

# Putting Prevention into Practice

## *An Evidence-Based Approach*

### Hormone Therapy for the Primary Prevention of Chronic Conditions in Postmenopausal Women

Howard Tracer, MD, Medical Officer, U.S. Preventive Services Task Force Program, Agency for Healthcare Research and Quality

Debra Lynne McKee, DO, General Preventive Medicine Resident, Uniformed Services University of the Health Sciences

#### Case Study

D.M. is a 52-year-old woman who presents to your office for a well-woman visit. She has been menopausal since 50 years of age and has no significant medical or surgical history. She is up to date on her recommended screenings, with normal mammography and colonoscopy results, and has no history of an abnormal Papanicolaou test result. She reports no menopausal symptoms.

#### Case Study Questions

1. According to the U.S. Preventive Services Task Force (USPSTF), there is convincing evidence that the use of combined estrogen and progestin is associated with an increased risk of which of the following conditions?
  - A. Invasive breast cancer.
  - B. Venous thromboembolism.
  - C. Coronary heart disease.
  - D. Diabetes mellitus.
2. D.M. asks whether she should take hormone therapy with combined estrogen and progestin to reduce her risk of chronic conditions. According to the USPSTF, which one of the following statements is correct?
  - A. D.M. should not take hormone therapy to prevent chronic conditions because it will increase her risk of colorectal cancer.
  - B. There is insufficient evidence to determine whether D.M. should take hormone therapy to prevent chronic conditions.
  - C. D.M. should not take hormone therapy to prevent chronic conditions because it has no net benefit in most postmenopausal women.
  - D. D.M. should take hormone therapy to reduce her risk of fractures and urinary incontinence.
  - E. D.M. should take hormone therapy to reduce her risk of developing dementia.

**See related** U.S. Preventive Services Task Force Recommendation Statement at <https://www.aafp.org/afp/2018/0415/od1.html>.

**See related** AFP Community Blog post at <http://afpjournal.blogspot.com/2017/10/is-short-term-hormone-replacement.html>.

**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/Page/Document/UpdateSummaryFinal/menopausal-hormone-therapy-preventive-medication1>.

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**CME** This clinical content conforms to AAFP criteria for continuing medical education (CME). See CME Quiz on page 503.

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## PUTTING PREVENTION INTO PRACTICE

3. If D.M. had previously undergone hysterectomy, which one of the following statements would be most appropriate?
- A. Estrogen alone has no net benefit for the primary prevention of chronic conditions in most postmenopausal women who have had a hysterectomy.
  - B. There is insufficient evidence to determine if estrogen alone has a net benefit for the primary prevention of chronic conditions in most postmenopausal women who have had a hysterectomy.
  - C. Estrogen alone is recommended for the primary prevention of chronic conditions in postmenopausal women who have had a hysterectomy.
  - D. Although estrogen alone has a net benefit in postmenopausal women who have had a hysterectomy, one potential harm is an increased risk of diabetes.
  - E. Although estrogen alone has no net benefit in postmenopausal women who have had a hysterectomy, one potential benefit is a reduced risk of stroke.

### Answers

**1. The correct answers are A, B, and C.** Although the use of combined estrogen and progestin hormone therapy in postmenopausal women is associated with some benefits, including a reduced risk of fractures, diabetes, and colorectal cancer, the USPSTF found convincing evidence that its use is associated with significant harms, including an increased risk of invasive breast cancer, venous thromboembolism, and coronary heart disease. It also found adequate evidence that combined hormone therapy is associated with an increased risk of stroke, dementia, gallbladder disease, and urinary incontinence.<sup>1,2</sup> The USPSTF concluded with moderate certainty that the use of combined estrogen and progestin has no net benefit for the primary prevention of chronic conditions in most postmenopausal women, and therefore recommends against its use (D recommendation).<sup>1</sup>

**2. The correct answer is C.** The USPSTF considered the evidence on the benefits and harms of hormone therapy for the primary prevention of chronic conditions in postmenopausal women. Use of combined estrogen and progestin is associated with a reduced risk of colorectal cancer, fractures, and diabetes. However, its use is also associated with an increased risk of probable dementia and urinary incontinence, among other harms.<sup>1,2</sup> The USPSTF concluded that the use of combined estrogen and progestin has no net benefit for the primary prevention of chronic conditions in most postmenopausal women.<sup>1</sup>

**3. The correct answer is A.** The USPSTF considered the evidence on the benefits and harms of estrogen alone for the primary prevention of chronic conditions in postmenopausal women who have undergone hysterectomy. The USPSTF found that the use of estrogen alone is associated with a reduced incidence of fractures, a reduced risk of developing or dying of breast cancer, and a reduced risk of developing diabetes. However, the use of estrogen alone is also associated with an increased risk of stroke, dementia, gallbladder disease, urinary incontinence, and venous thromboembolism.<sup>1,2</sup> The USPSTF concluded with moderate certainty that the use of estrogen alone has no net benefit for the primary prevention of chronic conditions in most postmenopausal women who have undergone hysterectomy, and therefore recommends against its use (D recommendation).<sup>1</sup>

**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.

### References

1. US Preventive Services Task Force. Hormone therapy for the primary prevention of chronic conditions in postmenopausal women: US Preventive Services Task Force recommendation statement. *JAMA*. 2017;318(22):2224-2233.
2. Gartlehner G, Patel SV, Feltner C, et al. Hormone therapy for the primary prevention of chronic conditions in postmenopausal women: evidence report and systematic review for the US Preventive Services Task Force. *JAMA*. 2017;318(22):2234-2249. ■