

17 April 2013 Last updated at 00:40 GMT

Prostate cancer: Call to test men in their 40s

By Michelle Roberts Health editor, BBC News online

Men should be offered a screening test for prostate cancer in their late 40s, researchers say.

The idea is controversial as prostate specific antigen (PSA) testing can be unreliable, throwing up false positive results that can cause undue worry and even treatment over something benign.

But the Swedish team say checking every man aged 45-49 would predict nearly half of all prostate cancer deaths.

Their findings, in [The BMJ](#), come from a study of more than 21,000 men.

No consensus

There is no routine screening programme for prostate cancer in the UK.

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Prof Lilia and colleagues

Men over 50 can request a free PSA test on the NHS if they wish.

A recent prostate cancer screening trial in Europe, [ERSPC](#), showed that screening reduced mortality by 20%. However, this was associated with a high level of "over treatment". To save one life, 48 additional cases of prostate cancer needed to be treated.

In 2010, when the UK National Screening Committee in England last reviewed the issue, it again decided screening should not be introduced.

But Prof Hans Lilia and colleagues from Lund University in Sweden and the Memorial Sloan-Kettering Cancer Center in the US say there is a strong case for routine PSA testing and that men in their late-40s are prime candidates.

PSA testing

- PSA is a protein produced by both normal and cancerous prostate cells
- A high level of PSA can be a sign of cancer
- A PSA reading higher than four, but less than 10 is usually due to a benign enlarged prostate
- A reading higher than 10 may also just be a non cancerous prostate disease
- The higher the level of PSA, the more likely it is to be cancer

Source: Cancer Research UK

To prove it, they looked back at a study carried out between 1974 and 1984 involving 21,277

Swedish men aged 27-52. All the men had donated blood samples at the start of the study. The researchers used these stored samples to run PSA tests.

Armed with the results, they then checked to see if the PSA reading predicted what had happened to the men in terms of clinical outcomes - ie had those with high/positive PSA results gone on to develop prostate cancer.

A high PSA was linked with an increased risk of prostate cancer.

"We are currently in the process of a scheduled review for a screening programme for prostate cancer and will make a recommendation towards the end of 2013"

Dr Anne Mackie of Public Health England

The researchers then checked the results to see if there was a best age at which men should be screened.

Balance of risks

Screening too young - below 45 years of age - detected too few deadly cancers.

And delaying screening until after a man's 50th birthday missed too many.

Screening men at the age of 45-49, however, spotted nearly half (44%) of the cancers that went on to be deadly.

In the study, 1,369 of the men had prostate cancer, 241 had advanced disease and 162 died from it.

They say all men should be offered a PSA test in their mid-to-late 40s. Those with a high result would return for frequent screening and checks (and treatment if necessary), while those with normal results could wait until their early 50s for their next PSA test.

"At least half of all men can be identified as being at low risk and probably need no more than three PSA tests in a lifetime," they say in the British Medical Journal.

"This is likely to reduce the risk of over-diagnosis while still enabling early cancer detection among those most likely to gain from early diagnosis," they say.

Dr Anne Mackie, Director of NHS Screening Programmes at Public Health England, said they reviewed evidence for screening on a three-yearly basis to make sure that the programmes offered by the NHS are based on the best and most up-to-date information available.

She said they would consider the findings of the BMJ study.

"We are currently in the process of a scheduled review for a screening programme for prostate cancer and will make a recommendation towards the end of 2013," she said.

The Prostate Cancer UK said more research efforts should be channelled into finding a better screening test for the disease.