

Self-Assessment in Family Practice

Series Editor: Robert B. Taylor, MD

Compiled by Elizabeth B. Philp, MB, ChB, Assistant Professor and Director, Student Health Service, Bowman Gray School of Medicine, Winston-Salem, North Carolina.

This section of the Journal is designed to present clinical problems that 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 that 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 1-5 each contain four suggested answers of which one or more is correct. Choose answer:

- A. if 1, 2, and 3 only are correct
- B. if 1 and 3 only are correct
- C. if 2 and 4 only are correct
- D. if 4 only is correct
- E. if all are correct

Ms. N.B. is a 52-year-old white woman who presents to the office with a two-week history of cold symptoms and a cough productive of clear sputum with what she thinks might be some streaking with blood. She has also developed severe sharp pain in the left anterior chest during the past seven days. She admits to smoking two packs of cigarettes per day since she was a teenager. She verbalizes her fears by telling you that a 46-year-old male cousin died recently, five months after being diagnosed as having a lung cancer.

1. Which of the following are true of smoking and the correlation with lung cancer?
 1. The death rate for cancer of the respiratory system for all ages, races, and sexes is increasing.
 2. Cigarette smoking is implicated in over 75 percent of all lung cancer deaths.
 3. The number of adult smokers

- (male and female) is decreasing.
4. The number of teenage smokers is increasing.
2. During the decade 1970 to 1980, mortality rates in the United States increased for which of the following diseases?
 1. Heart disease
 2. Cirrhosis of the liver
 3. Stroke
 4. Cancer of the respiratory system

Ms. B.'s chest x-ray film shows a left hilar lesion, and she is hospitalized for investigation. Her final diagnosis is oat-cell carcinoma of the lung. Ms. B.'s 22-year-old pregnant daughter comes to see you. She herself smokes one pack of cigarettes per day and wishes further information about the effect of smoking on herself and her unborn baby.

3. Your counseling would include which of the following statements?
 1. Cancer of the lung is hereditary.
 2. Pregnant women who smoke have smaller babies and an increased risk of abruptio placentae, placenta previa, and antepartum hemorrhage.
 3. Children whose mothers smoke, and therefore are passive inhalers of cigarette smoke, do not have an increased likelihood of bronchitis, pneumonia, and other respiratory tract disease.

4. Sudden infant death syndrome (SIDS) is more common among the offspring of smoking mothers.
4. Previously heavy smokers who stop smoking have improved mortality rates from which of the following?
 1. Coronary heart disease
 2. Bronchitis
 3. Cancer of the lung
 4. Emphysema
5. Cigarette smokers become habituated to the ritual of smoking and addicted to nicotine. A nicotine chewing gum is available in some other countries and is currently under investigation in the United States. This gum may help alleviate withdrawal symptoms. Which statements about this gum are true?
 1. Users of nicotine-containing gum have less severe withdrawal symptoms.
 2. Users of nicotine gum may experience indigestion and epigastric pain.
 3. People with a high nicotine intake (from tobacco use) use larger quantities of nicotine-containing gum when they stop smoking than people with lower nicotine intake.
 4. Smoking cessation is twice as likely to be successful in people using nicotine gum than in those who do not.

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Answers and Discussion

1. A. Choices 1, 2, and 3 are correct. Response number 4 is incorrect. Cancer of the lung continues to show a steady increase in both sexes. The American Cancer Society estimates that cigarette smoking is responsible for 83 percent of lung cancer cases among men and 43 percent among women—more than 75 percent overall. Although the number of adult male and female smokers is decreasing, the proportion smoking 25 or more cigarettes per day has increased for both sexes.¹ The number of teenage smokers has been declining since 1979.²

2. D. Mortality rates for heart disease decreased by approximately 17 percent, stroke by 27 percent, and cirrhosis by 11 percent during the 1970s. By contrast, mortality rates for cancer of the respiratory system rose approximately 16 percent and are still increasing. The 1970s was the first decade in which mortality rates from cirrhosis decreased following a long period of increasing rates.³

3. C. Choices 2 and 4 are correct. Passive smoking by adults or children can be harmful and studies have shown midexpiratory flow rates in children decrease proportionately to the extent of smoking in the household.⁴ There is no apparent hereditary factor in lung cancer, but the offspring of smokers are more likely to become smokers and thus increase their risk of developing lung cancer.³ The Ontario Perinatal Mortality

study has shown a strong association between maternal smoking and low birthweight, gestational and placental complications, and increased perinatal mortality.⁵ There is an increased incidence of SIDS in infants of mothers who smoke during pregnancy and in infants who are passively exposed to cigarette smoke.⁶

4. B. A recently published study has demonstrated the reversal of certain disease processes in ex-smokers. A study population of 1,445 male smokers was divided into two groups, the intervention group received antismoking advice, and the normal-care group received none. Over the subsequent 10 years the intervention group had an average reduction in cigarette consumption of 53 percent. This group also decreased mortality from coronary heart disease by 18 percent and from lung cancer by 23 percent. Deaths from bronchitis and emphysema were too few to assess in this study, but the intervention group did experience less nasal obstruction, cough, dyspnea, and loss of ventilatory function. This study concluded that health providers should encourage people to stop smoking.⁷

5. E. All answers are correct. Withdrawal symptoms cause a distinct syndrome of restlessness, nervousness, agitation, and depression, all of which are relieved by oral administration of nicotine. Specific side effects of chewing nicotine-containing gum are hic-

cups, indigestion, epigastric pain, and nausea. The gum is slightly unpleasant tasting. It is of interest that the amount of nicotine-containing gum chewed correlates significantly with pretreatment blood nicotine concentrations, suggesting that the gum is fulfilling a true pharmacologic role.⁸

References

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