

P.E.A.R.L.S. Practical Evidence About Real Life Situations



Screening for abdominal aortic aneurysm

Clinical Question	How effective is ultrasound screening for abdominal aortic aneurysm (AAA)?
Bottom Line	Ultrasound screening, followed by appropriate management, significantly reduced deaths from AAA in men aged 65 to 79 years (NNS *322 to 1312). There was insufficient evidence to demonstrate benefit in women. The costeffectiveness of a coordinated population-based screening programme may be acceptable but this needs further expert analysis. *NNS = <i>number needed to screen to prevent a death from AAA</i>
Caveat	The incidence of AAA in women is lower than for men. All-case mortality was not significantly different between screened and unscreened groups three to five years after screening, which is to be expected given the relative infrequency of AAA as a cause of death. The “high NNS” is similar to other screening procedures.
Context	AAA is found in 5-10% of men aged 65 to 79 years. The major complication is rupture, which has a mortality of 80% for patients reaching hospital, and 50% for those undergoing surgery for emergency repair. Currently elective surgical repair is recommended for aneurysms discovered to be larger than 5.5 cm to prevent rupture.
Reference	Cosford PA, Leng GC. Screening for abdominal aortic aneurysm. <i>Cochrane Database of Systematic Reviews</i> 2007, Issue 2. Art. No.: CD002945. DOI: 10.1002/14651858.CD002945.pub2. This review contains 4 trials involving 127,891 men and 9,342 women.
PEARLS No. 14, October 2007, written by Brian R McAvoy	

NNT = numbers needed to treat to benefit one person

NNH = numbers needed to harm to benefit one person

Both NNT and NNH are only reported if the studies or pooling of studies is statistically significant

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