

SELF-ASSESSMENT MODULE STUDY GROUP ON PREVENTIVE CARE

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February 16, 2012 – Tempe, AZ

USPSTF Definitions

Grade	Definition	Suggestion for Practice
A	The USPSTF recommends the service . There is high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF recommends the service . There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	Clinicians may provide this service to selected patients depending on individual circumstances. However, for most individuals without signs or symptoms there is likely to be only a small benefit from this service. <i>(Undergoing revision)</i>	Offer or provide this service only if other considerations support the offering or providing the service in an individual patient.

USPSTF Definitions

Grade	Definition	Suggestions for Practice
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be	Read the clinical considerations section of USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

SORT

Table 1. Strength-of-Recommendation Grades

<i>Strength of recommendation</i>	<i>Basis for recommendation</i>
A	Consistent, good-quality patient-oriented evidence*
B	Inconsistent or limited-quality patient-oriented evidence*
C	Consensus, disease-oriented evidence, ^a usual practice, expert opinion, or case series for studies of diagnosis, treatment, prevention, or screening

*-Patient-oriented evidence measures outcomes that matter to patients: morbidity, mortality, symptom improvement, cost reduction, and quality of life. Disease-oriented evidence measures intermediate, physiologic, or surrogate end points that may or may not reflect improvements in patient outcomes (e.g., blood pressure, blood chemistry, physiologic function, pathologic findings).

www.aafp.org/online/en/home/publications/journals/afp/afosort.html, accessed on Feb 7, 2012 at 12:34 PM

Question 1

You see a 65-year-old African-American male in your office for the first time. He has not had health insurance for the past 20 years and has not seen a physician during that time. He is now eligible for Medicare and would like to have a complete evaluation.

The patient has a 30-pack-year smoking history and drinks alcohol occasionally. He says he used cocaine when he was a young adult, but has not used illicit drugs since that time. He has been told in the past that he had mild high blood pressure, but was never started on any treatment and did not return for follow-up. His only current medications are occasional acetaminophen or ibuprofen.

He lives alone and frequently eats at fast-food restaurants. He does not currently exercise on a routine basis. His mother had hypertension, coronary artery disease, and breast cancer, and died at age 62. His father was diagnosed with prostate cancer at age 72 and died of a myocardial infarction at age 75. His sister has hyperlipidemia, and his brother has diabetes mellitus and coronary artery disease.

Question 1

This patient's risk for prostate cancer is increased by which of the following?
(Mark all that are true.)

- 1) His age
- 2) His ethnicity
- 3) His high dietary fat intake
- 4) His family history of prostate cancer

Question 1

Prostate Cancer Risks

- Afro-American ethnicity
- Positive family history
- High fat diet
- Age over 50
- USPSTF has proposed a D Rec for screening

Question 2

You have observed an increase in the number of patients seeking your help for stressful life situations, and have decided to implement strategies in your practice to screen for depression.

True statements regarding screening measures for this problem include which of the following? (Mark all that are true.)

- 1) There is good evidence to support screening of adult patients for depression
- 2) There is good evidence to support screening of adolescents for depression
- 3) A two-question screening instrument can be an effective screen for major depression
- 4) The U.S. Preventive Services Task Force recommends practice-level screening for suicide risk
- 5) Screening for and treating depression in patients with coronary heart disease improves cardiac mortality
- 6) Screening for and treating depression in patients with coronary heart disease improves cardiac morbidity

Question 2

Depression Screening Guidelines

- Screen adults (USP B)
- Screen adolescents (USP B)
- 2 question tool (PHQ-2) is effective
- Insufficient evidence for suicide screening (I)
- No proven benefit on cardiac morbidity

Question 3

When counseling patients about sleeping habits, appropriate advice would include which of the following? (Mark all that are true.)

- 1) Most adults need 7–8 hours of sleep a night
- 2) Persons over the age of 65 need less sleep than younger adults
- 3) No association has been found between exercise and sleep
- 4) Inadequate sleep is associated with the development of several chronic conditions (e.g., hypertension, diabetes mellitus, and obesity)
- 5) A sleep-deprived individual's judgment and psychomotor performance is similar to that of someone who has drunk a significant amount of alcohol

Question 3

Counseling Regarding Sleep

- Most adults need 7-8 hours
- Regular exercise enhances sleep
- Sleep disorders associated with comorbidities
- Sleep deprivation impairs performance(SOR C)
- Sleep problems increase with age

Question 4

At what age does the U.S. Preventive Services Task Force recommend initiation of screening for hyperlipidemia in males with no known risk factors for coronary heart disease?

- A) 20
- B) 25
- C) 30
- D) 35
- E) 45

Question 4

Lipid Screening Guidelines

- Screen men routinely at age 35 (USP A)
- Screen women routinely at age 45 (USP A)
- Start earlier if risk factors present (USP B)
- NCEP: Start age 20, repeat q 5 yrs (SOR C)

Question 5

True statements regarding meningococcal vaccine include which of the following? (Mark all that are true.)

- 1) It is indicated for normal-risk children 11–12 years of age
- 2) It is indicated for first-year college students living in dormitories
- 3) The preferred form for persons less than 55 years of age is meningococcal polysaccharide vaccine (MPSV4)
- 4) Revaccination after 5 years might be indicated for some persons who reside in areas where the disease is endemic
- 5) Vaccination is recommended for travelers to Mecca

Question 5

Meningococcal Vaccine

- Indicated for children 11-12 yo (USP A)
- Indicated age 2 if sickle cell, asplenia (SOR A)
- Indicated for those in crowded conditions
- Indicated for travel to endemic areas
- MCV form preferred, lasts 20 years (SOR A)
- May need booster 3-5 yrs after MPSV4

Question 6

True statements regarding screening for osteoporosis include which of the following?
(Mark all that are true.)

- 1) The U.S. Preventive Services Task Force (USPSTF) recommends that routine screening begin at age 60 for women at increased risk for osteoporotic fractures
- 2) The USPSTF recommends that all women age 65 and older be screened routinely for osteoporosis
- 3) The optimal interval for osteoporosis screening in a woman with a history of normal DXA scans is every year
- 4) Patients should continue receiving routine recommended osteoporosis screening after being diagnosed with osteoporosis
- 5) The likelihood of being diagnosed with osteoporosis varies greatly depending on the site and type of bone measurement test
- 6) Bone density measured at the femoral neck by DXA is the best predictor of hip fracture
- 7) The likelihood of being diagnosed with osteoporosis is the same, regardless of what brand of densitometer is used for testing

Question 6

Osteoporosis Screening

- Screen all women at 65 yo (USP B)
- Screen high risk women at 60 yo (USP B)
- Bone density at femoral neck best predictor
- Results vary with specifics of testing
- No guidelines for repeat testing, monitoring

Question 7

Herpes zoster vaccine (Zostavax) would be recommended for which of the following, based on the information provided? (Mark all that are true.)

- 1) A healthy 58-year-old male
- 2) A 62-year-old female with diabetes mellitus, hypertension, and hyperlipidemia
- 3) A 67-year-old female who is currently undergoing chemotherapy for breast cancer
- 4) A 69-year-old male with a previous episode of herpes zoster
- 5) A 79-year-old male with COPD treated with long-term prednisone, 25 mg/day
- 6) An 83-year-old male who takes no regular medications and has no history of chickenpox

Question 7

Herpes Zoster Vaccine (Zostavax)

- Indicated, licensed for patients > 60
- Previous zoster not a contraindication
- Immunocompromise is a contraindication
- Should be off high dose steroids for 1 month
- Reduces severity more than incidence

Question 8

A 50-year-old Asian female visits your office for a routine annual visit. She is asymptomatic and has no known family history of cancer.

According to the U.S. Preventive Services Task Force, which of the following would be recommended to screen for breast cancer in this patient? (Mark all that are true.)

- 1) Teaching the patient how to perform monthly breast self-examinations
- 2) MRI
- 3) Genetic testing for BRCA mutations
- 4) Mammography

Question 8

Breast Cancer Screening

- Mammography q 1-2 years at age 50 (USP B)
- Self exam recommended against (USP D)
- Clinical exam inconclusive (USP I)
- BRCA testing for normal risk USP D
- MRI inconclusive (USP I)

Question 9

The 2008 Physical Activity Guidelines for Americans published by the U.S. Department of Health and Human Services recommend which of the following for adults? (Mark all that are true.)

- 1) Spreading activity out over the course of the week
- 2) Alternating between aerobic exercise and muscle-strengthening exercise every other week
- 3) Working all major muscle groups on 2 or more days during weeks when muscle-strengthening exercise is performed
- 4) A weekly minimum of 150 minutes of moderate-intensity aerobic activity (e.g., brisk walking) if that is the type of exercise chosen
- 5) A weekly minimum of 75 minutes of vigorous-intensity aerobic activity (e.g., jogging or running) if that is the type of exercise chosen

Question 9

Exercise Guidelines (HHS)

- Aerobic and resistance every week (SOR C)
- 150 minutes moderate activity per week, or
- 75 minutes vigorous activity per week
- General strengthening at least twice a week
- Spreading activity throughout week optimal

Question 10

A 17-year-old male comes to your office in August for a physical examination required for entering college. He reports smoking 1–2 cigarettes per day, and drinking 1–2 bottles of beer per week. He denies any history of illicit drug use. He says he has been sexually active with both men and women since age 16. His only international travel has been to Mexico last year, and he plans to go again for spring break next year. He has no history of medical or surgical problems, and does not take any routine medications. He completed the primary series of DTaP, polio, MMR, and varicella vaccines at the recommended ages. In addition, he received one dose each of Tdap, meningococcal vaccine, hepatitis B vaccine, and hepatitis A vaccine at age 13. His physical examination is normal.

What immunizations should this patient receive today? (Mark all that are true.)

- 1) DTaP
- 2) Hepatitis A vaccine
- 3) Hepatitis B vaccine
- 4) Meningococcal vaccine

Question 10

Adolescent Immunization

- Hep B for children/adolescents/at risk adults
- Hep A for children/travelers/at risk adults
- If MCV given before 16, give booster at 16-18
- Tetanus booster q10 years after initial series
- Give Tdap instead of dT for 1 of the boosters

Question 11

True statements regarding screening for hepatitis include which of the following? (Mark all that are true.)

- 1) The U.S. Preventive Services Task Force (USPSTF) recommends routine screening for hepatitis B infection in adults at high risk of infection
- 2) The USPSTF recommends routine screening for hepatitis C infection in adults at high risk for infection
- 3) The USPSTF recommends against routine screening for hepatitis C in asymptomatic adults who are not at high risk for infection
- 4) All pregnant women should be screened for active hepatitis B infection at their first prenatal visit
- 5) The principal screening test for hepatitis B infection is HBsAg

Question 11

- Clinical Summary of the USPSTF recommends all pregnant women should be screened for hepatitis B at their first prenatal visit
- USPSTF recommends against hepatitis B screening in the general asymptomatic population.
- Certain persons at high risk for HBV could be screened to assess their eligibility for vaccination
-
- USPSTF recommends against routine screening for hepatitis C infection in asymptomatic adults who are not at increased risk.
-
- USPSTF found insufficient evidence to recommend for or against routine screening for HCV infection in adults at high risk for infection.

Question 12

Which of the following women would be at increased risk for uterine cancer, based on the information provided? (Mark all that are true.)

- 1) A 35-year-old with a BMI of 32.4 kg/m²
- 2) A 39-year-old with polycystic ovary syndrome
- 3) A 43-year-old who has taken combined oral contraceptive pills for over 25 years
- 4) A 46-year-old who has had 6 children and breastfed all of them
- 5) A 47-year-old who experienced menarche at age 10 and has never been pregnant
- 6) A 59-year-old with hereditary nonpolyposis colon cancer
- 7) A postmenopausal female with a strong family history of breast cancer who is taking tamoxifen (Soltamox) to prevent breast cancer
- 8) A postmenopausal female who is taking raloxifene (Evista) to prevent osteoporosis

Question 12

- Type I endometrial cancer is estrogen related: risk factors include obesity, nulliparity, endogenous or exogenous estrogen excess, diabetes and hypertension
- Type II endometrial cancer appears unrelated to estrogen stimulation or endometrial hyperplasia: risk factors multiparous older women with endometroid tumors
- Type I less serious more common
- Type II more serious less common
- Exogenous estrogen related to dose and duration
- Endogenous estrogen by adipose tissue and functional ovarian tumors
- Chronic Anovulation (ex PCO) due to constant estrogenic stimulation of the endometrium leading to hyperplasia and possible cancer

Question 12

- Tamoxifen- competitive inhibitor of estrogen and can stimulate endometrial lining
- Obesity- higher levels of endogenous estrogen, anovulation is more common, lower circulating levels of SHBG
- DM-HTN- mostly due to comorbid factors of obesity - increased insulin states can play a role in endometrial proliferation
- Age- Lynch Syndrome- also a risk for ovarian and colon cancer
- Breast cancer-
- Nulliparity-
- Coffee tea
- Early menarche late menopause

Question 13

Over-the-counter medications considered safe during the entire course of pregnancy include which of the following? (Mark all that are true.)

- 1) Aspirin
- 2) Acetaminophen
- 3) Ibuprofen
- 4) Pseudoephedrine
- 5) Chlorpheniramine
- 6) Guaifenesin

Question 13

- Data regarding the safe use of all medications including OTC drugs during pregnancy are limited and combination products are best avoided
- Aspirin should be avoided
-
- NSAIDS category B in first and second trimester but D in third
- Acetaminophen is the pain reliever of choice in pregnancy
- Pseudoephedrine is the decongestant of choice during pregnancy category C (some studies have reported an increased risk of gastroschisis if taken during first trimester)
- Chlorpheniramine is preferred to diphenhydramine
- Dextromethorphan and guaifenesin are category C (dextro not effective and guaif has been associated with neural tube defects)

Question 14

A 40-year-old asymptomatic male patient sees you for a routine annual visit. He mentions that his father recently died from complications related to COPD, and is concerned about his own risk for this condition.

The most appropriate screening tool to help direct this patient's management is

- A) spirometry
- B) peak-flow testing
- C) a chest radiograph
- D) chest CT
- E) no screening for COPD

Question 14

- Spirometry in general practice is recommended for early detection of OLD (in patients with symptoms)
- The USPSTF recommends against screening for COPD with spirometry

Question 15

True statements regarding tobacco cessation counseling include which of the following?
(Mark all that are true.)

- 1) Tobacco cessation treatment is cost-effective
- 2) Telephone quit line counseling has been shown to be effective
- 3) Insurance coverage of tobacco cessation strategies has an effect on tobacco quit rates
- 4) Multiple first-line pharmacologic agents have been shown to be more effective than placebo in promoting tobacco cessation
- 5) Use of pharmacologic agents for tobacco cessation will result in long-term abstinence in approximately 50% of patients

Question 15

Ten Key Guideline Recommendations

- Tobacco dependence is a chronic disease and effective treatments exist that can significantly increase the rates of long term abstinence
- It is essential that providers consistently identify and document tobacco use status and treat every tobacco user seen in a health care setting
- Tobacco dependence treatments are effective across a broad range of populations – clinics should encourage every patient willing to make a quit attempt use these counseling treatments and medications
- Brief tobacco dependence treatment is effective
- Individual group and telephone counseling are effective and their effectiveness increases with treatment intensity (practice counseling and social support are especially effective)

Question 15

Ten Key Guideline Recommendations continued

- Medications reliably increase long term smoking abstinence (bupropion, nicotine gum, nicotine inhaler, nicotine lozenge, nicotine nasal spray, nicotine patch varenicline)
- Counseling and medication are effective when used by themselves but adding counseling is even more effective
- Telephone quitline counseling is effective with diverse populations and has broad reach
- If unwilling to quit use motivational techniques
- Tobacco dependence treatments are both clinically effective and highly cost effective and insurers and purchasers should ensure that all insurance plans cover these techniques

Despite the documented efficacy of pharmacotherapy the absolute number of patients who were abstinent from smoking at 12 months was low

Question 16

In looking for tools to help you identify patients in your practice with bipolar disorder, you come across a questionnaire called the MDQ. You note that in primary care practices it has a sensitivity of 28% and a specificity of 97%.

The false-positive rate for identifying patients with bipolar disorder using this instrument is _____% (fill-in the blank)

Question 16

- specificity = the true negative rate
- sensitivity = the true positive rate
- the false positive rate is $FP/(FP + TN)$ or $1 - \text{specificity}$
- A positive screen on the MDQ is not diagnostic of bipolar

Question 17

Which one of the following is true regarding screening for drug abuse?

- A) All adolescents should be screened for drug abuse
- B) Counseling adolescents and young adults about drug abuse has been shown to prevent them from abusing drugs
- C) Because of the risks to both mother and fetus, all pregnant women should be screened for drug abuse and counseled about this issue
- D) The U.S. Preventive Services Task Force has found insufficient evidence for or against screening and counseling for drug abuse

Question 17

- USPSTF concludes that current evidence is insufficient to assess the balance of harm and benefits of screening adolescents, adults, and pregnant women
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Question 18

At what age does the U.S. Preventive Services Task Force recommend that routine screening for prostate cancer be discontinued?

_____ years (fill-in the blank)

Question 18

USPSTF insufficient to screen men under 75 years of age and recommends against screening for men 75 years or older

Question 19

True statements regarding dementia screening in patients over age 65 include which of the following? (Mark all that are true.)

- 1) There is good evidence to support general screening of older primary care patients for dementia
- 2) Dementia screening instruments have good sensitivity
- 3) Dementia screening instruments have good specificity
- 4) Pharmacologic treatment of dementia may decrease the rate of cognitive decline
- 5) Pharmacologic treatment of dementia improves performance of instrumental activities of daily living (IADLs)

Question 19

- USPSTF concludes that the evidence is insufficient to recommend for or against routine screening for dementia in older adults
-
- Screening tests used for dementia are either direct cognitive tests of patients or functional assessment using patients and other informants. The tests vary greatly making it difficult to determine the overall performance for screening test in dementia
- General cognitive function is improved
- Lack of evidence to answer the question of delay of onset or decrease the rate of cognitive decline

Question 20

Which of the following should receive pneumococcal vaccine? (Mark all that are true.)

- 1) A healthy 2-month-old infant
- 2) An 8-year-old child who has had frequent episodes of otitis media
- 3) A 45-year-old female who smokes cigarettes and has not previously received pneumococcal vaccine
- 4) A 56-year-old male with chronic renal failure who received pneumococcal vaccine at age 50
- 5) A 65-year-old male who is uncertain of his immunization status

Question 20

PCV vaccine _> 65 years of age not recommended for 2-64 unless asplenic , endemic area or immunocompromised

Question 21

The father of one of your patients recently died of lung cancer, and she requests screening for the disease. She is a 45-year-old asymptomatic female with a 20-pack-year smoking history.

Which one of the following would be recommended by the U.S. Preventive Services Task Force to screen for lung cancer?

- A) No screening
- B) A CBC
- C) Spirometry
- D) Sputum cytology
- E) A chest radiograph
- F) Chest CT

Question 21

Lung cancer screening

- The U.S. Preventive Services Task Force(USPSTF) concludes that the evidence is insufficient to recommend for or against 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.
Grade: I recommendation
- Screening has high false positive rate 5-41%
- CXR: Sensitivity 26%, Specificity 93%
- Mortality and mortality rates from +screen:
 - 1.3% to 11.6%; 8.8% to 44%
 - higher rates associated with larger resections

Question 22

A 67-year-old female comes to your office for a routine visit. She asks for information about the herpes zoster vaccine that she has read about recently.

Which of the following would be accurate advice? (Mark all that are true.)

- 1) It contains live attenuated varicella virus
- 2) A booster dose is required 5 years after the initial dose
- 3) It prevents herpes zoster in 80% of recipients
- 4) It prevents post-herpetic neuralgia in 95% of recipients
- 5) It is typically fully covered by most private insurance and by Medicare Part D

Question 22

- CDC recommends for all adults ≥ 60 , even if previous shingles or chicken pox
- Which of the following would be accurate advice? (Mark all that are true.)
 - It contains live attenuated varicella virus
 - true
 - A booster dose is required 5 years after the initial dose
 - no booster is needed
 - It prevents herpes zoster in 80% of recipients
 - 51% reduction
 - It prevents post-herpetic neuralgia in 95% of recipients
 - 67% reduction
 - It is typically fully covered by most private insurance and by Medicare Part D
 - may be partially or fully covered

Question 23

Risk factors for cervical cancer include which of the following? (Mark all that are true.)

- 1) Cigarette smoking
- 2) Alcohol use
- 3) Early onset of sexual activity
- 4) Having multiple sexual partners
- 5) HPV infection
- 6) HIV infection

Question 23

Cervical cancer risks

- 95% to 100% of squamous cell cervical cancer and 75% to 95% of high-grade CIN lesions have detectable HPV DNA.
- CDC
 - Smoking
 - Having HIV or another condition that makes it hard for your body to fight off health problems.
 - Using birth control pills for a long time (five or more years).
 - Having given birth to three or more children.
- American Cancer Society
 - HPV, smoking, immunosuppression, OCPs, pregnancies,
 - Also, <17 yo at first pregnancy, DES, family history, poverty, weight, ?chlamydia, ? diet

Question 24

Which one of the following has the greatest effect on decreasing systolic blood pressure?

- A) Reducing dietary sodium intake to 100 mmol/day or less
- B) Following the DASH eating plan, which is rich in fruits, vegetables, and low-fat dairy products
- C) Moderation of alcohol consumption to 2 drinks or less per day for men or 1 drink or less per day for women
- D) Losing 10 kg of body weight in an overweight patient
- E) Engaging in 30 minutes of aerobic physical activity on most days of the week

Question 24

Hypertension and lifestyle

- Reduce dietary sodium intake to no more than 100 mmol per day
 - 2–8 mmHg
- DASH eating plan (1,600 mg sodium) has effects similar to single drug therapy
 - 8–14 mmHg
- Limit consumption to no more than 2 drinks (1 oz or 30 mL ethanol; e.g., 24 oz beer, 10 oz wine, or 3 oz 80-proof whiskey) per day in most men and to no more than 1 drink per day in women and lighter weight persons.
 - 2–4 mmHg
- Maintain normal body weight (body mass index 18.5–24.9 kg/m²).
 - 5–20 mmHg/10 kg lost
- Engage in regular aerobic physical activity such as brisk walking (at least 30 min per day, most days of the week).
 - 4–9 mmHg

Question 25

For which of the following patients would you consider recommending vitamin D supplementation? (Mark all that are true.)

- 1) A 4-week-old male who has been exclusively breastfed since birth
- 2) A 24-year old female beginning phenytoin therapy
- 3) A 35-year-old female with depression and fatigue whose 25-hydroxyvitamin D level was 52 ng/mL when checked at a recent health fair
- 4) A 45-year-old female with metastatic breast cancer
- 5) A 63-year-old female with no known risk factors for osteoporosis other than her postmenopausal status

Question 25

Vitamin D

- Recommended daily dose is 800-1,000 units of Vitamin D
- Levels of 25-hydroxyvitamin D should be maintained above 32 ng per mL (80 nmol per L)
- To remain normocalcemic, patients treated with phenytoin or phenobarbital require two to five times the recommended daily amount of vitamin D
- AAP: *A supplement of 400 IU/day of vitamin D should begin within the first few days of life and continue throughout childhood. Any breastfeeding infant, regardless of whether he or she is being supplemented with formula, should be supplemented with 400 IU of vitamin D, because it is unlikely that a breastfed infant would consume 1 L (~1 qt) of formula per day, the amount that would supply 400 IU of vitamin D.*
- Oncologist: *Especially in the setting of metastatic bone disease in breast cancer patients, we advocate routine 25-OHD concentration screening for vitamin D deficiency in general. . . . We recommend 1,000 IU daily to our metastatic cancer patients.*

Question 26

The National Cholesterol Education Program's Adult Treatment Panel III (ATP III) identified which of the following as major coronary heart disease risk factors that warrant using a lower target LDL-cholesterol level? (Mark all that are true.)

- 1) Hypertension
- 2) Cigarette smoking
- 3) A family history of premature CHD
- 4) Age >45 in men or >55 in women
- 5) An HDL-cholesterol level <40 mg/dL
- 6) An HDL-cholesterol level >60 mg/dL

Question 26

CAD risk factors

Table 3. Major Risk Factors (Exclusive of LDL Cholesterol) That Modify LDL Goals*

- Cigarette smoking
- Hypertension (BP $\geq 140/90$ mmHg or on antihypertensive medication)
- Low HDL cholesterol (< 40 mg/dL)[†]
- Family history of premature CHD (CHD in male first degree relative < 55 years; CHD in female first degree relative < 65 years)
- Age (men ≥ 45 years; women ≥ 55 years)*

* In ATP III, diabetes is regarded as a CHD risk equivalent.

[†] HDL cholesterol ≥ 60 mg/dL counts as a "negative" risk factor; its presence removes one risk factor from the total count.

Expert Panel on Detection, Evaluation, and Treatment of High Cholesterol in Adults. Executive Summary of the Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). National Heart, Lung and Blood Institute (NHLBI), 2001.

Question 27

Which of the following would be recommended for the patient described?
(Mark all that are true.)

- 1) Carcinoembryonic antigen testing for a 65-year-old breast cancer survivor 6 months after her breast cancer diagnosis and treatment
- 2) Breast cancer screening for a 25-year-old female Hodgkin's disease survivor who was treated with chest irradiation
- 3) Depression screening for a 25-year-old survivor of leukemia
- 4) Follow-up carcinoembryonic antigen testing for a 65-year-old male colon cancer survivor
- 5) Digital rectal examination and monitoring of prostate-specific antigen levels every 6 months for a 72-year-old prostate cancer survivor

Question 27

Cancer Survivors

Strength of Recommendations

Key clinical recommendation	Label	References
Breast cancer patients should be counseled that intensive surveillance using laboratory and imaging tests does not improve overall survival or quality of life. However, monthly self-breast examination, annual mammography of preserved breast tissue, and a careful history and physical examination every six months for five years are recommended.	A	8
Use of carcinoembryonic antigen testing and computed tomographic scanning for follow-up of colorectal cancer patients yields a survival advantage of about 19 percent, but the optimal combination of tests or frequency of clinical follow-up is not known.	A	5, 19
Prostate cancer survivors who received definitive therapy should receive annual digital rectal examination and monitoring of prostate-specific antigen levels every six months for five years, and then annually.	C	7
Survivors of childhood cancers are at increased risk for depression and should be screened and treated, as appropriate.	C	38, 39
Female Hodgkin's disease survivors treated with chest irradiation are at increased risk of developing breast cancer; surveillance should be started at 25 years of age.	C	39, 41, 42

A = consistent, good-quality patient-oriented evidence; B = inconsistent or limited-quality patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, opinion, or case series. See page 639 for more information.

Sunga AY, Eberl MM, Oeffinger KC, et al:
Care of cancer survivors. *Am Fam Physician* 2005;71(4):699-706.

Question 28

According to the U.S. Preventive Services Task Force, screening for Chlamydia infection would be recommended for which of the following?
(Mark all that are true.)

- 1) A sexually active 20-year-old nonpregnant female with a past history of sexually transmitted disease (STD) and several sexual partners
- 2) A sexually active 24-year-old pregnant female with multiple sexual partners
- 3) A sexually active 25-year-old bisexual male
- 4) A sexually active 30-year-old pregnant female who has had only one lifetime partner and no STDs
- 5) A sexually active 30-year-old nonpregnant female with STD risk factors

Question 28

Chlamydia Screening

- The U.S. Preventive Services Task Force (USPSTF) recommends screening for chlamydial infection for all sexually active non-pregnant young women aged 24 and younger and for older non-pregnant women who are at increased risk.
Grade: A Recommendation.
- The USPSTF recommends screening for chlamydial infection for all pregnant women aged 24 and younger and for older pregnant women who are at increased risk.
Grade: B Recommendation.
- The USPSTF recommends against routinely providing screening for chlamydial infection for women aged 25 and older, whether or not they are pregnant, if they are not at increased risk.
Grade: C Recommendation.
- The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for chlamydial infection for men.
Grade: I Statement.

Question 28

Chlamydia Screening

- A sexually active 20-year-old nonpregnant female with a past history of sexually transmitted disease (STD) and several sexual partners (A)
- A sexually active 24-year-old pregnant female with multiple sexual partners (B)
- A sexually active 25-year-old bisexual male (I)
- A sexually active 30-year-old pregnant female who has had only one lifetime partner and no STDs (C, rec against)
- A sexually active 30-year-old nonpregnant female with STD risk factors (B)

Question 29

The mother of a 2-year-old mentions that she and some friends were recently discussing a newspaper article that stated that injuries are the leading cause of death in children. She asks what measures she could take to reduce the risk of injuries in her child.

Which of the following measures have been shown to reduce childhood injuries? (Mark all that are true.)

- 1) Educational programs designed to increase bicycle helmet use
- 2) Advising parents to set home water heaters to <130°F
- 3) The use of age-appropriate child restraints in automobiles
- 4) Clinical counseling to increase smoke detector use in the home
- 5) CPR training for parents who have swimming pools

Question 29

Childhood Injuries

TABLE 1
Evidence-Based Prevention Strategies for Childhood Injuries

Cause of injury	High-risk groups	Prevention strategies	Evidence rating	References
Bicycle crashes	School-age children	Approved bicycle helmet to reduce the risk of head injury after crashing	B	12
		Educational programs to increase helmet use	B	15
Drowning	Toddlers and school-age children	Fencing that completely surrounds pool and does not allow direct access from house. Fence should be made of material that is difficult to climb and have self-latching gates.	A	16
		Personal flotation devices around water	C	17
		Vigilant adult supervision	B	17
		Cardiopulmonary resuscitation training	B	12
Falls	Infants and toddlers	Avoiding the use of infant walkers	B	18
		Gates for stairways	C	19
		Releasable window guards or window stops above first floor	A	12
		Clinical counseling for parents to prevent falls	B	11
Fires and burns	Toddlers and school-age children	Properly installed and maintained smoke detectors	A	12
		Clinical counseling to increase smoke detector use	B	10
		Water heater temperature preset to less than 130°F (54.4°C)	A	12
Motor vehicle crashes	All children	Correct use of age-appropriate child restraints	A	12
		Clinical counseling to encourage correct use of child restraints	C	12, 20

Schnitzer PG: Prevention of unintentional childhood injuries. *Am Fam Physician* 2006;74(11):1864-1869

Question 29

Childhood Injuries

Poisoning	Toddlers	Child-resistant packaging	A	12
Suffocation	Infants	Smoking cessation during pregnancy	B	21
		Recommending safe sleeping practices		
		Place infants on their backs to sleep	B	21
		Use a firm mattress that meets currently mandated safety standards	B	21
		Remove quilts, loose bedding, stuffed toys, and other soft objects from crib	B	21
		Keep infant's head uncovered	B	21
		Do not allow infant to share a bed with adults or other children	B	21
		Do not allow infant to sleep with adults on a sofa or recliner	B	21
		Consider offering a pacifier during sleep	C	21
		Avoid overheating	C	21
		Avoid commercial devices marketed to reduce the incidence of sudden infant death syndrome (e.g., monitors, wedges to maintain sleeping position)	C	21

A = consistent, good-quality patient-oriented evidence; B = inconsistent or limited-quality patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, see page 1821 or <http://www.aafp.org/afpsort.xml>.

Information from references 10 through 12 and 15 through 21.

Schnitzer PG: Prevention of unintentional childhood injuries. Am Fam Physician 2006;74(11):1864-1869

Question 30

In the absence of proven immunity, which of the following individuals should receive the varicella vaccine, based on the information provided? (Mark all that are true.)

- 1) A 19-year-old pregnant female
- 2) A 24-year-old college student traveling to Guatemala
- 3) A 27-year-old female planning to become pregnant
- 4) A 32-year-old male who received his first dose of the vaccine 5 weeks ago
- 5) The 43-year-old mother of a bone marrow transplant patient

Question 30

Varicella Vaccine

- All healthy children 12 months through 12 years of age should have two doses of chickenpox vaccine, administered at least 3 months apart. Children who have evidence of immunity to varicella do not need the vaccine.
- People 13 years of age and older who do not have evidence of immunity should get two doses of the vaccine 4 to 8 weeks apart.
- Chickenpox vaccination is especially important for certain groups of susceptible adults.

Question 30

Varicella Vaccine

Evidence of immunity includes any of the following:

- Documentation of two doses of varicella vaccine
- Blood tests that show you are immune to varicella or laboratory confirmation of prior disease
- Born in the United States before 1980, excluding health-care workers, pregnant women, and immunocompromised persons. These individuals need to meet one of the other criteria for evidence of immunity.
- Receipt from a healthcare provider of a) a diagnosis of chickenpox or b) verification of a history of chickenpox
- Receipt from a healthcare provider of a) a diagnosis of herpes zoster (shingles) or b) verification of a history of herpes zoster (shingles).

Question 30

Varicella Vaccine

- Susceptible adults:
 - Health care providers
 - Household contacts of immunocompromised persons
 - Persons who live or work in environments in which chickenpox transmission is likely (e.g., teachers, day-care employees, and residents/staff in institutional settings)
 - Persons who live or work in places where chickenpox transmission can occur (e.g., college students, inmates and staff of correctional institutions, and military personnel)
 - Nonpregnant women of childbearing age (women should avoid pregnancy for 1 month following each vaccine dose)
 - Adolescents and adults living in households with children
 - International travelers

Question 30

Varicella Vaccine

Some people should not get chickenpox vaccine or should wait:

- People should not get chickenpox vaccine if they have ever had a life-threatening allergic reaction to a previous dose of chickenpox vaccine or to gelatin or the antibiotic neomycin.
- People who are moderately or severely ill at the time the shot is scheduled should usually wait until they recover before getting chickenpox vaccine.
- Pregnant women should wait to get chickenpox vaccine until after they have given birth. Women should not get pregnant for 1 month after getting chickenpox vaccine.
- Some people should check with their doctor about whether they should get chickenpox vaccine, including anyone who:
 - Has HIV/AIDS or another disease that affects the immune system
 - Is being treated with drugs that affect the immune system, such as steroids, for 2 weeks or longer
 - Has any kind of cancer
 - Is getting cancer treatment with radiation or drugs
- People who recently had a transfusion or were given other blood products should ask their doctor when they may get chickenpox vaccine.

Question 31

True statements regarding alcohol abuse counseling include which of the following?
(Mark all that are true.)

- 1) The CAGE and AUDIT tools have been validated as screening instruments for adult alcohol abuse
- 2) The U.S. Preventive Services Task Force (USPSTF) recommends screening and counseling adolescents on the risks of alcohol misuse
- 3) The USPSTF recommends screening and counseling adults on the risks of alcohol misuse
- 4) While the USPSTF found that screening can accurately identify adults at risk for alcohol misuse, they found insufficient evidence of effectiveness for brief, office-based interventions

Question 31

Alcohol Abuse Counseling

- Screen and counsel adults (USP B)
- I Recommendation for adolescents
- CAGE and AUDIT tools have been validated

Question 32

The American Diabetes Association would recommend screening for prediabetes and diabetes mellitus for which of the following, based on the information provided? (Mark all that are true.)

- 1) An obese 21-year-old female who delivered a 10-lb infant 2 years ago
- 2) An obese 27-year-old female with polycystic ovary disease
- 3) A 30-year-old Hispanic female with a BMI of 30.2 kg/m²
- 4) A 40-year-old white male with a BMI of 27.1 kg/m² and no additional risk factors for diabetes mellitus
- 5) A 60-year-old male who had a normal fasting glucose level 3 years ago

Question 32

Diabetes Screening, ADA

- All persons over 45
- Any person with BMI > 25 and
- Inactivity
- HDL < 35, TG > 250
- 1st degree relative with DM
- Polycystic ovary syndrome
- Delivered a baby > 9 pounds
- High risk ethnicity (Hispanic, Native American)
- HTN, vascular disease
- Repeat screen every 3 years

Question 33

You are counseling a 62-year-old African-American male about colon cancer screening. He asks you about fecal DNA testing as an option. You find an article that notes the first-generation fecal DNA test has a sensitivity of 20% and a specificity of 96% for "screen-relevant" neoplasms. You also find a recent study that found that African-Americans have a higher prevalence of polyps compared with whites.

True statements regarding this situation include which of the following?
(Mark all that are true.)

- 1) The negative predictive value of a test depends on its sensitivity
- 2) The negative predictive value of a test is roughly equal to its sensitivity
- 3) The negative predictive value of a test depends on its specificity
- 4) The negative predictive value of a test is roughly equal to its specificity
- 5) The negative predictive value of fecal DNA testing is higher in African-American patients than in white patients

Question 33

Negative Predictive Value

- NPV= the accuracy of negative results
- $\text{Specificity} / (\text{Specificity} + (1 - \text{sensitivity}))$
- The higher the prevalence the lower the NPV

Question 34

Which of the following patients should be offered abdominal ultrasonography to screen for an abdominal aortic aneurysm, based on the information provided? (Mark all that are true.)

- 1) A 35-year-old male with severe hypertension
- 2) A 60-year-old female with new-onset renal failure
- 3) A 65-year-old female with hypertension and a 20-pack-year smoking history
- 4) A 68-year-old male with a 5-pack-year smoking history
- 5) A 74-year-old male who had abdominal ultrasonography at age 65
- 6) A 75-year-old female with a recent history of hemorrhagic stroke

Question 34

AAA Screening, USPSTF

- Men
- 65-75 yo
- Ever smoked (USP B)
- Never smoked, no recommendation (USP C)
- Women, do not screen (USP D)
- One time only screen

Question 35

True statements about cost-effectiveness include which of the following?
(Mark all that are true.)

- 1) It is used to compare the relative value of different health care interventions or services
- 2) It indicates that a service or intervention will eventually save more money than the intervention or service costs
- 3) It is commonly stated in terms of cost per quality-adjusted life-year
- 4) A value of less than \$100,000 per quality-adjusted life-year indicates a service or intervention is cost-effective
- 5) To determine the cost-effectiveness of an intervention or service it must be analyzed either in practice or in a research study

Question 35

Cost Effectiveness

- Analyzes the overall cost of interventions
- Measured in QALYs
- \$50,000/QALY considered favorable
- “Cost effective” does not equal “saves money”
- Can be assessed in a study, practice, modeling

Question 36

In which of the following patients would a statin be indicated for prevention of coronary events? (Mark all that are true.)

- 1) A 40-year-old female nonsmoker with well-controlled stage 1 hypertension, no family history of coronary artery disease, and no diabetes mellitus, with an LDL-cholesterol level of 150 mg/dL
- 2) A 40-year-old pregnant female with familial hypercholesterolemia, a total cholesterol level of 330 mg/dL, and an LDL-cholesterol level of 200 mg/dL
- 3) A 50-year-old male with type 2 diabetes mellitus, a total cholesterol level of 160 mg/dL, and an LDL-cholesterol level of 105 mg/dL
- 4) A 55-year-old overweight female who is an occasional smoker, with a family history of coronary artery disease, no diabetes mellitus or hypertension, and an LDL-cholesterol level of 120 mg/dL
- 5) A 72-year-old female with a recent inferior wall myocardial infarction, a total cholesterol level of 175 mg/dL, and an LDLcholesterol level of 115 mg/dL

Question 36

NCEP LDL-Cholesterol Targets

- 0-1 risk factor: < 160
- 2 or more risks: < 130
- CAD, DM: < 100 (SOR C)
- Statins contraindicated in pregnancy

Question 37

According to the U.S. Preventive Services Task Force, which of the following women should be offered BRCA mutation genetic counseling, based on the information provided? (Mark all that are true.)

- 1) An African-American female whose mother was diagnosed with breast cancer at age 70 and whose sister who was diagnosed with breast cancer at age 60, but with no other known family history of cancer
- 2) A Native American female whose grandfather was diagnosed with breast cancer at age 56
- 3) An Ashkenazi Jewish female whose sister was diagnosed with breast cancer 2 years ago
- 4) An Asian female whose mother had breast cancer and whose grandmother had ovarian cancer
- 5) A Hispanic female whose sister was recently diagnosed with bilateral breast cancer

Question 37

BRCA Testing Guidelines, USPSTF

- 1st degree FH under 55 yo (USP B)
- Ashkenazi Jewish with 1st degree FH (USP B)
- 1st degree FH bilateral breast cancer (USP B)
- FH of male with breast cancer (USP B)
- FH of breast and ovarian cancer (USP B)

Question 38

A 20-year-old female smoker sees you for a routine health maintenance visit. She has been sexually active since age 16 and has had a total of three partners. She is not currently using any form of contraception, and states that she would welcome a pregnancy. She has never had a Papanicolaou (Pap) test. She was diagnosed with chlamydial urethritis last year and was treated with azithromycin (Zithromax). She has received one HPV immunization, 2 months ago. A physical examination is normal.

Which of the following would be recommended for this patient by either the U.S. Preventive Services Task Force or the CDC's Advisory Committee on Immunization Practices? (Mark all that are true.)

- 1) Tobacco cessation counseling
- 2) Screening for Chlamydia
- 3) Counseling about preventing sexually transmitted diseases
- 4) Annual Pap tests beginning at age 21
- 5) A second dose of HPV vaccine at this visit

Question 38

Young Adult Female Screening

- Screen/Counsel regarding tobacco (USP A)
- Screen sexually active < 25 for chlamydia
- Counsel sexually active regarding STIs
- PAP at age 21 (old: within 3 years of sex)
- HPV vaccine for all < 27 (SOR C)

Question 39

The U.S. Preventive Services Task Force has found sufficient evidence to recommend which one of the following for skin cancer screening?

- A) No currently available method
- B) A periodic questionnaire to identify high-risk patients for referral for total-body skin examinations
- C) An annual full-body skin examination by a primary care physician for high-risk patients only
- D) An annual full-body skin examination by a dermatologist for all patients after age 65

Question 39

Skin Cancer Screening, USPSTF

- Inconclusive (USP I)
- Apply ABCD guidelines
- Biopsy suspicious lesions

Question 40

A 45-year-old male executive makes an appointment to see you for a "complete physical." He has been working out twice a week at a local health club, and his personal trainer has suggested he be evaluated for heart disease. He brings in a copy of laboratory work from a local health fair he attended last year, which includes a total fasting cholesterol of 220 mg/dL, with an HDL-cholesterol level of 38 mg/dL and an LDL-cholesterol level of 138 mg/dL. His fasting glucose level was 105 mg/dL.

On examination his body mass index is 26.4 kg/m² and his blood pressure is 132/84 mm Hg. He does not smoke. His grandparents developed coronary artery disease (CAD) in their early 70s, but there is no family history of diabetes mellitus.

Question 40

Which of the following would you recommend at this time? (Mark all that are true.)

- 1) A 10-year Framingham CAD risk assessment
- 2) A repeat fasting lipid level
- 3) A repeat fasting glucose level
- 4) A high-sensitivity C-reactive protein (hs-CRP) level
- 5) An EKG
- 6) An apolipoprotein B level
- 7) A serum homocysteine level
- 8) Electron-beam computed tomography

Question 40

The Infamous "Executive Physical"

- USP D for EKG, Treadmill, CT (SOR A)
- No good evidence for using Apo B, hs-CRP
- No benefit lowering homocysteine with folate
- Framingham risk useful for guiding approach
- Rechecking outside labs reasonable option

Question 41

A 24-year-old female presents for a routine annual evaluation. She reports being in a monogamous relationship and having a total of two sexual partners, with first intercourse at age 19. She denies any previous personal history of sexually transmitted diseases. She has been with her current partner for 5 years. To her knowledge he has had a total of three sexual partners and no sexually transmitted diseases. She has had annual Papanicolaou (Pap) tests since age 20, and all have been normal. She currently uses only condoms intermittently for birth control, but expresses an interest in starting oral contraceptive pills.

Which one of the following would be the most appropriate advice regarding HPV vaccine?

- A) It is not necessary because she is in a monogamous relationship
- B) It should be delayed because it is not currently recommended for women under age 26
- C) She should receive the vaccine at this visit, with no additional doses
- D) She should receive the vaccine at this visit, a second dose in 1 week, and a third dose in 2 weeks
- E) She should receive the vaccine at this visit, a second dose in 2 months, and a third dose in 6 months

Question 41

- HPV vaccine is recommended for 11-12 year old girls or 13-26 who have not yet been vaccinated
-
- First dose second dose 1-2 months then third dose 6 months after first dose

Question 42

List four risk factors for lung cancer, other than tobacco use.

- A) _____
- B) _____
- C) _____
- D) _____

Question 42

- USPSTF evidence is insufficient for or against screening asymptomatic patients
- Risk factors include family history, COPD, idiopathic pulmonary fibrosis, environmental radon exposure, passive smoking, asbestos, and certain occupational exposures

Question 43

Prostate-specific antigen (PSA) testing has been shown to increase detection of early-stage prostate cancer. At this time, however, it is unclear whether earlier detection leads to a decrease in deaths from prostate cancer. This means that screened patients know they have the diagnosis for longer periods of time than they would if they were not screened, but may not actually live longer.

This phenomenon is called:

- A) confounding
- B) diagnosis bias
- C) lead-time bias
- D) length-time bias
- E) selection bias

Question 43

- Selection bias- systematic error in sampling the population
- Confounder- a variable that has independent associations with both the dependent and independent variables thus distorting their relationships
- Lead time bias- the bias that occurs when two tests for a disease are compared and one test diagnoses the disease earlier but there is no effect on the outcome of the disease
- Length time bias- a form of selection bias a statistical distortion of results which can lead to incorrect conclusions about the data
- Diagnosis bias – looking for it you will find it

Question 44

According to the U.S. Preventive Services Task Force, which one of the following screening strategies is likely to result in the fewest colonoscopies?

- A) Fecal occult blood testing annually
- B) Digital rectal examination annually
- C) Fecal occult blood testing every 3 years, with sigmoidoscopy every 5 years
- D) Colonoscopy every 10 years

Question 44

- USPSTF recommends screening for colorectal cancer using fecal occult blood testing, sigmoidoscopy or colonoscopy in adults 50 – 75
- Life years gained relative to number of colonoscopies required for each strategy
colonoscopy 271 life years gained
- SENSE, fecal immunobiochemical testing and flex sig (259, 256, 257)
- Hemocult II and flex sig 218 and 199
- 3 equal annual high sensitivity fecal occult blood, sigmoid every 5 years with fecal occult every 3 years screening colonoscopy every 10 years

Question 45

A 32-year-old pregnant female in her second trimester presents to your office to establish care. Based on dates, you calculate that her expected delivery date is in March. She has not seen a physician in over 10 years and is uncertain about her history of prior immunizations and childhood illnesses. She is also unsure about the paternity of the unborn child. She works in a local nursing home.

List three immunizations she should receive now.

A) _____

B) _____

C) _____

Question 45

TDaP, influenza, Hepatitis B contraindicated in pregnancy: MMR, varicella

Question 46

A 53-year-old male asks your advice about the use of supplements to prevent cancer and cardiovascular disease. Which one of the following would you specifically recommend that he avoid?

- A) Vitamin A
- B) Vitamin C
- C) Vitamin E
- D) β -Carotene
- E) Multi-vitamins with folic acid

Question 46

- USPSTF concludes that the evidence is insufficient to recommend for or against the use of supplements A, C or E; multivitamins with folic acid; or antioxidant combinations for the prevention of cancer or cardiovascular disease
- USPSTF recommends against the use of beta-carotene supplements, either alone or in combination, for the prevention of cancer or cardiovascular disease

Question 47

A 42-year-old female sees you for a routine annual visit. Her neighbor was just diagnosed with ovarian cancer and has encouraged her to have her CA-125 level checked. The patient is concerned about the possibility that she could develop this cancer, and asks your advice about prevention and screening.

Which of the following would be appropriate advice? (Mark all that are true.)

- 1) Although ovarian cancer is rare, it is the fifth leading cause of cancer deaths in women
- 2) Oral contraceptives increase the risk of ovarian cancer
- 3) Transvaginal ultrasonography is the preferred screening test for ovarian cancer
- 4) There is significant potential harm associated with ovarian cancer screening
- 5) CA-125 has a false-positive rate of 98% when used to screen for ovarian cancer

Question 47

- USPSTF recommends against routine screening for ovarian cancer
- Ovarian cancer is the fifth leading cause of cancer death
- There is significant potential for harms associated with screening for ovarian cancer
- No screening test for ovarian cancer
- Oral Contraceptives reduce the risk of ovarian cancer
- Establishing the true sensitivity of CA-125 or ultrasound is limited

Question 48

True statements regarding screening for diabetes mellitus include which of the following?
(Mark all that are true.)

- 1) All adults with hypertension should be screened for diabetes
- 2) All adults over the age of 45 should have a fasting blood glucose measurement every 2 years
- 3) A fasting glucose assessment can miss up to 30% of patients with impaired glucose tolerance
- 4) If a high-risk patient has a normal screening result, testing should be repeated within 3 years

Question 48

- USPSTF recommends screening for type 2 diabetes in asymptomatic adults with sustained blood pressure (treated or untreated) greater than 135/80
- USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for type 2 diabetes in asymptomatic adults with blood pressure 135/80 or lower
- Optimal screening intervals are unknown
- ADA recommends testing in any age for BMI > 25 or risk factor (family history, physical inactivity, CAD, hyperlipidemia)
- If no risk factors start at age 45
- If tests are normal interval testing should be every 3 years

Question 49

You provide care for an extended family that includes a 23-year-old female who has recently scheduled her first prenatal visit. This is her third pregnancy, and she has an 11-month-old son and a 2-year-old daughter. The family receives food stamps and housing assistance. The woman's 69-year-old grandmother and 44-year-old mother live in the community and are also patients of yours.

All of these family members are asymptomatic. Which of them should be screened for iron-deficiency anemia? (Mark all that are true.)

- 1)The 11-month-old male
- 2)The 2-year-old female
- 3)The 23-year-old pregnant female
- 4)The 44-year-old mother
- 5)The 69-year-old grandmother

Question 49

- USPSTF recommends screening for iron deficiency anemia in pregnant women but not in other groups
- Serum ferritin is the preferred initial diagnostic test
- Key recommendations for practice: high risk infants six- 12 months of age should be given iron supplementation (high risk = living in poverty, African American, Native American Alaskan Native preterm or low birth weight)

Question 50

A 24-year-old pregnant female in her second trimester is concerned that she may contract influenza and endanger her baby's health. Her due date is in October and she plans to breastfeed.

Which of the following would be an appropriate recommendation? (Mark all that are true.)

- 1) She can safely receive trivalent inactivated influenza (TIV) vaccine prior to the upcoming influenza season
- 2) She can safely receive live attenuated influenza vaccine (LAIV) prior to the upcoming influenza season
- 3) If vaccine is not available prior to her delivery, she can safely receive either the TIV or LAIV vaccine while breastfeeding
- 4) She can safely take oseltamivir (Tamiflu) for prophylaxis if she is exposed to influenza prior to delivery
- 5) She can safely take oseltamivir for prophylaxis if she is exposed to influenza while breastfeeding

Question 50

- Inactivated Influenza vaccine is recommended in pregnancy
- Live attenuated vaccine is not recommended in pregnancy (but the pregnant patient does not need to be isolated from someone receiving the vaccine)
- Unless contraindicated for other reasons women who are breastfeeding can receive either TIV or LAIV Category C in pregnancy
- Oseltamivir and its active metabolite are excreted into human milk - effects on infant unknown

Question 51

A 58-year-old postmenopausal female sees you for a routine annual evaluation and asks about measures to prevent osteoporosis. She has no current medical problems, takes no regular medications, and has a negative history for previous surgery or bone fractures. She has no current or prior history of smoking, alcohol consumption, or illicit drug use. She reports moderate caffeine intake, and says she eats a low-fat diet and exercises daily. She has no family history of cancer, heart disease, diabetes mellitus, or osteoporosis. Her blood pressure is 118/72 mm Hg, pulse rate 72 beats/min, and respiratory rate 16/min. She is 173 cm (68 in) tall and weighs 75 kg (165 lb).

Which one of the following would be an appropriate recommendation for this patient?

- A) Combined hormone replacement
- B) Raloxifene (Evista)
- C) Regular calcium supplementation to reach a total daily intake of 1000 mg
- D) Regular calcium supplementation to reach a total daily intake of at least 1200 mg
- E) Regular vitamin D supplementation to reach a total daily intake of 200 IU

Question 51

Osteoporosis Prevention

- The U.S. Preventive Services Task Force (USPSTF) recommends against the routine use of combined estrogen and progestin for the prevention of chronic conditions in postmenopausal women.
 - Grade: D recommendation.
- Raloxifene is FDA approved for osteoporosis prevention, but not much in the reference articles.
- Calcium supplementation is recommended to be 1000 mg with estrogen and 1500 mg without estrogen
- Vitamin D supplementation recommended at 400-800 IU

Question 52

At what age does the U.S. Preventive Services Task Force recommend discontinuation of routine colorectal cancer screening?

_____ years (fill-in the blank)

Question 52

Colorectal Cancer Screening

- The USPSTF recommends screening for colorectal cancer (CRC) using fecal occult blood testing, sigmoidoscopy, or colonoscopy, in adults, beginning at age 50 years and continuing until age 75 years. The risks and benefits of these screening methods vary.
Grade: A Recommendation
- The USPSTF recommends against routine screening for colorectal cancer in adults age 76 to 85 years. There may be considerations that support colorectal cancer screening in an individual patient.
Grade: C Recommendation
- The USPSTF recommends against screening for colorectal cancer in adults older than age 85 years.
Grade: D Recommendation

Question 53

The Cochrane Library periodically reviews the evidence of the effectiveness of mammography screening for detection of breast cancer. One analysis from their 2006 review looked at deaths ascribed to breast cancer for women at least 50 years of age who had screening mammography, generally every 1–3 years, compared with women who did not. After 13 years of follow-up, 595 out of 146,284 women in the screened group died of breast cancer, compared with 701 of 122,590 unscreened women.

According to this data, the number needed to screen with mammography to prevent 1 death from breast cancer over 13 years of follow-up is approximately

_____ women (fill-in the blank)

Question 53

Number Needed to Screen

	Cancer	No Cancer	Total
Screen	595	146, 284	146, 879
No Screen	701	122, 590	123, 291

Cancer rate with screening: $595/146.879 = 0.00405$ (0.405%)

Cancer rate w/o screening: $701/123,291 = 0.005685$ (0.5685%)

ARR: $0.005696 - 0.00425 = 0.001636$

NNT = $1/0.001636 = 611.25$ (with more decimals is 611.7)

Question 54

Aspirin is an appropriate preventive measure for which of the following? (Mark all that are true.)

- 1) To prevent myocardial infarction in males age 45–79
- 2) To prevent myocardial infarction in females age 55–79
- 3) To prevent colon cancer in patients of both genders over the age of 50
- 4) To prevent ischemic stroke in females age 55–79

Question 54

ASA and prevention

- The USPSTF recommends the use of aspirin for men age 45 to 79 years when the potential benefit due to a reduction in myocardial infarctions outweighs the potential harm due to an increase in gastrointestinal hemorrhage.
Grade: A recommendation
- The USPSTF recommends the use of aspirin for women age 55 to 79 years when the potential benefit of a reduction in ischemic strokes outweighs the potential harm of an increase in gastrointestinal hemorrhage.
Grade: A recommendation
- The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of aspirin for cardiovascular disease prevention in men and women 80 years or older.
Grade: I statement

Question 54

ASA and prevention

- The USPSTF recommends against the use of aspirin for stroke prevention in women younger than 55 years and for myocardial infarction prevention in men younger than 45 years.
Grade: D recommendation
- The USPSTF recommends against the routine use of aspirin and nonsteroidal anti-inflammatory drugs (NSAIDs) to prevent colorectal cancer in individuals at average risk for colorectal cancer.
Grade: D recommendation

Question 54

ASA and prevention

- To prevent myocardial infarction in males age 45–79 (A)
- To prevent myocardial infarction in females age 55–79
- To prevent colon cancer in patients of both genders over the age of 50 (D)
- To prevent ischemic stroke in females age 55–79 (A)

Question 55

True statements regarding seasonal influenza vaccine include which of the following?
(Mark all that are true.)

- 1) Providers should wait until October to begin immunizing
- 2) Administration of the vaccine to healthy adults has been shown to decrease both work absenteeism and the use of health care resources
- 3) The trivalent inactivated influenza vaccine has been shown to reduce the incidence of acute otitis media in some studies
- 4) Healthy children age 6 months to 8 years may receive either the trivalent inactivated influenza vaccine or the live attenuated influenza vaccine
- 5) The trivalent inactivated influenza vaccine is considered safe for use in pregnancy

Question 55

Flu Vaccine

- Trivalent inactivated influenza vaccine – TIV
- Live attenuated influenza vaccine – LAIV
- Flu vaccine should be given “when available and if possible by October”
- “Vaccination of healthy adults also has resulted in decreased work absenteeism and decreased use of health-care resources, including use of antibiotics, when the vaccine and circulating viruses are well-matched”
- “TIV has been demonstrated to reduce acute otitis media in some studies. Two studies have reported that TIV decreases the risk for influenza-associated otitis media by approximately 30% among children with mean ages of 20 and 27 months, respectively.”
- “Healthy children aged 2--18 years can receive either LAIV or TIV. Children aged 6--23 months, those aged 2--4 years who have evidence of possible reactive airways disease (see Considerations When Using LAIV) or who have medical conditions that put them at higher risk for influenza complications should receive TIV.”

Question 55

Flu Vaccine

- “Pregnant women are at risk for influenza complications, and all women who are pregnant or will be pregnant during influenza season should be vaccinated.”
- Providers should wait until October to begin immunizing
- Administration of the vaccine to healthy adults has been shown to decrease both work absenteeism and the use of health care resources
- The trivalent inactivated influenza vaccine has been shown to reduce the incidence of acute otitis media in some studies
- Healthy children age 6 months to 8 years may receive either the trivalent inactivated influenza vaccine or the live attenuated influenza vaccine
- The trivalent inactivated influenza vaccine is considered safe for use in pregnancy

Question 56

A 48-year-old perimenopausal female who is bothered by hot flashes calls and asks you to schedule a "heart scan" because she wants to know how healthy her heart is before considering estrogen replacement therapy. She has been your patient for several years. She is mildly overweight (BMI 26.4 kg/m²) and has mildly impaired glucose tolerance. At her two previous annual visits her fasting glucose levels were 105 mg/dL and 110 mg/dL. She has no history of hypertension, and her blood pressure at her most recent visit was 134/84 mm Hg. Her fasting total cholesterol level at that visit was 200 mg/dL, with an LDL-cholesterol level of 120 mg/dL, an HDL-cholesterol level of 45 mg/dL, and a triglyceride level of 175 mg/dL. She does not smoke, and has no family history of premature coronary artery disease (CAD).

Question 56

Which one of the following would be most appropriate at this time?

- A) Order electron-beam computed tomography (EBCT) because the patient has requested it and her insurance will cover it
- B) Order EBCT because the positive predictive value of calcium scoring greatly enhances the assessment of the patient's risk of CAD
- C) Order an EKG to further assess the patient's risk of CAD
- D) Order an exercise stress test to further assess the patient's risk of CAD
- E) Assess the patient's risk for CAD using the Framingham risk calculator

Question 56

CAD screening

- The U.S. Preventive Services Task Force (USPSTF) recommends against 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.
Grade: D Recommendation
- The USPSTF found insufficient evidence to recommend for or against routine screening with ECG, ETT, or EBCT scanning for coronary calcium for either the presence of severe CAS or the prediction of CHD events in adults at increased risk for CHD events.
Grade: I Statement

Question 57

During an office visit for evaluation of a minor respiratory infection, a 32-year-old mother of three mentions that her maternal grandmother is dying of acute myelogenous leukemia. She asks if there is anything that can be done to detect leukemia in family members at an early stage or to determine her likelihood of developing the disease.

Which one of the following would you recommend?

- A) A questionnaire to determine family-specific risk
- B) An annual CBC with differential beginning 10 years prior to the age of onset of her grandmother's cancer
- C) An annual peripheral smear beginning 10 years prior to the age of onset of her grandmother's cancer
- D) Specific genetic testing for the patient and her grandmother
- E) Specific genetic testing for the patient, her grandmother, and her children
- F) No screening

Question 57

Screening for Blood Cancers



- References given were invitations for people to join a study
- Could find no recommendations

Question 58

A 70-year-old female presents to your office after a minor fall in her home and asks you for advice to prevent falls in the future. Interventions that have been shown to prevent falls in the elderly population include which of the following? (Mark all that are true.)

- 1) Vitamin D supplementation
- 2) Home safety assessment
- 3) Strength and balance training
- 4) Hip protectors
- 5) Medication reviews

Question 58

Fall Prevention

STRENGTH OF RECOMMENDATIONS

Key clinical recommendation	Label	References	Comments
Home hazard assessment and modification is recommended for patients with a history of falls.	A	13	RRR 0.66 (95 percent CI, 0.54 to 0.81), NNT = 5 for prevention of falls
Exercise and physical therapy are recommended to prevent falls and injury from falls.	A	13, 14	RRR 0.86 (95 percent CI, 0.75 to 0.99), NNT = 16 for prevention of falls; RRR 0.67 (95 percent CI, 0.51 to 0.89), NNT = 9 for reduction in number of falls resulting in injury
Patients should receive a multifactorial risk assessment and intervention because it is the most consistently effective strategy to prevent falls.	A	13, 14	RRR 0.82 (95 percent CI, 0.72 to 0.94), NNT = 11 for prevention of falls
Evaluation of medications and withdrawal of medications that increase the risk of falling is recommended.	B	13, 17	RRR 0.61 (95 percent CI, 0.32 to 1.15), NNT = 7 for prevention of falls; risk reduction not statistically significant
Dual-chamber pacemaker placement is recommended for selected patients with carotid sinus syndrome and syncope.	B	13, 18	RRR 0.48 (95 percent CI, 0.32 to 0.73), NNT = 4 for prevention of syncope
Hip protectors are recommended for patients at high risk of falling in an institutional setting.	B	19	
Patients with a history of falls or with risk factors for falling should undergo a formal evaluation.	C	7	

RRR = relative risk reduction; CI = confidence interval; NNT = number needed to treat.

A = consistent, good-quality patient-oriented evidence; B = inconsistent or limited-quality patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, opinion, or case series. For information about the SORT evidence rating system, see page 15 or <http://www.aafp.org/afpsort.xml>.

Question 58

Fall Prevention

- Reference article is from 2005
- Since then, Vitamin D supplementation has been shown to reduce the risk of falls (and fractures) in several studies, esp when low at baseline
 - Several systematic reviews in 2009-2010
 - Journal of American Geriatric Society, 2010
 - Annals of Internal Medicine, 2010
 - Cochrane Database, 2009
- Vitamin D supplementation
- Home safety assessment
- Strength and balance training
- Hip protectors
- Medication reviews

Question 59

True statements regarding screening for intimate partner (domestic) violence (IPV) include which of the following? (Mark all that are true.)

- 1) Brief validated screening tools that reliably detect IPV have been developed for use in primary care settings
- 2) All women should be screened for IPV as part of premarital counseling
- 3) The U.S. Preventive Services Task Force (USPSTF) recommends screening for IPV
- 4) The USPSTF recommends counseling adolescents in new intimate relationships about IPV
- 5) Trauma inconsistent with the history of injury is an indication of potential IPV
- 6) Patients of both sexes who have experienced IPV are at increased risk for depression

Question 59

Domestic Violence

- The USPSTF found insufficient evidence to recommend for or against 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.
 - Grade: I recommendation.
- AHRQ:
 - Screening and interventions for child abuse are directed to parents during prenatal and postpartum periods. Several brief screening instruments have been tested for women, but interventions are lacking. Few instruments and no interventions were identified for elderly adults.

Question 59

	Reference number				
	McCauley et al ¹	Campbell et al ²	Coker et al ³	Leserman et al ⁴	Plichta ⁵
Symptoms					
General health lower or number of symptoms higher than average	S	S	S	S	S
Digestive problems: diarrhoea, spastic colon, constipation, nausea	S	S	S	NM	NM
Loss of appetite, eating binges, making self vomit	S	S	NM	NS	NM
Abdominal pain, stomach pain	S	S	NM	NM	NM
UTI: bladder/kidney infection, pain, problems with urination	S	S	S	NS	S
Vaginal infection: discharge, itching	S	S	NM	S	NM
Sexually transmitted disease	NM	S	S	NM	NM
AIDS or HIV-1	NM	NS	NM	NM	NM
Vaginal bleeding, severe menstrual problems, dysmenorrhoea	NM	S	NM	NM	NM
Pelvic pain, genital area pain	S	S	S	S	NM
Fibroids or hysterectomy	NM	NS	S	NM	NM
Painful intercourse, sexual dysfunction	NM	S	S	S	NM
Headaches, migraines	S	S	S	S	S
Fainting, passing out	S	NS	NM	S	S
Seizures, convulsions	NM	NS	S	NM	NM
Back pain, chronic neck pain	NS	S	S	S	S
Influenza or cold, stuffy or runny nose	NM	NS	NM	S	NM
Hypertension	NM	NS	S	NM	NM

Table design by J Dienemann (reference 23). NM=not measured in study, S=significant (p<0.05) or relative risk=1.0 or higher, NS=not significant, UTI=urinary tract infection.

Campbell JC: Health consequences of intimate partner violence. *Lancet* 2002;359(9314):1331-1336.

Question 59

- Also from the Lancet article:
 - *Depression and post-traumatic stress disorder, which have substantial comorbidity, are the most prevalent mental-health sequelae of intimate partner violence.*

Campbell JC: Health consequences of intimate partner violence. *Lancet* 2002;359(9314):1331-1336.

Question 60

For which of the following women is a Papanicolaou (Pap) test indicated?
(Mark all that are true.)

- 1) A 20-year-old who has never been sexually active
- 2) A 25-year-old who has never been sexually active
- 3) A 32-year-old whose last Pap test 3 years ago was normal
- 4) A 54-year-old who had a hysterectomy at age 45 for uterine fibroids
- 5) A 64-year-old whose last Pap test 4 years ago was normal
- 6) A 72-year-old who has had three normal Pap tests within the past 10 years

Question 60

Cervical Cancer Screening

- The USPSTF strongly recommends screening for cervical cancer in women who have been sexually active and have a cervix.
Grade: A Recommendation
 - Data on natural history of HPV infection and the incidence of high-grade lesions and cervical cancer suggest that screening can safely be delayed until 3 years after onset of sexual activity or until age 21, whichever comes first
- The USPSTF recommends against routinely screening women older than age 65 for cervical cancer if they have had adequate recent screening with normal Pap smears and are not otherwise at high risk for cervical cancer
Grade: D Recommendation
 - Screening is recommended in older women who have not been previously screened, when information about previous screening is unavailable, or when screening is unlikely to have occurred in the past (e.g., among women from countries without screening programs)

Question 60

Cervical Cancer Screening

- The USPSTF recommends against routine Pap smear screening in women who have had a total hysterectomy for benign disease.
Grade: D Recommendation
- The USPSTF concludes that the evidence is insufficient to recommend for or against the routine use of new technologies to screen for cervical cancer.
Grade: I Statement
- The USPSTF concludes that the evidence is insufficient to recommend for or against the routine use of *human papillomavirus* (HPV) testing as a primary screening test for cervical cancer.
Grade: I recommendation

THE END!