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# Simple urine test for prostate cancer may save thousands of men's lives

By Sarah Knapton SCIENCE EDITOR

A £10 urine test for prostate cancer — which not only picks up the disease but also shows the size of tumours so doctors know whether to operate — could be available within 18 months.

Around 40,000 men are diagnosed with prostate cancer each year and more than 10,000 will die, many because the disease is not picked up early enough.

The new test, which works like a pregnancy test, is twice as reliable as current blood tests and would allow patients to find out in minutes whether they had cancer based on the levels of EN2 in their urine — a protein that is produced by tumours.

Crucially, the amount of protein in the urine is directly linked to the size of a tumour so doctors would no longer need to carry out invasive biopsies or embarrassing rectal examinations.

Prostate cancer grows very slowly and is not always life threatening. But because current tests can only spot if a tumour is present, not how big it is, many men are subjected to needless

surgery and radiotherapy which can lead to impotence and incontinence.

Under the new system a tumour under the size of a pea would be left and monitored every three to four years.

The team are hoping that screening will be brought in for men over 55 in the same way that women are routinely screened for breast and cervical cancers. They believe it could save thousands of lives each year.

*'Men often have needless treatment. With the new test we can avoid biopsies and only treat when necessary'*

The test was devised by Professor Richard Morgan, of the University of Bradford, and Professor Hardev Pandha, of the University of Surrey.

Speaking at the British Science Festival in Bradford, Prof Morgan said: "The thing about prostate cancer is that it is not absolutely necessary to detect it at its earliest stages, when treatment is not needed. The problem

with the current tests is it cannot distinguish between a small tumour that won't cause much harm and something more serious. So men have needless treatment.

"With this test we can avoid biopsies and only treat when it is absolutely necessary."

Prof Morgan added: "The EN2 protein is usually silent in normal cells but is present in increasing amounts as tumours grow.

"So it not only gives a marker for prostate cancer but we can screen for men who are most at risk."

The current blood test used by doctors to check for prostate cancer measures levels of protein called prostate specific antigen, or PSA, but it is wrong more often than it is right.

In trials of 77,000 men over five years the new test detected about 90 per cent of prostate cancers, making it more than twice as accurate as the PSA test.

The test is being developed by Randox Laboratories and will need to be approved by regulators before it could be used in the NHS.