




Dr. Priya Velu M.D.

PREVENTIVE SCREENING GUIDELINES



Question


- A rural community college has requested your guidance in offering a preventive health program to its students. The most appropriate plan would include which one of the following?
 - A. Mammograms for female students
 - B. Lead poisoning screening for all students
 - C. Stool occult blood kits for students
 - D. Smoking cessation programs
 - E. An annual routine Physical Exam for all students
- 

Answer

- Answer is: D
- The USPSTF recommends a routine PE every 3-5 years for young adults until age 40. After age 40 it is yearly
- Mammograms age 50 (age 40)
- Lead screening for all at risk persons between 6 months and 6 years old
- Colorectal cancer screening at age 50
- Counseling on tobacco use and other substance abuse is recommended as part of all routine preventive care




Prevention Screening

- Classified into
 - Primary
 - Secondary
 - Tertiary
- 



Primary Prevention

- Prevent the disease from developing
 - Immunizations
 - Lifestyle modifications
 - Medications
- 



Secondary Prevention

- Detect asymptomatic disease
 - Examples?
- 




Secondary Prevention

- Examples include:
 - Pap smear
 - BP screening
 - colonoscopy






Tertiary Prevention

- Managing the disease to prevent complications
 - Hypertension control
 - Diabetes Mellitus control
- 




Criteria for effective screening methods

- Disease
 - Shows significant morbidity and mortality
 - Sufficient prevalence
 - Effective treatment must be available and improve outcome
 - Good screening test is available
- 




Screening Tests

- Effective screening tests are:
 - Sensitive
 - Specific (but, not usually the case)
 - Cost
 - Respects patient's welfare
- 




Preventive Medicine

- Benefits of screening
 - Detect and treat preclinical disease
 - Reassurance for healthy patients
 - healthy lifestyle
- 




Risks of screening

- No test is 100% accurate
 - False positive tests can lead to:
 - unnecessary concern
 - further testing and morbidity
 - effects on insurance, jobs and family
- 



Governing Body

- USPSTF—established 1984 by DHHS
Recommends only those interventions with adequate evidence where benefits outweigh potential harm
- 



USPSTF

- Strength of recommendations
- A: Strongly recommends this to be included, based on good evidence
- B: Recommends this be included, based on fair evidence
- C: Conflicting evidence for or against including
- D: Recommends against including, based on at least fair evidence
- I: Insufficient evidence to recommend for or against including



USPSTF

- United States Preventive Services Task Force
10 member committee consisting of:
 - 2 family internists
 - 2 pediatricians
 - 2 OB-Gyns
 - 2 staticians




Cooperates with primary care and federal agencies



USPSTF: A recommendation

Counseling for tobacco use:

Strongly recommends screening all patients and provide cessation interventions



I recommendation: Insufficient evidence to recommend for or against routine screening or intervention among children or adolescents



USPSTF A recommendation

- Screening for cervical cancer: ?





USPSTF: A

- Cervical cancer screening:
Screen for cervical cancer in women who have been sexually active and have a cervix:
Begin screening within 3 years of onset of sexual activity OR age 21 (whichever comes first) and screen at least every 3 years

Board Question

- A 56 yo female presents for health maintenance examination. She has a history of total hysterectomy for benign disease 4 years ago. You are able to document that the hysterectomy pathology was benign and that she has had normal PAP tests for 10 years.
- The patient asks about regular Pap smears. Which one of the following would be the most appropriate recommendations?
 - A. Routine Pap smears should be continued until age 70
 - B. A Pap smear should be done every 3 years
 - C. A pap smear is not indicated
 - D. A Pap smear should be done yearly for 3 years and only if indicated thereafter

Board Exam question

- Answer: C

WHEN TO STOP SCREENING?!!!

After a hysterectomy for benign disease, pap smears can be discontinued. Pap smears in this population are low yield and may cause unnecessary testing due to False Positives.

Pap smears can be continued if the reason for hysterectomy is uncertain though there is not a great deal of evidence to support this practice.


D recommendation: annual pap for those >65 and low risk with recent normal pap smears

Board Exam question

- AAFP guidelines recommends which of the following?
 - A. Annual pap smears for women of all ages?
 - B. Annual pelvic US for women with a family history of ovarian cancer?
 - C. Screening for chlamydial infection in all sexually active women age 25 or younger
 - D. Routine screening for HPV in women age 25 or younger
 - E. Screening for hepatitis B at least once by age 25



USPSTF A: Recommendations

- Screening for chlamydia, gonorrhea and HIV
Chlamydial infection
screen all sexually active women aged 25 years and younger, and other asymptomatic women at increased risk
- 



USPSTF A: Recommendation

- Screening for Lipids in Adults

?






Lipid Screening

- Screen men age 35 years and older and women 45 years and older

B recommendation that providers screen younger adults (men and women 20 years and older) if they have other risk factors for coronary heart disease





USPSTF A recommendation

- Screening for colorectal cancer

?



Colorectal Cancer screening

- Screen men and women age 50 years and older by:
 - a. Fecal occult blood testing (FOBT) annually
 - b. Flexible Sigmoidoscopy: every 5 years or in combination with FOBT annually
 - c. Colonoscopy every 10 years. More sensitive but much more costly and has increased risks



Question

- A 32 yo female friend is concerned about ovarian cancer. She has no symptoms at this time. However, she has a close friend who was recently diagnosed with ovarian cancer at an advanced stage. The friend told her that there is a simple 'blood test' for CA 125 that could detect ovarian cancer at a curable stage.

As part of your discussion, you would inform the patient which of the following is true?

- A. Most consensus opinions recommend performing this test for average-risk women
- B. Detecting ovarian cancer at an earlier stage using serum CA-125 has not been shown to reduce mortality
- C. A high serum CA-125 is not associated with ovarian cancer at an earlier stage
- D. This test should not be ordered due to its high false negative rate

Answer

- Answer: B

The measurement of serum CA-125 is convenient and inexpensive and can detect Ovarian CA at an earlier stage. However, there is no conclusive evidence that finding ovarian cancer at an earlier age results in an improved chance of a woman surviving this condition. Furthermore, since the incidence of ovarian cancer is low, over 99% of average risk women with high values of CA-125 will not have ovarian cancer. For these reasons, it is not recommended to screen in average-risk women

USPSTF B Recommendation

- Screening for breast and ovarian cancer

Recommends that women whose family history is associated with an increased risk for deleterious mutations in BRCA₁ and BRCA₂ genes be referred for genetic counseling and evaluation of BRCA testing



USPSTF B Recommendation


- Screening for Obesity in Adults

What is the definition of obesity and morbid obesity?





Obesity Screening

- Obesity is a body mass index (BMI) of 30
 - Morbid Obesity is BMI of 40
 - Screen all adult patients and offer intensive counseling and behavioral interventions to promote sustained weight loss for obese adults
- 

USPSTF B recommendation

According to the USPSTF, which one of the following strategies for osteoporosis screening is supported by current clinical evidence?

- A. Begin universal screening 5 years after the date of the last menstrual cycle?
- B. Begin universal screening at age 55?
- C. Begin universal screening at age 65?
- D. Screen only those women at increased risk for hip fractures based on a multiple risk-assessment scale?



Osteoporosis Screening

- Screening for Osteoporosis

Routinely screen women aged 65 and older


Begin at age 60 for women at increased risk for osteoporotic fractures



What are some of the most common risk factors for osteoporosis?



Osteoporosis Risk Factors

- Fracture after age 45
 - Parental hip fracture
 - Smoker
 - Weight <127
 - Corticosteroid user > 3 months
 - Caucasian
- 



USPSTF B recommendation

- Screening for abdominal aortic aneurysm

One-time screening for AAA by ultrasonography in men aged 65-75 who have ever smoked

C recommendation for men in this age group who have never smoked

D recommendation against routine screening in women





Question

- At a routine annual visit, a healthy 65 year old male is given a pneumococcal vaccine. When should he receive a booster dose of this vaccine?
 - A. Never
 - B. In 3 years
 - C. In 5 years
 - D. In 7 years
 - E. In 10 years

Answer

- Answer: A

If an otherwise healthy patient receives the vaccine at age 65 or later, a second dose is NOT needed. If a healthy patient receives the vaccine before age 65, a second dose should be given after age 65 if at least 5 years has lapsed since the first dose.

B RECOMMENDATION: Vaccinations

- Td booster every 10 years
- Influenza vaccine annually after age 50 or high risk
- Pneumococcal vaccine once after age 65 or patients at risk



USPSTF D recommendation

- Hepatitis C screening in adults
 - Recommends against routine screening in asymptomatic adults who are not at increased risk for infection



USPSTF D recommendations

- Hormone Replacement Therapy

Recommends against the routine use of combined estrogens and progestin for the prevention of chronic conditions (examples include osteoporosis)

Scoliosis: Recommends against the routine screening of asymptomatic adolescents for idiopathic scoliosis

USPSTF D recommendations

- Hormone Replacement Therapy

Recommends against the routine use of combined estrogens and progestin for the prevention of chronic conditions

Scoliosis: Recommends against the routine screening of asymptomatic adolescents for idiopathic scoliosis


USPSTF D recommendation

- Recommends against routine screening for
 - Pancreatic cancer
 - Testicular cancer
 - Ovarian cancer (except for strong family history of breast cancer or ovarian cancer)

potential harms outweigh benefits



USPSTF I recommendation


- Screening for lung cancer
 - Screening for Oral cancer
 - Screening for newborn hearing
 - Screening for coronary artery disease with baseline EKG's
 - Screening for prostate cancer
 - Screening for skin cancer (melanoma)
 - Screening for thyroid disease
- 



Areas of Controversy

Thyroid Screening: I recommendation

However, the Endocrinology Association and Thyroid Association believe that all women > 35 years of age should have a baseline TSH level



Areas of Controversy

- Prostate Cancer Screening
 - USPTSF and AAFP: Insufficient evidence to recommend for or against routine screening by PSA or DRE
 - urology association asks for PSA in all men over age 50 with a DRE
 - ACS suggests that a PSA and DRE be offered to all men above 50 years of age who have a life expectancy of 10 years. Begin screening at age 45 for high risk and 50 for all males. Suggest screening for men who ask their clinician to make a decision on their behalf.

Areas of Controversy

- **Breast cancer screening**

Latest guidelines suggest screening females age 50 and older every 2 years until age 75

Yet to be officially implemented by medicaid and medicare.

Almost all clinicians are practicing the previous guidelines of screening females from age 40 until age 75

Too controversial to be a test question this year!

Areas of Controversy

Breast Cancer Screening:

- Grade C recommendation: The decision to start screening mammography before age 50 should be an individual one and take patient's context into account including their value and beliefs
- Grade D recommendation: against teaching self-breast examinations.
- Grade I recommendation: Clinical breast exam beyond the mammography
- Grade I recommendation: Use of digital mammography and/or MRI's instead of film mammography as screening modality
(COST \$\$)