

UCLA

BIOSTATISTICS SEMINAR

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STATISTICAL MEASURES TO EVALUATE BIOMARKERS AS PREDICTORS OF INCIDENT CASES

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3:30pm - 4:30pm, CHS 33-105A

Refreshments served at 3:00 PM in room 51-254 CHS

ABSTRACT: Measures of discrimination or classification accuracy have been developed for binary outcomes and subsequently generalized to survival outcomes. Specifically, Heagerty, Lumley and Pepe (2000) introduced time-dependent accuracy concepts for cumulative or prevalent cases, while Heagerty and Zheng (2005) discussed incident cases. In many biomedical applications a primary goal is to predict incident or future cases and appropriate measures that characterize predictive potential or incremental value are needed. We first review non-parametric methods proposed for time-dependent accuracy (Saha and Heagerty, 2013) and then overview extensions of integrated discrimination index (IDI) that are appropriate for hazard models. Semi-parametric and non-parametric estimation is outlined and application to benchmark data sets will be presented.

Keywords: survival outcomes; biomarkers; prediction; accuracy