Article type

Running title

Author

Affiliations

Corresponding author

Word count

Keywords

Input data

Compute observed hazards

{}

$H_{\mathrm{obs},d}(t)$

d

Identify quiet window

Fit frailty curvature parameter

$(k_d, \hat{\theta}_d)$

{}

θ_d

Compute adjusted cumulative hazard

{}

$\tilde{H}_{0,d}(t)$

Compute KCOR trajectory

$\mathrm{KCOR}(t) = \tilde{H}_{0,A}(t)/\tilde{H}_{0,B}(t)$

Uncertainty quantification (optional)

Diagnostics

non-exchangeable levels

curvature

$H(t)$

Cox PH

IPTW / matching

Age-standardization

cohorts whose hazards are not proportional because selec-

of the **ob- served haz- ard func- tion** un- der **non-** proportionality; KCOR ad- dresses a dif- fer- ent problem— **identification and re- moval of selection- induced de- ple- tion ge- om- e- try prior to co- hort com- par- i- son.** cur- va- ture

This manuscript does not at- tempt to re- view the ex- ten- sive lit- er- a- ture on non- proportional haz- ards ex- haus- tively; in- stead, it po- si- tions KCOR as com- ple- men- tary to these meth- ods by ad- dress- ing a dis- tinct iden- ti- fi- a- bil- ity prob- lem not re- solved by hazard-