

GRAND ROUNDS

Sponsored by: The Division of Biostatistics

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Thursday, January 15, 2015
12:00PM-1:00PM
Campus Services Building Room 679

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**A Multistate Model for Time to Cancer Recurrence and
Death Incorporating a Cured Fraction**

Motivated by data from multiple randomized trials of colon cancer, we model time-to-cancer-recurrence and time-to-death using a multi-state model. We incorporate a latent cured state into the model to allow for subjects who will never recur. Parametric models that assume Weibull hazards and include baseline covariates are used. Information from the multiple trials are included using a hierarchical model. Bayesian estimation methods are used. The model is used to assess whether there is improved efficiency in the analysis of the effect of treatment on time-to-death in each trial by using the information provided by earlier cancer recurrence. For subjects who are censored for death, multiple imputation is used to impute death times, where the imputation distribution is derived from the estimated model. Gains in efficiency are possible, although sometimes modest, using the extra information provided by the recurrence time.

Lunch will be provided. Please contact Cara Cooper at coopcar@ohsu.edu if you have dietary restrictions.