Semi-competing risks data in a bladder cancer study.

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The term semi-competing risks data was first introduced by Fine, Jiang and Chappel (2001) when referring to the situation of a bivariate time distribution (T1, T2) where T2 dependently censors T1. That is, data arising from individuals who may experience an intermediate event (T1) and a final event (T2), but the occurrence of the final event precludes the observation of the intermediate event. Semi-competing risks methods are a convenient choice when we are interested in estimating the association between T1 and T2, and in the marginal distribution of the intermediate event, T1, which is not completely observed due to the dependent censoring performed by T2. Semi-competing risks data are found in the Spanish Bladder Cancer Study, where a cohort of newly-diagnosed bladder cancer cases may experience intermediate events such as progression which are dependently censored by the occurrence of death. In this work, the model proposed by Fine, Jiang and Chappel (2001) is explored and illustrated with the Spanish Bladder Cancer Study data.

Fine JP, Jiang H, Chappell R (2001) On semi-competing risks data. Biometrika 88:907-919.