Inference in a mixture additive hazards cure model

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Abstract: "We propose a mixture additive hazards cure model for survival data with a cure fraction. The proposed model integrates a logistic regression model for the proportion of patients cured of disease and an AH model for the uncured patients. Generalized estimating equations are developed for parameter estimation, and the asymptotic properties of the resulting estimators are established. In addition, model-checking methods are presented to assess the adequacy of the model. The nite-sample performance of the proposed method is evaluated through simulation studies. An application to a human papillomavirus positive oropharyngeal cancer study is conducted to illustrate the proposed method."