

# **Intermittent State Wise Cancer Survival Risk Estimation using Multi-state Frailty Model**

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**Abstract:** Multi state Markov regression models are useful model for estimating risk in cancer survival, which passes through different intermittent states such as, recurrence and metastasis. These transitions may be influenced by some unobserved random effect. Hence the present study a multi-state frailty model. Hence the study aimed to estimate the risk for survival at each intermittent state (Disease diagnosis, recurrence, no evidence of disease & death) of transition in breast cancer survival using multi-state frailty model.