Putting Prevention Into Practice

An Evidence-Based Approach

Aspirin Use to Prevent Cardiovascular Disease

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Case Study

C.C., a 56-year-old man who is a regular patient in your practice, presents for a wellness visit. He is overweight, with a history of smoking and hypertension and a family history of diabetes mellitus and cardiovascular disease (CVD). He has no history of peptic ulcer disease, gastrointestinal bleeding, or medications that would increase bleeding risk. His blood pressure is well controlled with an angiotensin receptor blocker, and he takes no other medications, including nonsteroidal anti-inflammatory drugs. He feels well today with no complaints and a negative review of symptoms. You calculate his estimated 10-year CVD risk to be 12.4%. In addition to considering statin therapy, C.C. asks whether he should be taking aspirin to prevent heart disease because he recalls that his husband started taking aspirin a few years ago.

Case Study Questions

1. According to the U.S. Preventive Services Task Force (USPSTF) recommendation statement, which one of the following statements should be recommended to C.C.?

- ☐ A. It is uncertain whether C.C. should start taking aspirin because the USPSTF found insufficient evidence to support aspirin use in his age group.
- ☐ B. Based on his age and estimated 10-year CVD risk, the USPSTF found that there is unlikely to be any benefit to starting aspirin.
- ☐ C. Based on his age, estimated 10-year CVD risk, and lack of risk factors for bleeding, the USPSTF found that there is a small net benefit to starting aspirin.
- ☐ D. It is recommended that C.C. start taking aspirin because the USPSTF found that the benefit of starting aspirin is substantial.
- ☐ E. It is not recommended that C.C. should start taking aspirin because the USPSTF recommends against aspirin use in adults older than 50 years.

2. According to the USPSTF recommendation statement, which of the following risk factors increase risk of bleeding?

- ☐ A. Diabetes.
- ☐ B. Peptic ulcer disease.
- ☐ C. Nonsteroidal anti-inflammatory drug use.
- ☐ D. Smoking history.
- ☐ E. Younger age.

3. According to the USPSTF recommendation statement, when might it be appropriate for someone who uses aspirin as a primary prevention for CVD and who meets eligibility criteria to consider stopping aspirin use?

- ☐ A. The USPSTF recommends against aspirin use for all people, so the patient should not have been taking aspirin to prevent CVD.
- ☐ B. Aspirin use should be stopped as soon as possible.
- ☐ C. It would not be appropriate to stop aspirin use once started.
- ☐ D. It may be reasonable to consider stopping aspirin use around 60 years of age.
- ☐ E. It may be reasonable to consider stopping aspirin use around 75 years of age.

Answers appear on the following page.

See related USPSTF Clinical Summary in the online version of this issue.

This PPIP quiz is based on the recommendations of the USPSTF. More information is available in the USPSTF Recommendation Statement and supporting documents on the USPSTF website (https://www.uspreventiveservicestaskforce.org). The practice recommendations in this activity are available at https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/aspirin-to-prevent-cardiovascular-disease-preventive-medication.

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A collection of Putting Prevention Into Practice published in *AFP* is available at https://www.aafp.org/afp/ppip.

CME This clinical content conforms to AAFP criteria for CME. See CME Quiz on page 241.

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Answers

1. The correct answer is C. For adults 40 to 59 years of age with a 10% or greater 10-year CVD risk, the USPSTF found with moderate certainty that the use of aspirin for primary prevention of CVD events has a small net benefit. The USPSTF recommends that the decision to initiate low-dose aspirin in these patients should be an individual one, based on the patient's risk for CVD and bleeding and willingness to take a daily medication. For patients 60 years or older, the USPSTF recommends against initiating low-dose aspirin for the primary prevention of CVD events.[1]

2. The correct answers are A, B, C, and D. The risk for bleeding, including gastrointestinal bleeding, intracranial bleeding, and hemorrhagic stroke, with or without aspirin use, increases with older age. Other risk factors for bleeding include being male, having diabetes, history of gastrointestinal issues (such as peptic ulcer disease), liver disease, smoking, and taking certain medications, including nonsteroidal anti-inflammatory drugs, steroids, and anticoagulants.[1,2]

3. The correct answer is E. Risk for bleeding increases modestly with advancing age. For those who have initiated aspirin use, the net benefits continue to accrue over time in the absence of a bleeding event. However, the net benefits generally become progressively less with advancing age because of an increased risk for bleeding, and modeling data suggest that it may be reasonable to consider stopping aspirin use around 75 years of age.[1,3]

The views expressed in this work are those of the authors and do not reflect the official policy or position of the University of California, Los Angeles, or the U.S. government.

References

1. Davidson KW, Barry MJ, Mangione CM, et al. Aspirin use to prevent cardiovascular disease: US Preventive Services Task Force recommendation statement. *JAMA*. 2022; 327(16):1577-1584.
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3. Dehmer SP, O'Keefe LR, Evans CV, et al. Aspirin use to prevent cardiovascular disease and colorectal cancer: updated modeling study for the US Preventive Services Task Force. *JAMA*. 2022;327(16):1598-1607. ■