An updated catalog of prostate cancer predictive tools.

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Abstract
Accurate estimates of risk are essential for physicians if they are to recommend a specific management to patients with prostate cancer. Accurate risk estimates also are required for clinical trial design to ensure that homogeneous, high-risk patient groups are used to investigate new cancer therapeutics. Using the MEDLINE database, a literature search was performed on prostate cancer predictive tools from January 1966 to July 2007. The authors recorded input variables, the prediction form, the number of patients used to develop prediction tools, the outcome being predicted, prediction tool-specific features, predictive accuracy, and whether validation was performed. Each prediction tool was classified into patient clinical disease state and the outcome being predicted. First, the authors described the criteria for evaluation (predictive accuracy, calibration, generalizability, head-to-head comparison, and level of complexity) and the limitations of current predictive tools. The literature search generated 109 published prediction tools, including only 68 that had undergone validation. An increasing number of predictive tools addressed important endpoints, such as disease recurrence, metastasis, and survival. Despite their limitations and the limitations of data, predictive tools are essential for individualized, evidence-based medical decision making. Moreover, the authors recommend wider adoption of risk-prediction models in the design and implementation of clinical trials. Among prediction tools, nomograms provide superior, individualized, disease-related risk estimations that facilitate management-related decisions. Nevertheless, many more predictive tools, comparisons between them, and improvements to existing tools are needed.

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Comment in
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