Current Methods for Evaluating Prediction Performance of Biomarkers and Tests

Instructor

Margaret Pepe, University of Washington

Abstract

This course will describe and critique methods for evaluating the performance of markers to predict risk of a current or future clinical outcome. Examples from cancer, cardiovascular disease and kidney injury research will be presented. Course content will include:

a. Four criteria for evaluating a risk model: calibration, benefit for decision making, accurate classification, risk stratification
b. Comparing models
c. Comparing baseline and expanded models
d. Hypothesis testing and confidence interval construction
e. Risk reclassification analysis strategies
f. Relationships and differences with assessing discrimination
g. Software