Medical Xpress

New approach to prostate cancer screening needed, expert says

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(Medical Xpress)—The UK needs to invest in testing for those men most at risk of prostate cancer rather than follow a cast-the-net-wide approach targeting the whole population, a leading scientist from The University of Manchester has argued at an international conference this week.

Men in the UK are currently entitled to PSA blood test for prostate cancer once they reach the age of 50 and will be recommended to have a prostate biopsy if their PSA level is greater than their age-specific threshold. This practice leaves around 50,000 men in the UK having an unnecessary prostate biopsy every year which is painful, can cause bleeding and infection and rarely even death.

Professor Ken Muir, from The University of Manchester, is proposing the UK moves to a risk-based approach in the community – a move backed by Tackle Prostate Cancer – formerly the Prostate Cancer Support Federation.

The new approach is a computer generated risk assessment, which will be based on an extension of the Canadian Sunnybrook Risk Calculator (SRC) which utilises a combination of indicators including PSA, PSA free to total (both simple blood based tests), urine symptoms, age, family history, ethnicity and physical examination (DRE: Digital Rectal Exam). Men will only be put forward for prostate biopsy if their prostate cancer risk is calculated to be greater than that of the normal male population. The calculator will also find more high-grade cancers, the ones that kill 10,000 men per annum, earlier so that they are treatable.

Manchester researchers surveyed more than 1,000 men and over 100 GPs about whether they would be happy with a risk-based approach to prostate cancer screening. The findings show over 80% of men expressed strong support and 77% of GPs were supportive.

The researchers now aim to further identify and include more risk markers and personalise the approach by also using predisposing genetic markers.

Professor Muir said that these markers would potentially replace the digital rectal examination, which in a primary care environment has proved a weak point and a social obstacle in some communities. This would make the calculator more efficient.

Individual personalised risk-calculators have been used in routine practice in many other countries across Europe, Canada and the USA, for some time but their use in the NHS Primary Care has not been investigated.

Professor Muir said: "There is a growing acceptance of using a combination of markers of risk to reduce the over-referral of patients for invasive further assessment and that this assessment should be made in Primary Care."

The European Randomised Screening for Prostate Cancer (ERSPC) trial highlighted limitations of using a PSA threshold in a trial on over 182,000 men across Europe and organisers estimate a risk-based approach to screening would save between a quarter and a third of unnecessary biopsies to detect the same number of cancers.

The Manchester team now hopes to run a trial with General Practices allocated to assess men at risk aged 50-75 but also aged 40-75 who are Afro-Caribbean or who have first degree relatives with prostate or breast

cancer using two different approaches. The trial would allocate some of the participants through the risk calculator and the others would just have a PSA test. The results would be compared to ascertain the effectiveness of the risk profiling.

David Smith, Secretary of Tackle and the Patient Expert on the trial said: "Tackle, whose members have invested significant sums in the trial, are confident that the trial team under Professor Muir will produce a risk calculator that is non-inferior. The detection of cancers of definite clinical significance will be increased while significantly reducing the number of men needing to undergo biopsy."

Provided by University of Manchester

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