

Putting Prevention into Practice

An Evidence-Based Approach

Screening for Abdominal Aortic Aneurysm

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► See related U.S. Preventive Services Task Force Recommendation Statement at <http://www.aafp.org/afp/2015/0415/od1.html>, article on page 538, and editorial on page 518.

This PPIP quiz is based on the recommendations of the USPSTF. More information is available in the USPSTF Recommendation Statement and the supporting documents on the USPSTF website (<http://www.uspreventiveservicestaskforce.org>). The practice recommendations in this activity are available at <http://www.uspreventiveservicestaskforce.org/Page/Topic/recommendation-summary/abdominal-aortic-aneurysm-screening>.

This series is coordinated by Sumi Sexton, MD, Associate Medical Editor.

A collection of Putting Prevention into Practice published in *AFP* is available at <http://www.aafp.org/afp/pip>.

CME This clinical content conforms to AAFP criteria for continuing medical education (CME). See CME Quiz Questions on page 521.

Author disclosure: No relevant financial affiliations.

Case Study

C.S. is an older patient who presents to your office for an annual well visit. C.S. was advised by a relative, who is a physician, to be screened for an abdominal aortic aneurysm (AAA).

Case Study Questions

1. In which one of the following scenarios should you offer to screen this patient for AAA?
 - A. C.S. is a 60-year-old man who currently smokes.
 - B. C.S. is a 60-year-old woman who currently smokes.
 - C. C.S. is a 65-year-old man with a history of smoking.
 - D. C.S. is a 65-year-old woman with a history of smoking.
 - E. C.S. is a 65-year-old woman who has never smoked.
2. According to the U.S. Preventive Services Task Force (USPSTF), which one of the following screening tests for AAA is recommended?
 - A. Annual low-dose computed tomography.
 - B. Annual magnetic resonance imaging.
 - C. One-time abdominal duplex ultrasonography.
 - D. Biennial handheld, portable ultrasonography.
 - E. Annual abdominal radiography.
3. According to the USPSTF, which of the following statements about treatment for AAA are correct?
 - A. Patients with a large aneurysm (i.e., aortic diameter of 5.5 cm or greater) should receive prompt surgical referral.
 - B. Short-term treatment with antibiotics or beta blockers reduces aneurysm growth.
 - C. Open surgery is the only way to repair an aneurysm.
 - D. Open surgery reduces AAA-related mortality.

Answers appear on the following page.

Answers

1. The correct answer is C. The USPSTF recommends one-time screening for AAA in men 65 to 75 years of age who have ever smoked (defined as having smoked at least 100 cigarettes during a lifetime; B recommendation). Screening should be offered selectively for men 65 to 75 years of age who have never smoked, taking into consideration medical history, family history, other risk factors, and personal values (C recommendation). The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for AAA in women 65 to 75 years of age who have ever smoked (I statement). The USPSTF recommends against screening in women who have never smoked (D recommendation). The USPSTF makes no recommendation for screening in any population younger than 65 years. The USPSTF also recommends that any patient who smokes should be provided with tobacco cessation interventions (A recommendation).

2. The correct answer is C. The USPSTF recommends one-time use of conventional abdominal duplex ultrasonography for screening patients who are at risk of AAA. The USPSTF found that the use of abdominal ultrasonography has high sensitivity and specificity in the detection of AAA. Additional benefits of this type of imaging include its noninvasive, low-cost nature, as well as ease of use. The best evidence for the benefit of screening came from trials demonstrating statistically significant reductions in rates of AAA-related mortality using conventional abdominal duplex ultrasonography. The use of handheld, portable ultrasonography devices may be an alternative approach; however, their use has not been formally evaluated in a clinical trial.

3. The correct answers are A and D. Large aneurysms have an aortic diameter of 5.5 cm or greater and require prompt surgical referral. Surgical options for AAA include open surgery and endovascular aneurysm repair. Screening trials that demonstrated an AAA-related mortality benefit used open surgery as the treatment option. Short-term treatment with antibiotics or beta blockers does not appear to reduce growth of aneurysms.

The views expressed in this work are those of the authors, and do not reflect the official policy or position of the Uniformed Services University of the Health Sciences, the Department of Defense, or the U.S. government.

SOURCES

U.S. Preventive Services Task Force. Screening for abdominal aortic aneurysm: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med.* 2014;161(4):281-290.

Guirguis-Blake JM, Beil TL, Senger CA, Whitlock EP. Ultrasonography screening for abdominal aortic aneurysms: a systematic evidence review for the U.S. Preventive Services Task Force. *Ann Intern Med.* 2014;160(5):321-329. ■

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