Screening for abdominal aortic aneurysm (AAA) reduced AAA mortality in Danish men 64–73 years of age


Clinical impact ratings GP/FP/Primary care Surgery–Vascular

Q In Danish men 64–73 years of age, does screening for abdominal aortic aneurysm (AAA) reduce specific mortality caused by AAA and all cause mortality?

METHODS

In Danish men 64–73 years of age, does screening for abdominal aortic aneurysm (AAA) reduce specific mortality caused by AAA and all cause mortality?

The rates of specific mortality caused by AAA, emergency operations for AAA, and ruptured AAA were lower in the screened group than in the control group (table). However, the rates of all operations combined and of planned elective operations were greater in the screened group than in the control group (table). The groups did not differ for all cause mortality (table). The number of life years gained by offering screening to 6333 men was 32 (95% CI 14 to 49) during the first 5 years, and might be expected to increase with time.

CONCLUSION

In Danish men 64–73 years of age, screening for abdominal aortic aneurysm (AAA) reduced specific mortality caused by AAA but not all cause mortality.

Abstract and commentary also appear in ACP Journal Club.

Commentary

The study by Lindholt et al is 1 of several large population screening studies1 and it confirms previous findings, particularly those of the MASS trial,2 that screening for AAA reduces specific mortality caused by AAA. In men 64–73 years of age, about 3 AAA related deaths were averted for every 1000 men invited for screening. However, the 75% reduction in emergency surgery among the screened population was offset by a 3–4 fold increase in the total number of aneurysm procedures.

Because the cost effectiveness of screening is highly dependent on the underlying prevalence, screening a population with a low level of opportunistic identification of AAA and high prevalence will be most cost effective. Clearly, screening is effective in a population of men 64–73 years of age. But what are the most cost effective screening strategies, mechanisms for achieving a high rate of compliance, cost effectiveness in other populations, relative merits of different screening regimens, and effects of new operations of endovascular aneurysm repair in managing a screened population? Answers to such questions are likely to require a combination of research methods, including further clinical trials and the use of decision and economic modelling techniques.3

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