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Abdominal Aortic Aneurysm

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Date



Introduction

Abdominal aortic aneurysm (AAA) is a relatively common and often fatal condition that primarily affects older patients. AAAs accounts for 15,000 deaths yearly and in 2000 were the 10th leading cause of death in white men 65 to 74 years of age in the United States.¹ With an aging population, the incidence and prevalence of AAA is certain to rise.

Problem

Most AAA's are asymptomatic, and physical examination lacks sensitivity for detecting an aneurysm.² If a patient is overweight the Doctors ability to feel the aneurysm is diminished. When AAA's are found early, treatment is usually safe, effective and the aneurysm can be treated appropriately.

Previous Options

Doctors generally examine the patient's abdomen as a first method to detect an AAA. Exams are based on screening criteria including age, history of smoking, among others (see Screening below) Aneurysms are also found when a diagnostic test is performed for entirely different reasons, such as checking the spine, kidneys or gallbladder.

Solution

Although AAA can be found by physical examination, **most** are diagnosed using an abdominal ultrasound scan or computerized tomographic (CT) scan. These are simple, non-invasive examinations done on an outpatient basis. These tests measure the size and shape of the AAA which is an important factor when deciding the best course of treatment.

Implementation

Ultrasound can be scheduled for patients that have undergone an initial screening by the doctor. An ultrasound technician, trained to perform scans for AAA, will scan a patient and then send the images to a lab for measurement. Once the tests have been evaluated a report is then given to the Doctor detailing the findings of the scan as they relate to AAA.

Screening

Ultrasound is the standard imaging tool; if performed by trained personnel, it has a sensitivity and specificity approaching 100 and 96 percent, respectively, for the detection of infra-renal AAA.⁷ The U.S. Preventive Services Task Force has released a statement summarizing recommendations for screening for AAA.⁸ It stated that screening benefits patients who have a relatively high risk for dying from an aneurysm; major risk factors are age 65 years or older, male sex, and smoking at least 100 cigarettes in a lifetime. The guideline recommends one-time screening with ultrasound for AAA in men 65 to 75 years of age who have ever smoked. No recommendation was made for or against screening in men 65 to 75 years of age who have never smoked, and it recommended against screening women. Men with a strong family history of AAA should be counseled about the risks and benefits of screening as they approach 65 years of age.

Medicare covers this one-time screening ultrasound if patients get a referral for it as a result of their "Welcome to Medicare" physical exam. They must receive the physical exam and the screening ultrasound referral (not the ultrasound exam itself) within the first twelve months that they have Medicare Part B. (See Appendix A for details)



Key Recommendations for Practice

Clinical recommendation	Evidence rating	References
Ultrasound should be used to screen for the presence of AAA in men 65 to 75 years of age who have ever smoked, and it can be considered for patients with a strong family history of AAA.	B	7,8
Beta blockade, with a goal resting heart rate of 60 beats per minute, should be instituted before AAA repair in all patients unless contraindicated.	A	17,26–29
Repair of an AAA should be considered when the aneurysm reaches 5.5 cm in maximal diameter in men.	A	18,19,21
Repair of an AAA also should be considered when the aneurysm expands by more than 0.6 to 0.8 cm per year.	C	21,22

AAA = abdominal aortic aneurysm.

A = consistent, good-quality patient-oriented evidence; B = inconsistent or limited-quality patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, see <http://www.aafp.org/afpsort.xml>.

Recommended Ultrasound Surveillance for Patients with Abdominal Aortic Aneurysm

Diameter of aneurysm	Interval for follow-up
Less than 3 cm	No further testing
3 to 4 cm	Every 12 months
4 to 4.5 cm	Every six months
Greater than 4.5 cm	Consider referral to vascular subspecialist.

Traditionally, if the AAA expands by more than 0.6 to 0.8 cm per year, the patient should be offered repair.^{21,22} A recent study²³ examining expansion as a criterion for repair failed to find a benefit in a small group of patients; further studies are needed. All patients with AAAs should be educated on the signs of symptomatic and ruptured aneurysms. If they experience new or unusual pain in the back, groin, testicles, legs, or buttocks, emergent medical attention should be sought.

Summary

All individuals at risk for AAA should control high blood pressure, high cholesterol, stop smoking, and avoid weight gain and inactivity. Regular checking by ultrasound, beginning at age 45-50, is essential to make an early diagnosis.



Appendix A:

Insurance Coverage

The following is taken from the NHIC [website](#).

(http://www.medicarenhic.com/news/provider_news/mbr_mar07.pdf)

Key Points

Effective for dates of service on and after January 1, 2007 Medicare will pay for a one-time ultrasound screening for AAA, for beneficiaries who meet the following criteria:

- **Receives a referral** for such an ultrasound screening as a result of an initial preventive physical examination (IPPE) (See MLN Matters article MM3638 at <http://www.cms.hhs.gov/MLNMattersArticles/downloads/MM3638.pdf> for more details on the IPPE.)
- Receives such ultrasound screening from a provider or supplier who is authorized to provide covered ultrasound diagnostic services.
- Has not been previously furnished such an ultrasound screening under the Medicare Program
- Is included in at least one of the following risk categories:
 - Has a family history of abdominal aortic aneurysm;
 - Is a man age 65 to 75 who has smoked at least 100 cigarettes in his lifetime;
 - Is a beneficiary, who manifests other risk factors in a beneficiary category recommended for screening by the United States Preventive Services Task Force regarding AAA, as specified by the Secretary of Health and Human Services, through the national coverage determinations process.

Payment

- The Part B deductible for screening AAA is waived effective January 1, 2007, but coinsurance is applicable.
- If the screening is provided in a physician office, the service is billed to the carrier using the HCPCS code G0389: Ultrasound, B-scan and/or real time with image documentation; for abdominal aortic aneurysm (AAA) screening.
 - Short Descriptor: Ultrasound exam AAA screen
 - Modifiers: TC, 26 (modifiers are optional)
 - Payment is under the Medicare Physician Fee Schedule (MPFS).

References:

- AAFP.org, Abdominal Aortic Aneurysm (AAA): What You Should Know
- NHIC website http://www.medicarenhic.com/news/provider_news/mbr_mar07.pdf
- <http://www.cms.hhs.gov/MLNMattersArticles/downloads/MM3638.pdf>
- <http://intermountainhealthcare.org/services/heart/symptomsconditions/Pages/AorticAneurysm.aspx>
- http://www.medicinenet.com/abdominal_aortic_aneurysm/article.htm
- <http://www.webmd.com/heart-disease/tc/aortic-aneurysm-overview>
- <http://www.aafp.org/afpsort.xml>

Suggested Reading:

- AAFP.org