

Self-Assessment in Family Practice

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This section of the Journal is designed to present clinical problems which focus on patient management, problem solving, and other elements integral to family medicine. The intent of this section is aimed more at teaching and learning than self-assessment as an evaluation or scoring device. Reinforcement of major teaching points is therefore included through the further discussion and supplemental references which appear on the following pages. Critical comments relating to these self-assessment materials are invited and should be submitted as Letters to the Editor.

Questions 1 through 6 contain five possible answers. Select the one best answer (A, B, C, D, or E).

The Jones family has recently moved into your town. Mrs. Jones has scheduled a visit to the family physician's office to become acquainted and to arrange for continuity of the family's health care. The father is a 37-year-old executive, the mother is a pregnant 32-year-old housewife. They have three healthy children, aged eight, four, and one years. They have read articles in magazines and newspapers about health maintenance concepts and some of their questions relate to the following.

1. Primary prevention of coronary heart disease (CHD) is most effective through early intervention in

which of the following risk factors?

- A. Obesity, cholesterol, smoking
- B. Type A behavior, smoking, hypertension
- C. Cigarette smoking, cholesterol, hypertension
- D. Smoking, diabetes, sedentary living
- E. Cholesterol, smoking, diabetes

2. In asymptomatic women with normal Pap smears in the past, a reasonable frequency for repeat Pap screening is how often?

- A. Every six months
- B. Every year
- C. Every two years
- D. Every five years
- E. Only when symptoms develop

3. In adults without identified risks, which one of the following screening tests has been found to be of definite value in disease detection resulting in reduced mortality within asymptomatic populations?

- A. Multichannel blood tests (ie, SMA-12)
- B. Chest x-ray examinations
- C. Hematocrit
- D. Pap smear
- E. Electrocardiogram

4. Which of the following represents the most useful screening procedure for detection of colon cancer after the age of 40 years?

- A. Digital rectal examination
- B. Examination of feces for occult blood
- C. Barium enema x-ray examination
- D. Proctosigmoidoscopy
- E. Colonoscopy

5. Presuming the initial series of immunizations and boosters were given in childhood, which one of the following boosters should be given regularly thereafter?

- A. Tetanus-diphtheria
- B. Measles
- C. Rubella
- D. Polio
- E. Pertussis

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Answers and Discussion

1. C. Cigarette smoking, elevated blood pressure, elevated blood lipid levels, and the presence of diabetes are personal traits associated with an increased *risk* of arteriosclerotic cardiovascular disease. Correction of hyperglycemia, obesity, and lack of exercise certainly improves the state of health, but are less directly related to prevention of CHD than early intervention in the factors of smoking, hypertension, and elevated cholesterol.¹

2. C. There have been obvious differences of opinion between the Canadian recommendations² and those of the American College of Obstetricians and Gynecologists. While unable to agree precisely on the frequency of Pap cervical cancer screening examinations, a National Institutes of Health (NIH) consensus development conference panel has recommended rescreening "at regular intervals of one to three years" in the presence of previously normal Pap reports.³ Based on cost effectiveness as well as epidemiological data, Frame makes a good case for screening every other year for the asymptomatic woman following normal Pap reports.⁴ More frequent intervals are appropriate in individuals who are identified as being at higher than average risk of development of cervical cancer.

3. D. Pap smear screening for cervical cancer is valuable in detecting the disease in its asymptomatic period, thereby aiding in the reduction of invasive cancer, with its incidence of 15.6 per 100,000 women.⁴ Except for heavy smokers and other high risk groups, the routine chest x-ray examination can no longer be justified as having value as a screening procedure. In

one large study, 90 percent of new lung cancers were symptomatic prior to the onset of radiographic changes.^{5,6-9} The electrocardiogram is not a sensitive test which is useful for detecting ischemic heart disease. Studies have failed to show that multichannel blood tests or hematocrits provide any beneficial effects when used as screening instruments on general populations, but these studies do point out the presence of large numbers of false positive results.¹⁰

4. B. Hemocult occult blood testing of fecal specimens provides a simple, cost effective screen for detection of colon cancer from a wider anatomic area than sigmoidoscopy alone.^{8,11} Digital examination will reveal no more than 13 percent of colon and rectal carcinomas. Barium enema x-ray examinations and colonoscopy are costly and useful chiefly as specific diagnostic tools if screening is positive or the patient is symptomatic.

5. A. Current recommendations are that diphtheria, tetanus, and pertussis vaccine (DTP) and trivalent oral polio vaccine (TOPV) be given at two and four months of age, followed at six months by DTP. TOPV is optional at six months in those areas at risk of importation. At twelve months a tuberculin test is administered, and at fifteen months, measles, mumps, and rubella immunizations are given. DTP and TOPV are repeated at eighteen months and again prior to school entry at four to six years of age. Every ten years thereafter one should repeat tetanus-diphtheria toxoids (Td, indicating the reduced diphtheria toxoid component in the adult vaccine). Boosters for polio, pertussis, mumps, measles, and ru-

bella are not needed if the initial series and boosters have been received. If the full immunization schedule has not been completed, current recommendations from the Center for Disease Control should be reviewed.^{12,13}

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