



2019 USPSTF update

The latest recommendations include 2 topics previously unaddressed: perinatal depression prevention and EKG screening for atrial fibrillation.

Doug Campos-Outcalt, MD, MPA
University of Arizona,
Phoenix

dougco@email.arizona.edu

Over the past year through early 2019, the US Preventive Services Task Force made 34 recommendations on 19 different topics. Twenty-six were reaffirmations of recommendations made in previous years (TABLE 1¹); the Task Force attempts to reassess topics every 7 years. Two new topics were addressed with 2 new recommendations, and 6 previous recommendations were revised or reversed (TABLE 2²⁻⁹).

This Practice Alert discusses the new and the changed recommendations. (In 2018, the Practice Alert podcast series covered screening for ovarian cancer [April], prostate cancer [June], and cervical cancer [October], and EKG screening for cardiovascular disease [November].) All current Task Force recommendations are available on the USPSTF Web site.¹

New topics

Perinatal depression prevention

The Task Force recommends that clinicians counsel pregnant women and women in the first year postpartum who are at increased risk for perinatal depression, or refer for such services. The recommendation applies to those who are not diagnosed with depression but are at increased risk.

Perinatal depression can negatively affect both mother and child in several ways and occurs at a rate close to 9% during pregnancy and 37% during the first year postpartum.² The interventions studied by the Task Force included cognitive behavioral therapy and interpersonal therapy; most sessions were

initiated in the second trimester of pregnancy and varied in number of sessions and intensity. The Task Force includes the following in the list of risks that should prompt a referral: a history of depression, current depressive symptoms that fall short of that needed for a depression diagnosis, low income, adolescent or single parenthood, recent intimate partner violence, elevated anxiety symptoms, physical or sexual abuse, or a history of significant negative life events. (See “Postpartum anxiety: More common than you think,” in the April issue at <http://bit.ly/2Glr5c4>.)

Atrial fibrillation

The Task Force found insufficient evidence to recommend for or against the use of electrocardiography (EKG) to screen for atrial fibrillation (AF).³ Atrial fibrillation is common, affecting 3% of men and 2% of women between the ages of 65 and 69 years, and it increases in prevalence with age.⁴ It is a major risk factor for stroke, although it is commonly first diagnosed after a stroke. Treatment with anticoagulant therapy reduces the incidence of stroke in patients with symptomatic AF, but this treatment is associated with the risk of major bleeding. The problem in screening for AF with EKG is that it is associated with misdiagnosis, over-treatment, and further testing. The Task Force could not find any direct evidence of the totality of benefits and harms of screening asymptomatic adults with EKG, and it raised the possibility that benefit with less harm might be achieved by screening with pulse palpation and heart auscultation, followed by EKG testing of those with an irregular pulse.

CONTINUED

TABLE 1

Reaffirmed USPSTF recommendations¹

A recommendations
<ul style="list-style-type: none"> Administer prophylactic ocular topical medication to all newborns to prevent gonococcal ophthalmia neonatorum. Screen all pregnant women for syphilis infection early in their pregnancy.
B recommendations
<ul style="list-style-type: none"> Screen for intimate partner violence in women of reproductive age; for women who screen positive, provide or refer for ongoing support services. Screen women ≥ 65 years of age for osteoporosis with bone measurement testing to prevent osteoporotic fractures. Screen for osteoporosis with bone measurement testing to prevent osteoporotic fractures in postmenopausal women < 65 years who are at increased risk of osteoporosis, as determined by a formal clinical risk assessment tool. Screen for unhealthy alcohol use in primary care settings in adults ≥ 18 years old, including pregnant women. Provide individuals engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce unhealthy use. Offer adults with a body mass index ≥ 30 intensive, multicomponent behavioral interventions, or refer for such interventions. Prescribe exercise interventions to prevent falls in community-dwelling adults ≥ 65 years old who are at increased risk for falls.
C recommendation
<ul style="list-style-type: none"> Selectively offer multifactorial interventions to prevent falls in community-dwelling adults ≥ 65 years of age who are at increased risk for falls. (Consider the balance of benefits and harms based on the circumstances of prior falls, presence of comorbid medical conditions, and the patient's values and preferences.)
D recommendations
<ul style="list-style-type: none"> Do not screen with resting or exercise electrocardiography (EKG) to prevent cardiovascular disease (CVD) events in asymptomatic adults at low risk of CVD events. Do not screen for cervical cancer in women > 65 years of age who have had adequate prior screening and are not otherwise at high risk for cervical cancer. Do not screen for cervical cancer in women < 21 years of age. Do not screen for cervical cancer in women who have had a hysterectomy with removal of the cervix and do not have a history of a high-grade precancerous lesion (ie, cervical intraepithelial neoplasia [CIN] grade 2 or 3) or cervical cancer. Do not screen for ovarian cancer in asymptomatic women who are not known to have a high-risk hereditary cancer syndrome. Do not screen for prostate cancer with prostate-specific antigen in men ≥ 70 years of age. Do not prescribe daily supplementation with ≤ 400 IU of vitamin D and ≤ 1000 mg of calcium for the primary prevention of fractures in community-dwelling, postmenopausal women.

CONTINUED

Revisions of previous recommendations

Cervical cancer screening

The Task Force continues to recommend screening for cervical cancer in women 21 to 65 years of age.⁵ The major change in the current recommendation is for women ages 30 to 65 years. For this group, the Task Force now recommends screening every 5 years with high-risk human papillomavirus (hrHPV) testing alone as a possible alternative to screening every 3 years with cytology alone. They also halfheartedly endorse co-testing as an option, even though it may result in more tests and procedures compared with either cytology or hrHPV testing alone, with equal effectiveness. For women ages 21 to 29 years, cervical cytol-

ogy alone every 3 years is still the only recommended regimen.

Skin cancer prevention

The Task Force made 2 revisions to the 2012 recommendation on preventing skin cancer through behavioral counseling to avoid ultraviolet (UV) radiation.⁶ These recommendations continue to focus on those with fair skin. The first revision: The earliest age at which children (through their guardians) can benefit from counseling on UV avoidance has been lowered from age 10 years to 6 months. The second revision: Some adults older than age 24 can also benefit from such counseling if they have fair skin and other skin cancer risks such as using tanning beds, having a history

TABLE 1

Reaffirmed USPSTF recommendations¹ (cont'd)

I statements
• Screening with resting or exercise EKG to prevent CVD events in asymptomatic adults at intermediate or high risk of CVD events.
• Primary care interventions to prevent child maltreatment.
• Screening for abuse and neglect in all older or vulnerable adults.
• Screening for osteoporosis to prevent osteoporotic fractures in men.
• Adding the ankle-brachial index (ABI), high-sensitivity C-reactive protein level, or coronary artery calcium score to traditional risk assessment for CVD in asymptomatic adults to prevent CVD events.
• Screening for peripheral artery disease and CVD risk with the ABI in asymptomatic adults.
• Counseling adults about skin self-examination to prevent skin cancer.
• Screening and brief behavioral counseling interventions for alcohol use in primary care settings for adolescents 12-17 years of age.
• Vitamin D and calcium supplementation, alone or combined, for the primary prevention of fractures in men and premenopausal women.
• Daily supplementation with > 400 IU of vitamin D and > 1000 mg of calcium for the primary prevention of fractures in community-dwelling, postmenopausal women.

Grade A: There is high certainty that the net benefit is substantial.
Grade B: There is high certainty that the net benefit is moderate, or there is moderate certainty that the net benefit is moderate to substantial.
Grade C: There is at least moderate certainty that the net benefit is small. Offer selectively.
Grade D: There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.
I statement: Current evidence is insufficient to assess the balance of benefits and harms of the service.

of sunburns or previous skin cancer, having an increased number of nevi (moles) and atypical nevi, having human immunodeficiency virus (HIV) infection, having received an organ transplant, or having a family history of skin cancer.

Those at risk can reduce their chances of skin cancer by using broad-spectrum sunscreens and sun-protective clothing, and by avoiding sun exposure and indoor tanning beds.

Fall prevention

In a reversal of its 2012 recommendation, the Task Force now recommends against the use of vitamin D supplementation to prevent falls in community-dwelling adults 65 years or older.⁷ In a reanalysis of previous studies on this topic, along with new evidence, the Task Force concluded that vitamin D supplementation offers no benefit for preventing falls in adults who are not vitamin D deficient.

Screening for scoliosis in adolescents

In 2004 the USPSTF recommended against screening for idiopathic scoliosis in children and adolescents 10 to 18 years of age. In its most recent review, the Task Force continued to find no direct evidence of the benefit of screening and inadequate evidence on the

long-term benefits of reduction in spinal curvature through exercise, surgery, and bracing. However, following a reanalysis of the potential harms of these treatments and the use of a new analytic framework, the Task Force concluded it is not possible at this time to assess the balance of benefits and harms of screening.⁸

Prostate cancer screening

In its most controversial action, the Task Force reversed its 2012 recommendation against routine prostate-specific antigen–based screening for prostate cancer in men ages 55 to 69 years and now lists this as a “C” recommendation.⁹ The potential benefits of screening include preventing 1.3 deaths from prostate cancer per 1000 men screened over 13 years and approximately 3 cases of metastatic prostate cancer. However, no trials have found a reduction in all-cause mortality from screening. Contrast that with the known harms of screening: 15% false positive results over 10 years; 1% hospitalization rate among those undergoing a prostate biopsy; over-diagnosis and resultant treatment of 20% to 50% of men diagnosed with prostate cancer through screening; and incontinence and erectile dysfunction in 20% and 67%, respectively, of men following prostatectomy.⁹

TABLE 2

New or revised USPSTF recommendations²⁻⁹

NEW
<ul style="list-style-type: none"> • Provide counseling interventions to pregnant and postpartum women who are at increased risk of perinatal depression or refer for such services. (B) • Evidence is insufficient to assess the benefits and harms of screening for atrial fibrillation with electrocardiography. (I)
REVISED
<ul style="list-style-type: none"> • Screen for cervical cancer every 3 years with cervical cytology alone in women ages 21-29 years. For women 30-65 years old, screen every 3 years with cervical cytology alone, every 5 years with high-risk human papillomavirus (hrHPV) testing alone, or every 5 years with hrHPV testing in combination with cytology (cotesting). (A) • For individuals 6 months to 24 years of age with fair skin, advise them (or their parents) to minimize exposure to ultraviolet (UV) radiation to reduce the risk of skin cancer. (B) • For men ages 55-69 years, the decision to undergo periodic prostate-specific antigen–based screening for prostate cancer should be an individual one. Before deciding whether to be screened, men should have an opportunity to discuss the potential benefits and harms of screening with their clinician and to incorporate their values and preferences in the decision. Screening offers a small potential benefit of reducing the chance of death from prostate cancer in some men. However, many men will experience harms of screening, including false-positive results that require additional testing and possible prostate biopsy; over-diagnosis and overtreatment; and treatment complications, such as incontinence and erectile dysfunction. In determining whether this service is appropriate for individuals, patients and clinicians should consider the balance of benefits and harms on the basis of family history, race/ethnicity, comorbid medical conditions, patient values about the benefits and harms of screening and treatment-specific outcomes, and other health needs. Do not screen men who do not express a preference for screening. (C) • Selectively counsel fair-skinned adults > 24 years of age about minimizing their exposure to UV radiation to reduce the risk of skin cancer. (Consider the presence of risk factors for skin cancer). (C) • Do not prescribe vitamin D supplementation to prevent falls in community-dwelling adults ≥ 65 years of age. (D) • Evidence is insufficient to assess the benefits and harms of screening for idiopathic scoliosis in children and adolescents ages 10-18 years. (I)
<p>Grade A: There is high certainty that the net benefit is substantial.</p> <p>Grade B: There is high certainty that the net benefit is moderate, or there is moderate certainty that the net benefit is moderate to substantial.</p> <p>Grade C: There is at least moderate certainty that the net benefit is small. Offer selectively.</p> <p>Grade D: There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.</p> <p>I statement: Current evidence is insufficient to assess the balance of benefits and harms of the service.</p>

➤ Evidence is insufficient to recommend for or against the use of electrocardiography in screening for atrial fibrillation.

Based on these outcomes, the Task Force “does not recommend screening for prostate cancer unless men express a preference for screening after being informed of and understanding the benefits and risks.”⁹ The Task Force continues to recommend against screening men ages 70 years and older.

The change in this recommendation and its wording present dilemmas for family physicians: whether to discuss potential screening with all men ages 55 to 69; to selectively discuss it with those at high risk (principally African Americans and those with a strong family history of prostate cancer); or to address the issue only if a patient asks about it. In addition, if

a man requests screening, how often should it be performed? Most clinical trials have found equal benefit from testing less frequently than every year, with fewer harms. The Task Force provided little or no guidance on these issues.

Final advice: D recommendations

The Task Force reaffirmed that 7 services have either no benefit or cause more harm than benefit (TABLE 1¹). Family physicians should be familiar with these services, as well as all Task Force D recommendations, and avoid recommending them or providing them. High quality preventive care involves both providing services of proven benefit and avoiding those that do not. **JFP**

CONTINUED

References

1. USPSTF. Published recommendations. <https://www.uspreventiveservicestaskforce.org/BrowseRec/Index/browse-recommendations>. Accessed March 25, 2019.
2. USPSTF. Final recommendation statement. Perinatal depression: preventive interventions. <https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/perinatal-depression-preventive-interventions>. Accessed March 25, 2019.
3. USPSTF. Atrial fibrillation: screening with electrocardiography. <https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/atrial-fibrillation-screening-with-electrocardiography>. Accessed March 25, 2019.
4. USPSTF. Screening for atrial fibrillation with electrocardiography. *JAMA*. 2018;320:478-484.
5. USPSTF. Cervical cancer: screening. <https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/cervical-cancer-screening2>. Accessed March 25, 2019.

LETTERS

CONTINUED FROM PAGE 193

Any dose given before 12 months is considered supplemental, and the child must still complete the regular 2-dose vaccine schedule. Studies on the adverse effect profiles of vaccines show that the younger the infant, the fewer adverse events occur—because adverse events reflect the increasingly robust immune response that comes with age.⁴

Many physicians are concerned about adequate immune response. In vaccine research, this is gauged by the proportion of patients with seroconversion after vaccination. This is also reflected in vaccine efficacy (VE), which gradually increases with age and maturity of the immune system. For example, measles VE is 60% to 70% in 6-to-8-month cohorts⁵ and 70% to 80% in 9-to-11-month cohorts.⁶ VE at 12 months is in the 90% range, and completion of the 2-dose series yields a VE of $\geq 95\%$.⁷ Thus, while the vaccine is more effective at later ages, it still provides protection to younger cohorts.

“Blunting” (ie, a reduced immune response to the second dose of vaccine³) is another concern with early measles vaccination, but a WHO meta-analysis proved this concern to be unfounded.^{1,3} Twelve papers examining seropositivity in children who received a second measles vaccine after early primary vaccination found a pooled proportion of seropositivity of 97%.^{1,8,9} Furthermore, evidence shows that children have sustained measles-specific T-cell responses after early primary measles immunization.¹⁰

Early vaccination has few risks and significant benefit. Therefore, in light of the recent measles outbreak, relaxing the lower boundary for the measles vaccine is appropriate. In

addition to physically protecting the patient and general population, honoring parents' requests for vaccination respects their autonomy and fosters trust. Synthesis of good science with a trusting doctor-patient relationship is key to ending the measles outbreak.

Rachel Roth, MD
Tel Aviv, Israel

References

1. Conclusions of the SAGE Working Group on Measles and Rubella. 21-22 June 2017. Geneva WHO Policy Recommendation on administration of MCV to infants. SAGE. https://www.who.int/immunization/sage/meetings/2017/october/2_measles_vaccination_before_6_months_for_yellow_book_FINAL.pdf. Accessed April 24, 2019.
2. Centers for Disease Control and Prevention. Measles (Rubeola). For healthcare professionals. <https://www.cdc.gov/measles/hcp/index.html>. Accessed April 24, 2019.
3. World Health Organization. Measles vaccines: WHO position paper, April 2017 - recommendations. *Vaccine*. 2017;92:205-227.
4. van der Maas NA, Woudenberg T, Hahné SJ, et al. Tolerability of early measles-mumps-rubella vaccination in infants aged 6-14 months during a measles outbreak in the Netherlands in 2013-2014. *J Infect Dis*. 2016;213:1466-1471.
5. Lochlainn LN, de Gier B, van der Maas NA, et al. Measles vaccination below 9 months of age: Systematic literature review and meta-analyses of effects and safety. National Institute for Public Health and the Environment. https://www.who.int/immunization/sage/meetings/2015/october/2_MCV1_below_9_months_Effect_safety_28092015.pdf. Published September 28, 2015. Accessed April 24, 2019.
6. Uzicanin A, Zimmerman L. Field effectiveness of live attenuated measles-containing vaccines: a review of published literature. *J Infect Dis*. 2011;204(suppl 1):S133-S149.
7. Woudenberg T, van der Maas NA, Knol MJ, et al. Effectiveness of early measles, mumps, and rubella vaccination among 6-14-month-old infants during an epidemic in the Netherlands: an observational cohort study. *J Infect Dis*. 2017;215:1181-1187.
8. Martins C, Carly ML, Bale C, et al. Measles virus antibody responses in children randomly assigned to receive standard-titer edmonston-zagreb measles vaccine at 4.5 and 9 months of age, or 9 and 18 months of age. *J Infect Dis*. 2014;210:693-700.
9. Njie-Jobe J, Nyamweya S, Miles DJ, et al. Immunological impact of an additional early measles vaccine in Gambian children: responses to a boost at 3 years. *Vaccine*. 2012;30:2543-2550.
10. Gans HA, Yasukawa LL, Sung P, et al. Measles humoral and cell-mediated immunity in children aged 5-10 years after primary measles immunization administered at 6 or 9 months of age. *J Infect Dis*. 2013;207:574-582.