

Repeat aneurysm screening for high-risk men should be considered

July 5 2012

Aneurysm screening for men aged over 65 is cost effective and rescreening those at highest risk, at least once, should be considered, suggests a study published in the *British Medical Journal* today.

Abdominal aortic aneurysms (caused by ballooning of the artery wall) usually occur in men aged between 65 and 75 years old and are more common among [smokers](#). If the [artery wall](#) ruptures, the risk of death is high, but aneurysms at risk of rupture can be detected by screening and surgically repaired.

One-off screening for men aged over 65 is known to be cost effective and national screening programmes are currently being implemented in England and Scotland. But many other [European countries](#) have not yet issued guidance on screening.

So a team of researchers in Denmark, where national screening has not yet been implemented, set out to assess the benefits and [cost effectiveness](#) of different strategies for abdominal [aortic aneurysm](#) screening.

They used a [prediction model](#) with a hypothetical population of 100,000 men aged 65 years to test four different screening strategies: no screening; once per lifetime screening; twice per lifetime screening with a 5-year interval; and lifetime screening every five years.

Their results confirm that screening is highly cost effective compared

with no screening and suggest that rescreening individuals with a high rupture risk (aortic artery diameter 25-29 mm) at least once more during their lifetime may be the most cost effective option.

For example, if [high risk](#) individuals were rescreened once after five years, an additional 452 per 100,000 would be detected and it would cost £10,013 per quality adjusted life year (QALY) - well within the cost effectiveness threshold of £20,000 set by the UK National Institute for Health and Clinical Excellence (NICE).

In contrast, lifetime rescreening every five years would detect an additional 794 men per 100,000 but would cost £29,680 per QALY.

For the two rescreening strategies, the number of elective operations was estimated to increase from 861 per 100,000 with no screening to 1,496 and 1,530 per 100,000 respectively, if screening was repeated after five years or at five-year intervals for lifetime.

The number of acute (emergency) operations was estimated to fall from 610 per 100,000 with no screening to 363 and 360 per 100,000 respectively for repeat screening and five-year interval screening, while the aneurysm related death rate was reduced from 788 to 520 and 511 per 100,000 respectively.

This study confirms the cost effectiveness of screening versus no screening and suggests that some form of rescreening is likely to be cost effective, say the authors.

However, the optimal choice of rescreening strategy appears to be uncertain and further research is needed to establish the long term costs and benefits of rescreening, they conclude.

Provided by British Medical Journal

Citation: Repeat aneurysm screening for high-risk men should be considered (2012, July 5)
retrieved 27 April 2024 from

<https://medicalxpress.com/news/2012-07-aneurysm-screening-high-risk-men.html>

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