Causal Effects of Treatments for Informative
Missing Data due to Progression/Death

In longitudinal clinical trials, when outcome variables at later time points are only defined for patients who survive to those times, the evaluation of the causal effect of treatment is complicated. In this paper, we describe an approach that can be used to obtain the causal effect of three treatment arms with ordinal outcomes in the presence of death using a principal stratification approach. We introduce a set of flexible assumptions to identify the causal effect and implement a sensitivity analysis for nonidentifiable assumptions which we parameterize parsimoniously. Methods are illustrated on quality of life data from a recent colorectal cancer clinical trial.