Package: survivalVignettes (via r-universe)

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Version 0.1.7

Date 2024-11-04

Title Survival Analysis Vignettes and Optional Datasets

Depends R (>= 3.5.0), survival

Imports graphics

Suggests knitr, rmarkdown, bookdown, broom, survey, geepack, mstate, R.rsp, splines2

URL https://github.com/bethatkinson/survivalVignettes

BugReports https://github.com/bethatkinson/survivalVignettes/issues

Description Vignettes for the 'survival' package. Split from the 'survival' package since the vignettes were getting large. Also, since 'survival' is a recommended package it cannot make use of other packages outside of base+recommended (e.g. 'rmarkdown').

License LGPL (>=2)

LazyData Yes

LazyDataCompression xz

Config/build/clean-inst-doc FALSE

VignetteBuilder knitr

Repository https://bethatkinson.r-universe.dev

RemoteUrl https://github.com/bethatkinson/survivalvignettes

RemoteRef HEAD

RemoteSha 2f088974cd7633026a40feb481cce5566470d8c5

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survivalVignettes-package

Survival Analysis Vignettes and Optional Datasets

Description

Vignettes for the 'survival' package. Split from the 'survival' package since the vignettes were getting large. Also, since 'survival' is a recommended package it cannot make use of other packages outside of base+recommended (e.g. 'rmarkdown').

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amyloid

Survival with amyloidosis

Description

This pair of datasets is used in the external validation vignette. The `amyloidmodel` dataset contains survival curves from four studies, the `amyloid` data survival times and risk scores for 1005 subjects.

Usage

```
amloid
amyloidmodel
```

Format

A data frame with 1005 observations on the following 8 variables.

`age` age in years

`month` survival time in months

`status` 0= censored, 1= death

`number.organs` number of involved organ systems

`r2004` patient stage based on the 2004 model

`r2012` patient stage based on the 2012 model

`r2013` patient stage based on the 2013 model

`r2015` patient stage based on the 2015 model

`year` diagnosis year

A data frame with 832 observations on the following 4 variables.

`study` which study: 2004, 2012, 2013 or 2015

`stage` disease stage

`month` months from study entry

`survival` predicted survival

The model assement is found in Muchtar (2019), and used as an example in a package vignette. Patients with biopsy proven systemic light chain (AL) amyloidosis seen at the Mayo Clinic from 2003-01-01 to 31-08-2015 were screened for the study. The final study cohort includes all those without prior chemotherapy and with the necessary baseline data to assign patient stage, using each of the four systems.

The survival curves from the staging systems were (impefectly) digitized from the relevant papers. The 2013 publication is from a trial involving only stage 2 subjects and divided them as IIIa, IIIb and IIIc (stage 2-4 in our notation). The 2015 paper is also from a clinical trial and has 0/30 deaths in the stage 0 subjects. They label the stages as I, II, IIIa and IIIb where we have used 0-3 for consistency with the original 2004 system.

E Muchtar, T Therneau, D Larson, M Gertz, M Lacy, F buadi, D Dingli, S Hayman, P Kapoor, W Gonsalves, T Kourelis, R Warsame, A Fonder, M Hobbs, Y Hwa, N Leung, S Russell, J Lust, Y Lin, R Go, S Zelderust, R Kyle, S V Rajkumar, S K Kumar, A Dispezieri. Comparitive analysis of staging systems in AL amyloidosis. Leukemia (2019) 33:811-814. doi:10.1038/s41375-018-0370-z

A Dispenzieri 2004, doi:10.1200/JCO.2004.03.029 S Kumar 2012, doi:10.1200/JCO.2011.38.5724 A Wechalekar 2013, doi:10.1182/blood-2012-12-473066 M Palladini 2015, doi: 10.1182/blood-2015-01-620302

sfit <- survfit(Surv(months, status) ~ r2012, amyloid) plot(sfit, lty=1:4, col=1:4, lwd=2, log=TRUE, xlab="Months from diagnosis", ylab="Survival")

datasets

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