

Abdominal Aortic Aneurysm (AAA) Screening

The Role of the Assistant Practitioner

Introduction

Rupture of an abdominal aortic aneurysm has been cited as the 3rd most common cause of death in older men. It is estimated to be the cause of death in over 3000 men per year. Abdominal aortic aneurysm (AAA) is found in 5% to 10% of men aged 65 to 79 years and is six times more common in men than women. The mortality after rupture is high; 80% for patients requiring surgery 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. Ruptured AAAs are costly with respect to quality adjusted life years (QALY) lost and medical expenses. Therefore, there is interest in screening the population to detect, monitor and repair abdominal aortic aneurysms before rupture. Furthermore, there has been documented reduction in the mortality from AAA in men aged 65 to 79 years who undergo ultrasound (Cosford PA. 2007 Longo C. 2005, MASS 2002).

In January 2008, the Secretary of State for Health announced a national screening programme for England that will target 32,000 men initially rising to 270,000 a year by the time of full roll out.

Screening process

It is well documented that physical examination is an insensitive means of detecting AAA (Lindholt 1999, Marshall 1996) and ultrasound screening for AAA can be performed with a simple, non-invasive ultrasound study. A limited ultrasound examination is extremely accurate in identifying the presence of AAA (Lee 2002). Its validity as a one off screening method for AAA at age 65 can identify the majority of AAA that are of clinical significance and can identify a large population at low risk from rupture who do not require surveillance. The screening process involves inviting men who are aged 65 for an ultrasound examination of the abdominal aorta. Men who are over 65 will not be invited, but are eligible for a scan if they wish to be screened. The scan is performed only to access the abdominal aorta but locally developed protocols should detail the procedure to be followed in the event of incidental abnormal findings. The examination will initially be offered at 60 centres across England. It should be noted that the other three Health Departments across the UK are also considering the introduction of a screening programme.

Workforce issues

The National Imaging Board has identified the delivery of non-obstetric ultrasound as a priority area. Targets for delivery within the 18 week wait are under threat due to pressure on ultrasound services; the introduction of this additional screening programme will add considerably to demand. The first pilot sites are expected to commence the programme by the end of 2008 and, therefore, an additional workforce is required in order to deliver this programme. Before AAA screening can be rolled out screening technicians will need to be trained. This will require the provision of suitable trainers (trained sonographers), with practical experience in AAA screening methods. Documents and software are being prepared in which the method and practice of AAA screening nationally will be based.

Role of the Assistant Practitioner in AAA Screening

The Society and College of Radiographers believes that, similar to the NHS Breast Screening Programme, assistant practitioners who have been suitably trained could undertake this single organ imaging within a supervisory framework. The screening unit will be overseen by a lead clinician and fully trained sonographers who will have special responsibility for quality assurance of staff and screening equipment, staff accreditation, and monitoring of clinical performance. They will also be available to give advice when required, especially in the event of complicated examinations and incidental findings. The assistant would scan the abdominal aorta and collect data in the form of measurements which would then be referenced to normal ranges to see if repeat surveillance scans or onward referral were required. There would be protocols, schemes of work and referral paths documented and regularly updated. The initial data analysis would consist of comparison of the acquired data to a norm referenced data set. Inconsistencies would be reportable. The assistant practitioner would be expected to work under supervision of a qualified sonographer.

Accreditation of the Assistant Practitioner

In common with processes established for the voluntary registration of assistant practitioners in diagnostic imaging or radiotherapy, there is an expectation that individuals will seek accreditation by the SCoR for their practice. There are two routes to accreditation, the first is through an education and training programme that has been approved by the College of Radiographers, the alternative is by submission of a portfolio of evidence submitted as part of, or in conjunction with, a nationally recognised academic award e.g. NVQ, BTEC etc. Guidance notes and application for accreditation can be downloaded from the Society's website at http://www.sor.org/public/ap_accred.htm

Centres wishing to develop training programmes are advised to contact the Approval and Accreditation department at the College by emailing approval@sor.org

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References

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