COMPARISON OF COX PROPORTIONAL HAZARD AND PARAMETRIC MODELS OF A BREAST CANCER DATA

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Abstract

Cox model and parametric models are widely used in the modelling of survival data for various diseases. This study compares the performance of these two models using breast cancer data. Both real-life and simulated data were used for this work at various sample size of 10, 50, 100 and 500 respectively both at low, moderate and high censoring which was replicated 500 times for each sample size. The result revealed that lognormal model was the best model for the real-life data while the simulated data revealed that exponential model fits best for sample size 10 and Cox proportional hazard is the best model for sample size of 50, 100 and 500 at different percentage of censoring based on AIC and BIC model selection for this study.