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Catching up on the latest USPSTF recommendations

Screening is now encouraged for hepatitis B in those at high risk and for gestational diabetes at 24 weeks gestation. Low-dose aspirin is also advised for pregnant women at risk for preeclampsia.

In 2014, the United States Preventive Services Task Force released 24 recommendations on 14 topics.¹ There were no level A recommendations, 10 B recommendations, 1 C recommendation, 3 D recommendations, and 10 I statements. A and B recommendations require that commercial insurance plans offer the recommended services at no cost to patients. This Practice Alert focuses on last year's B and D recommendations (TABLE 1').

Cardiovascular disease

When to screen for abdominal aortic aneurism. The Task Force (TF) reaffirmed a previous B recommendation for a one-time abdominal ultrasound (US) screening for abdominal aortic aneurism (AAA) in men ages 65 to 75 years who have ever smoked. This screening and follow-up of abnormal findings results in decreased AAA rupture and AAA-related mortality, although it appears to have no effect on all-cause mortality.² The value of screening men who have never smoked is very small and should be considered selectively for men who have a family history of AAA, or a personal history of cardiovascular risk factors or disease. The prevalence of AAA in men in the target age group is 6% to 7% (it is 0.8% for women overall in the same age range).²

The recommended screening modality, abdominal US, matches the sensitivity and specificity of abdominal CT but at lower cost and with no radiation exposure. Refer patients

with AAAs ≥ 5.5 cm for surgical repair.²

Patients with smaller aneurysms (3.0 to 5.4 cm) can be managed conservatively with repeated US every 3 to 12 months. Patients with AAAs < 3 cm that exhibit rapid growth (> 1 cm/year) or that cross the threshold of 5.5 cm on repeated US should undergo surgical consultation.²

The TF also looked at the value of AAA screening for women in the same age group who have ever smoked, and it could not find enough evidence to make a recommendation. However, in women who have never smoked, the TF concluded that, largely due to the low prevalence of AAA, potential harms of screening outweigh its benefits.²

General screening for carotid artery stenosis is unhelpful. For asymptomatic adults, the TF gave a thumbs-down D recommendation on screening for carotid artery stenosis.³ Carotid artery screening is conducted with US, followed by, if findings indicate the need, confirmatory testing with angiography. US has reasonable sensitivity (90%) for finding the most significant lesions, but the specificity of 94% often leads to false-positive results that can bring about unnecessary surgery and serious harms, including death, stroke, and myocardial infarction. There is no evidence of any benefit from screening by auscultation of the neck.

The TF believes it is better to focus on primary prevention of stroke, including screening for hypertension and dyslipidemia, counseling

TABLE 1

The latest recommendations from the USPSTF¹

B Recommendations FOR
Cardiovascular
<ul style="list-style-type: none"> One-time screening for abdominal aortic aneurysm (AAA) with ultrasonography in men ages 65 to 75 years who have ever smoked Offering or referring adults who are overweight or obese and have additional cardiovascular disease (CVD) risk factors to intensive behavioral counseling interventions to promote a healthful diet and physical activity for CVD prevention
Sexually transmitted infections
<ul style="list-style-type: none"> Screening for gonorrhea in sexually active women ≤ 24 years and in older women who are at increased risk for infection Screening for chlamydia in sexually active women ≤ 24 years and in older women who are at increased risk for infection Intensive behavioral counseling for all sexually active adolescents and for adults who are at increased risk for sexually transmitted infections
Hepatitis B infection
<ul style="list-style-type: none"> Screening for hepatitis B virus infection in individuals at high risk for infection
Tooth decay in children
<ul style="list-style-type: none"> Primary care clinicians apply fluoride varnish to the primary teeth of all infants and children starting at the age of primary tooth eruption Primary care clinicians prescribe oral fluoride supplementation starting at age 6 months for children whose water supply is deficient in fluoride
Pregnancy
<ul style="list-style-type: none"> Screening for gestational diabetes mellitus in asymptomatic pregnant women after 24 weeks of gestation The use of low-dose aspirin (81 mg/d) as preventive medication after 12 weeks of gestation in women who are at high risk for preeclampsia
D Recommendations AGAINST
<ul style="list-style-type: none"> Screening for AAA in women who have never smoked Screening for asymptomatic carotid artery stenosis in the general adult population Use of β-carotene or vitamin E supplements for the prevention of cardiovascular disease or cancer

USPSTF, United States Preventive Services Task Force.

on smoking cessation, encouraging healthful diet and physical activity, and recommending aspirin use for those at increased risk for cardiovascular disease.³

■ Focus on CVD prevention. For adults who are overweight or obese and have additional cardiovascular disease (CVD) risk factors, the TF recommends offering, or referring patients for, intensive behavioral counseling interventions to promote a healthy diet and increased physical activity. A previous Practice Alert discussed the rationale behind this selective intensive approach to CVD preven-

tion, as well as the lack of endorsement of vitamins to prevent CVD or cancer.⁴

Sexually transmitted infections

When to screen for gonorrhea and chlamydia.

The TF recommends screening for chlamydial and gonorrheal infections in all sexually active women ages 24 years and younger, and for women older than 24 years who are at high risk.⁵ The TF could not find adequate evidence to make a recommendation for or against screening men for either disease.



The USPSTF recommends screening for chlamydial and gonorrheal infections in all sexually active women ages 24 years and younger.

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In a change of its previous position, the USPSTF now recommends screening for hepatitis B virus in those at high risk.

Risk is defined rather broadly to include having a new sex partner, more than one sex partner, or a sex partner with concurrent partners or a sexually transmitted infection (STI); inconsistent condom use among individuals who are not in mutually monogamous relationships; having a previous or coexisting STI; and exchanging sex for money or drugs. The TF also points out that physicians should know the prevalence of these infections in their community and be aware of particular groups that are at higher risk.

Chlamydia and gonorrhea are the most commonly reported STIs in the United States. In 2012, more than 1.4 million cases of chlamydial infection were reported to the Centers for Disease Control and Prevention (CDC).⁵ This is an underestimate of true prevalence because most infections are asymptomatic and not detected. The rate of chlamydial infection in females was 643.3 cases per 100,000 (more than twice that seen in males—262.6 cases per 100,000), with most infections occurring in females ages 15 to 24 years.⁵

In 2012, more than 330,000 cases of gonococcal infection were reported to the CDC. The rate of gonorrhea infection was similar for females and males (108.7 vs. 105.8 cases per 100,000, respectively), but while most infections in females occurred between the ages of 15 and 24 years, men most often affected were ages 20 to 24 years.⁵

Chlamydial and gonococcal infections can be diagnosed by nucleic acid amplification tests conducted on specimens collected in a number of ways: urine; endocervical, vaginal, and male urethral specimens; and self-collected vaginal specimens in clinical settings. Treatment recommendations for both infections can be found on the CDC STI treatment Web site.⁶

■ Intensive behavioral counseling as a means of preventing STIs is recommended for all sexually active adolescents and adults at elevated risk—ie, those with current STIs or infected within the past year, those who have multiple sex partners, and those who do not consistently use condoms.⁷

Intensive intervention ranges from 30 minutes to 2 hours or more of contact time. All counseling within this range is beneficial, with more time being more effective.⁷ These

interventions can be delivered by primary care clinicians or behavioral counselors. The most successful approaches provide basic information about STIs (and STI transmission) and train patients in important skills, such as condom use, communication about safe sex, problem solving, and goal setting.

Hepatitis B screening: A change

The TF changed its previous position on screening for chronic hepatitis B virus (HBV) in those at high risk from an I statement to a B recommendation. Previously, the TF opposed screening of low-risk populations; the new recommendation is silent on this issue. Those at high risk for HBV include:⁸

- individuals born in countries and regions with a prevalence of HBV infection $\geq 2\%$
- US-born individuals not vaccinated as infants, whose parents are from regions with a very high prevalence of HBV infection ($\geq 8\%$)—eg, sub-Saharan Africa or southeast or central Asia
- HIV-positive individuals
- injection drug users
- men who have sex with men
- household contacts or sexual partners of individuals with HBV infection.

Information on countries and regions with a high prevalence of HBV infection can be found at: www.cdc.gov/mmwr/preview/mmwrhtml/rr5708a1.htm.

The TF notes that approximately 700,000 to 2.2 million individuals in the United States have chronic HBV infection.⁸ However, HBV vaccine has been a recommended child vaccine for more than 20 years and the pool of those at risk shrinks annually.

Chronic HBV infection can lead to cirrhosis, hepatic failure, and hepatocellular carcinoma. An estimated 15% to 25% of individuals with chronic HBV infection die of cirrhosis or hepatocellular carcinoma.⁸ Those with chronic infection can also infect others. Screening for HBV infection could identify chronically infected people who may benefit from treatment and be counseled to prevent transmission.

In screening, test for hepatitis B surface antigen (HBsAg), which has a reported sensi-

tivity and specificity of >98%.⁸ While the TF did not find direct evidence of screening benefits on mortality, it found convincing evidence that antiviral treatment in patients with chronic HBV infection improves intermediate outcomes (virologic or histologic improvement or clearance of hepatitis B e antigen [HBeAg]) and adequate evidence that antiviral regimens improve health outcomes (such as reduced risk for hepatocellular carcinoma).⁸

Prevention of tooth decay in kids

The TF recommends that primary care physicians implement 2 interventions to prevent tooth decay in infants and children: prescribing oral fluoride supplementation starting at age 6 months in areas where the local water supply is deficient in fluoride (defined as <0.6 ppm F); and periodically applying fluoride varnish to primary teeth starting at the age of tooth eruption through age 5 years. The TF emphasizes, however, that the most effective way to prevent dental decay in children is to maintain recommended levels of fluoride in community water supplies.⁹

Both recommended interventions are supported by good evidence, although no study directly assessed the appropriate ages at which to start and stop the application of fluoride varnish or the optimal frequency of applications. Most studies looked at children ages 3 to 5 years, but the TF believes that benefits are likely to begin at the time of primary tooth eruption.

Limited evidence found no clear difference in benefit between performing a single fluoride varnish once every 6 months vs once a year or between a single application every 6 months vs multiple applications once a year or every 6 months.⁹

Pregnancy

Screen for gestational diabetes. The previous TF statement on gestational diabetes mellitus (GDM) found insufficient evidence to screen for this condition. The new recommendation advises screening starting at 24 weeks gestation using the 50-g oral glucose challenge test.¹⁰ Other screening options, such as the use of fasting plasma glucose testing or basing de-

terminations to screen on risk factors, have not been studied as extensively. The USPSTF found inadequate evidence to compare the effectiveness of different screening tests or thresholds in determining positive screen results.

Treating those with GDM with diet, glucose monitoring, and insulin (if needed) can significantly reduce the risk of preeclampsia, fetal macrosomia, and shoulder dystocia, which, according to the TF, adds up to a moderate net benefit for both mother and infant. There is no evidence that treatment will improve long-term metabolic outcomes in women.

The TF found inadequate evidence to determine whether there are benefits to screening for GDM in women before 24 weeks of gestation.

Give low-dose aspirin to prevent preeclampsia. In a new recommendation, the TF endorses low-dose aspirin (81 mg/d) to reduce rates of preeclampsia, preterm birth, and intrauterine growth restriction (IUGR) in women at increased risk for preeclampsia—defined as those with kidney disease, diabetes (type 1 or 2), hypertension, autoimmune disease, a history of preeclampsia, or a current multifetal pregnancy.¹¹

Aspirin should be started after 12 weeks and before 28 weeks of gestation, which has been shown to reduce the risk of preeclampsia by 24%, preterm birth by 14%, and IUGR by 20%.¹¹ The number needed to treat to prevent one case of preeclampsia was 42; 71 for IUGR, and 65 for preterm birth.¹¹ (For more on the evidence behind this recommendation, see “Another good reason to recommend low-dose aspirin” on page 301.)

TABLE 2¹¹ lists risk factors for preeclampsia and recommendations for those in high-, moderate-, and low-risk groups.

Screenings/interventions with insufficient supporting evidence

Three conditions that cause significant morbidity or mortality were looked at by the TF last year, and insufficient evidence was found to make a recommendation—screening for cognitive impairment (early Alzheimer’s); primary care interventions to prevent or reduce illicit drug or nonmedical pharmaceutical use in children and adolescents; and screening for



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TABLE 2
Clinical risk assessment for preeclampsia*¹¹

Risk level	Risk factors	Recommendation
High [†]	History of preeclampsia, especially when accompanied by an adverse outcome Multifetal gestation Chronic hypertension Type 1 or 2 diabetes Renal disease Autoimmune disease (eg, SLE, antiphospholipid syndrome)	Recommend low-dose aspirin if the patient has ≥1 of these high risk factors
Moderate [‡]	Nulliparity Obesity (BMI >30 kg/m ²) Mother or sister has had preeclampsia Sociodemographic characteristics (African American race, low socioeconomic status) Age ≥35 years Personal history factors (eg, low birth weight or small for gestational age, previous adverse pregnancy outcome, >10-year pregnancy interval)	Consider low-dose aspirin if the patient has several of these moderate risk factors [§]
Low	Previous uncomplicated full-term delivery	Do not recommend low-dose aspirin

BMI, body mass index; SLE, systemic lupus erythematosus.

* Includes only risk factors obtained from the patient medical history. Clinical measures, such as uterine artery Doppler ultrasonography, are not included.

† Single risk factors consistently associated with the greatest risk for preeclampsia. The preeclampsia incidence rate would be approximately ≥8% in a pregnant woman with ≥1 of these risk factors.

‡ A combination of multiple moderate risk factors may be used by clinicians to identify women at high risk for preeclampsia. These risk factors are independently associated with moderate risk for preeclampsia, some more consistently than others.

§ Moderate risk factors vary in their association with increased risk for preeclampsia.

suicide risk in adolescents, adults, and older adults in primary care. In addition, no evi-

dence could be found for the benefit of screening for vitamin D deficiency in adults. **JFP**

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