No doubt the study of Eisenberg et al [1] provides convincing evidence that postoperative ultrasensitive prostate-specific antigen (USPSA) determination is significantly associated with the probability of prostate-specific antigen (PSA)-based biochemical recurrence (BCR). Unfortunately, as often occurs, a statistically significant association is not equivalent to clinical usefulness. According to Eisenberg et al’s study, USPSA sensitivity for 5-yr BCR is only 29.1% and a false-negative prediction occurs in more than two-thirds of subjects who are actually bound to recur. In contrast, specificity is also suboptimal (89.4%), with about 10% of subjects being erroneously classified as bound to recur. The positive predictive value of a positive USPSA determination is only 30.4%. With such a predictive accuracy, USPSA cannot be used reliably as a triage test for further follow-up or adjuvant treatment. For the patient, a negative USPSA is not highly reassuring (1 in 10 patients will have BCR at 5 yr, as will 1 in 4 of those who are otherwise determined to have high risk) and a positive USPSA will induce unnecessary anxiety (2 in 3 patients will not recur at 5 yr, and 1 in 4 will not recur in that time frame if they are otherwise determined to have low-intermediate risk). Moreover, no evidence shows that better prediction of BCR risk beyond what is already possible according to classic prognostic indicators will be beneficial for the patient in terms of prognosis (mortality reduction). Moreover, the adverse psychological effects of perceived high BCR risk due to a positive USPSA (either true or false positive) are quite evident. Although USPSA has its place among several imperfect predictors of recurrence, periodic total PSA testing to assess BCR remains the only recommended standard follow-up procedure.

References


DOI: 10.1016/j.eururo.2009.03.078
DOI of original article: 10.1016/j.eururo.2009.03.077