

CHAPTER 1

Care Continuum

A. HEALTH PROMOTION AND DISEASE PREVENTION

- 1. A research study focuses on smoking cessation among a specific target population. This group's research is focusing on _____ prevention.**
 - A. Primary
 - B. Secondary
 - C. Tertiary
 - D. Integrated
- 2. You educate Miss Smith about the prevention of cervical cancer and risk-reducing behaviors. Which of the following is a primary preventive strategy?**
 - A. Use barrier contraceptives.
 - B. Exercise regularly.
 - C. Have a Pap test at appropriate intervals.
 - D. Have human papillomavirus (HPV) testing.
- 3. Which of the following lifestyle factors is the *most important* risk factor of oral cancer?**
 - A. Poor oral hygiene
 - B. Habitual use of alcohol and tobacco
 - C. Vitamin A deficiency
 - D. Human papillomavirus (HPV)
- 4. After her father's death from colon cancer, Ellen takes the initiative in preventing colon cancer for herself by eating less fat and more fruits and vegetables and by taking up running. She is engaged in:**
 - A. Illness behavior
 - B. High-risk behavior
 - C. Health-protective behavior
 - D. Information-seeking behavior
- 5. Which of the following *best* describes primary prevention of skin cancers?**
 - A. Removal of a dysplastic nevi
 - B. Reduce ultraviolet radiation (UVR) exposure between 10 a.m. and 3 p.m. and use sunscreens.
 - C. Annual professional skin examination
 - D. Practice monthly skin self-examination
- 6. Which of the following statements regarding environmental tobacco smoke or involuntary inhalation of tobacco smoke is *accurate*?**
 - A. Environmental tobacco smoke is estimated to lead to 1,000 deaths of nonsmokers from lung cancer per year.
 - B. There is no evidence to support the idea that involuntary inhalation of tobacco smoke increases the risk of lung cancer in nonsmokers.
 - C. Secondhand smoke does not pose an elevated risk of lung cancer for smokers.
 - D. There is a 25% increased risk of lung cancer in women who have never smoked and are married to a smoker.

7. **According to research, which of the following statements *best* describes the breast health of African American women of lower socioeconomic status (SES) compared to age-adjusted Caucasian women?**
- A. Breast cancer outcomes in minority women with a lower SES are worse than those women with a higher SES.
 - B. Premature deaths from breast cancer in African American women are similar to premature deaths from breast cancer in non-Hispanic white women.
 - C. Survival of breast cancer was improved with higher SES for members of all racial and ethnic groups.
 - D. African American women are more commonly diagnosed with triple-negative breast cancer.
8. **Which of the following scenarios represents secondary prevention of cancer?**
- A. A woman at high risk for breast cancer decides to have prophylactic bilateral mastectomies.
 - B. Referral of women for cervical Pap tests
 - C. The Great American Smokeout is promoted to a group of individuals who want to stop smoking.
 - D. Celecoxib is prescribed for a patient with familial adenomatous polyposis for the reduction of colorectal adenomas.
9. **Physical activity is one of the few known modifiable lifestyle factors for the development of cancer, and increased exercise plays a key role in primary prevention against which of the following cancers?**
- A. Colon, breast, endometrial
 - B. Colon, breast, ovarian
 - C. Prostate, kidney, colon
 - D. Pancreatic, endometrial, ovarian
10. **Moderate to heavy alcohol intake has been linked to which of the following cancers?**
- A. Prostate, renal, stomach
 - B. Oral cavity, liver, prostate
 - C. Stomach, ovarian, esophagus
 - D. Breast, colorectal, esophagus
11. **Ms. Jones recently read a report from the World Cancer Research Fund and the American Institute for Cancer Research (WCRF/AICR) that made recommendations to decrease cancer risk. She has decided to modify her lifestyle and follow their recommendations. Which of the following is a recommendation by the WCRF/AICR?**
- A. Use supplements to protect against cancer.
 - B. Increase the consumption of energy-dense foods.
 - C. Eat a healthy diet and be physically active for at least 30 minutes/day.
 - D. Consume 50% of energy from fat and avoid sugary drinks.
12. **The *most important* factors that appear to have a protective effect against the development of endometrial cancer are:**
- A. Pregnancy, physical activity, weight management
 - B. Physical activity, nulliparous, weight management
 - C. Oral contraceptives, cigarette smoking, pregnancy
 - D. Nulliparous, oral contraceptives, weight management
13. **Which of the following is the *most successful* approach to smoking cessation in adults?**
- A. Smoking cessation interventions using nicotine patches and gum
 - B. Smoking cessation programs using multiple recruitment strategies
 - C. Increased excise taxes for tobacco products, smoke free laws, and local cessation and abstinence programs
 - D. Smoking cessation programs that provide psychosocial support and life management skills

14. **The Breast Cancer Prevention Trial tested the ability of which of the following to prevent breast cancer in healthy women at high risk for the disease?**
- A. Raloxifene
 - B. Retinoic acid
 - C. Tamoxifen
 - D. Beta-carotene
15. **Mr. Smith, a heavy smoker, wants to quit and asks you if vaping with e-cigarettes will help him quit smoking cigarettes. The *best* response to his question is:**
- A. Vaping with e-cigarettes is a good reduction tool.
 - B. Toxic substances in e-cigarettes vapor are lower than conventional cigarettes so vaping may be safe for smoking reduction.
 - C. Manufacturers state that e-cigarettes decreased smoking-related symptoms and was more efficacious than nicotine gum.
 - D. Research is needed to determine health hazards of e-cigarettes and efficacy in smoking reduction and cessation.
16. **Epidemiology studies have provided compelling evidence that obesity is associated with increased risks of:**
- A. Colon, endometrial, esophageal cancer
 - B. Thyroid, ovarian, gallbladder cancer
 - C. Hepatocellular, gallbladder, cervical cancer
 - D. Prostate, stomach, kidney cancer
17. **Successes in the immunologic approaches to cancer prevention involve vaccines that prevent cancer. Which of the following cancer-causing viruses have vaccines available for prevention?**
- A. Human papillomavirus (HPV) (type 16), *Helicobacter pylori*
 - B. Hepatitis B, hepatitis C
 - C. Hepatitis B, HPV (type 16 and 18)
 - D. HPV (type 16 and 18), *Helicobacter pylori*
18. **Once the elements of a cancer risk assessment are collected (e.g., personal medical history, history of exposures to carcinogens, family history) the risk must be interpreted to the individual in understandable terms. This is often accomplished by using various risk terms. Which of the following terms is *accurate*?**
- A. Absolute risk measures the occurrence of cancer (incidence or mortality) in a high-risk population.
 - B. Relative risk measures the incidence or deaths among those with a particular risk factor.
 - C. Attributable risk is the amount of disease within the population that could be prevented by alteration of a risk factor.
 - D. Proportional risk factor implicates which disease an individual will eventually develop.
19. **Chemoprevention focuses on individuals or subpopulations known to be at increased risk for developing a malignancy. Which of the following *best* describes chemoprevention?**
- A. Chemoprevention is the use of natural or synthetic agents to interrupt the carcinogenic process.
 - B. Chemoprevention is the use of manufactured pills.
 - C. Chemopreventive agents include food components ingested as part of a regular diet.
 - D. Chemopreventive agents are not derived from food compounds or supplements.
20. **Most chemopreventive agents are administered through a clinical trial. Which of the following individuals *most likely* would be considered for a chemoprevention trial?**
- A. An individual who has smoked for 10 years
 - B. A 40-year-old female with dense breasts
 - C. A 55-year-old black male whose father died of prostate cancer
 - D. A 63-year-old woman who has a history of benign breast disease

21. **Your patient, Mrs. Smith, who has ovarian cancer and a *BRCA1* gene mutation, asks you if her 35-year-old daughter should have risk-reduction surgery to prevent her from developing ovarian cancer. Your *best* advice to her is which of the following?**
- A. For your daughter to fully understand her risk, she should go through a formal risk assessment and see a genetic health professional before she makes any decision.
 - B. She is at risk for ovarian cancer, and it would be worthwhile for her to consider a prophylactic oophorectomy.
 - C. Your daughter should be followed closely, and she may want to talk to her physician about oral contraceptives to suppress ovulation.
 - D. Since she is asymptomatic, she should have a yearly physical examination that includes a bimanual rectovaginal examination and discuss tubal ligation with her physician.
22. **Which statement is the *best* reason to recommend risk-reduction bilateral mastectomy for a woman with high genetic risk of breast cancer?**
- A. Removal of the breasts before cancer detection lowers risk by 90%.
 - B. Removal of the breasts before cancer detection lowers risk by 80%.
 - C. Removal of the breasts will decrease the risk of ovarian cancer.
 - D. Removal of the breasts will decrease the risk of both ovarian and breast cancer.
23. **The American Cancer Society recommends that all women who are sexually active or who are 21 years of age or older have a Pap smear performed:**
- A. Every 3 years with a conventional or liquid-based Pap test
 - B. Every 2 years with a regular Pap test
 - C. Biannually
 - D. Annually with a regular Pap test
24. **Colorectal surveillance recommendations for carriers of hereditary nonpolyposis colon cancer-associated mutations (Lynch syndrome) include which of the following?**
- A. Colonoscopy beginning at age 40; repeat every 2 years
 - B. Upper gastrointestinal (GI) endoscopy at age 50 every 3–5 years
 - C. Colonoscopy beginning at ages 20–25; repeat every 1–2 years
 - D. Screening for gastric, duodenal, and small bowel cancer
25. **The *most significant* reduction in prostate cancer risk is in:**
- A. Men who take nutritional supplements of selenium and vitamin E
 - B. Men who take finasteride
 - C. Men who have an annual digital rectal examination
 - D. Men who have a high dietary intake of antioxidants
26. **The most important risk-reduction behavior for the prevention of cervical cancer is:**
- A. Limit the number of lifetime sexual partners
 - B. Regular Pap smear testing
 - C. Take oral contraceptives
 - D. Annual human papillomavirus (HPV) testing

B. SCREENING AND EARLY DETECTION

27. **Which of the following statements is *accurate* regarding prostate-specific antigen (PSA)?**
- A. PSA screening for prostate cancer is controversial.
 - B. All men with prostate cancer secrete PSA.
 - C. PSA is the primary screening method for prostate cancer.
 - D. A PSA greater than 2 ng/ml is the threshold for performing biopsies to diagnose prostate cancer.

28. **The most widely used screening programs have been for the early detection of:**
- A. Breast and cervical cancer
 - B. Breast and colon cancer
 - C. Colon and cervical cancer
 - D. Breast and prostate cancer
29. **Nurses must communicate to patients about the accuracy of screening tests. Which of the following attributes is correct?**
- A. The *sensitivity* of a screening test is its ability to detect those individuals without cancer.
 - B. The *specificity* of a screening test is its ability to identify those individuals without cancer.
 - C. A *true-positive test* is a normal test for cancer in an individual who does not have cancer.
 - D. A *false-negative test* is a normal test in an individual who does not have cancer.
30. **Which of the following tests is recommended by the American Cancer Society to screen for polyps and colorectal cancer in asymptomatic individuals ages 50 and above?**
- A. Flexible sigmoidoscopy every 2 years
 - B. Digital rectal examination
 - C. Colonoscopy every 10 years
 - D. Double-contrast barium enema every 10 years
31. **You are providing a community education program on cancer prevention when a participant asks what is cancer screening and is it important if you are healthy and have no problems. Your most appropriate response is:**
- A. Screening for genetic abnormalities that put individuals at high-risk for developing cancer is a form of cancer screening.
 - B. Cancer must be measurable and detectable to be detected on a screening examination.
 - C. Cancer screening is aimed at individuals with no symptoms with the goal of finding disease when it is more easily treated.
 - D. Screening tests seek to decrease both the morbidity and mortality associated with cancer.
32. **The single most important factor in whether an individual has ever had a screening test is:**
- A. Recommendation by a nurse
 - B. Recommendation by a family member
 - C. Recommendation by a friend who has cancer
 - D. Recommendation by their insurance provider
33. **Which of the following models has been developed for use in women with a risk for developing breast cancer?**
- A. Couch
 - B. Bethesda
 - C. Gail
 - D. Family History Assessment Tool
34. **Which of the following statements is most accurate regarding the cancer screening process?**
- A. The first step in the cancer screening process is the risk assessment.
 - B. A review of past and present medical history
 - C. A risk factor does not mean that a person will develop cancer.
 - D. Provide a risk assessment tool for the patient.

35. **Research has shown that providing patients with an individualized risk estimate, as opposed to providing general information about risk, significantly increased the probability that those individuals would participate in a screening program. It is best to explain to patients which of the following?**
- A. The predictive value of their chance for developing cancer
 - B. Their absolute and relative risk of developing cancer
 - C. A model that predicts their risk of developing cancer
 - D. Their genetic risk is what is most important.
36. **A nurse asks you which risk model should be used to calculate a patient's risk of having a cancer susceptibility mutation for colorectal cancer.**
- A. Gail
 - B. Tyrer-Cuzick
 - C. PREMM
 - D. Claus
37. **Which of the following modalities is used to screen for lung cancer?**
- A. Chest x-ray
 - B. Low-dose computed tomography
 - C. Sputum cytology
 - D. Magnetic resonance imaging (MRI) of the chest
38. **One of the early signs of ovarian cancer is:**
- A. Frequent urinary tract infections
 - B. Thin, bloody vaginal discharge
 - C. Heavy and painful menstruation
 - D. Bloating
39. **Physical recognition of cutaneous melanoma (CM) by practitioners can be initiated by using the ABCDE rule. In this rule, C stands for:**
- A. Change in symmetry
 - B. Crusting or bleeding
 - C. Color irregularity
 - D. Cause
40. **Which of the following statements about dysplastic nevi (DN) is correct?**
- A. DN occurs in approximately 40% of the general population.
 - B. DNs are easy to identify on physical examination.
 - C. The total number of DNs is an indicator of risk for developing malignant melanoma.
 - D. DNs develop in young adults and especially in those with sunburns as a child.
41. **One way that basal cell carcinoma (BCC) is distinguished from squamous cell carcinoma (SCC) is by its:**
- A. Common occurrence on the head and hands
 - B. Lower incidence
 - C. Less well-demarcated margins
 - D. Slower growth rate
42. **Which of the following is the most likely presenting symptom in a patient with Hodgkin lymphoma?**
- A. Edema in the upper part of the body
 - B. Enlarged cervical lymph nodes
 - C. A palpable mass in the axillary or inguinal lymph nodes
 - D. An upper respiratory infection

43. **Ms. Allison notices a “funny discoloration” on her arm and comes in for an examination. She tells you that her brother died at age 38 from a common skin cancer. Based on this information, you should be suspicious for:**
- A. Squamous cell carcinoma (SCC)
 - B. Basal cell carcinoma (BCC)
 - C. Melanoma
 - D. Leukoplakia
44. **Mr. Eliot, 64 and a smoker for 17 years, has an undifferentiated neoplasm arising in the proximal right bronchus. Which symptom *most typically* reflects this?**
- A. Barrel chest
 - B. Bulges on the thorax
 - C. Breathlessness
 - D. Superior vena cava obstruction
45. **Mrs. Smith is pregnant and discovers a mass in the upper outer quadrant of her left breast. Following her physical exam, the physician is *most likely* to order which of the following tests?**
- A. Ultrasound
 - B. Fine-needle aspiration
 - C. Mammogram (diagnostic)
 - D. Positron emission tomography (PET) scan
46. **Mrs. Blase presents with a continuous sore throat, and increased difficulty chewing and swallowing. These symptoms are possibly an indication of which type of cancer?**
- A. Cancer of the larynx
 - B. Esophageal cancer
 - C. Cancer of the oral cavity
 - D. Cancer of the salivary gland
47. **The *most common* presenting symptom of testicular cancer is:**
- A. A small, hard mass in the testis
 - B. A dragging sensation
 - C. Swelling
 - D. Dull aching or pain in the scrotal area
48. **Early detection of stomach cancer is difficult because:**
- A. Symptoms appear in advanced disease.
 - B. People tend to self-medicate themselves for gastrointestinal distress.
 - C. Risk factors for the disease have not yet been identified.
 - D. None of the diagnostic tests or procedures currently available accurately detect gastric cancer in its early stages.

C. NAVIGATION

49. **The primary purpose of patient navigator programs is:**
- A. To determine the economic costs of cancer disparities
 - B. To provide personal assistance in eliminating any barriers to patients obtaining timely and adequate diagnosis and treatment
 - C. To identify trusted information sources or channels in the community
 - D. To monitor treatment equity according to established standards of care to diminish bias in the provision of health care

50. **Dr. Harold Freeman, a pioneer in patient navigation, identified health disparities for which of the following groups?**
- A. Racial/ethnic minorities, those with low socioeconomic status, and rural populations
 - B. The “working poor,” and medically underserved populations
 - C. Those with low socioeconomic status, working poor, and rural populations
 - D. Those with Medicaid or no insurance
51. **The best description of a lay navigator is:**
- A. Individuals who are employed by hospitals to help patients navigate the healthcare system
 - B. Individuals who help identify spiritual and logistical needs for patients as they navigate the healthcare system
 - C. Individuals in the community that help patients navigate the healthcare system and identify barriers to care and resources
 - D. Individuals that are trained to help patients navigate the healthcare system
52. **Which of the following statements about patient navigation is *most* accurate?**
- A. Navigation is needed only prediagnosis.
 - B. Navigation can be provided by only healthcare professionals.
 - C. Navigators only focus on a specific time period such as screening to diagnosis or the treatment period.
 - D. Navigators provide individualized care to assist patients as they transition through the healthcare system.
53. **As a newly hired breast care navigator, your supervisor wants you to conduct a needs assessment. Your *best* source of statistics about screening mammography in the population you are striving to serve is:**
- A. Medicare and Medicaid data regarding the rate of compliance with annual screening mammography and demographic data such as geographic, economic status, and age groups
 - B. American Cancer Society statistics by zip code
 - C. Tumor registry data regarding numbers of women diagnosed with cancer, including age and stage at diagnosis
 - D. Breast health center data regarding the number of women screened annually
54. **On Jane’s follow-up visit to the breast health center after a diagnostic mammogram that reveals a suspicious mass, the surgeon tells her that he wants her to meet the patient navigator. The *best* explanation of the reason for the referral is:**
- A. Since you don’t have insurance, the navigator must tell you about the costs of further tests or procedures before we can continue your care.
 - B. We are planning surgery for next week and the navigator will explain the risks of surgery to you.
 - C. The navigator will help you schedule some additional tests and help with transportation and child-care if needed.
 - D. The navigator is bilingual and will explain everything to you in your first language.
55. **Measuring the success of breast care navigation can be challenging. The *most* useful metrics to measure success is:**
- A. Increasing the number and percent of women having screening mammography from the defined targeted geographic region
 - B. Decreasing the percentage of patients needing transportation
 - C. Increasing the number of health education/outreach programs about breast cancer and breast health
 - D. Increasing the number and percentage of patients having breast cancer treatment that meets the National Comprehensive Cancer Network (NCCN) treatment guidelines

56. A 48-year-old woman had a routine screening mammogram that revealed a spiculated mass on the upper outer quadrant of the left breast measuring 1.3 cm. She was scheduled to return for additional imaging and referred to the breast health navigator. The *most important* information to give the woman on the telephone is:
- A. Education about the purpose and importance of additional imaging
 - B. Preparing the patient for possible surgery
 - C. Encouraging the woman to bring someone with her to the appointment
 - D. Assessing the history of family breast cancer
57. The breast nurse navigator can identify opportunities to decrease patient anxiety and influence system efficiency by documenting *which* of the following?
- A. Time from biopsy to pathology results available
 - B. Time from biopsy results available to time patient notified
 - C. Time from patient notified to surgical consultation
 - D. Time from biopsy to surgical or medical intervention
58. A colleague asks you about what knowledge would she require to be a breast cancer navigator. Your reply is:
- A. Screening, detection, diagnosis, and treatment of breast cancer
 - B. Common barriers to care specific to your facility or region
 - C. Literacy level and language need of patients
 - D. Regulatory requirements of the breast cancer treatment clinical trial sponsors
59. Multiple barriers to breast cancer care have been identified. The navigator can assist patients in overcoming these barriers by *which* of the following?
- A. Referring the patient to the American Cancer Society
 - B. Completing an assessment of the resources and needs of the individual patient
 - C. Monitoring the progress of the patient through the healthcare system
 - D. Assigning a volunteer to meet the woman at every appointment

D. ADVANCE CARE PLANNING

60. Which of the following statements *best* describes advance care planning?
- A. Advance care planning is the process of discussion of end-of-life care at any time and revised periodically, clarification of related values and goals, and preferences through written documents and medical orders.
 - B. Advance care planning is the process of discussion of end-of-life care and life-sustaining treatments when the patient is terminally ill and preferences through oral and written documents.
 - C. Advance care planning involves conversations with a person's healthcare agent and primary clinician regarding end-of-life care.
 - D. Advance care planning involves conversations with a person's healthcare agent regarding end-of-life care and flexible decisions as health status changes.
61. Which of the following statements concerning advance directives (ADs) is *correct*?
- A. An AD is a legally binding contract.
 - B. An AD is a statement that provides very specific instructions regarding the preferences for life-sustaining treatments an individual would want to receive if unable to express their wishes at a future date.
 - C. ADs are required to include a living will.
 - D. An AD designates a proxy to make decisions for a terminally ill patient.

62. **Which is preferable—the durable power of attorney or the living will?**
- A. The living will is preferable because it states what kind of care an individual wants under specific conditions.
 - B. The durable power of attorney is preferable because it identifies the healthcare agent who will make medical decisions in case of patient incapacity.
 - C. The durable power of attorney is preferable because it covers not only decisions in a terminal situation but also any treatment decisions.
 - D. The durable power of attorney and the living will are both preferable. They are patient-initiated documents (advance directive).
63. **A patient makes some comments about a living will that leads you to conclude the patient needs more information. You know he understands what a living will is when he says it:**
- A. Specifies disbursement of assets
 - B. Addresses all possible medical situations
 - C. May not always be honored and implemented
 - D. Describes the specific types of care to be used
64. **Advance Care Planning (ACP) was a primary focus of the Institute of Medicine (IOM) report on “Dying in America: Improving Quality and Honoring Individual Preferences Near the End of Life.” Of the following recommendations, which is being followed infrequently?**
- A. Individuals participate actively in decisions regarding their health care.
 - B. Individuals receive medical services that are consistent with their known values.
 - C. Clinicians initiate conversations about ACP.
 - D. ACP is revisited according to patients' wishes and when status changes.

E. EPIDEMIOLOGY

65. **Eric is a member of a research team that conducts an epidemiologic study. They determine, in a given year, approximately 1 of every 12,000 American men has prostate cancer. This figure represents:**
- A. An incidence rate
 - B. A mortality rate
 - C. A prevalence rate
 - D. A survival rate
66. **The incidence of bladder cancer is *most common* in people with:**
- A. Exposure to aniline dyes and aromatic amines
 - B. Exposure to alkylating agents and phenacetin
 - C. Chronic irritation of the urothelial lining due to infections
 - D. A history of smoking and/or exposure to tobacco smoke
67. **The highest breast cancer incidence rates in the United States are found in:**
- A. Non-Hispanic white women
 - B. African American women
 - C. Women who are 80 years or older
 - D. Premenopausal women
68. **The *highest overall incidence of cancer* occurs among:**
- A. Young adult Asian American/Pacific Islanders
 - B. Native Americans and Alaska Natives
 - C. African American men
 - D. Hispanic/Latino

69. For cervical cancer, the average annual rate per 100,000 individuals is *highest* among which females?
- A. Hispanic/Latino
 - B. Non-Hispanic White
 - C. Native American
 - D. African American
70. There are two major histological types of esophageal cancer: squamous cell carcinoma (SCC) and adenocarcinoma (AC). In the United States, the *highest* incidence of AC of the esophagus is found among:
- A. Women aged 29–39 years
 - B. African Americans
 - C. Caucasians
 - D. Men aged 30–40 years
71. The *highest* incidence of cervical cancer occurs in women who are:
- A. 20–34 years of age
 - B. 35–54 years of age
 - C. 55–64 years of age
 - D. 70 and older
72. Which of the following is associated with the development of primary brain tumors?
- A. Inhaled steroids
 - B. Exposure to chemicals
 - C. Cellular telephones
 - D. Radiation to the head and neck area
73. Stomach cancer is the fourth-most-common cancer in the world. Which geographical locations have the *highest* incidence of stomach cancer?
- A. Japan, Korea, and China
 - B. Western Africa
 - C. Central and South America
 - D. North America
74. Race and ethnicity play a role in the risk of developing lung cancer. Which individuals are at *higher* risk of developing lung cancer?
- A. Caucasian Americans
 - B. African Americans and Native Hawaiians
 - C. Latinos
 - D. Japanese Americans
75. Viruses contribute to the development of cancers. Which of the following cancer sites are associated with viruses?
- A. Cervical cancer, T cell lymphoma, breast cancer
 - B. Burkitt's lymphoma, cervical cancer, lung cancer
 - C. Hepatocellular carcinoma (HCC), cervical cancer, Burkitt's lymphoma
 - D. Kaposi sarcoma, T cell lymphoma, pancreatic cancer
76. Which of the following has been associated with an increased incidence of lung cancer in women?
- A. Living near high-energy electromagnetic wires
 - B. Increased susceptibility to carcinogens and tobacco-related mutations
 - C. Exposure to chemicals used in hair dye
 - D. Hormone replacement therapy

77. Which of the following factors is associated with a *higher* incidence of ovarian cancer?
- A. Living in developing countries
 - B. Lower education and socioeconomic levels
 - C. The use of oral contraceptives
 - D. Family history of breast cancer
78. Prostate cancer is the most commonly diagnosed solid tumor in U.S. males and is the second-leading cause of cancer-related deaths. Which of the following statements *best* describes the racial and ethnic group with the highest mortality rate?
- A. African American males
 - B. Caucasian males
 - C. Asian American males
 - D. Hispanic/Latino males
79. Mr. Frank's cancer has been associated with occupational exposure to a carcinogen. He works as a chemical dye manufacturer. Of the following choices, which type of cancer is he *most likely* to have based on this clue?
- A. Bladder cancer
 - B. Colorectal cancer
 - C. Testicular cancer
 - D. Esophageal cancer
80. The leading cause of liver cancer throughout the world is:
- A. Hepatitis B virus
 - B. Hepatitis C virus
 - C. Chronic cirrhosis
 - D. Chronic hepatitis A virus
81. Which of the following variables appears to be the *best* descriptive determinant of cancer risk?
- A. The mortality rates for Japanese Americans with stomach cancer are significantly higher than for the white American population.
 - B. As more women smoke, more women are developing lung cancer.
 - C. A study of medical students found that 55 students who later developed cancer perceived themselves as more stressed than their healthy counterparts.
 - D. Familial aggregates of cancer have been found to occur.
82. Although the exact etiology of multiple myeloma is not known, certain factors increase the risk. Which of the following is the most recognized and *most common* risk factor for multiple myeloma?
- A. Obesity
 - B. High doses of ionizing radiation
 - C. Male gender
 - D. Monoclonal gammopathy of undetermined significance (MGUS)
83. A primary risk factor for breast cancer is:
- A. Age in the 30- to 45-year group
 - B. Family history of breast cancer
 - C. Two or more heterosexual relationships
 - D. Lower socioeconomic status
84. Which of the following statements regarding the *BRCA2* gene mutation is *true*?
- A. The *BRCA2* gene mutation is associated with postmenopausal breast cancer.
 - B. The *BRCA2* gene mutation is only associated with breast cancer.
 - C. The *BRCA2* gene mutation is genetically related to the *BRCA1* gene.
 - D. The *BRCA2* gene mutation is related to breast cancer in men.

85. **Hepatocellular carcinoma (HCC) is often associated with:**
- A. A long history of smoking
 - B. Obesity
 - C. Viral hepatitis B and C
 - D. A bacterial infection
86. **Which of the following is the *most common* risk factor associated with the development of cervical cancer?**
- A. Nulliparous
 - B. Human papillomavirus (HPV 16)
 - C. Human papillomavirus (HPV 35)
 - D. Smoking
87. **Gastric cancer is associated with numerous risk factors. Which of the following is the *strongest* risk factor for the development of stomach cancer?**
- A. Tobacco use
 - B. *Helicobacter pylori* infection
 - C. High intake of smoked or salted meats and fish
 - D. Alcohol consumption
88. **Which of the following are risk factors for vaginal carcinoma?**
- A. Human papillomavirus (HPV), genital warts, and cervical carcinoma in situ
 - B. HPV, human immunodeficiency virus (HIV), and maternal use of diethylstilbestrol (DES)
 - C. Cervical carcinoma in situ, HIV, and HPV
 - D. HIV, genital warts, and number of sex partners
89. **Although the cause has not been established, certain occupations increase an individual's risk of developing a glioma or a meningioma, including:**
- A. Exposure to wood dust
 - B. Exposure to synthetic rubber
 - C. Exposure to chemicals found in pesticides, herbicides, and fertilizers
 - D. Exposure to petrochemical manufacturing
90. **Which of the following statements regarding breast cancer risk is *accurate*?**
- A. Only 5%–10% of all breast cancers are due to tumor suppressor genes *BRCA1* and *BRCA2*.
 - B. Breast cancers linked to *BRCA1/BRCA2* mutations occur more often in older women.
 - C. A woman with a strong family history of breast cancer has a 10% chance that her cancer is caused by an inherited mutation in the *BRCA1/BRCA2* gene.
 - D. The number of second-degree relatives with breast cancer are not a significant risk factor for development of breast cancer.
91. **Which of the following are high-risk factors for cutaneous melanoma (CM)?**
- A. Skin pigmentation, ionizing radiation, congenital nevus
 - B. Skin pigmentation, actinic keratoses, dysplastic nevi
 - C. Dysplastic nevi, smoking, xeroderma pigmentosum
 - D. Oral contraceptives, actinic keratoses, smoking
92. **Which of the following statements regarding ovarian cancer risk in families is *most accurate*?**
- A. Women who have two or more first-degree relatives with a history of breast cancer have an increased risk for ovarian cancer.
 - B. The number of family members with ovarian cancer defines the individual's degree of risk.
 - C. Ovarian cancer is an autosomal dominant mode of inheritance with variable penetrance.
 - D. Ovarian cancer tends to be common among lower-income groups, especially African American, Hispanic, and Native American women.

93. What is the *most common* risk factor for non-Hodgkin lymphoma (NHL)?
- A. Family history of NHL or leukemia
 - B. Infections, such as human immunodeficiency virus (HIV), herpes, Epstein-Barr virus
 - C. Immune suppression
 - D. Exposure to pesticides, arsenic, rubber production
94. A patient asks, "What are tumor suppressor genes?" As part of your answer, you explain that tumor suppressor genes code for proteins that ____ growth-promoting factors.
- A. Enhance
 - B. Fuel
 - C. Inactivate
 - D. Duplicate
95. The *p53* gene is:
- A. A potent oncogene
 - B. The most frequently mutated gene in human cancer
 - C. The "guardian of the oncogene"
 - D. Protected from DNA viruses
96. Mr. Henderson's cancer is said to have been induced by familial carcinogenesis. From this, you can assume that in his case, certain genes:
- A. Caused cancer by functioning to excess
 - B. Caused cancer by their absence
 - C. Acted as growth promoters
 - D. Lost their ability to prevent malignant growth by their loss of homozygosity
97. The Ras oncogenes:
- A. Have a screening usefulness of about 45%
 - B. Function early in the process of carcinogenesis as signal transducers
 - C. Function late in the process of carcinogenesis
 - D. Are not effective as targets for early detection
98. Genes that predispose for the development of cancer are generally transmitted in an autosomal dominant fashion. Which of the following statements is *correct*?
- A. Individuals who harbor a mutated gene have a 25% chance of passing the mutated gene on to their children.
 - B. The pattern of transmission is usually vertical, meaning successive generations are affected.
 - C. Half of affected persons in a pedigree have an affected parent.
 - D. More females than males are affected.
99. Which of the following statements *best* describes the significance of the *BRCA1* gene?
- A. It is an inherited gene that identifies women who are ensured of having breast cancer during their premenopausal years.
 - B. It is an inherited gene mutation that identifies families at significant risk for breast cancer and ovarian cancer.
 - C. It is an inherited gene mutation that identifies women likely to have breast cancer in their postmenopausal years.
 - D. It is an inherited gene that is present in over 90% of women with breast cancer.
100. Approximately what percentage of people with cancer have an increased risk for cancer due to a hereditary predisposition?
- A. 5%–10%
 - B. 20%–25%
 - C. < 5%
 - D. > 25%

- 101. Which of the following statements regarding our understanding of the genetic susceptibility in breast cancer and ovarian cancer is correct?**
- A. The *BRCA1* gene mutation is associated with increased susceptibility to only ovarian cancer.
 - B. The *BRCA2* gene mutation is associated with an increased susceptibility to both breast and ovarian cancer.
 - C. One of the gene mutations is estimated to be present in approximately 35% of breast cancer cases.
 - D. The genes are associated with breast cancer diagnosed in post-menopausal women.
- 102. Which of the following statements regarding genetic susceptibility to colon cancer is correct?**
- A. Individuals who have a first-degree relative with colorectal cancer have triple the risk for developing colon cancer.
 - B. Adenomatous polyps are precursors to all gastrointestinal cancers.
 - C. An inheritable autosomal dominant trait is found in families with a moderate incidence of colon cancer.
 - D. Individuals who have familial adenomatous polyposis (FAP) syndrome are at a 100% risk for developing cancer of the colon.
- 103. Which of the following cancer-causing mutations is transmitted to the next generation at birth?**
- A. Oncogene mutations
 - B. Germ cell mutations
 - C. Somatic mutations
 - D. Antioncogene mutations
- 104. During follow-up counseling for your 47-year-old patient with hereditary breast cancer, you mention that she should consider genetic counseling even though her cancer is not due to *BRCA1* or *BRCA2*. To clear up her confusion, you explain which of the following?**
- A. Women younger than age 50 with hereditary breast cancer have a significant risk of developing contralateral breast cancer in the next 20 years.
 - B. It is just precautionary to ensure she does not develop cancer that is due to *BRCA1* or *BRCA2*.
 - C. Counseling would help her decide whether or not she is a candidate for adjuvant chemotherapy.
 - D. Counseling would help her decide whether or not she is a candidate for prophylactic oophorectomy.

F. SURVIVORSHIP

- 105. Demographic trends show that the number of cancer survivors continues to increase due to:**
- A. Aging population and improvement in cancer detection
 - B. Aging population and improvement in cancer detection and treatment
 - C. Aging population and increased number of breast cancer survivors
 - D. Aging populations and increased number of breast and prostate cancer survivors
- 106. A program that regards rehabilitation in cancer care as a dynamic rather than a passive process is most likely to emphasize both ongoing reassessment and:**
- A. Customary convalescence
 - B. Follow-up home care
 - C. Redefinition of goals
 - D. Frequent nursing referrals
- 107. The overall goal of rehabilitation for the person with cancer is to:**
- A. Return to baseline performance before the cancer
 - B. Anticipate and prepare physically for future debilitating effects of cancer
 - C. Achieve optimal functioning within the limits of cancer
 - D. Maintain an active, busy life

- 108. Which of the following factors have been found to be *most closely* related to the rehabilitation needs of the patient with cancer?**
- Medical and family history
 - Type of treatment and side effects experienced
 - Cancer site and stage of disease
 - Severity or duration of disease
- 109. Which of the following are the major self-reported concerns and quality-of-life issues of cancer survivors?**
- Fatigue and fear of pain
 - Fatigue, fear of recurrence, and living with uncertainty
 - Fatigue, fear of pain, and fear of death
 - Fatigue, fear of death, and living with uncertainty
- 110. Survival rates from cancer continue to improve. Which of the following *most accurately* depicts the percentage of persons surviving 5 years and beyond after diagnosis?**
- Fifty percent of adults and 60% of children survive beyond 5 years.
 - Sixty percent of adults and 80% of children survive beyond 5 years.
 - Sixty-five percent of adults and 70% of children survive beyond 5 years.
 - Fifty percent of adults and 83% of children survive beyond 5 years.
- 111. Six months after his surgery, Mr. Fox, after participating in extensive speech rehabilitation, learns to speak by diverting exhaled pulmonary air through a surgically constructed fistula tract directly into the esophagus. This method of speech is produced through:**
- An artificial larynx made available immediately after surgery
 - Esophageal speech therapy
 - Surgical voice restoration or tracheoesophageal prosthesis
 - An oral prosthesis
- 112. After surgery, part of Ms. Eliot's rehabilitation process involves restoring the swallowing function because aspiration during swallowing is one of the major complications following supraglottic laryngectomy. Initially, _____ will be the most difficult thing for Ms. Eliot to swallow without aspirating.**
- Soft mashed foods
 - Dry, crunchy foods
 - Liquids
 - Hard, bulky food boluses (especially meats)
- 113. Your patient has prostate cancer and is undergoing leuprolide therapy. He recently began to complain of pain in his hip. He underwent a bone scan and was found to have an isolated lesion that was thought to be malignant. Biopsy was done, and a sarcoma was confirmed. This finding represents which of the following?**
- This is most likely a metastasis from his prostate cancer.
 - This is histologically dissimilar from a prostate cancer and is therefore considered to be a second primary cancer and potentially curable.
 - This is most likely a benign condition because he is receiving treatment for cancer.
 - This finding represents a guarded prognosis because his immune system obviously is failing.
- 114. Mr. Jones has had treatment for a primary kidney tumor, which was eradicated. Now, however, the surgeon discovers a biopsy-proven metastatic lesion in the lung. The metastatic site seems to be solitary, and Mr. Jones is very healthy otherwise. What method of treatment will likely be used for his metastatic lesion?**
- Chemotherapy to provide systemic control of metastasis
 - Cytoreductive surgery to reduce the mass so that combination therapy will be effective
 - Combination radiation and chemotherapy
 - Surgical resection

115. **The most common second malignant neoplasms following radiation therapy are:**
- A. Breast and thyroid cancers
 - B. Gastrointestinal tract cancers
 - C. Sarcomas of the bone and soft tissue
 - D. Bladder and lung cancers
116. **Your patient is a 5-year survivor of prostate cancer. Your annual workup is conducted with the knowledge that he is most at risk for developing which of the following second primary cancers?**
- A. Colorectal cancer
 - B. Leukemia
 - C. Lung cancer
 - D. Non-Hodgkin lymphoma
117. **Judith had Hodgkin disease as a child and received mantle radiation therapy. It has been more than 20 years since her treatment. Which of the following statements is most accurate concerning her follow-up care?**
- A. She needs to continue her annual physical exams and mammograms because she is most at risk for secondary malignancies since it has been 20 years since her treatment.
 - B. She can relax more because her risk for secondary malignancies decreases every year.
 - C. Her highest risk for secondary malignancies was breast cancer and lung cancer, occurring at 10 years.
 - D. Eighty percent of secondary solid tumors are associated with radiation therapy.
118. **The major risk of developing a secondary malignant neoplasm after treatment for a primary malignancy depends on:**
- A. The type and dose of treatment received (e.g., radiation and alkylating agents)
 - B. A common underlying etiologic factor (e.g., smoking)
 - C. Genetic susceptibility (e.g., genetic retinoblastoma)
 - D. The timing of withdrawal of chemotherapeutic agents, such as mustargen, oncovin, procarbazine, and prednisone (MOPP) latency
119. **Four years ago, Ms. Smith successfully completed treatment for breast cancer. Now she is diagnosed with acute myelogenous leukemia (AML). Which drugs most likely contributed to Ms. Smith's AML?**
- A. Alkylating agents
 - B. Anthracyclines
 - C. Vinca alkaloids
 - D. Antimetabolites
120. **Mantle radiation for Hodgkin disease is associated with an increased risk of which of the following cancers?**
- A. Breast cancer, especially in those irradiated before the age of 30
 - B. Lung cancer
 - C. Liver cancer
 - D. Head and neck cancer
121. **Which of the following factors regarding economic disruption in the lives of family caregivers is correct?**
- A. The economic burden of caregivers occurs during the patients' terminal phase of illness.
 - B. Between 20%–70% of family caregivers miss work or quit jobs to provide care.
 - C. The Family Medical Leave Act of 1993 provides financial support for family caregiving.
 - D. The economic burden of caregivers is higher for patients with colorectal cancer.
122. **Individuals with low annual incomes:**
- A. Are more likely to die of cancer than those with high annual incomes
 - B. Rarely experience a definable difference in survivorship or treatment
 - C. Are twice as likely to experience recurrence, treatment failure, or death as those with higher incomes
 - D. Are less likely to receive curative therapy

123. **A primary barrier to cancer care for many of the ethnic minority populations is:**
- A. Inability to pay for services
 - B. Language barrier
 - C. Cultural differences
 - D. Access to care
124. **Research indicates that survivors and family caregivers who have more fear of cancer recurring are:**
- A. Older
 - B. Younger
 - C. Unemployed
 - D. Less able to cope
125. **The primary purpose of the Health Insurance Portability and Accountability Act, or HIPAA, is to provide guidelines for which of the following?**
- A. Methods to provide health insurance for the uninsured
 - B. Measures to ensure each state honors insurance policies issued in other states within the United States
 - C. Methods to describe how patient documents should be written and transcribed
 - D. Measures to provide security for electronic healthcare transactions and privacy
126. **Which statement about socioeconomic late effects experienced by cancer survivors is correct?**
- A. Unemployment rate is higher among cancer survivors than the general population.
 - B. More than 50% of cancer survivors are not able to return to work.
 - C. The lowest unemployment rates are among persons with breast, gastrointestinal, and gynecologic cancer.
 - D. The majority of cancer survivors are depressed and have trouble maintaining employment.
127. **Which statement about the effect of cancer on the social well-being of patients and family members is correct?**
- A. Breast cancer and its treatment course causes major problems on couples' marital relationships.
 - B. Breast cancer draws most couples closer together as partners learn to appreciate each other more.
 - C. There is a major significant difference in marital satisfaction of couples coping with cancer to scores of couples without cancer.
 - D. The majority of couples separate or divorce after a partner is diagnosed with cancer.
128. **The concept of "protective buffering" describes problems that occur in the communication between patients with cancer and their family caregivers. Protective buffering is:**
- A. Hiding cancer-related worries from a partner and denying concerns in an effort to avoid disagreement
 - B. Decreases the emotional distress of both persons
 - C. Increases marital satisfaction
 - D. Decreases distress and improved relationship satisfaction in partners
129. **Patterns of communication among professionals, patients, and family members include:**
- A. Filtered, privileged, and shared communication
 - B. Privileged, filtered, and balanced communication
 - C. Privileged, balanced, and team communication
 - D. Balanced, filtered, and shared communication
130. **Nurses and health professionals can use a number of strategies to facilitate communication between patients and their family members. One of the best strategies is:**
- A. To work as a team to manage the effects of the illness
 - B. To hide your feelings and not share your personal feelings in order to protect the patients
 - C. Encourage patients to be open with their feelings and not to have private thoughts of their own
 - D. To discuss past problems, which may help them through the stress of illness

131. **The *best* definition of sexual health is:**
- A. Acts of a sexual nature such as intercourse and intimacy
 - B. Physical functions and physical actions
 - C. Positive body image and relationships
 - D. A state of physical, mental, and social well-being in relation to sexuality
132. **Your 55-year-old patient with lung cancer has completed his treatment, including three cycles of chemotherapy and radiation. He expressed some problems with erectile dysfunction and states his internist seems reluctant to address the issue. Which of the following is the *most likely* response to his concerns?**
- A. Erectile dysfunction is common due to the paraneoplastic component of his illness.
 - B. The chemotherapy and radiation are probably the cause, and it is not likely to improve.
 - C. Attention to his erectile dysfunction by his internist is overshadowed by his history of cancer and treatment.
 - D. Sexual dysfunction is to be expected in someone his age.
133. **Mr. Crane is about to undergo a radical prostatectomy. He is concerned about his ability to be sexually active after his surgery. The *most important* factor that relates to sexual function after prostatectomy is:**
- A. Age less than 50
 - B. Stage of disease
 - C. Preservation of neurovascular bundles
 - D. Hormone therapy postsurgery
134. **Two basic nursing interventions for alterations in sexual health encountered by cancer patients are:**
- A. Education and counseling
 - B. Screening and role-playing
 - C. Affective therapy and role modeling
 - D. Enhancing reality surveillance and reinforcing personal power
135. **The *primary* reason healthcare providers do not discuss issues related to sexual concerns with patients is:**
- A. Personal discomfort and lack of knowledge
 - B. It may create more problems for the patient.
 - C. It is not their responsibility.
 - D. Lack of time.
136. **Patients at higher risk for sexual dysfunction are:**
- A. Women younger than 30 years of age
 - B. Women older than 30 years of age
 - C. Males prepuberty
 - D. Males over 50 years of age
137. **Mrs. Archer has recently had a radical cystectomy with resection of nearly one-third of the anterior wall of the vagina and vaginal reconstruction. She is approaching discharge and requires teaching regarding any changes she can expect in terms of her sexuality. It would be appropriate to include which of the following in your discussion?**
- A. She will be unable to have intercourse and needs to develop other methods of intimacy.
 - B. Sexual interest will be minimal.
 - C. There will be less lubrication, and she will need to practice vaginal dilation and liberal use of lubrication.
 - D. Orgasm will be diminished due to the clitoris being compromised.

- 138. Radiation is commonly used in conjunction with surgery as treatment for vaginal cancer. Patient education before discharge should emphasize that:**
- A. Vaginal fibrosis and scarring can occur due to a loss of blood supply; therefore, vaginal intercourse should be avoided.
 - B. Vaginal intercourse and the use of a vaginal dilator are encouraged to prevent narrowing of the vagina.
 - C. Prescribed topical estrogen cream may be used but usually is not effective.
 - D. She will need to douche daily with diluted hydrogen peroxide/water mixture for 2 to 3 months.
- 139. Mr. James is scheduled for a radical cystectomy with urinary diversion. He is especially concerned about the possibility of being impotent and unable to have sex because of the urinary diversion following surgery. Your best response is based on which of the following?**
- A. Because the surgery involves removal of the bladder, attached peritoneum, the prostate, and seminal vesicles, penile sensation is altered, and impotence is unavoidable in many cases.
 - B. He should be encouraged to talk to his surgeon because it is possible that the surgeon will do a potency-sparing cystectomy.
 - C. Refer him to an enterostomal therapist for information about a penile prosthesis and placement of the urinary diversion.
 - D. Urinary diversions today result in improved sexual adjustment due to decreased leakage and odor control.
- 140. Treatments for prostate cancer have the potential to alter sexual function. Permanent damage to erectile function with loss of emission and ejaculation is most likely to occur with:**
- A. Radical prostatectomy
 - B. Transurethral resection
 - C. Bilateral orchiectomy
 - D. Transabdominal resection

G. TREATMENT-RELATED CONSIDERATIONS

- 141. The late effects of cancer treatment on the endocrine system result from damage to the hypothalamus pituitary axis and/or:**
- A. Target organs (e.g., the thyroid, ovaries, testes)
 - B. The cortical areas of the brain
 - C. The chemical structure of key hormones (e.g., insulin)
 - D. Epithelial tissue (e.g., blood vessel linings)
- 142. Growth impairment as a late effect of treatment for cancer occurs as the result of:**
- A. Overproduction of thyroxine by the thyroid gland
 - B. Deficient growth hormone release by the hypothalamus
 - C. Primary hypothyroidism
 - D. A disruption in pituitary control of several target organs
- 143. A patient who has finished treatment 6 months ago and is considered cured returns for a follow-up appointment. His major complaint is that he is distressed because he continues to experience symptoms related to his treatment, such as fatigue and difficulty sleeping. Your response is based on which of the following concerning psychosocial late effects in cancer survivors?**
- A. The persistence of late and long-term physiologic symptoms often contributes to psychologic distress of depression and anxiety.
 - B. Fatigue is not normal, and he should be evaluated for possible recurrence of cancer.
 - C. Depression is common regardless of the presence of comorbid conditions.
 - D. Quality of life before diagnosis is unrelated to quality of life after cancer treatment.

144. Several years ago, a patient was given concomitant radiation therapy and chemotherapy for cancer of the bladder. Recently, she developed cystitis. If this condition is a late effect of her cancer treatment, which agent is *most likely* to have been the responsible one involved?
- A. Fluorouracil (5-FU)
 - B. Cyclophosphamide
 - C. Methotrexate
 - D. Paclitaxel
145. Patients with human immunodeficiency virus (HIV) and neutropenia who have received treatment with corticosteroids or who have had prolonged immunosuppression should be monitored for which of the following?
- A. Tuberculosis
 - B. Second malignancies
 - C. *Pneumocystis jiroveci* pneumonia
 - D. Elevated CD4 lymphocyte count
146. Late effects involving the central nervous system are *most likely* to occur in which of the following individuals?
- A. A child treated for Hodgkin disease
 - B. A child treated for bone sarcoma
 - C. An adult treated for small cell carcinoma of the lung
 - D. An adult treated for primary hypothyroidism
147. Which of the following statements about the late effects of cancer treatment is *most accurate*?
- A. Late effects are present during treatment.
 - B. Late effects are long-term physical and psychosocial changes in cancer survivors that are not present after treatment for months or years later.
 - C. Late effects are severe and clinically subtle.
 - D. Late effects are the consequence of biologic cure.
148. Sleeping disturbances can be problematic long after treatment ends. Research into the incidence of sleep disturbances indicates that sleeping difficulty is reported by approximately what percentage of patients with cancer?
- A. 50%
 - B. 40%
 - C. 25%
 - D. 20%
149. Following four courses of chemotherapy, Albert shows you that his fingernails have developed transverse white lines or grooves. You explain to Albert that this symptom:
- A. Is a response to doxorubicin because pigmentation has been deposited at the base of the nail
 - B. Indicates a reduction or cessation of nail growth in response to cytotoxic therapy
 - C. Reflects a cytotoxic reaction to cyclophosphamide
 - D. Is a partial separation of the nail plate called onycholysis and is a reaction to fluorouracil (5-FU) therapy
150. Secondary malignancies account for what percentage of all cancers?
- A. 10%–15%
 - B. 16%–20%
 - C. 20%–25%
 - D. 25%–30%
151. Hematologic secondary malignancies usually occur within 10 years from treatment and the risk increases with:
- A. The type of chemotherapy drugs that were administered
 - B. The amount of bone marrow exposed to radiation
 - C. The age of the patient when treated
 - D. Higher doses of radiation at the time of initial treatment

- 152. Secondary solid tumor malignancies usually occur 10 or more years after patient's initial therapy and are dependent on**
- A. The type of chemotherapy drugs that were administered
 - B. The amount of bone marrow exposed to radiation
 - C. Low doses of radiation therapy
 - D. Higher doses of radiation therapy
- 153. Children treated for cancer with radiation therapy are more likely to develop:**
- A. Hodgkin disease
 - B. Leukemia
 - C. Breast cancer
 - D. Bone cancer
- 154. Chemotherapy treatment places patients at risk for the development of which secondary malignancy?**
- A. Leukemia
 - B. Breast cancer
 - C. Bone sarcoma
 - D. Hodgkin disease
- 155. A patient who completed her treatment for breast cancer 6 months ago asks you about her long-term follow-up care. Your *most appropriate* response would include which of the following?**
- A. You can be transferred to your primary care provider (PCP) for follow-up care.
 - B. You should be followed by your oncologist or PCP for 2 years on a regular basis.
 - C. Your follow-up care should be performed by a provider (oncologist or PCP) experienced in breast cancer surveillance.
 - D. You should be followed by your oncologist for the rest of your life.
- 156. Patients with non-Hodgkin lymphoma (NHL) have potential late effects due to radiation therapy and chemotherapy. Follow-up care should include which of the following?**
- A. Blood tests, pulmonary function tests, electrocardiogram (EKG)
 - B. Blood tests, cognitive assessment, pulmonary function tests
 - C. Blood tests, EKG, dual-energy x-ray absorptiometry (DXA) scan
 - D. Blood tests, DXA scan, pulmonary function tests
- 157. The majority of women with endometrial cancer have an excellent prognosis and compliance to follow-up care is a challenge. Which of the following factors is the *most important* part of your education to this population?**
- A. Regular follow-up is important and involves evaluation of permanent side effects that may occur in the future.
 - B. Regular follow-up usually involves regular pelvic examinations at least quarterly in the initial years after diagnosis.
 - C. Education on weight reduction and low-fat diet.
 - D. Regular screening for other cancers is important.
- 158. The recommended follow-up strategy for men successfully treated for testicular germ cell tumor is:**
- A. Close follow-up for 5 years
 - B. Discontinue cancer surveillance after 5 years
 - C. Discontinue cancer surveillance after 10 years
 - D. Follow-up and cancer surveillance for 35 years

159. **Opinion varies on which model of follow-up care for cancer survivors is optimal. Which model of follow-up care is being used more frequently?**
- A. Oncologists maintain care of patient
 - B. Primary care physician responsible for care
 - C. Physician-led survivorship clinics
 - D. Physician assistant- or advanced practice nurse-led survivorship clinics

H. END-OF-LIFE CARE

160. **Which of the following grief reactions of an elderly woman who has lost her husband of 40 years to lung cancer would prompt the hospice nurse to suggest counseling?**
- A. She takes out 40 years' worth of photograph albums and wants to review her marriage and life with her deceased husband with the hospice nurse.
 - B. She refuses to let her sister and brother-in-law into her home anymore, blaming them for buying her husband cigarettes "all those years."
 - C. She plans her husband's funeral by herself, listens to all his favorite classical music pieces, and chooses passages from his Bible.
 - D. She delegates all the responsibility for the funeral and disposition of her husband's belongings to the children.
161. **While describing her sadness about her husband's imminent death, the wife of your patient says, "I have never been able to accept the death of our son, and now my husband is going too." Which of the following is the *most appropriate* response?**
- A. "Do you feel your husband is dying soon?"
 - B. "What was it like for you and your husband when your son died?"
 - C. "Losing your son and your husband must be so difficult for you."
 - D. "At least your son and your husband will be together soon."
162. **Grief is defined as:**
- A. A normal process of experiencing the psychological, behavioral, social, and physical reactions to the perception of loss
 - B. Outward social expression of loss
 - C. The time period given to grief and mourning
 - D. A process of adapting to the loss governed by social, cultural, and spiritual beliefs and rituals
163. **Grief needs to be identified as early as possible for assessment, treatment, and interventions. The four types of grief are:**
- A. Anticipatory grief, preparatory grief, bereavement grief, complicated grief
 - B. Anticipatory grief, bereavement grief, complicated grief, prolonged grief
 - C. Anticipatory grief, preparatory grief, complicated grief, prolonged grief
 - D. Anticipatory grief, preparatory grief, bereavement grief, complicated grief
164. **According to research, the strongest predictor of preparatory grief in patients with a terminal diagnosis is:**
- A. Insomnia
 - B. Depression
 - C. Hopelessness
 - D. Anxiety

165. **One year after the death of her husband, Mrs. Ely still cries, has difficulty concentrating, avoids activities, and rarely goes out with friends. As part of bereavement counseling, you conclude which of the following?**
- A. This is a normal grief reaction. She could benefit from being seen more often.
 - B. This is an example of a posttraumatic stress disorder.
 - C. Acute grief can last beyond a year, but Mrs. Ely could benefit from a support group.
 - D. Grieving beyond a year is often associated with unresolved guilt about the death of a loved one.
166. **Nurses need to prepare family members for what to expect as death approaches. This preparation should include:**
- A. A discussion on the patient's grief responses to death
 - B. How to manage the patient's symptoms at the end of life
 - C. Assessing the family's coping abilities with death and providing possible interventions
 - D. Determine an appropriate postdeath bereavement plan to help the family
167. **Four levels of hospice care exist based on Medicare Hospice Regulations. Which of the four levels of care below include funding by Medicare?**
- A. Routine home care, day care, inpatient care, and respite care
 - B. Continuous home care, routine home care, residential care, and extended caregiver services
 - C. Inpatient care, routine home care, day care, and residential care
 - D. Routine home care, continuous home care, respite care, and inpatient care
168. **When a patient and family are cared for by hospice services, they have:**
- A. Access to ongoing bereavement support after the patient's death
 - B. Day care services for the patient
 - C. Home care services for 8 months
 - D. Access to phase III clinical trials
169. **Which of the following *most accurately* describes the philosophy of hospice care?**
- A. Patients can be made comfortable with alternative and complementary care.
 - B. Euthanasia is an integral aspect of care if the patient requests it.
 - C. Hospice care is an interdisciplinary model of caring for individuals in the final stages of an illness.
 - D. Hospice is specialized care for the dying that is non-physician-based care.
170. **Your patient has failed yet another treatment regimen and could benefit significantly from hospice care, but his wife refuses to consent to hospice care. Your *primary* intervention to facilitate acceptance of hospice care is which of the following?**
- A. Provide information to the husband and wife regarding response to therapy and the benefits of hospice care.
 - B. Suggest a "drug holiday" to allow time to pass so she begins to see that hospice is the best choice.
 - C. Point out that she is denying what is inevitable and that accepting hospice care is the best thing for everyone.
 - D. Refer the patient and family to a visiting nurse service.
171. **Which of the following *excludes* a patient from meeting criteria for hospice care?**
- A. The family prefers that the nurse not talk about dying around the patient.
 - B. The patient explains that he wants to continue to receive the new monoclonal antibody because he is certain it will be curative.
 - C. The doctor orders two units of blood to be given at home along with pamidronate.
 - D. The patient explains they are not ready to look at funeral homes.
172. **Which of the instruments below was developed specifically for assessing various aspects of the caregiver situation and quality of life?**
- A. McGill Quality of Life Questionnaire
 - B. Hospice Quality of Life Index
 - C. Missoula-Vitas Quality of Life Index
 - D. Caregiver Reaction Assessment

173. **A potential reaction of an adolescent whose parent is terminally ill is to:**
- A. Blame the healthy parent and/or other family members for the parent's illness
 - B. Exhibit signs of anxiety and depression
 - C. Shield siblings from discussing distressing feelings
 - D. Openly share information and feelings with the healthy parent and other family members
174. **As you plan your interventions for assisting a family member who is grieving because a loved one is dying, you consider the following approach:**
- A. Encourage the family member to obtain support from others and shelter their feelings from the patient, which help relieve their stress.
 - B. Encourage the family member to share his/her concern with a loved one rather than hide them.
 - C. Conduct an assessment of the family member's coping abilities.
 - D. Encourage the family member to seek professional advice.
175. **The basic medical and nursing approach toward patients in a hospice program is:**
- A. Acute care
 - B. Curative care
 - C. Palliative care
 - D. Euthanasia care
176. **The husband of a woman with end-stage breast cancer is concerned that his wife is sleeping more and is not even waking to eat or drink. The hospice nurse would explain to the husband that:**
- A. These are signs of approaching death.
 - B. The pain medication has reached a high blood level and needs to be reduced.
 - C. There is no reason to be concerned.
 - D. Her oncologist should be called to obtain some direction for her care.
177. **In some settings, inpatient palliative care is provided by consultation from a palliative care team. A disadvantage to this model of care is:**
- A. Resource-intensive inpatient care
 - B. Cannot support family meetings with complicated dynamics
 - C. Consults are often requested late, as patients are approaching the true end-of-life
 - D. Lack of relationships between palliative care and other disciplines
178. **Along with the quantity and quality of care provided by palliative care settings, the other *important* factor that influences the selection of a care setting for the patient with cancer is:**
- A. Its proximity to the acute care hospital
 - B. Patient's resources and geographical location
 - C. The professional training of its medical staff
 - D. Its policies relating to the multidisciplinary team approach
179. **Radiation is indicated for patients receiving hospice care to:**
- A. Decrease brain metastases and prevent seizures
 - B. Prevent bowel obstruction
 - C. Decrease pain from bone metastases
 - D. Stop bleeding from a fungating breast mass
180. **During the hospice admission interview for a patient with recurrent colon cancer and metastases to the liver, a family member asks if surgery to remove the liver lesions would extend the patient's life. Your *best response* is:**
- A. The doctor would not recommend hospice care if there was any chance for cure.
 - B. To remove liver metastases, the surgeon must be able to completely remove all of the tumor yet have adequate liver tissue remaining.
 - C. Liver resection is not indicated unless the colon cancer has been cured.
 - D. There must be no other evidence of disease.

- 181. There are a number of barriers to providing successful palliative care by healthcare professionals. Which of the following barriers is a *major* problem?**
- A. Oncology providers believe palliative care hastens a patient's death at the end-of-life.
 - B. Oncologists believe patients lose hope once palliative care gets involved.
 - C. Oncologists believe that end-of-life discussions are the sole responsibility of the oncologist and do not want other providers to become involved in decisions-making.
 - D. Oncology providers find the term "palliative care" is not a useful term for their daily care.
- 182. The most common models of palliative care are:**
- A. Inpatient palliative care unit, intensive care unit (ICU), home, outpatient/clinic
 - B. Inpatient consult, ICU, hospice, telehealth
 - C. Inpatient palliative care unit, inpatient consult, outpatient/clinic, home-based
 - D. Inpatient consult, outpatient/clinic, medical care unit, home-based
- 183. When a patient at the end-of-life complains of dyspnea, the nurse should *most appropriately* focus on which of the following?**
- A. Determine degree of dyspnea by assessing arterial blood gases and pulmonary function tests.
 - B. Monitor pulse oximetry to determine need for oxygen.
 - C. Administer opioids to lessen the sensation of breathlessness.
 - D. Administer bronchodilators as needed.
- 184. Delirium is common in the final days of life. Which of the following nursing interventions would be counterproductive in the management of delirium?**
- A. Concentrate on orienting the individual to what is real and what is not.
 - B. Administer low-dose haloperidol to decrease anxiety.
 - C. Discontinue benzodiazepines because they can worsen delirium.
 - D. Encourage the individual to speak about a loved one that has died.
- 185. As your patient nears death, his daughter is distressed and believes he is suffering because he is unable to drink fluids. She insists you give him intravenous fluids. To help her understand her father's condition and provide optimal end-of-life care, which of the following is the *most appropriate* response?**
- A. She is right; dying of thirst is painful, and you will call the doctor for intravenous hydration.
 - B. Assure her that he is not suffering or experiencing any discomfort from dehydration.
 - C. Suggest they insert a small nasogastric tube to administer fluids to prevent dehydration.
 - D. Suggest that she try to encourage her father to drink fluids in small amounts.
- 186. A patient has aspiration pneumonia from a tracheoesophageal fistula. He is terminal and in hospice care. The physician has ordered scopolamine (1.5 mg transdermal patch) and to increase to two patches after 24 hours. You explain to the patient and family that the purpose of the scopolamine patch is which of the following?**
- A. To decrease the amount of secretions
 - B. To manage his pain
 - C. To decrease anxiety
 - D. To help manage dyspnea
- 187. The presence of pain during the final days of life is often difficult to assess when the patient is no longer able to report intensity or presence of pain. Which of the following would be a pain cue in this population?**
- A. Changes in respiration
 - B. Changes in appetite
 - C. Changes in sleep
 - D. Changes in overt behaviors

188. **Your patient is in hospice care. One of his primary complaints is that he cannot get enough air. Upon examination you learn he has a normal oxygen saturation, elevated blood pressure, and minimal pain, manageable by hydrocodone. Which of the following treatment scenarios would *best* address his chief complaint?**
- A. Continuous pulse oximetry, low-dose oxygen therapy to treat his air hunger, and a benzodiazepine to treat anxiety
 - B. Chest x-ray and arterial blood gases with pulmonary function tests to rule out pneumonia along with a benzodiazepine for anxiety
 - C. Low-dose opioid therapy, a benzodiazepine for anxiety, position the patient upright, and provide a cool fan
 - D. Low-dose oxygen therapy, bronchodilators, and benzodiazepine for anxiety
189. **As the gag reflex and reflexive clearing of the oropharynx decline, secretions accumulate in the oropharynx, and dyspnea becomes complicated. Which of the following measures is *most effective* to manage the accumulation of secretions often associated with the “death rattle”?**
- A. Glucocorticoids to decrease swelling and secretions
 - B. Benzodiazepines to sedate the patient and increase comfort
 - C. Oral suctioning in the posterior pharynx to clear secretions
 - D. Anticholinergic medications to dry secretions
190. **In the weeks before death, many patients on opioid therapy experience agitation, confusion, and difficulty sleeping, especially at night. Which of the following medications is *most therapeutic* for patients experiencing these symptoms?**
- A. Amitriptyline, for its anticholinergic effect
 - B. Lorazepam, for its sedating effect
 - C. Promethazine, because it potentiates the analgesic effect of opioids
 - D. Haloperidol, to combat confusion and agitation
191. **Katrina has end-stage cancer with a bowel obstruction and is currently in hospice care. Which of the following would be an *appropriate* intervention to minimize her discomfort?**
- A. Placement of a nasogastric tube to manage nausea and vomiting
 - B. Enemas every other day to promote evacuation
 - C. Avoiding the use of opioids, because they will only make it worse
 - D. Octreotide acetate to minimize secretions
192. **Palliative sedation refers to:**
- A. The intentional taking of one’s own life
 - B. Sedation that relieves symptoms to a level of unresponsiveness
 - C. Letting a patient who is suffering die by withdrawing life-sustaining care
 - D. Assisted suicide
193. **The *most frequently* addressed factors contributing to palliative sedation are:**
- A. Pain and other symptom distress
 - B. Advanced illness and poor prognosis
 - C. Family history of suicide or personal suicide history
 - D. Hopelessness and loss of self-esteem or control
194. **A son whose father is dying of lung cancer asks you why all of a sudden he seems to be confused, nervous, and picking at the bed covers all of the time. Your *best* response is**
- A. He has dementia as a part of delirium, which is causing him to lose intellectual function.
 - B. He may eventually develop hallucinations due to psychosis as a result of his delirium.
 - C. He is in a hyperactive state of delirium causing him to be agitated.
 - D. He will eventually develop lethargy and rambling speech.

195. **Noisy airway secretions are reported to occur in 23%–93% of patients in their last hours of death. Your *best nonpharmacologic intervention for the management of noisy airway secretions is:***
- A. To increase intravenous fluids to dilute secretions
 - B. To increase oxygen level
 - C. To suction the patient's secretions
 - D. To reposition the patient onto their side and slightly elevate the head of the bed
196. **Nonpharmacologic interventions have demonstrated a reduced incidence of delirium, faster symptom relief, and improved quality of life. Of the following, which intervention would you use?**
- A. Have soft lighting to avoid shadows, and soothing music.
 - B. Put on the television and radio as background noise to help reorient the patient.
 - C. Limit visitors and family members to avoid extraneous stimuli.
 - D. Confront patient to redirect any delusions or hallucinations.
197. **Assessment over time is critical to recognize delirium early in its course and to monitor for response to therapies. There are numerous assessment tools available to screen and monitor delirium. A continuous delirium assessment instrument to assess patients over time is:**
- A. Delirium Rating Scale
 - B. Nursing Delirium Screening Scale
 - C. Revised Delirium Rating Scale
 - D. Mini-Mental State Exam
198. **The two *most important nursing considerations as death approaches are:***
- A. Placing of intravenous lines for hydration and parenteral nutrition
 - B. Greater attention to hygiene and activities of daily living
 - C. Family preparation and symptom management
 - D. Symptom management and palliative sedation
199. **Nurses who care for dying patients and their families may experience:**
- A. Anxiety
 - B. Depression
 - C. Personal family issues
 - D. Compassion fatigue
200. **Risk factors for compassion fatigue include:**
- A. Older age and high levels of empathy
 - B. Older age and low levels of empathy
 - C. Younger age and high levels of empathy
 - D. Younger age and low levels of empathy
201. **Which of the following statements regarding palliative sedation is *accurate*?**
- A. Palliative sedation does not alter the timing or mechanism of a patient's death.
 - B. Palliative sedation occurs when a physician prescribes a life-ending medication.
 - C. Palliative sedation decision-making is made by the family.
 - D. Palliative sedation requires the healthcare team to meet with the institution's ethics committee.
202. **The prevalence of suicide is higher in cancer patients. The *highest risk for suicide occurs:***
- A. During the 1st year of the diagnosis
 - B. In survivors after successful treatment
 - C. In survivors after 20 years of treatment
 - D. In patients diagnosed with metastatic disease

Answer Rationales

Please note: All page numbers referenced in the Answer Rationales sections refer to the textbook *Cancer Nursing: Principles and Practice (CNPP), Eighth Edition*, by Connie Henke Yarbro, Debra Wujcik, and Barbara Holmes Gobel (Jones & Bartlett Learning, © 2018), *Cancer Symptom Management (CSM), Fourth Edition* by Connie Henke Yarbro, Debra Wujcik, and Barbara Holmes Gobel (Jones & Bartlett Learning, © 2014), and *Breast Care Certification Review (BCCR)* by Connie Henke Yarbro, Debra Wujcik, and Barbara Holmes Gobel (Jones & Bartlett Learning, © 2013).

A. HEALTH PROMOTION AND DISEASE PREVENTION

1. **The answer is b.**
Secondary prevention is the prevention of promotion by smoking cessation and implementation of appropriate screening measures. Primary prevention is the avoidance of exposure to carcinogens. Tertiary prevention consists of arresting, removing, or reversing a premalignant lesion to prevent recurrence or progression to cancer. CNPP, Page 112.
2. **The answer is a.**
Using barrier contraceptives and practicing safe sex are primary preventive strategies. Obtaining a Pap test at appropriate intervals and HPV testing are secondary prevention and screening methods. Exercise is not a known risk factor for cervical cancer. CNPP, Page 1401.
3. **The answer is b.**
The synergistic use of both alcohol and tobacco has long been implicated in the etiology of oral cavity malignancies. Approximately 75% of patients with oral cancer drink alcohol, and 90% of patients have a history of tobacco use. Poor oral hygiene and mechanical irritation have also been connected to the development of oral cavity tumors. HPV has been implicated as a causative agent in a subset of oral squamous cancers. CNPP, Pages 1578–1580.
4. **The answer is c.**
Health-protective lifestyle behaviors (primary prevention) consists of actions taken by people to protect, promote, or maintain their health. CNPP, Page 83.
5. **The answer is b.**
Reducing UVR exposure and using sunscreens are primary methods of preventions for skin cancer. The other methods are secondary prevention. CNPP, Pages 1682–1683.
6. **The answer is d.**
There is a 25% increase in lung cancer in women married to a smoker. Environmental tobacco smoke is estimated to lead to 3,000 deaths per year. Secondhand smoke poses an elevated risk of lung cancer for both smokers and never smokers. CNPP, Page 1682.
7. **The answer is a.**
African American women of lower socioeconomic status obtain fewer mammograms, experience premature deaths, and have a lower survival rate. Research has shown that African American women are more commonly diagnosed with triple-negative breast cancer but does not necessarily relate to SES. CNPP, Pages 1281–1287.
8. **The answer is b.**
Although education regarding cervical cancer is a primary prevention strategy, the use of Pap test screening is a secondary method of cancer prevention. A, C, and D are measures of primary cancer prevention. CNPP, Pages 88, 1401.

- 9. The answer is a.**
Exercise plays a role in primary prevention for colon, breast, and endometrial cancer. Weaker evidence suggests increased exercise may be protective against prostate, kidney, and lung in nonsmokers and ovarian cancer. CNPP, Page 59.
- 10. The answer is d.**
Moderate to heavy alcohol use has been linked to cancers of the breast, colorectal, esophagus, and liver. No evidence of alcohol use and risk is evident for prostate, renal, or ovarian cancer. CNPP, Page 61.
- 11. The answer is c.**
A healthy balanced diet is the best source of nourishment along with physical activity. Ms. Jones should limit, not increase, the consumption of energy-dense foods, which are processed foods with sugar and fat. High-dose supplements can affect the risk of different cancers. Energy from fat should be limited from 20%–35%. Drinks with a high sugar content should be avoided. CNPP, Pages 58–60.
- 12. The answer is c.**
The two most important factors that appear to have a protective effect against the development of endometrial cancer are oral contraceptives and cigarette smoking because they reduce the estrogenic stimulation on the endometrium. However, risks of developing lung cancer far outweigh protection against endometrial cancer. Pregnancy and weight management also reduces the risk of endometrial cancer. CNPP, Page 1519.
- 13. The answer is c.**
The most successful approaches are increasing excise taxes on tobacco products, local cessation and abstinence programs, and smoke-free laws. Counseling and behavior techniques are successful if used as an adjunct to medical management. Financial incentives by employers are leading to an increase in smoking cessation along with phone and web-based support groups. CNPP, Pages 86, 1686.
- 14. The answer is c.**
The Breast Cancer Prevention Trial tested tamoxifen as a chemopreventive agent in a randomized double-blind trial. The STAR trial compared tamoxifen and raloxifene in reducing the risk of invasive breast cancer. Both drugs were equally effective. CNPP, Page 88.
- 15. The answer is d.**
Additional research is essential before any conclusions can be drawn about the dangers and efficacy of e-cigarettes. CNPP, Pages 62, 86.
- 16. The answer is a.**
There is compelling evidence that obesity is associated with colon, endometrial, esophageal, renal, pancreatic, and postmenopausal breast cancer. There is probable or suggestive evidence of obesity and gallbladder, hepatocellular, ovarian, and thyroid cancers. CNPP, Page 58.
- 17. The answer is c.**
Vaccines have been developed to prevent hepatitis B, a major cause of liver cancer, and for HPV types 16 and 18, which are associated with cervical, anal, and some head and neck cancers. CNPP, Pages 97–98.
- 18. The answer is c.**
Attributable risk is the amount of disease within the population that could be prevented by alteration of a risk factor. Absolute risk measures the occurrence of cancer in the general population, not a high-risk population. Relative risk compares the incidence or deaths among those with a particular risk factor and those without the risk factor. Proportional risk does not implicate which disease an individual will develop. CNPP, Pages 116–117.
- 19. The answer is a.**
Chemoprevention is the use of natural or synthetic agents to interrupt the carcinogenic process. Chemoprevention refers to compounds manufactured in pills, but also capsules and liquid form. Food components ingested as part of a regular diet are not considered chemopreventive agents, however, chemopreventive agents are often derived from food compounds. CNPP, Page 87.

- 20. The answer is c.**
A black male with a family history of prostate cancer is at high risk for prostate cancer. Chemoprevention trials target high-risk individuals with a personal or family history of the disease. Unlike population-based lifestyle interventions, the use of chemopreventive agents can be recommended only for individuals and subpopulations known to be at increased risk for developing a malignancy, to justify their exposure to potential expected or unexpected adverse events. Although the female has dense breasts and is at moderate risk for breast cancer, she should discuss with her doctor the benefits of adding MRI screening to her yearly mammogram. CNPP, Page 87.
- 21. The answer is a.**
She should have a thorough cancer risk assessment and genetic counseling, so she will have the necessary facts about her risk, the alternatives for dealing with her risk, and consideration of the options available to her. Women at high risk may elect to take medicine to suppress ovulation or consider prophylactic oophorectomy at the completion of childbearing. CNPP, Pages 146–149, 1799.
- 22. The answer is a.**
For women at high-risk of hereditary breast and ovarian cancer (HBOC), risk-reducing bilateral mastectomy (RRBM)—the removal of both breasts before a breast cancer is detected—lowers breast cancer risk by 90%. CNPP, Page 152.
- 23. The answer is a.**
The American Cancer Society currently recommends that all who are 21 years of age or older should have annual Pap tests every 3 years using conventional or liquid-based Pap test. CNPP, Pages 124, 1404.
- 24. The answer is c.**
Colonoscopy with removal of polyps is recommended beginning at ages 20–25, repeating every 1–2 years. Evidence does not support screening for gastric, duodenal, and small bowel cancer in Lynch syndrome. Selected individuals may be advised to have upper GI endoscopy between 30–35 years of age every 3–5 years.
- 25. The answer is b.**
Research has shown that men who took finasteride as part of the Prostate Cancer Prevention Trial (PCPT) had a 25% lower incidence of prostate cancer. The selenium and vitamin E cancer prevention trial (SELECT) was stopped because there was a higher incidence of prostate cancer in men taking vitamin E and increased incidence of diabetes in men taking selenium. CNPP, Pages 88, 96.
- 26. The answer is a.**
Modifying sexual behavior, thereby limiting a woman's exposure to oncogenic human papillomavirus, will prevent cervical cancer. This includes barrier contraceptives and limiting sexual partners. Oral contraceptives, annual Pap smear, or HPV testing are not risk-reducing behaviors for prevention of cervical cancer. CNPP, Page 1401.

B. SCREENING AND EARLY DETECTION

- 27. The answer is a.**
Since the adoption of PSA testing more than 20 years ago, PSA screening for prostate cancer remains controversial. Not all men with prostate cancer secrete enough PSA to raise the level. Digital rectal exam is the most commonly performed screening exam. PSA greater than 4 ng/ml is the threshold for performing biopsies. CNPP, Pages 1850–1851.
- 28. The answer is a.**
The most widely used screening programs have been for the early detection of breast and cervical cancer. Prior to screening, cervical cancer was the leading cause of death among women. CNPP, Page 100.

- 29. The answer is b.**
The *specificity* of a test is its ability to identify those individuals who do not have cancer. The sensitivity of a screening test is its ability to detect cancer. A true-positive and a false-negative are normal tests for cancer in a patient who has cancer. CNPP, Pages 100, 121–122.
- 30. The answer is c.**
Colonoscopy is recommended every 10 years; flexible sigmoidoscopy every 5 years; double contrast barium enema every 5 years. CNPP, Page 123.
- 31. The answer is c.**
All the statements are true, but choice *c* is the most appropriate response in this situation because emphasis is on individuals and the need to screen when asymptomatic. CNPP, Page 112.
- 32. The answer is a.**
There is a far greater chance that the individual will actually go have appropriate screening when a nurse recommends screening to an individual. CNPP, Page 129.
- 33. The answer is c.**
The Gail Model predicts the risk of developing breast cancer. The other models have been developed to calculate the risk of having a *BRCA1/2* genetic mutation. CNPP, Page 117.
- 34. The answer is a.**
The cancer risk assessment is the first step in the cancer screening process. A review of the past and present medical history, detailed family history, risk factors, and use of risk assessment tools are all a part of the cancer risk assessment. CNPP, Page 113.
- 35. The answer is b.**
Absolute risk is helpful when patients need to understand the chances for all persons in a population of developing a particular disease. Relative risk refers to a comparison of the incidence or deaths among those with a particular risk factor and those without the risk factor. Thus, individuals can better understand their personal chance of developing a specific cancer. CNPP, Pages 115–116.
- 36. The answer is c.**
The PREMM model predicts risk of hereditary colorectal cancer mutation. The other models predict risk of developing breast cancer. CNPP, Page 117.
- 37. The answer is b.**
Low-dose computed tomography has been recommended for former smokers ages 55–74 in good health who have 30-pack years or more of smoking, who currently smoke or have quit in the last 15 years. Low-dose computed tomography has demonstrated a 20% reduction in mortality. Chest x-ray or sputum cytology have failed to demonstrate a benefit. CNPP, Pages 103, 124, 1687.
- 38. The answer is d.**
Ovarian cancer is typically asymptomatic in its early stages. As the disease progresses, women may experience bloating, vague abdominal discomfort, leading to loss of appetite, flatulence, or urinary frequency. More often than not, these symptoms are no more than annoying and are not taken seriously by the patient and her physician. By the time a diagnosis of ovarian cancer is made, approximately 70% have advanced-stage ovarian cancer. CNPP, Page 1801.
- 39. The answer is c.**
Physical recognition of CM by practitioners and those at risk can be initiated by using the ABCDE rule. In this rule, A = asymmetry, B = border irregularity, C = color irregularity, D = diameter greater than 0.6 cm, and E = elevation or evolving. CNPP, Page 1997.
- 40. The answer is c.**
The total number of DNS is an indicator of risk for developing malignant melanoma. The identification of DN is difficult to perform clinically and occur in approximately 10% of population, not 40%. DN may develop throughout life. CNPP, Pages 1901–1902.

- 41. The answer is d.**
BCC is the least aggressive type of skin cancer and has its origins in either the basal layer of the epidermis or in the surrounding dermal structures. It is most commonly found on the nose, eyelids, cheeks, neck, trunk, and extremities. It grows slowly by direct extension and has the capacity to cause major local destruction. Metastasis is rare. SCC, on the other hand, may arise in any epithelium. It is most commonly found on the head and hands. It is more aggressive than BCC, has a faster growth rate, less well-demarcated margins, and a greater metastatic potential. CNPP, Pages 1918–1920.
- 42. The answer is b.**
The majority (60%–80%) of lymphoma patients present with enlargement of cervical or supraclavicular lymph nodes, but enlarged axillary or inguinal nodes may also be presenting symptoms. Six percent to 20% of nodes are characteristically painless, firm, rubbery in consistency, freely movable, and of variable size. Weakness, fatigue, and general malaise may be a part of the presenting picture. CNPP, Page 1603.
- 43. The answer is c.**
There are three types of skin cancer: BCC, SCC, and melanoma. However, melanoma is the most common skin cancer to result in death. CNPP, Page 1902.
- 44. The answer is d.**
Superior vena cava obstruction is a common complication of lung cancer; approximately 65% of these cases are caused by undifferentiated neoplasms arising in proximal right bronchi. CNPP, Pages 1190, 1691.
- 45. The answer is a.**
Ultrasound is the imaging modality of choice in a young woman, a pregnant woman, or a lactating woman, which requires no ionizing radiation. Fine-needle aspiration is also appropriate. CNPP, Pages 1301–1303.
- 46. The answer is c.**
Persistent sore throat, difficulty chewing and swallowing, ongoing weight loss, and airway obstruction are indications of cancer of the oral cavity. CNPP, Page 1582.
- 47. The answer is a.**
The most common presenting symptom of testicular cancer is a hard, painless, pea-sized swelling or enlargement of the testis. However, a heavy sensation, swelling, dull aching, or pain in the scrotal area also may be a presenting symptom. CNPP, Page 1959.
- 48. The answer is b.**
The earliest symptoms of stomach cancer are usually nonspecific and vague. Home remedies and self-medications are often used successfully, and symptoms are considered to be related to acid reflux disease. Because of the elusive nature of gastric disorders, this type of cancer is usually quite advanced by the time medical attention is sought. CNPP, Page 1942.

C. NAVIGATION

- 49. The answer is b.**
The major purpose of patient navigator programs is to provide personal assistance in eliminating any barriers to patients obtaining timely and adequate diagnosis and treatment. BCCR, Page 147.
- 50. The answer is a.**
Racial/ethnic minorities, those with low socioeconomic status, and rural populations and members of other medically underserved populations often do not receive timely standard cancer care. BCCR, Page 147.

- 51. The answer is c.**
Lay navigators are individuals in the community that help patients navigate the complexities of the healthcare system and identify barriers to care and resources. They are considered “natural helpers” and are used in a variety of settings and not only address spiritual, logistical needs but physical and psychosocial as well. CNPP, Page 2075.
- 52. The answer is d.**
Navigation services benefit patients during the period between suspicious finding and diagnosis, as well as during treatment, survivorship, and palliative care. CNPP, Page 2075.
- 53. The answer is a.**
Data about the populations you are striving to serve must include the number of women who are eligible for screening mammography as well as the number of women who participate in annual screening mammography. Other information such as the number of breast cancer cases and the stage at diagnosis will provide information about women receiving services, but not information about those who need but are not receiving services. BCCR, Page 150. CNPP, Page 70.
- 54. The answer is c.**
The priority for the navigator is to assist the patient with scheduling the next needed tests and address any barriers to completion such as transportation and childcare. BCCR, Page 147.
- 55. The answer is a.**
Increasing the number and percent of women having screening mammography from the defined targeted geographic region is an example of outcomes that navigation can directly influence. Health education/outreach programs by themselves do not improve the delivery of standard cancer screening, detection, and treatment. BCCR, Page 152.
- 56. The answer is a.**
Ensuring that the woman returns for further testing to rule out or diagnose malignancy is the most important intervention at this time. BCCR, Page 152.
- 57. The answer is d.**
The nurse navigator can start by documenting the time from diagnosis to first treatment. If that time is within an acceptable standard of care (< 4 weeks), the navigator can focus on other aspects of quality improvement. If the time is not acceptable, further documentation of the time for individual steps can reveal opportunities for intervention. BCCR, Page 151.
- 58. The answer is a.**
All answers are important, but knowledge of screening, detection, diagnosis, and treatment of breast cancer is most important if the nurse wants to be a breast cancer navigator. BCCR, Page 152.
- 59. The answer is b.**
By conducting a comprehensive assessment that includes the needs and resources of the woman along with the treatment plan, a comprehensive plan of care can be developed. BCCR, Page 152.

D. ADVANCE CARE PLANNING

- 60. The answer is a.**
Advance care planning is the whole process of discussion of end-of-life care, clarification of values and goals, and preferences through written documents (advance directive) and medical orders. This process can start at any time and revisited as health status changes. *Dying in America: Improving Quality and Honoring Individual Preferences Near the End of Life*. Washington DC: The National Academies Press. Chapter 3.
- 61. The answer is b.**
An AD provides very specific instructions regarding preferences for life-sustaining treatments that an individual would want to receive. It is not a legally binding contract nor is it required to include a living will. CNPP, Page 2067.

- 62. The answer is d.**
The durable power of attorney and living will are both important advance directive documents that people can complete at any time and in any state of health that allows them to do so. *Dying in America: Improving Quality and Honoring Individual Preferences Near the End of Life*. Washington DC: The National Academies Press. Chapter 3.
- 63. The answer is d.**
A living will describes the kinds of medical care a person does or does not want under specific conditions if no longer able to express those wishes. An advance directive may not always be honored and implemented. *Dying in America: Improving Quality and Honoring Individual Preferences Near the End of Life*. Washington DC: The National Academies Press. Chapter 3.
- 64. The answer is c.**
Despite recommendations and requirements to complete ACP, conversations initiated by clinicians are infrequent, especially in the outpatient setting. A problem may be who is the healthcare provider that should initiate ACP. *Dying in America: Improving Quality and Honoring Individual Preferences Near the End of Life*. Washington DC: The National Academies Press. Chapter 3.

E. EPIDEMIOLOGY

- 65. The answer is c.**
The prevalence rate is the total number of cases—new and existing—in a given population during a specific time period (in this case 1 year). It is a function of both incidence and duration. In other words, the higher the survival rate (duration) for a type of cancer, the higher its prevalence rate will be. CNPP, Page 45.
- 66. The answer is d.**
More than 50% of all bladder cancer cases can be attributed to smoking. However, all four factors play some role in the development of bladder cancer. CNPP, Page 1228.
- 67. The answer is a.**
The highest incidence of breast cancer is in non-Hispanic white women, less in African American women, and the lowest in Asian/Pacific Islander women. The incidence increases with age. Approximately 79% of breast cancers occur in women who are 50 years of age or older, with a decrease in women 80 years of age. CNPP, Page 1281.
- 68. The answer is c.**
The highest overall cancer incidence rates occur among African American men followed by Non-Hispanic white, American Indian and Alaska Native, Hispanic/Latino, and Asian American/Pacific Islander. CNPP, Page 56.
- 69. The answer is a.**
For cervical cancer, the highest incidence rates are among Hispanic/Latino females. CNPP, Page 1399.
- 70. The answer is c.**
Adenocarcinoma of the esophagus is more prevalent among Caucasians. Squamous cell carcinoma is more prevalent among Asians and African Americans. CNPP, Page 1534.
- 71. The answer is b.**
New cervical carcinomas remain highest in women 35–54 years of age. CNPP, Page 1398.
- 72. The answer is d.**
The only risk factor definitively related to the development of primary brain tumors is radiation to the head and neck area. CNPP, Page 1351.
- 73. The answer is a.**
Japan, Korea, and China have the *highest* incidence of stomach cancer in the world. The lowest incidence rates are found in Western Africa. CNPP, Pages 1938–1939.

- 74. The answer is b.**
African Americans and Native Hawaiians are at higher risk of developing lung cancer than Caucasian Americans, Japanese Americans, and Latinos. African Americans have higher cotinine levels than Caucasian and Hispanic smokers when smoking the same number of cigarettes. CNPP, Page 1682.
- 75. The answer is c.**
Viruses are a link to approximately 20% of cancers worldwide. HCC is associated with hepatitis B virus, cervical cancer with human papillomavirus (types 16 and 18), and Burkitt's lymphoma with the Epstein-Barr virus. CNPP, Page 67.
- 76. The answer is b.**
Women have an increased susceptibility to tobacco carcinogens and exhibit more tobacco-related mutations than men, such as mutations of the *TP53* gene. CNPP, Page 1682.
- 77. The answer is d.**
A family history of breast cancer is associated with a higher incidence of ovarian cancer. The use of oral contraceptives provides long-term protection against ovarian cancer. With the exception of Japan, industrialized nations have the highest incidence of ovarian cancer, not developing countries. Women with higher educational and socioeconomic levels (not lower levels) tend to delay childbearing, have fewer children, and have a higher incidence of ovarian cancer. CNPP, Page 1794.
- 78. The answer is a.**
The mortality rate of African American males is twice that for Caucasian males. American Indian and Alaska Natives have a similar death rate as Caucasians. Hispanic/Latino men have the fourth-highest death rate. CNPP, Pages 57, 1848.
- 79. The answer is a.**
One of the strongest risk factors for bladder cancer involves occupational exposure to aromatic amines, benzidine, and aniline dyes. Smoking is also an important exogenous risk factor. CNPP, Page 1228.
- 80. The answer is a.**
Hepatitis B virus infection is the leading cause of hepatocellular carcinoma throughout the world. Hepatitis C virus is the leading cause of hepatocellular carcinoma in the United States, Europe, and Japan. CNPP, Page 1652.
- 81. The answer is d.**
Data regarding the genetic basis of cancer have been derived from a number of sources, including familial patterns. Families with a hereditary predisposition to cancer often have multiple cases of cancer at an earlier age than what would be expected for the general population. CNPP, Page 114.
- 82. The answer is d.**
The most recognized and common risk factor for multiple myeloma is MGUS. In addition to the other risk factors listed, male gender, increasing age, and African American ethnicity are factors. CNPP, Page 1755.
- 83. The answer is b.**
The primary risk factors for breast cancer are family history of breast cancer, increasing age, genetic proof of *BRCA1* or *BRCA2*, history of benign breast disease, late age at first live birth, nulliparity, early age at menarche, late age at menopause, high socioeconomic status, being Jewish, estrogen replacement therapy, exposure to chest radiation, dense breasts, and having complex fibroadenomas. CNPP, Page 1283.
- 84. The answer is d.**
BRCA2 gene mutation has been identified on the long arm of chromosome 13 (13q12.13). This mutation seems to be associated with male breast cancer and greater risk of early breast and ovarian cancer. It is not genetically related to *BRCA1*, and the *BRCA2* gene mutation has been associated with prostate cancer, pancreatic cancer, malignant melanoma, and carcinoma of the fallopian tube and peritoneum. CNPP, Page 148.

- 85. The answer is c.**
The majority of HCCs cases occur in people with chronic hepatitis B, hepatitis C, or cirrhosis. Other risk factors for HCC include environmental and chemical toxins, alcohol and smoking, and hereditary factors. CNPP, Page 1653.
- 86. The answer is b.**
HPVs are members of the family of deoxyribonucleic acid (DNA) tumor viruses that can cause cellular hyperproliferation and a variety of warty infections. HPV 16 is the most carcinogenic and is associated with squamous carcinoma. HPV 18 is the second most common type and associated with adenocarcinoma of the cervix. HPV 35 has evidence for cervical cancer but is rare, only 9% as compared to 70% of HPV 16 and 18. Cervical cancer is rare in women who are nulliparous or in lifetime monogamous relationships. Women who smoke are two times more likely to develop cervical cancer compared to nonsmokers. CNPP, Pages 1399–1400.
- 87. The answer is b.**
Helicobacter pylori is the strongest risk factor for the development of stomach cancer, accounting for 60% gastric cancer cases worldwide. The prevalence of *H. pylori* is higher in developing countries than industrialized countries with rates exceeding 80% in some less developed countries. High intake of excessive salt such as smoked or salted meats and fish are associated with increased risk, and smoking continues to be considered a risk factor. CNPP, Page 1939.
- 88. The answer is a.**
HPV (types 16 and 18), cervical cancer, and genital warts are risk factors for vaginal cancer. Maternal use of DES and numerous sexual partners are also associated with vaginal cancer. CNPP, Page 1992.
- 89. The answer is c.**
Although many chemicals are carcinogenic in animals and produce brain tumors, the substances that have been tested include chemicals in pesticides, herbicides, and fertilizers. CNPP, Page 1351.
- 90. The answer is a.**
Approximately 5%–10% of breast cancer cases are genetically related to *BRCA1/BRCA2*, and breast cancers linked to these mutations occur more often in younger women. A woman with a strong family history of breast cancer is generally defined as having four or more genetically related women affected with the disease; women who have inherited a mutation on *BRCA1* and *BRCA2* have up to an 85% risk of developing breast cancer by age 70. CNPP, Page 1284.
- 91. The answer is b.**
Multiple etiologic and risk factors are associated with skin cancers. High-risk factors for CM include skin color, actinic keratoses, dysplastic nevi, and congenital. Other possible risk factors for CM include ultraviolet (UV) radiation, age, hormonal factors, immunosuppression, and a previous history of melanoma. CNPP, Pages 1900–1901.
- 92. The answer is b.**
The number of family members with ovarian cancer defines the individual's degree of risk. If one member has ovarian cancer, there is a 2- to 3-fold increased risk. If two or more family members have the disease, the lifetime risk increases to 70%. Ovarian cancer tends to be more common among white upper-income groups in highly industrialized countries. CNPP, Page 1797.
- 93. The answer is c.**
The risk factors for NHL can be divided into four groups: immune suppression, toxic exposure, infectious agents, and familial. However, the most common risk factor is immune suppression, both primary and acquired. CNPP, Page 1723.
- 94. The answer is c.**
Suppressor proteins “turn off” cell growth. Because the genes coding for these proteins have an opposite function to that of oncogenes, they are called antioncogenes. Because they suppress malignant growth, they are also called tumor suppressor genes. CNPP, Page 8.

95. The answer is b.

The *p53* gene is one of the most important of the tumor suppressor genes. Not only is it the most frequently mutated gene, DNA viruses produce proteins that inactivate the *p53* protein. CNPP, Pages 6, 688, 1229, 1490, 1498, 1536.

96. The answer is b.

Familial carcinogenesis is based on a group of genes that, when mutated, cause cancer by their absence; that is, they seem to prevent cancer when they are functioning normally. These protective genes are the cancer suppressor genes. CNPP, Page 7.

97. The answer is b.

The ras oncogenes appear to function early in the process of carcinogenesis and may be a good target for early detection. CNPP, Pages 8–9, 20.

98. The answer is b.

Genes that predispose for cancer development are generally transmitted in an autosomal dominant fashion, meaning that individuals who harbor a mutated gene have a 50% chance of passing the mutated gene on to their children. Inheritance of the altered gene confers an increased risk for developing cancer. The pattern of transmission seen with cancer susceptibility genes is usually vertical, meaning successive generations are affected; depending on the disease, males and females are generally equally affected. CNPP, Pages 138–139.

99. The answer is b.

Inheritance of the *BRCA1* susceptibility gene is associated with a strong likelihood that the effect of the mutation will result in the disease for families with multiple breast and ovarian cancers as well as for those with breast cancers diagnosed before the age of 45. CNPP, Pages 146–150, 177, 1284.

100. The answer is a.

Most people believe cancer risk is increased simply because someone in the family has cancer, which is not true. Only 5%–10% of all cancers are hereditary. CNPP, Page 138.

101. The answer is b.

The *BRCA2* gene is associated with an increased susceptibility to both breast and ovarian cancer. CNPP, Pages 146–153, 2084.

102. The answer is d.

Persons who have a FAP have 100% risk of developing colorectal cancer. Individuals who have a first-degree relative with colorectal cancer have double the risk for developing adenomatous polyps, which are precursors of colorectal carcinoma. CNPP, Pages 1206–1208.

103. The answer is b.

Germ cell mutations are transmitted to the next generation at birth and are responsible for hereditary (familial) cancer. Most human cancers result from a combination of acquired and inherited mutations with alterations of both oncogenes and antioncogenes. CNPP, Page 137.

104. The answer is a.

After 20 years, the probability of developing contralateral breast cancer is approximately 27% among women with hereditary breast cancer compared to 5% among women with breast cancer in the general population. The risk of contralateral breast cancer is highest among women with hereditary breast cancer that is diagnosed before the age of 50. More than 40% of women in this group develop contralateral breast cancer during the 20 years after their initial breast cancer diagnosis. Adjuvant hormone therapy reduces the risk of contralateral breast cancer. CNPP, Pages 149–153, 1317–1318.

F. SURVIVORSHIP

- 105. The answer is b.**
The actual cancer incidence has decreased but the number of cancer survivors continues to climb due to population growth, aging population, and improvements in cancer detection and treatment. Breast cancer survivors are the largest group followed by prostate and colorectal survivors, but there are other groups of survivors as well. CNPP, Page 2030.
- 106. The answer is c.**
The success of any cancer survival program depends on the commitment of the healthcare team to provide ongoing evaluation and planning for change in the lives of survivors. Under such a dynamic program, preventive and restorative goal setting (redefinition of goals) become critical to a long-term survivorship trajectory that is characterized by minimal debilitation and a wellness orientation. Particular attention is also paid to the ongoing and long-range implications of financial burden imposed by cancer. CNPP, Pages 2006–2007.
- 107. The answer is c.**
Rehabilitation refers to the process by which individuals, within their environments, are assisted to achieve optimal functioning within the limits imposed by cancer. The goals are to improve the quality of life for those experiencing cancer and to help the individual regain wholeness. CNPP, Pages 2007, 2041.
- 108. The answer is d.**
Severity or duration of disease is the factor most closely related to the cancer patient's rehabilitation needs. The physical needs frequently occurring with a variety of cancers include general weakness, limited activities of daily living, and issues related to limited morbidity. CNPP, Pages 2041–2042.
- 109. The answer is b.**
A cross-sectional study of 377 cancer survivors reported that fatigue, fear of recurrence, and living with uncertainty were identified as the highest-ranking concerns. CNPP, Page 70.
- 110. The answer is d.**
The population of cancer survivors is increasing with 50% of adults and 83% of children surviving beyond 5 years after their diagnosis. CNPP, Page 2006.
- 111. The answer is c.**
Tracheoesophageal prosthesis enables the patient to divert exhaled pulmonary air through a surgically constructed fistula tract directly into the esophagus. CNPP, Page 1588.
- 112. The answer is c.**
Liquids are the most difficult thing for the patient to swallow without aspirating. Thickening agents can be used. Swallowing rehabilitation with a speech-language pathologist is essential. CSM, Pages 392–393.
- 113. The answer is b.**
A second primary lesion refers to a histologically separate malignant neoplasm in the same patient. A general rule is always to biopsy the first recurrence, because it may represent a new, curable, or treatable malignancy. Bladder, colorectal, and melanoma are associated with secondary malignancies of bladder cancer. CNPP, Page 2036.
- 114. The answer is d.**
Surgery may be used to resect a metastatic lesion if the primary tumor is believed to be eradicated, if the metastatic site is solitary, and if the patient can undergo surgery without significant morbidity. CNPP, Page 1663.

- 115. The answer is a.**
The most common second malignant neoplasms following radiation therapy are breast and thyroid cancers. Other common solid tumor cancers seen after radiation therapy include lung cancer, bone sarcoma, and gastrointestinal tumors. CNPP, Page 2035.
- 116. The answer is a.**
In patients with prostate cancer, there is an increased risk of the development of colorectal cancer, bladder cancer, and melanoma. CNPP, Page 2036.
- 117. The answer is d.**
In a study of survivors of Hodgkin disease, a risk of secondary cancers was noted 20 years posttreatment. Eighty percent of secondary solid tumors are associated with radiation therapy. CNPP, Page 2035.
- 118. The answer is a.**
Adults and children who have received chemotherapy or radiation therapy, or both, for a primary malignancy are at increased risk for the development of a second malignant neoplasm. Alkylating agents and ionizing radiation are the treatments most closely linked to a second malignant neoplasm. CNPP, Page 2035.
- 119. The answer is a.**
Alkylating agents have a demonstrated causative relationship to AML. AML is the most frequently reported secondary cancer following aggressive chemotherapy for Hodgkin disease, non-Hodgkin lymphoma, multiple myeloma, ovarian cancer, and breast cancer. CNPP, Page 2035.
- 120. The answer is a.**
The risk of breast cancer correlates with increased radiation dosage, especially if a woman is exposed to radiation in the period of young adulthood. CNPP, Page 371.
- 121. The answer is b.**
Estimates indicate that 20%–70% of family caregivers miss work or quit their jobs. The highest economic burden is during the patients' continuing phase of treatment and for patients with lung cancer. The Family Medical Leave Act guarantees only unpaid leave to care for a seriously ill spouse. CNPP, Page 2053.
- 122. The answer is a.**
Individuals with low annual incomes are more likely to die of cancer than those with high annual incomes. CNPP, Page 55.
- 123. The answer is d.**
A primary barrier to cancer care for many ethnic minority populations is access to health care, especially among the socioeconomically disadvantaged. CNPP, Page 55.
- 124. The answer is b.**
Research indicates that survivors and family caregivers who have more fear of cancer recurrence are younger. Fear of recurrence is not a sign of poor coping as it is a natural response to having a life-threatening illness. CNPP, Page 2049.
- 125. The answer is d.**
HIPAA mandates security and privacy regulations for electronic health information. CNPP, Page 2121.
- 126. The answer is a.**
The unemployment rate is higher among cancer survivors versus the general population. Thirty percent of cancer survivors are unable to return to work. Unemployment rates are the highest among survivors of breast, gastrointestinal (GI), and GYN cancers and the majority of cancer survivors are not depressed. CNPP, Page 2037.
- 127. The answer is b.**
The illness draws most couples closer together as the partners learn to appreciate each other more and to value their time together. There is NO significant difference in marital satisfaction of couples coping with cancer. CNPP, Page 2050.

- 128. The answer is a.**
Protective buffering is hiding cancer-related worries from a partner and denying concerns in an effort to avoid disagreement. Protective buffering increases emotional distress of both persons and decreases marital satisfaction. CNPP, Page 2050.
- 129. The answer is b.**
Three patterns of communication have been noted to occur among professionals, patients, and family members: privileged, filtered, and balanced. CNPP, Pages 2054–2055.
- 130. The answer is a.**
A major strategy that professionals can use to promote patient-family communication is to encourage patients and family members to work as a team to manage the effects of the illness. CNPP, Page 2056.
- 131. The answer is d.**
All answers relate to the definition of sexual health, but the World Health Organization (WHO) provides the global definition of sexual health as a state of physical, mental, and social well-being in relation to sexuality. CSM, Page 507.
- 132. The answer is c.**
Managing sexuality issues in adults with cancer is fraught with the complexities of cancer diagnosis, treatment, and comorbidities. Healthcare providers must remember that sexuality, physical, and emotional intimacy are lifelong needs of individuals and need to be addressed as a component of cancer care. CNPP, Pages 1036–1037.
- 133. The answer is c.**
Preservation of the cavernous nerves is the most important factor for post-prostatectomy erectile function recovery. Cavernous nerve reconstruction can be undertaken to preserve spontaneous erectile function. PDE5 inhibitors have also been used to manage erectile dysfunction in men who have had a radical prostatectomy. CNPP, Page 1016.
- 134. The answer is a.**
Education and counseling are basic interventions for alterations in sexual health. It may be difficult for patient and family to adapt to role playing. Another problem is that patients are generally not screened for participation. Screening increases the probability of identifying patients and partners with preexisting problems that may require more intensive therapy. CNPP, Pages 1029–1030.
- 135. The answer is a.**
Primary reasons healthcare providers do not discuss issues related to sexual concerns is personal discomfort, lack of knowledge and training, and fear of embarrassing themselves and patients. Lack of time is another reason and some nurses believe it is not their responsibility. CNPP, Page 1026.
- 136. The answer is b.**
While all patients should be assessed for alterations in sexuality, it is important to recognize those who may be at higher risk for sexual dysfunction, which includes women older than age 30, and postpuberty men. CNPP, Pages 1026–1027.
- 137. The answer is c.**
If more than the anterior third of the vaginal wall is removed, the diameter of the introitus and the vaginal barrel can be severely compromised, and intercourse may be restricted. She needs instruction on vaginal dilation and to use liberal lubrication. Orgasm is not diminished. CNPP, Page 1017.
- 138. The answer is b.**
For women receiving radiation therapy to the vagina, vaginal fibrosis and scarring with a loss of blood supply and elasticity is a major adverse effect. Frequent intercourse can minimize these effects. For patients who are not sexually active, the use of a vaginal dilator with water-soluble lubricants or prescribed estrogen cream starting 2 weeks after treatment are effective prophylactic measures to minimize functional loss. CNPP, Page 1997.

139. The answer is d.

The new urinary diversions and neobladder have resulted in improved quality of life, decreased alterations in sexual function, and decreased odor and urine leakage. A radical cystectomy with urinary diversion can affect many aspects of sexual functioning; however, penile sensation is not altered. CNPP, Page 1014.

140. The answer is a.

Permanent damage to erectile function with loss of emission and ejaculation may occur with perineal resection or radical prostatectomy. Retrograde ejaculation is common with transurethral and transabdominal resection and erectile dysfunction with transabdominal resection. Bilateral orchiectomy causes sexual dysfunction through gradual diminution of libido, impotence, gynecomastia, and penile atrophy. CNPP, Page 1016.

G. TREATMENT-RELATED CONSIDERATIONS

141. The answer is a.

The target organs most commonly affected are the thyroid, ovaries, and testes. Late effects can include alterations in metabolism, growth, secondary sexual characteristics, and reproduction. CNPP, Page 2031.

142. The answer is b.

High doses of radiation to the hypothalamic pituitary axis can damage the hypothalamus and disrupt the production of growth hormone. Growth hormone deficiency with short stature is one of the most common long-term endocrine consequences of radiation to the central nervous system in children. CNPP, Pages 363–364, 1501.

143. The answer is a.

Fatigue is normal for many months following treatment and often occurs with other symptoms. CNPP, Pages 804, 2014. CSM, Pages 27–29.

144. The answer is b.

Nephritis and cystitis are the major long-term renal toxicities that result from cancer treatment. Damage to the nephrons and bladder has been documented in patients treated with cyclophosphamide, ifosfamide, and cisplatin. Treatment for late effects on the bladder may include drug therapy to reduce cystitis. CNPP, Pages 369, 546–547.

145. The answer is c.

Patients with HIV and neutropenia, who have had prolonged treatment with corticosteroids, or who have had prolonged immunosuppression, should be assessed for the development of *Pneumocystis jiroveci*. Because symptoms are insidious, a prolonged fever that is unresponsive to antibiotics and associated with a nonproductive cough and dyspnea on exertion may indicate infection. CNPP, Page 593.

146. The answer is c.

The late effects of central nervous system treatment, including neuropsychological, neuroanatomic, neurophysiologic changes and cognitive impairment, have been observed most commonly in children with acute lymphoblastic leukemia and brain tumors and in small cell carcinoma of adult lung patients, all of whom received central nervous system treatment for the primary tumor. CNPP, Pages 1379, 2032. CSM, Pages 637–641.

147. The answer is b.

The late effects after cancer treatment result from physiologic changes related to particular treatments or to the interactions among the treatment, the individual, and the disease. Unlike the acute side effects of chemotherapy and radiation, however, late effects are believed to progress over time and by different mechanisms. They can appear months to years after treatment; can be mild, severe, or life threatening; and can be clinically obvious, clinically subtle, or subclinical. Their impact appears to depend on the age and development stage of the patient. CNPP, Page 2030.

- 148. The answer is a.**
One-third to one-half of cancer survivors experience sleep disturbances of some kind. CNPP, Page 1053.
- 149. The answer is b.**
Beau's lines indicate a reduction in or cessation of nail growth in response to cytotoxic therapy. Drugs that are implicated include bleomycin, cisplatin, docetaxel, melphalan, and doxorubicin. CNPP, Page 601.
- 150. The answer is b.**
Secondary malignancies account for 16%–20% of all cancers and include both hematologic and solid tumor malignancies. CNPP, Page 2035.
- 151. The answer is b.**
Hematologic secondary malignancies usually occur within 10 years from treatment and the risk increases with the amount of bone marrow exposed, yet the risk is generally not elevated with increased dosage of radiation therapy. CNPP, Page 2035.
- 152. The answer is d.**
Approximately 80% of secondary solid tumor malignancies are associated with radiation therapy and is dependent on radiation dose, area treated, and age of patient. In contrast to hematologic secondary malignancies, higher doses are associated with increased risk for development of secondary solid tumor malignancies. CNPP, Page 2035.
- 153. The answer is c.**
Children treated for cancer with radiation therapy are more likely to develop breast cancer. CNPP, Page 2035.
- 154. The answer is a.**
Chemotherapy carries a higher risk than radiation therapy of causing leukemia. Generally, individuals develop myelodysplastic syndrome that progresses to leukemia. CNPP, Page 2035.
- 155. The answer is c.**
Breast cancer recurrence is possible 15 years or even longer after the initial diagnosis; thus, it is important to be followed by an oncologist or PCP experienced in breast cancer survivor surveillance. If the patient has early stage breast cancer, she can be transferred to her PCP 1 year after the initial diagnosis. CNPP, Page 2039.
- 156. The answer is c.**
Follow-up care for potential late effects of the patient with NHL should include Blood tests, electrocardiogram for cardiac assessment, and a DXA scan for potential bone loss. Cognitive assessment is also important but pulmonary function tests are not necessary. CNPP, Page 2033.
- 157. The answer is b.**
Regular follow-up should be the focus of their care and usually involves quarterly pelvic examinations in the initial years after diagnosis because most recurrences will take place in the first 3 years following initial treatment. Education about a healthy lifestyle and regular screening for other cancer is also important. CNPP, Page 1529.
- 158. The answer is d.**
Most institutions now propose 35 years of follow-up be conducted given that secondary malignancies can occur up to this point and have become the leading cause of death in testicular cancer survivors. CNPP, Page 1972.
- 159. The answer is d.**
There is increased momentum for utilization of the advanced practice provider model, in part due to the strain on the healthcare system associated with the growing survivorship populations and shortage of physician providers. CNPP, Page 2041.

H. END-OF-LIFE CARE

- 160. The answer is b.**
She may be suffering prolonged grief distress, which is a severe reaction to loss and may manifest itself as psychopathologic bitterness toward the loss. The nurse should be able to identify and recommend referrals for abnormal types of grief. It is therapeutic to review a person's life with a loved one. Listening to a family member share stories of their life with the loved one honors the meaning of their relationship and their life together. Funeral planning can be therapeutic and facilitate someone's loss as they do one last thing in a special way for their loved one. Delegating responsibilities that can be overwhelming or too painful might actually be an indicator of the grieving party being aware of their limitations and calling on their resources and support systems. CSM, Pages 674–675.
- 161. The answer is b.**
It is helpful to explore previous losses and coping mechanisms used in an individual experiencing anticipatory loss. CSM, Page 674.
- 162. The answer is a.**
Grief is a normal process of experiencing the psychological, behavioral, social, and physical reactions to the perception of loss. The outward expression of loss and process of adapting is "mourning." The time period given to grief and mourning is "bereavement." CSM, Page 674.
- 163. The answer is c.**
Four types of grief are distinguished as 1) anticipatory grief, 2) preparatory grief, 3) complicated grief, and 4) prolonged grief. CSM, Page 674.
- 164. The answer is d.**
A study of patients with a terminal diagnosis of cancer reported that anxiety was the strongest predictor of preparatory grief followed by depression and hopelessness. CSM, Page 674.
- 165. The answer is b.**
Persistent avoidance of activities and friends after the death of her husband and symptom duration more than 1 month is indication of a posttraumatic stress disorder. She should be referred to an appropriate professional. CNPP, Page 220.
- 166. The answer is d.**
According to Domain 7 of the National Consensus Guidelines for Palliative Care, a post-death bereavement plan should be activated when an interdisciplinary team member is assigned to the family in the post-death period to help with religious practices, funeral arrangements, and burial planning. CSM, Pages 699–700.
- 167. The answer is d.**
Routine home care provided by hospice staff, continuous home care with skilled nursing, respite care to caregivers, and break and inpatient care with limitations on days are the four levels of hospice care. Funding is not provided by Medicare for residential care, day care, and extended caregiver services. CNPP, Pages 2067–2068.
- 168. The answer is a.**
Families of patients dying without hospice care may not have been made aware of bereavement support which is available as a part of hospice care. They are not eligible for clinical trials with curative intent and day care is not a service of hospice care. CSM, Page 713.
- 169. The answer is c.**
Hospice care is a medically directed, interdisciplinary team-managed program of services that focuses on the patient and family as the unit of service. Hospice services provide medical care, pain management, and emotional and spiritual support. CNPP, Page 2068.

- 170. The answer is a.**
Families often believe the information they receive from healthcare professionals regarding coping is insufficient. The family begins to prepare for the unavoidable pain of loss and the necessary adjustments that must be made (hospice care) if sufficient information is presented to them. Families desire honest communication, despite the use of denial, as well as appropriate referrals. Denial is viewed as a healthy coping mechanism that with appropriate information will help the wife gradually accept the next level of care. CNPP, Pages 2054–2057.
- 171. The answer is b.**
The patient must desire palliative, not curative, treatment. Patients can receive treatments that are aimed at palliation, not cure. Blood is generally not given but can be for palliative reasons, as can pamidronate. CNPP, Pages 2068–2069.
- 172. The answer is d.**
The Caregiver Reaction Assessment was developed for family members to provide information. The other instruments have been developed expressly to capture the elements that are important to patients at the end of life. CNPP, Page 220.
- 173. The answer is b.**
Most children and adolescents whose parent is ill are well adjusted, but a significant number are at risk for moderate to high levels of emotional distress and behavioral problems. Researchers have found that children's responses vary by developmental age. Compared to younger children, adolescents report more problems with anxiety and depression. CNPP, Pages 2049–2050.
- 174. The answer is b.**
The family member should not deny their feelings but communicate openly with the patient. Interventions include promoting optimism and hope, providing support, and facilitating communication between the patient and family. CNPP, Page 2056.
- 175. The answer is c.**
Hospice care pivots around the idea of palliative medical management. Palliative management involves a shift in treatment goals from curative toward providing relief from suffering. CNPP, Pages 2067–2069.
- 176. The answer is a.**
The hospice team's goal is to help the family prepare for their loved one's death. Families need to be prepared for the actual time of the patient's death and what universal signs they can anticipate. Increasing sleep, a gradual decrease in need for food and drink, increased confusion or restlessness, decreasing temperature of extremities, and irregular breathing patterns may occur. CNPP, Pages 2077–2081. CSM, Pages 712–713.
- 177. The answer is c.**
A disadvantage to this model of care is that consults are often requested late when patients are near the end-of-life. CNPP, Page 2071.
- 178. The answer is b.**
The evaluation and selection of palliative care arrangements requires individual attention to the needs and goals of the patient. Two important considerations in this selection process are the patient's resources and geographical location. CNPP, Page 2070.
- 179. The answer is c.**
The most common indication for radiation therapy at the end-of-life is to control pain from bone metastases. CNPP, Pages 327, 1263.

- 180. The answer is b.**
National Comprehensive Cancer Network (NCCN) guidelines to remove liver metastases in patients with colon cancer indicate that the surgeon must be able to completely remove all tumor and yet have adequate liver tissue remaining. CNPP, Page 1445.
- 181. The answer is c.**
A barrier is that some oncologists believe that end-of-life discussions are the sole responsibility of the oncologist and do not want other providers to become involved in decision-making. Research has shown that patients do not lose hope once palliative care is initiated. The term “palliative care” was a barrier to referral, not daily care, as reported by a study done at MD Anderson Cancer Center. Oncology providers preferred the term “supportive care” instead when providing inpatient and outpatient referrals. CNPP, Page 2070.
- 182. The answer is c.**
The four primary models of palliative care are inpatient palliative care unit, inpatient consult, outpatient/clinic, and home-based (palliative care, hospice, telehealth). CNPP, Page 2071.
- 183. The answer is c.**
Although continuous pulse oximetry is used widely, patients and family members often focus on the monitor, which can increase anxiety and fear. Opioids are the first-line therapy in relieving dyspnea without causing respiratory depression. Bronchodilators can relieve bronchospasm but can also increase anxiety. CNPP, Page 2078.
- 184. The answer is a.**
Reality orientation is not considered beneficial in actively hallucinating patients. In fact, correcting the patient’s perceptions may only increase anxiety and agitation. Be open to comments by dying patients about “going home” or seeing loved ones who have previously died. These are common behaviors seen during the dying process. CNPP, Page 2079. CSM, Pages 702–704.
- 185. The answer is b.**
Research demonstrates that patients do not suffer or experience discomfort due to dehydration. Tube feedings may actually contribute to decreased survival due to aspiration and abdominal distention. Family members may inadvertently try to force patients to eat or drink, leading to aspiration or simply to decrease discomfort for the patient. CNPP, Pages 2080–2081.
- 186. The answer is a.**
Scopolamine is used to manage excessive salivation and respiratory tract secretions. CNPP, Pages 2078–2079. CSM, Page 705.
- 187. The answer is d.**
Pain cues include changes in overt behaviors (aggressiveness, restlessness, and agitation), sounds (increases or decreases in verbalization or vocalization), or appearances (facial expressions or body language). CNPP, Page 2077.
- 188. The answer is c.**
Room air directed at the person’s face can provide some relief of the feeling of breathlessness. Opioids are the first-line therapy in relieving dyspnea. Opioids decrease the intensity of dyspnea regardless of the underlying pathophysiology without causing respiratory depression. Low doses of an opioid administered on an as-needed basis are generally very effective in patients with mild to moderate dyspnea who have not previously been taking opioids. CNPP, Page 2078.

- 189. The answer is d.**
Anticholinergic medications, including scopolamine or glycopyrrolate, are effective for decreasing oral secretions once the patient is unable to mobilize them himself. Although suctioning visible pooled secretions in the posterior oral cavity may be effective, suctioning is usually ineffective. It may be contraindicated because of the associated discomfort and because the site of the accumulated secretions is generally inaccessible. Glucocorticoids are ineffective in managing fluid in the oral pharynx, and benzodiazepines only sedate the patient. CNPP, Pages 2078–2079. CSM, Pages 704–706.
- 190. The answer is d.**
Haloperidol can be used to treat opioid-induced acute confusion states (e.g., hallucinations, agitation, from delirium). CNPP, Page 2079. CSM, Pages 703–704.
- 191. The answer is d.**
Octreotide or somatostatin is used to minimize intestinal secretions. CNPP, Page 1457.
- 192. The answer is b.**
Palliative sedation is use of medicines to provide decreased consciousness and to relieve intractable symptoms and suffering in the final hours and days of life. CNPP, Page 2081. CSM, Pages 706–711.
- 193. The answer is a.**
The most frequently addressed factors for the use of palliative sedation are pain, delirium, and other symptom distress that is intolerable for the patient. CNPP, Page 2081.
- 194. The answer is c.**
Delirium is distinct from dementia and psychoses. Delirium at the end-of-life presents in one of three ways: 1) as a hyperactive state with agitated behavior such as picking at bed covers; 2) as a hypoactive state with lethargy, anxiety, incoherent speech; or 3) a combination of hyperactive and hypoactive states. CSM, Pages 700–701.
- 195. The answer is d.**
Repositioning the patient to the side and slightly elevating the head of the bed is helpful. Intravenous fluids should be decreased or stopped. Suctioning is usually not recommended as it is thought to cause more discomfort and agitation. CSM, Page 706.
- 196. The answer is a.**
A restful environment, such as soft lighting and soothing music, decreases extraneous stimuli. The presence of a family member or familiar person may be calming. Reality orientation is not beneficial in hallucinating patients and correcting patient's perceptions can increase anxiety and agitation. CNPP, Page 2079. CMS, Page 704.
- 197. The answer is b.**
The Nursing Delirium Screening Scale is an observational scale that can be completed quickly and was created to assess patients for delirium over time that is easy to use and time efficient. The Revised Delirium Rating Scale is the most widely used to measure delirium symptom severity. CSM, Pages 702–703.
- 198. The answer is c.**
The two most important nursing considerations as death approaches are expert symptom management and family preparation. CNPP, Pages 2080–2081.
- 199. The answer is d.**
Nurses caring for dying patients may experience compassion fatigue or "burnout," leading to difficulty coping. It can also be an extremely meaningful and rewarding experience for some nurses. CSM, Pages 713–715.

200. The answer is c.

Risk factors for compassion fatigue are younger age, high levels of empathy, unresolved personal trauma or loss, lack of professional or institutional supports, and frequent exposure to trauma or loss. CSM, Pages 713–715.

201. The answer is a.

Palliative sedation does not alter the timing or the mechanism of a patient's death, as refractory symptoms are most often associated with very advanced terminal illness. Assisted death is when a physician prescribes a life-ending medication. Palliative decision-making needs to involve the interdisciplinary team with the patient and family. There is no requirement that the team meets with the ethics committee. CNPP, Page 2081.

202. The answer is a.

Research has shown that of 5,875 patients who committed suicide, 2,111 (36%) did so within the first year of diagnosis, and 1 in 3 of those did so within one month of diagnosis. However, suicide risk remains high among some survivors after successful treatment. CSM, Page 658.