

 PROSTATE CANCER

ERSPC calculator recalibrated for China

The European Randomized Study of Screening for Prostate Cancer (ERSPC) risk calculator has been adapted for a Chinese population and shows excellent discrimination, according to a study published in *Prostate Cancer and Prostatic Diseases*.

The ERSPC was set up to investigate the effect of PSA screening on prostate cancer mortality and recently reported a 21% decrease in prostate cancer mortality at the 13-year follow-up point. The risk calculator associated with the ERSPC (RC3) has previously been shown to perform well in a number of different settings, but a risk calculator specifically for the Chinese population is lacking.

Chiu *et al.* identified 5,165 Hong Kong Chinese men from a database of transrectal ultrasonography (TRUS)-guided biopsies performed at a tertiary centre as the development cohort. 3,006 consecutive patients from this group aged 50–80 years, who had initial biopsies, serum PSA levels 0.4–50 ng/ml (WHO calibration), and TRUS prostate volume (TRUS-PV) 10–150 ml, were then included for validation of the original ERSPC RC3. 16.7% and 7.8% of men in the developmental cohort were diagnosed with prostate cancer and high-grade prostate cancer, respectively. In the validation cohort, 20.2% were diagnosed with prostate cancer and 9.7% with high-grade prostate cancer. Application of ERSPC RC3 for prostate cancer and high-grade prostate cancer to the development cohort produced AUCs of 0.75 (95% CI 0.73–0.78) and 0.84 (95% CI 0.81–0.87), respectively. However, the calculator overestimated positive biopsy rates by 10–40% for prostate cancer and 10–30% for high-grade prostate cancer. Recalibration of the models and testing in a second validation cohort produced AUCs of 0.76 (95% CI 0.73–0.79) and 0.85 (95% CI 0.82–0.87) for prostate cancer and high-grade prostate cancer, respectively, indicating that significant proportions of prostate biopsies could have been avoided by using the recalibrated RC3 in this Chinese population.

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ORIGINAL ARTICLE Chiu, P. K. *et al.* Adaptation and external validation of the European randomised study of screening for prostate cancer risk calculator for the Chinese population. *Prostate Cancer Prostatic Dis.* <http://dx.doi.org/10.1038/pcan.2016.57> (2016)