US Preventive Services Task Force: The gold standard of evidence-based prevention

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The United States Preventive Services Task Force (USPSTF) was first formed in 1984 to assist physicians in making decisions about which preventive services to offer patients. It consists of a 15-member panel of independent scientists picked for their expertise in primary care, clinical prevention, and evidence-based methodology. The first set of recommendations was published in 1989 as the *Guide to Clinical Preventive Services*, and was revised in 1996 in the second edition. Recommendations are now published on the USPSTF web site (www.ahrq.gov/clinic/uspstfix.htm).

The USPSTF uses an explicit set of steps and criteria to judge the effectiveness, harms, costs and benefits of preventive interventions: screening, counseling, and chemoprevention. Topics are suggested by outside partners, including the American Academy of Family Physicians, and are then sent to one of 13

TABLE 1

Standard recommendation language, USPSTF

Recommendation	Language
RECOMMENDATION: A	**Language:** The USPSTF strongly recommends that clinicians routinely provide [the service] to eligible patients. (The USPSTF found good evidence that [the service] improves important health outcomes and concludes that benefits substantially outweigh harms.)
RECOMMENDATION: B	**Language:** The USPSTF recommends that clinicians routinely provide [the service] to eligible patients. (The USPSTF found at least fair evidence that [the service] improves important health outcomes and concludes that benefits outweigh harms.)
RECOMMENDATION: C	**Language:** The USPSTF makes no recommendation for or against routine provision of [the service]. (The USPSTF found at least fair evidence that [the service] can improve health outcomes but concludes that the balance of the benefits and harms is too close to justify a general recommendation.)
RECOMMENDATION: D	**Language:** The USPSTF recommends against routinely providing [the service] to asymptomatic patients. (The USPSTF found at least fair evidence that [the service] is ineffective or that harms outweigh benefits.)
RECOMMENDATION: I	**Language:** The USPSTF concludes that the evidence is insufficient to recommend for or against routinely providing [the service]. (Evidence that [the service] is effective is lacking, of poor quality, or conflicting and the balance of benefits and harms cannot be determined.)

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TABLE 2

USPSTF recommendations made in 2004

A Recommendation (strongly recommends)
- Screening all pregnant women for asymptomatic bacteriuria using urine culture at 12 to 16 weeks' gestation.
- Screening for hepatitis B virus (HBV) infection in pregnant women at their first prenatal visit.
- Rh (D) blood typing and antibody testing for all pregnant women during their first visit for pregnancy-related care.
- Screening for syphilis in persons at increased risk for syphilis infection.
- Screen all pregnant women for syphilis infection.

B Recommendation (recommends)
- Screening and behavioral counseling interventions to reduce alcohol misuse by adults, including pregnant women, in primary care settings.
- Prescribing oral fluoride supplementation at currently recommended doses to preschool children older than 6 months of age whose primary water source is deficient in fluoride.
- Repeated Rh (D) antibody testing for all unsensitized Rh (D)-negative women at 24 to 28 weeks' gestation, unless the biological father is known to be Rh (D)-negative.
- Screening to detect amblyopia, strabismus, and defects in visual acuity in children younger than age 5 years.

D Recommendation (recommends against)
- Routine screening of men and nonpregnant women for asymptomatic bacteriuria.
- Routine screening for bladder cancer in adults.
- Routine screening with resting electrocardiography (ECG), exercise treadmill test (ETT), or electron-beam computerized tomography (EBCT) scanning for coronary calcium for either the presence of severe coronary artery stenosis (CAS) or the prediction of coronary heart disease (CHD) events in adults at low risk for CHD events.
- Routine screening of the general asymptomatic population for chronic hepatitis B virus infection.
- Routine screening for hepatitis C virus (HCV) infection in asymptomatic adults who are not at increased risk (general population) for infection.
- Routine screening for HCV infection in adults at high risk for infection.
- Routine screening of asymptomatic adolescents for idiopathic scoliosis.
- Routine screening for ovarian cancer.
- Routine screening for pancreatic cancer in asymptomatic adults using abdominal palpation, ultrasonography, or serologic markers.
- Routine screening of asymptomatic persons who are not at increased risk for syphilis infection.
- Routine screening for testicular cancer in asymptomatic adolescent and adult males.

I Recommendation (insufficient evidence)
- Screening and behavioral counseling interventions to prevent or reduce alcohol misuse by adolescents in primary care settings.
- Routine use of interventions to prevent low back pain in adults in primary care settings.
- Routine screening with resting electrocardiography (ECG), exercise treadmill test (ETT), or electron-beam computerized tomography (EBCT) scanning for coronary calcium for either the presence of severe coronary artery stenosis or the prediction of coronary heart disease (CHD) events in adults at increased risk for CHD events.
- Routine risk assessment of preschool children by primary care clinicians for the prevention of dental disease.
- Routine screening of parents or guardians for the physical abuse or neglect of children, of women for intimate partner violence, or of older adults or their caregivers for elder abuse.
- Screening asymptomatic persons for lung cancer with either low dose computerized tomography (LDCT), chest x-ray (CXR), sputum cytology, or a combination of these tests.
- Routine screening of adults for oral cancer.
- Routine screening by primary care clinicians to detect suicide risk in the general population.
- Routine screening for thyroid disease in adults.

evidence-based practice centers, where an extensive review is conducted of the current scientific literature on the topic. The evidence report is then reviewed by the 15-member USPSTF and a recommendation is made using the rating system described in **TABLE 1**. The current members of the USPSTF are found at www.ahrq.gov/clinic/uspstfab.htm#

Members. The staff for the task force is provided by the Agency for Health Care Quality and Research (AHRQ), one of the agencies in the Public Health Service of the US Department of Health and Human Services.

In addition to listing the recommendations and the rationales behind them, the USPSTF web site also provides the evidence report and a description of recommendations on that topic made by other organizations, with a discussion of clinical implications of the recommendation. During 2004, the USPSTF made or updated 29 recommendations (**TABLE 2**). There were 5 A recommendations, 4 B recommendations, no C recommendations, 11 recommendations against an intervention (D recommendation), and 9 instances of insufficient evidence to make a recommendation.

Recommendations for 2005

So far in 2005, new recommendations have been added on 3 topics: abdominal aortic aneurisms, glaucoma, and herpes simplex.

Abdominal aortic aneurisms. The recommendations on screening for abdominal aortic aneurisms are contained in **TABLE 3**. Of special note is the recommendation to screen (using abdominal ultrasound) men over the age of 65 years who have ever smoked.

Glaucoma. The statement that evidence is insufficient to recommend for or against routinely screening for glaucoma reflects the uncertainty about the contribution of screening to improved outcomes, as well as the documented harms of treating elevated intraocular pressure, such as local eye irritation and an increased risk for cataracts.

Herpes simplex. The task force recommends against screening for herpes in pregnant women and asymptomatic adults and adolescents because of a lack of improved outcomes and documented potential harms.

TABLE 3

USPSTF 2005 recommendations for screening for abdominal aortic aneurisms

The USPSTF recommends one-time screening for abdominal aortic aneurysm (AAA) by ultrasonography in men aged 65 to 75 who have ever smoked.
RATING: B RECOMMENDATION **Rationale:** The USPSTF found good evidence that screening for AAA and surgical repair of large AAAs (5.5 cm or more) in men aged 65 to 75 who have ever smoked (current and former smokers) leads to decreased AAA-specific mortality. There is good evidence that abdominal ultrasonography, performed in a setting with adequate quality assurance (ie, in an accredited facility with credentialed technologists), is an accurate screening test for AAA. There is also good evidence of important harms of screening and early treatment, including an increased number of surgeries with associated clinically-significant morbidity and mortality, and short-term psychological harms. Based on the moderate magnitude of net benefit, the USPSTF concluded that the benefits of screening for AAA in men aged 65 to 75 who have ever smoked outweigh the harms.
The USPSTF makes no recommendation for or against screening for AAA in men aged 65 to 75 who have never smoked.
RATING: C RECOMMENDATION. **Rationale:** The USPSTF found good evidence that screening for AAA in men aged 65 to 75 who have never smoked leads to decreased AAA-specific mortality. There is, however, a lower prevalence of large AAAs in men who have never smoked compared with men who have ever smoked; thus, the potential benefit from screening men who have never smoked is small. There is good evidence that screening and early treatment leads to important harms, including an increased number of surgeries with associated clinically-significant morbidity and mortality, and short-term psychological harms. The USPSTF concluded that the balance between the benefits and harms of screening for AAA is too close to make a general recommendation in this population.
The USPSTF recommends against routine screening for AAA in women.
RATING: D RECOMMENDATION. **Rationale:** Because of the low prevalence of large AAAs in women, the number of AAA-related deaths that can be prevented by screening this population is small. There is good evidence that screening and early treatment result in important harms, including an increased number of surgeries with associated morbidity and mortality, and psychological harms. The USPSTF concluded that the harms of screening women for AAA outweigh the benefits.

USPSTF the gold standard

The USPSTF offers busy practicing physicians a valuable set of resources to assist in staying current on the ever changing field of clinical prevention and to guide clinical practice. Their recommendations often are at odds with common beliefs. But over time, their methodology and resulting recommendations have become the gold standard for evidence-based prevention practice. ■