

**Directions: Questions (1-24) Circle the one best answer**

- C 1. A 54-year-old female had 3 hyperplastic polyps removed on a screening sigmoidoscopy. The fecal occult blood is negative. Based upon the above information, you will now recommend:  
(A) Colonoscopy now and repeat every 5 years  
(B) Colonoscopy now and repeat every 3 years  
(C) Annual fecal occult blood and sigmoidoscopy every 3-5 years  
(D) Colonoscopy in one year and then repeat every 3 years
- B 2. A 26-year-old male patient is diagnosed to have a melanoma on the right thigh. The right inguinal lymph nodes are enlarged and the biopsy of the lymph nodes confirms the diagnosis of metastatic melanoma. A local wide excision and the regional lymph node dissection is performed. What additional treatment will improve this patient survival?  
(A) Radiation therapy to regional lymph nodes  
(B) Interferon therapy for one year  
(C) Combination chemotherapy  
(D) Radiation plus combination chemotherapy
- C 3. A 60-year-old patient is diagnosed to have a 2 cm squamous cell carcinoma involving the anal canal. Select the best treatment option for this patient:  
(A) External beam radiation  
(B) Abdominoperineal resection and a permanent colostomy  
(C) External beam radiation plus chemotherapy with 5 FU and Mitomycin  
(D) Chemotherapy with 5FU and Mitomycin
- B 4. A 56-year-old female with diffuse large cell lymphoma is started on CHOP therapy. Four hours after starting therapy, patient complains of extreme weakness. Select the blood values which are most likely to be found:  
(A) ↓K, ↑uric acid, ↑BUN/Cr, ↓P, ↑Ca  
(B) ↑K, ↑uric acid, ↑BUN/Cr, ↑P, ↓Ca  
(C) ↓K, ↑uric acid, ↑BUN/Cr, ↑P, ↑Ca
- B 5. A 26-year-old male comes to your office for routine examination. His father died at age 45 with colon cancer and his mother died at age 66 with colon cancer. His 40-year-old brother was recently diagnosed to have colon cancer. The physical examination is normal and stool occult blood is negative. Based upon the above information, you will now recommend:  
(A) Flexible sigmoidoscopy  
(B) Colonoscopy now and repeat every 2 years and yearly after age 40  
(C) No further testing  
(D) Annual fecal blood testing

Dx: Tumor  
Lysis  
Syndrome

Dx: Familial  
neoplasia  
Syndrome

- C 6. BRCA-1 and BRCA-2 gene mutation is associated with increased risk of following cancers except:  
(A) Breast cancer  
(B) Ovarian cancer  
(C) Cervical cancer  
(D) Prostate cancer
- D 7. A 50-year-old man recently underwent an abdominoperineal resection for a rectal carcinoma. The carcinoma extended through the muscularis into the perirectal fat but none of the lymph nodes were involved by tumor. You will now recommend:  
(A) No further therapy  
(B) Adjuvant chemotherapy  
(C) Adjuvant radiotherapy  
(D) Adjuvant chemotherapy plus radiotherapy
- A 8. A routine pap smear on a 30-year-old woman shows high grade squamous epithelial lesions (HGSIL). A colposcopic biopsy is performed because of above findings and it reveals cervical intraepithelial neoplasia II lesions (CIN II). The lesion involves the cervical canal. Based upon this information, you will now recommend:  
(A) Cervical cone resection  
(B) Cryo or laser therapy  
(C) Repeat pap smear after a course of local antibiotics  
(D) Repeat pap smear in 6 months
- D 9. A 32-year-old male is found to have several hundreds polyps in the colon on sigmoidoscopy. Few polyps are removed and histology reveals all polyps to be adenomatous polyps. A total colectomy with ileo-anal anastomosis is performed. Based upon the above information you will now recommend the screening of his offspring by:  
(A) Annual stool occult blood starting at age 12  
(B) Annual colonoscopy starting at age 12 and until age 35  
(C) Annual colonoscopy starting at age 25 and until age 35  
(D) Annual flexible sigmoidoscopy starting at age 12 and until age 35
- A 10. You are asked to evaluate 60-year-old postmenopausal women who recently underwent lumpectomy and axillary nodal dissection for a infiltrating ductal carcinoma of left breast. The tumor was positive for estrogen receptors and 3 of the 20 lymph nodes removed were positive for tumor. Based upon the above information, you will now recommend:  
(A) Radiation therapy followed by tamoxifen + chemotherapy  
(B) Tamoxifen alone  
(C) Radiation therapy followed by chemotherapy  
(D) Chemotherapy alone

- D 11. A 52-year-old male patient is found to have an elevated PSA level of 15 ng/ml on routine blood testing. He denies any urinary symptoms. The next appropriate step in evaluating this patient should be :
- (A) Bone scan
  - (B) Transrectal sonography
  - (C) Free PSA
  - (D) Transrectal prostate biopsy under sonography
- D 12. You are asked to evaluate a 52-year-old man who recently underwent sigmoid colon resection for carcinoma. On histology the tumor invaded the bowel wall and 4 of the 16 lymph nodes removed were also positive for tumor. There was no liver involvement.
- Based upon the above information, you will now recommend:
- (A) No further therapy
  - (B) Radiation therapy
  - (C) Radiation + chemotherapy with 5 -FU
  - (D) Adjuvant chemotherapy with 5-FU and Leucovorin
- C 13. A 36-year-old female patient presents with history of weakness, fever and night sweats of two weeks duration. Physical examination reveals enlarged cervical and axillary lymph nodes. A chest x-ray shows a mediastinal mass which is  $> 1/3$  rd of the intrathoracic diameter. A CT scan of the abdomen and pelvis is negative. Biopsy of the cervical lymph node reveals Hodgkin's disease of the lymphocytic depletion type. Based upon the above information, you will now recommend:
- (A) Staging laprotomy and splenectomy
  - (B) Combination Chemotherapy
  - (C) Chemotherapy + radiation to the mediastinum
  - (D) Subtotal nodal radiation
- D 14. A 56-year-old woman is brought to the emergency room with history of nausea, vomiting, constipation, polyuria and lethargy of few days duration. She is known to have metastatic breast carcinoma and was recently started on tamoxifen. Based on the above information, most likely cause of her symptoms is:
- (A) Hypokalemia
  - (B) Hyponatremia
  - (C) Intracranial metastasis
  - (D) Hypercalcemia
- C 15. You are asked to evaluate a 36-year-old premenopausal woman who recently underwent modified radical mastectomy for carcinoma of right breast. Tumor was found to be positive for estrogen receptors and 4 of 16 lymph nodes removed were positive for cancer.
- Based upon the above information, you will now recommend:
- (A) Tamoxifen
  - (B) Bilateral oophorectomy
  - (C) Radiation therapy + combination chemotherapy + tamoxifen
  - (D) Radiation therapy to axilla

- C 16. A 64-year-old man is admitted to hospital with marked weakness and anemia. He was diagnosed to have carcinoma of stomach 2 months ago and has been receiving chemotherapy with mitomycin C, 5-FU and doxorubicin. Physical examination shows marked pallor.  
Laboratory studies:  
CBC..... Hb 7 g/dL, Hct 24%, WBC 4600/uL, Platelet count 35000/uL  
Reticulocyte index.....8%  
Peripheral smear.....Fragmented RBC's  
BUN.....50mg/dL  
Cr.....5 mg/dL  
PTT/PT.....Normal  
Based upon the above information, the most likely diagnosis is :  
(A) 5-FU toxicity  
(B) Doxorubicin toxicity  
(C) Mitomycin C toxicity  
(D) Bone marrow metastasis
- D 17. A 40-year-old woman had a pigmented mole removed from anterior aspect of left thigh with a margin of resection of 2 cm. Histology of the lesion shows it to be a melanoma. The tumor's depth of penetration was 1.2 mm. There is no clinical evidence of lymph node or distant metastasis.  
Based upon above information you should now recommend:  
(A) Chemotherapy  
(B) Wide re-excision of the primary site to ensure a 5 cm margin of resection  
(C) Prophylactic left inguinal lymph node resection  
(D) No further treatment
- B 18. A 24-year-old male patient presents with a painless testicular mass. Sonogram reveals a 1.5 cm solid mass. Blood tests show elevated levels of both alpha-fetoprotein and human chorionic gonadotrophin  
Most likely diagnosis is:  
(A) Seminoma  
(B) Non seminomatous germ cell tumor  
(C) Leydig cell tumor  
(D) Sertoli cell tumor
- O 19. Following hereditary disorders are associated with development of colonic polyps and a very high risk of colon cancer except:  
(A) Familial colonic polyposis  
(B) Gardner's syndrome  
(C) Turcot's syndrome  
(D) Kartagener's syndrome

C

20

A 54-year female was recently found to have atypical hyperplasia on a breast biopsy. She has been on hormonal replacement therapy with combined estrogen and progestin for the last 3 years. Both her sister and mother have history of breast cancer. Her calculated risk of breast cancer is 8% over the next 5 years. What is the most appropriate next step in this patient's management:

- (A) Start therapy with raloxifene
- (B) Start therapy with tamoxifen
- (C) Discontinue estrogen and progestin and start tamoxifen
- (D) Discontinue progestin and continue estrogen

D

21

A 70-year-old patient recently underwent transurethral resection of the prostate with the clinical diagnosis of benign prostatic hypertrophy. Histological examination of the prostatic chips reveal evidence of well differentiated adenocarcinoma in one out of twelve chips removed from one lobe.

Based upon the above information you will now recommend:

- (A) Radical prostatectomy
- (B) Radiation to the prostate
- (C) Therapy with estrogen or leuprolide
- (D) No further therapy at this time

A

22

A 74-year-old male patient presents with severe low back pain of few weeks duration. He has a history of metastatic prostatic carcinoma and has been taking leuprolide plus flutamide for the last 1 year. Physical examination including complete neurological examination is normal. X-rays of the lumbar spine reveal several blastic lesions around L3 and L4 vertebra.

The next step in the management of this patient should be:

- (A) MRI of the lumbar spine
- (B) Discontinue leuprolide and flutamide and start combination chemotherapy
- (C) Corticosteroid therapy
- (D) Bilateral orchiectomy

C

23

A 54-year-old woman is admitted to the hospital with increasing abdominal girth, lower abdominal pain and nausea. Physical examination shows tense ascites. CT scan of abdomen and pelvis shows left ovarian mass and diffuse ascites. Paracentesis reveals bloody fluid, which is positive for malignant cells. Based upon the above information you will now recommend:

- (A) Combination chemotherapy
- (B) Combination chemotherapy plus radiation to left ovary
- (C) Bilateral salpingo-oophorectomy, hysterectomy, omentectomy and maximum tumor removal followed by combination chemotherapy
- (D) Intraperitoneal chemotherapy

Dx: Stage IC  
Ovarian Ca.

- C 24 A 39-year-old female patient presents with an eczematoid scaly eruption involving the nipple of her right breast. She has been using hydrocortisone cream locally for few weeks without any improvement. Based upon the above information you will now recommend:
- (A) Oral prednisone for few weeks
  - (B) Fungal culture
  - (C) Mammogram and biopsy of the lesion
  - (D) Oral antibiotics for 2 weeks

Dx = Paget's Dis of Breast

**Directions: Items 25-50 are true and false questions. Mark T for statements that are true and F for statements that are false**

25-28 True statements about prostate cancer include:

- T 25 It is more frequent and more aggressive in blacks
- F 26 Bilateral orchiectomy is superior to leuprolide for patients with metastatic disease
- T 27 Combination of flutamide with leuprolide is better than leuprolide alone for patients with metastatic disease
- T 28 Acid phosphatase is not elevated in patients with cancer localized to the prostate gland

29-32 The true statements about colon cancer include:

- T 29 The administration of adjuvant 5-FU with Leucovorin in patients with stage C cancers improves survival
- F 30 Risk of colon cancer is more common with Crohn's disease than with Ulcerative colitis
- T 31 Patients presenting with streptococcus bovis bacteremia have a high incidence of occult colorectal tumors
- T 32 Following detection of adenomatous polyp on sigmoidoscopy, the entire large bowel should be visualized endoscopically or radiographically

33-37 The true statements about lymphomas include:

- F 33 Systemic symptoms are more common with Non-Hodgkin's lymphoma than Hodgkin's disease
- T 34 Extra lymphatic involvement is more common with Non-Hodgkin's lymphoma
- T 35 Hodgkin's disease has a better prognosis than Non-Hodgkin's lymphoma
- T 36 Staging laprotomy with splenectomy is not indicated in patients with stage II Hodgkin's disease with bulky mediastinal or hilar involvement
- T 37 Long term complications of MOPP therapy for Hodgkin's disease include sterility and increased risk of acute nonlymphocytic leukemia

- 38-42 True statements about ovarian cancer include:
- F (38) CA-125 antigen is specific for ovarian cancer
  - T (39) It is the leading cause of death from genito-urinary cancers in women
  - T (40) Prognosis is directly related to the size of residual tumor after surgery
  - F (41) Most patients present in early stage of the disease
  - F (42) Trans-vaginal ultrasound and CA-125 should be done annually in all women above the age of 30 for early detection of ovarian cancer
- 43-47 True statements about therapy with tamoxifen include:
- T (43) It has both estrogenic and anti-estrogenic effects
  - F (44) It has only anti-estrogenic effects
  - T (45) It increase the risk of endometrial cancer & liver tumors
  - T (46) It reduces the recurrence rate of breast cancer in postmenopausal women
  - T (47) It increase bone density
- 48-50 True statements about cervical cancer include:
- F (48) Screening of women by Pap smear has not reduced the mortality from this cancer
  - T (49) Pap test should be repeated if no endocervical cells are found on smear
  - T (50) Colposcopic biopsy should be performed in women who have low or high-grade squamous intraepithelial lesions on pap smear

### Answers to Oncology Questions

- |     |   |     |   |
|-----|---|-----|---|
| 1.  | C | 26. | F |
| 2.  | B | 27. | T |
| 3.  | C | 28. | T |
| 4.  | B | 29. | T |
| 5.  | B | 30. | F |
| 6.  | C | 31. | T |
| 7.  | D | 32. | T |
| 8.  | A | 33. | F |
| 9.  | D | 34. | T |
| 10. | A | 35. | T |
| 11. | D | 36. | T |
| 12. | D | 37. | T |
| 13. | C | 38. | F |
| 14. | D | 39. | T |
| 15. | C | 40. | T |
| 16. | C | 41. | F |
| 17. | D | 42. | F |
| 18. | B | 43. | T |
| 19. | D | 44. | F |
| 20. | C | 45. | T |
| 21. | D | 46. | T |
| 22. | A | 47. | T |
| 23. | C | 48. | F |
| 24. | C | 49. | T |
| 25. | T | 50. | T |