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PROSTATE CANCER

Avoiding unnecessary MRIs

Many unnecessary MRI scans could be avoided by using the Rotterdam Prostate Cancer Risk Calculator (RPCRC) to select which men with a suspicion of prostate cancer should undergo MRI, say researchers.

Men with an abnormal PSA level and/or abnormal digital rectal examination (DRE) currently undergo transrectal ultrasonography (TRUS)-guided random biopsy, but the specificity of this method is poor and a suspicion of prostate cancer often remains. Multiparametric MRI (mpMRI) is increasingly being used to target biopsies in men with sustained suspicion of prostate cancer after negative TRUS-guided random biopsy, but is expensive. Alberts *et al.* investigated whether use of the RPCRC to risk stratify patients could aid the decision to perform mpMRI.

The researchers included 122 men referred for an mpMRI scan after ≥1 negative random TRUS-guided biopsy and sustained suspicion of prostate cancer on the basis of PSA level. They retrospectively stratified the men according to RPCRC biopsy advice in order to compare targeted biopsy outcomes after risk-based patient selection with standard patient selection (based on PSA level or DRE). According to the RPCRC, 60 men had 'positive biopsy advice'; among these men, targeted biopsy showed that six (10%) had low-grade prostate cancer and 28 (47%) had high-grade prostate cancer. Among the 62 men with 'negative biopsy advice', only two (3%) had low-grade prostate cancer and three (5%) had high-grade prostate cancer.

"Upfront patient selection according to the RPCRC would have avoided the performance of approximately 50% of mpMRIs in our cohort," say the authors. They say that the number of risk-stratified men with missed high-grade prostate cancer—three (2%) out of 122—is acceptable, and note that adding a calibration factor to the prediction model using mpMRI and targeted biopsy data could be used to improve the performance of the RPCRC in a targeted biopsy setting.

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ORIGINAL ARTICLE Alberts, A. R. *et al.* Risk-based patient selection for magnetic resonance imaging-targeted prostate biopsy after negative transrectal ultrasound-guided random biopsy avoids unnecessary magnetic resonance imaging scans. *Eur. Urol.* http://dx.doi.org/10.1016/j.eururo.2015.11.018