

Estimating a unitary effect summary based on combined survival and quantitative outcomes*

Huazhen Lin

School of Statistics, Southwestern University of Finance and Economics, Chengdu, 611130, China
linhz@swufe.edu.cn

In practice, when both survival and quantitative outcomes are of interest, we encounter outcomes of mixed types: a censored and a quantitative outcome. Joint modelling of the survival and quantitative outcomes other than analyzing the outcomes separately has become a method of choice for analyzing mixed outcome data because of improved efficiency. However, the joint modeling provides two separate indexes for measuring the covariate (e.g., treatment) effect, making its interpretation difficult when the covariate inconsistently affects the quantitative and survival outcomes. By assigning a single rank to each outcome to represent the disease severity, paper provides a unitary effect summary of the covariates on mixed outcome data while accounting for censoring. The method is applied to an analysis of the AIDS Clinical Trials Group protocol 175 (ACTG 175) data.

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