

Chapter 88, Self-Assessment Questions

1. Which of the following *most correctly* describes the pattern of cell growth in tumors according to the Gompertzian growth model?
 - A. The growth rate of tumor cells *decreases* steadily as the tumor grows larger.
 - B. The growth rate of tumor cells *increases* steadily as the tumor grows larger.
 - C. The growth rate of tumor cells is constant.
 - D. The growth rate of tumor cells follows an exponential growth pattern.
 - E. None of the above.
2. In the multistep model of carcinogenesis, which of the following stages is reversible and is a target for cancer prevention strategies?
 - A. Initiation
 - B. Promotion
 - C. Transformation
 - D. Progression
 - E. Conversion
3. Individuals homozygous for *UTTI1A1**28 are at an increased risk of febrile neutropenia and diarrhea and should be considered for upfront dose reduction when receiving which of the following agents?
 - A. Ifosfamide
 - B. Cabazitaxel
 - C. Regorafenib
 - D. Irinotecan

- E. Ramacicrumab
4. All of the following agents are vesicants and are likely to produce severe tissue damage if extravasated *EXCEPT*:
- A. Doxorubicin
 - B. Fluorouracil
 - C. Vincristine
 - D. Mechlorethamine
 - E. Dactinomycin
5. Patients with NSCLC that is ALK positive as detected by an FDA-approved test would benefit from which of the following agents?
- A. Vemurafenib
 - B. Imatinib
 - C. Crizotinib
 - D. Cetuximab
 - E. Ibrutinib
6. Which of the following agents produces laryngeal bronchospasm as an acute neurotoxic effect, which can be exacerbated by cold temperatures or cold food/drinks?
- A. Carboplatin
 - B. Cisplatin
 - C. Oxaliplatin
 - D. Paclitaxel
 - E. Docetaxel

7. Patients must receive premedication prior to receiving paclitaxel to decrease the likelihood of:
- A. Cardiotoxicity
 - B. Myelosuppression
 - C. Neurotoxicity
 - D. Renal failure
 - E. Hypersensitivity reactions
8. How can the mechanism of a taxane best be explained?
- A. Interference with microtubule assembly
 - B. Interference with microtubule disassembly
 - C. Formation of free radicals
 - D. Inhibitor of thymidylate synthase
 - E. DNA strand breakage
9. A 19-year-old patient is receiving his first cycle of chemotherapy for ALL. He is receiving methotrexate, doxorubicin, cyclophosphamide, leucovorin, mercaptopurine as part of his chemotherapy regimen. Aggressive hydration, steroids, allopurinol, and antiemetics are all prescribed as supportive care medications. Which of these identifies a potential mechanism of a major drug interaction that requires dosage modification?
- A. Inhibition of xanthine oxidase
 - B. Inhibition of dihydrofolate reductase
 - C. Formation of free oxygen radicals
 - D. Formation of acrolein
 - E. Inhibition of DNA polymerase

10. A newly diagnosed non-small cell lung cancer patient is about to receive combination chemotherapy consisting of carboplatin and paclitaxel. The order for carboplatin is written as follows: Carboplatin AUC 6. The patient has a calculated creatinine clearance (CrCl) of 80 mL/min (1.33 mL/s) and a BSA of 2 m². Assuming all laboratory and clinical parameters are acceptable, what dose of carboplatin should this patient receive?
- A. 6 mg
 - B. 12 mg
 - C. 160 mg
 - D. 630 mg
 - E. 1260 mg
11. Which of the following is the best treatment of diarrhea that occurs 48 hours after a dose of irinotecan?
- A. Atropine 0.4 mg IV after each loose stool.
 - B. Diphenoxylate/atropine one tablet after each loose stool with a maximum of eight doses per 24 hours.
 - C. Loperamide 2 mg orally after each loose stool with a maximum of eight doses per 24 hours.
 - D. Loperamide 2 mg orally every 2 hours, or 4 mg every 4 hours, until the diarrhea has stopped for 12 hours.
 - E. There is no need to treat diarrhea in this case.
12. Patient will receive cyclophosphamide intravenously today, and then go home. What is the most important thing to have the patient do during the next 24 hours?
- A. Make sure to take loperamide 2 mg orally every 4 hours around the clock

- B. Make sure to wash all linens at home to prevent infections
 - C. Make sure to drink fluids and void every 4 to 6 hours
 - D. Make sure to avoid eating fresh fruits and vegetables
 - E. Make sure to avoid cold temperatures, foods, and drinks
13. All of the following ancillary orders are necessary when administering cisplatin chemotherapy for a typical patient *EXCEPT* which of the following?
- A. Routine assessment of ejection fraction
 - B. Aggressive hydration
 - C. Aggressive prophylactic antiemetics
 - D. Routine assessment of renal function
 - E. Routine assessment of electrolytes
14. A patient just has been receiving chemotherapy for cancer. Since the last scan, the tumor has decreased in size by about 50%. According the RECIST 1.1 criteria, how can this patient's response be evaluated?
- A. Complete response
 - B. Partial response
 - C. Progressive disease
 - D. Stable disease
15. A patient recently had surgery to remove a diagnosed breast cancer. It had invaded her lymph nodes, but her surgeon is confident he "got it all." Treatment given to decrease the chance of recurrence, even though there is no trace of cancer left is called_____.
- A. Primary treatment
 - B. Neoadjuvant treatment

- C. Adjuvant treatment
- D. Palliative chemotherapy
- E. Supportive care

Answers

1. A
2. B
3. D
4. B
5. C
6. C
7. E
8. B
9. A
10. D
11. D
12. C
13. A
14. B
15. C

