Package 'CoxTEL'

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Type Package

Title A Novel Adjustment for Cox Proportional Hazards Model in Data with Long-term Survival

Version 1.0.0

Depends R (>= 3.5.0)

Imports stats

Author Hsu, Chih-Yuan and Shyr, Yu

Maintainer Chih-Yuan Hsu <chih-yuan.hsu@vumc.org>

Description Estimation for hazard ratio and difference in proportions in proportional cure model through KM curves and Cox hazard ratio.

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Encoding UTF-8

LazyData true

RoxygenNote 6.1.1

R topics documented:

`adjustment` *Cox PH – Taylor Expansion adjustment for Long-term survival data.*

Description

An adjustment for Cox hazard ratio and an estimation for difference in proportions.

Usage

```
adjustment(HR_cox, HR_cox_CI, s1mix.chosen, s0mix.chosen, pi1.est, pi0.est,
  m = NULL)
```

Arguments

HR_cox	Input. Hazard ratio obtained from Cox PH model.
HR_cox_CI	Input. Confidence interval of the hazard ratio obtained from Cox PH model.
s1mix.chosen	Input. Survival probabilities of Arm 1 estimated by KM at the chosen time.
s0mix.chosen	Input. Survival probabilities of Arm 0 estimated by KM at the chosen time.
pi1.est	Input. Proportion of poor-responders (uncured proportion) in Arm 1.
pi0.est	Input. Proportion of poor-responders (uncured proportion) in Arm 0.
m	Input (Optional). The polynomial order used in Taylor approximation. The default value is NULL that means *m* is selected automatically.

Value

HR_cox	Cox hazard ratio you inputed.
HR_cox_CI	Confidence interval of the Cox hazard ratio you inputed.
HR_adj	Hazard ratio after adjustment.
HR_adj_CI	Confidence interval of the hazard ratio after adjustment.
DP_adj	Difference in proportions of the true responders.
DP_adj_CI	Confidence interval of the difference in proportions of the true responders.

Examples

```
library(CoxTEL)
s1mix.chosen <- c(0.48,0.39,0.35,0.35)
s0mix.chosen <- c(0.36,0.28,0.26,0.25)
pi1.est <- 0.65; pi0.est <- 0.75
HR_cox <- 0.71; HR_cox_CI <- c(0.51, 0.91)
adjustment(HR_cox, HR_cox_CI, s1mix.chosen, s0mix.chosen, pi1.est, pi0.est)
```

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