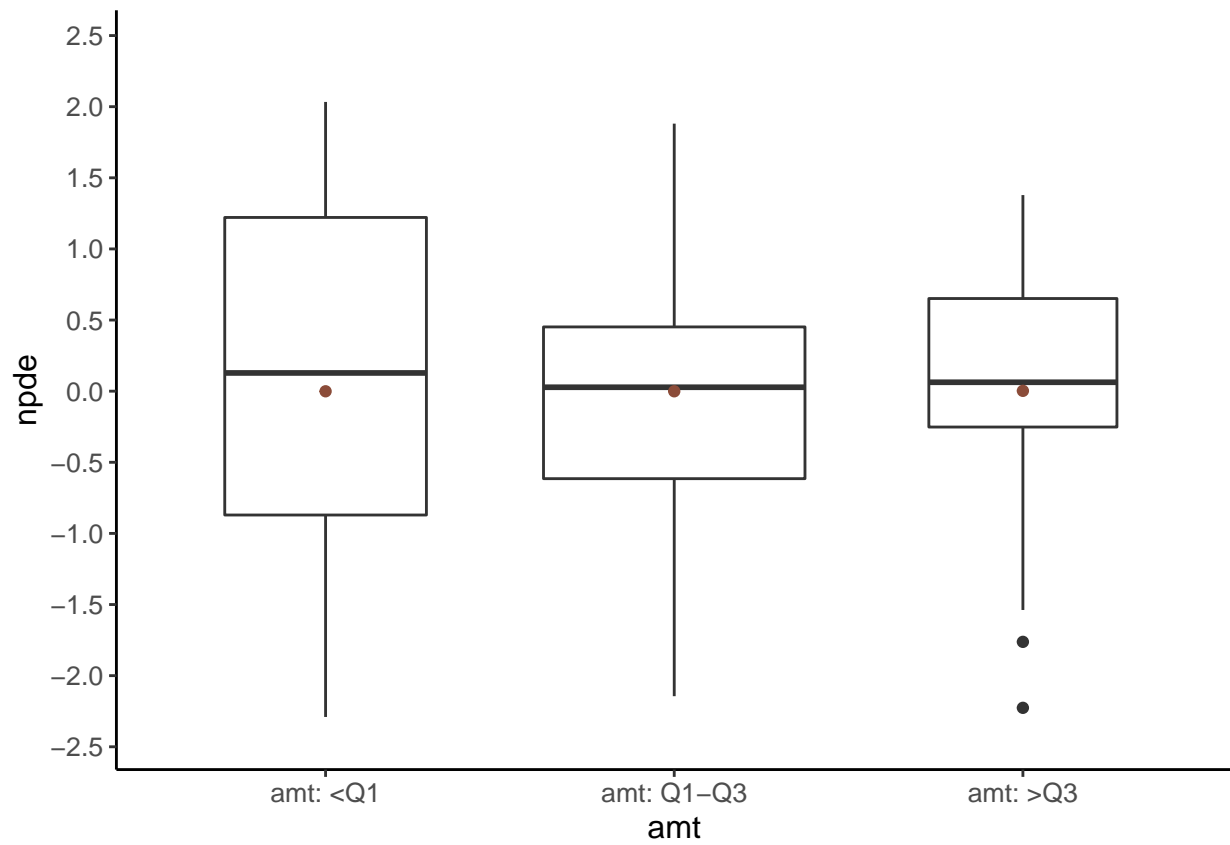
```
## Error in data.frame(xpl, ypl, xobs) :
## arguments imply differing number of rows: 0, 6
```

## Warfarine

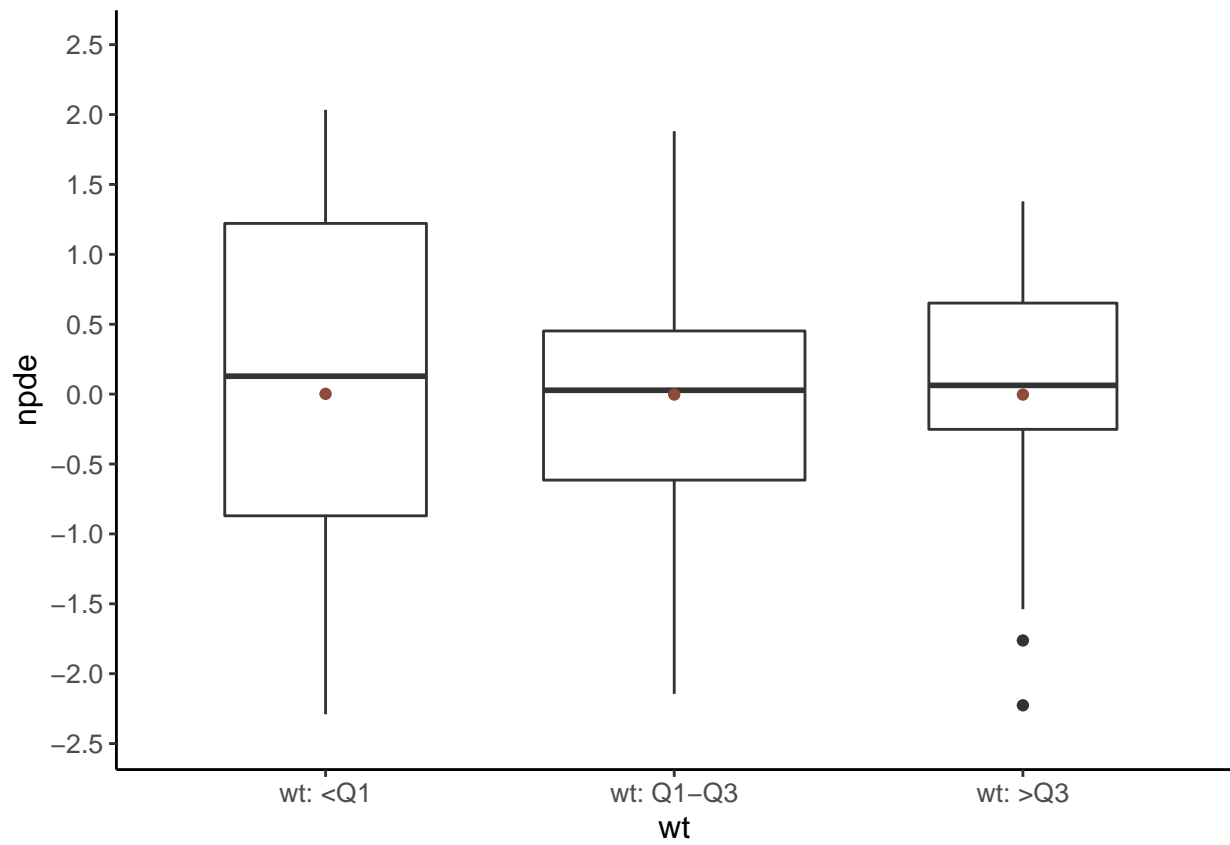
- **TODO:**
  - add to documentation
  - default plot with cov.scatter should be boxplot => check why not working



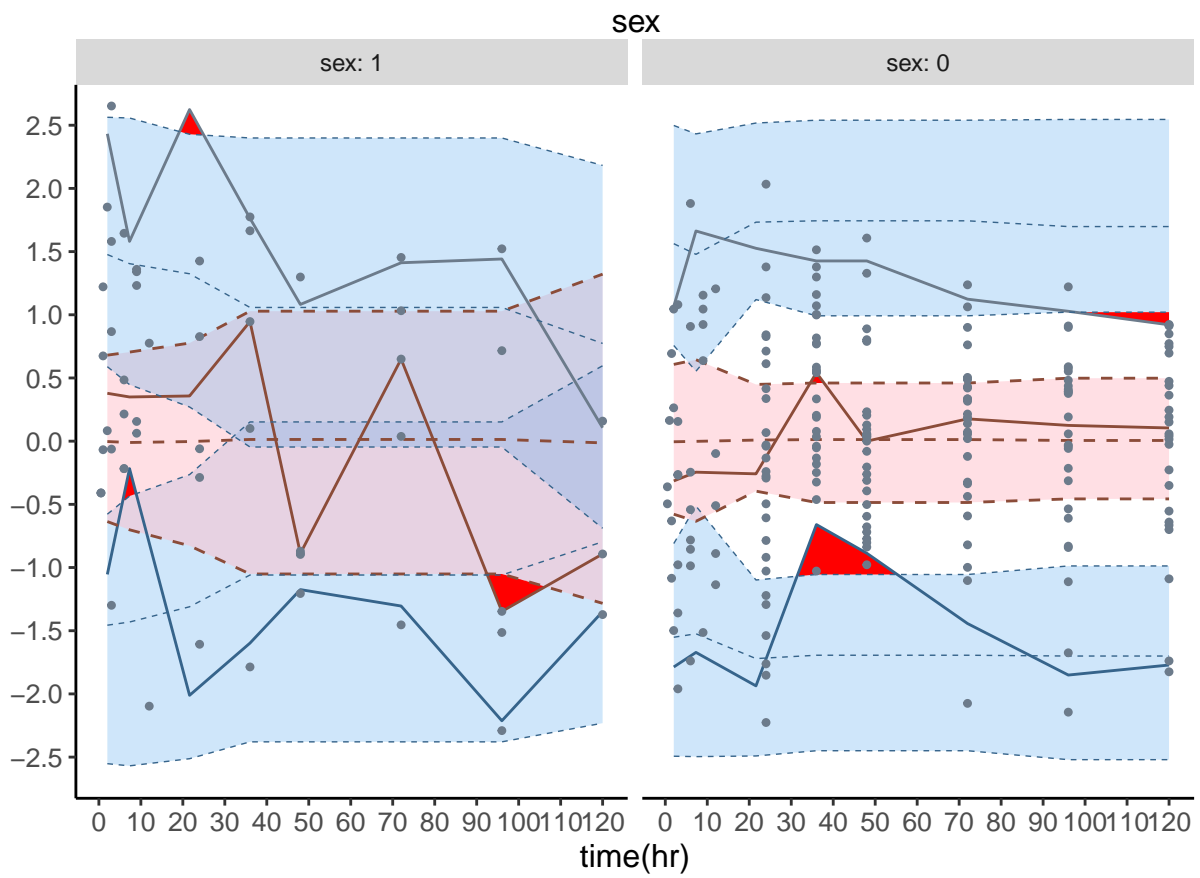
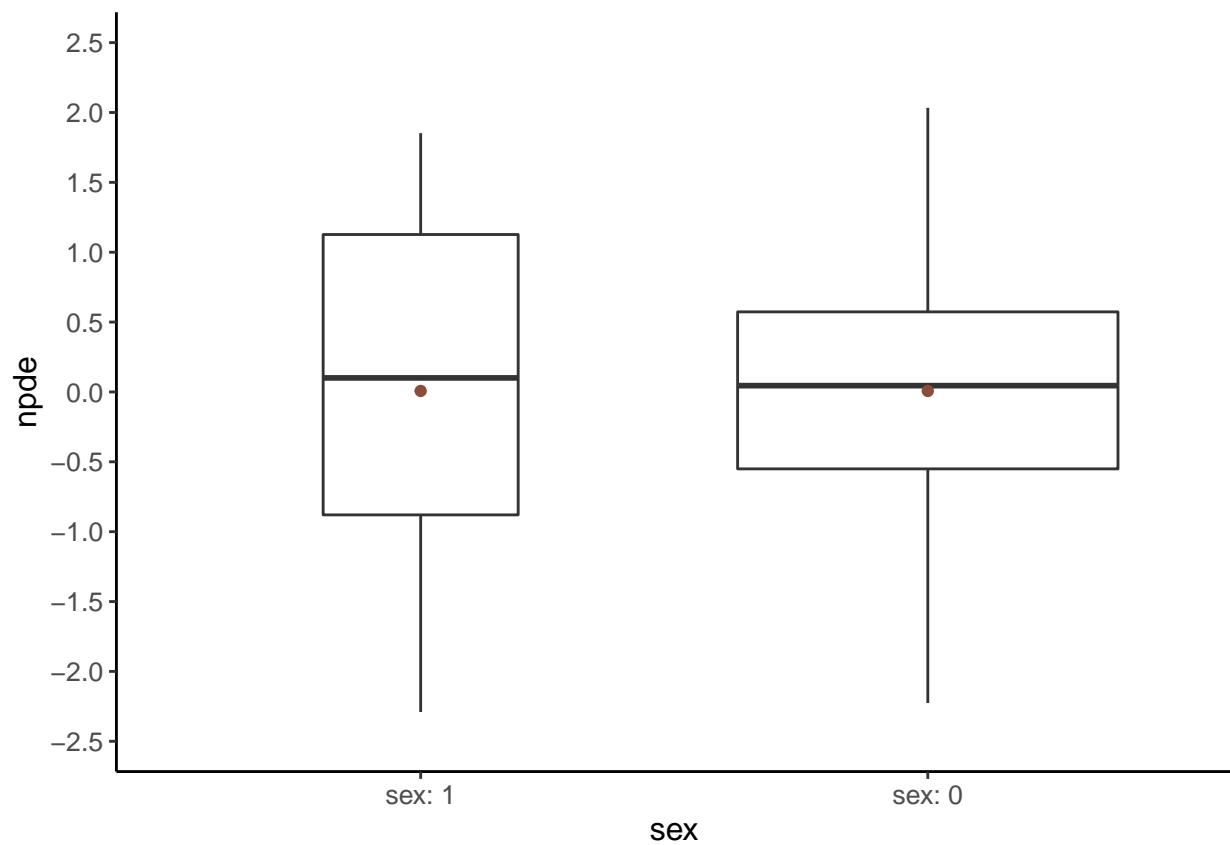
```
## Warning: Removed 2 rows containing non-finite values (stat_boxplot).
```



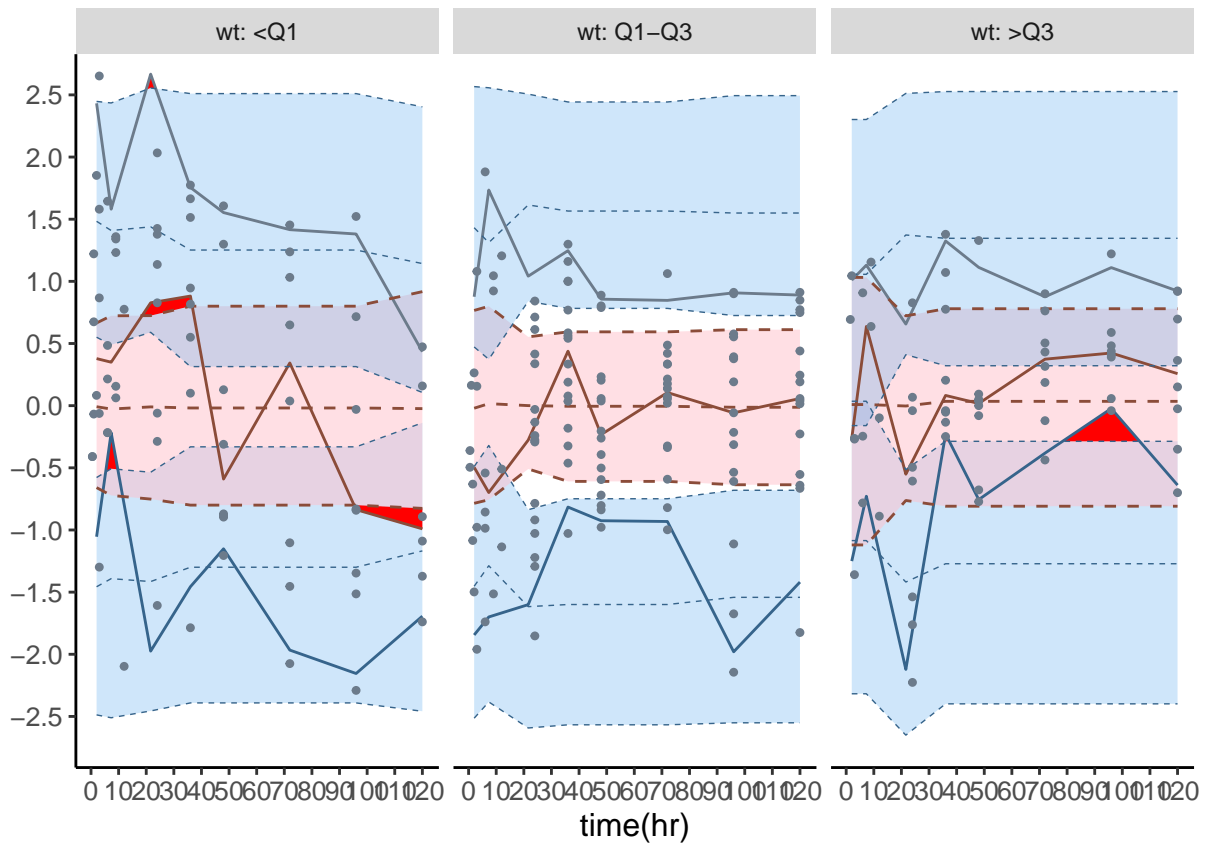
## Warning: Removed 2 rows containing non-finite values (stat\_boxplot).



## Warning: Removed 2 rows containing non-finite values (stat\_boxplot).







**Remifentanil (data will be on website)**

Remove from documentation ?

**End of file, deactivating development mode**

## Dev mode: OFF