

Baseline hazard weighting in the additive hazards model

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The additive hazards model is a useful alternative to the proportional hazards model for the analysis of time-to-event data. However, the estimating equation approach provided by Lin and Ying (1994) requires knowledge of the full model, including the baseline hazard, to attain optimal efficiency. We propose an estimating equation approach which can improve efficiency significantly, especially when the baseline hazard deviates significantly from a constant hazard. We investigate the proposed estimator's behavior through simulation studies and apply the method to data from a clinical trial.