

Chapter 95, Self-Assessment Questions

1. Which of the following prognostic factors in AML is associated with the highest risk of relapse?
 - A. Ethnicity
 - B. Body mass index
 - C. Age
 - D. Minimal residual disease
2. Which of the following agents is most frequently used as prophylaxis for the prevention of fungal infections in AML?
 - A. Itraconazole
 - B. Voriconazole
 - C. Fluconazole
 - D. Amphotericin B
3. Which of the two agents are most frequently used for the treatment of induction therapy in AML?
 - A. Vincristine and asparaginase
 - B. Doxorubicin and cyclophosphamide
 - C. Cytarabine and daunorubicin
 - D. Methotrexate and vincristine
4. The single strongest prognostic factor in ALL is:
 - A. Age
 - B. Initial white count
 - C. Presence of central nervous system leukemia (CNS3)
 - D. Early treatment response as assessed by minimal residual disease(MRD) at end of induction
5. The ALL treatment modality that is most associated with later development of secondary acute myeloid leukemia with balanced translocations is:
 - A. Alkylating agents
 - B. High dose methotrexate
 - C. Clofarabine
 - D. Epipodophyllotoxins
6. Which of the following features excludes a diagnosis of B-cell precursor ALL?
 - A. Presence of T-cell receptor gene rearrangements
 - B. Mediastinal mass
 - C. WBC count > 500,000/microliter
 - D. Expression of cytoplasmic CD3
7. Which of the following translocation is seen in Philadelphia chromosome positive (Ph⁺ pre B-cell ALL) ?
 - A. t(9;22)(q34;q11)
 - B. t(1;19)(q23;p13)
 - C. t(11;14)(p13;q11.2)
 - D. t(8;22)(q24;q11)
8. Which of the following prognostic factors is most likely associated with the risk of relapse induction therapy for acute lymphocytic leukemia?

- A. CNS disease at diagnosis
 - B. DNA index greater than 1.16 at diagnosis
 - C. Minimal residual disease 1% at the end of induction
 - D. White blood cell count at diagnosis $6 \times 10^3/\text{mm}^3$ ($6 \times 10^9/\text{L}$)
9. Which of the following is the most frequent late side effect associated with daunorubicin?
- A. Constipation
 - B. Renal toxicity
 - C. Cardiotoxicity
 - D. Hyperglycemia
10. Which of the following agents would be considered an appropriate addition to therapy for a 35-year-old man with Ph⁺ ALL?
- A. Nelarabine
 - B. Etoposide
 - C. Dasatinib
 - D. Dexamethasone
11. Which of the following is considered a poor prognostic factor in ALL?
- A. Female gender
 - B. DNA index greater than 1.16
 - C. Age of 15 years at time of diagnosis
 - D. White blood count of $5 \times 10^3/\text{mm}^3$ ($5 \times 10^9/\text{L}$)
12. Current standard systemic induction medications for a 15-year-old girl with pre-B-cell ALL, a DNA index of 1, and an initial WBC count of $55 \times 10^3/\text{mm}^3$ ($55 \times 10^9/\text{L}$) would be:
- A. Daunorubicin and cytarabine

B. Daunorubicin, vincristine, asparaginase, and prednisone

C. Asparaginase, vincristine, and dexamethasone

D. Idarubicin, vincristine, asparaginase, and dexamethasone

13. A 17-year-old boy who is now 4 years off treatment for ALL presents with anemia, thrombocytopenia, and fatigue. On bone marrow biopsy, he is found to have secondary AML. His treatment for ALL included methotrexate, cyclophosphamide, vincristine, daunorubicin, etoposide, dexamethasone, and asparaginase. Which one of the following agents is most likely to have contributed to his secondary AML?

A. Dexamethasone

B. Daunorubicin

C. Asparaginase

D. Etoposide

14. The patient is a 13 year-old boy who was treated for T-cell ALL at the age of 3 years. His treatment consisted of standard chemotherapy together with intrathecal therapy and cranial radiation for CNS prophylaxis. Which one of the following late effects is this patient most likely to have because of his CNS radiation?

A. Learning disabilities and a secondary brain tumor

B. Learning disabilities and hyperthyroidism

C. Learning disabilities and obesity

D. Secondary brain tumor and sterility

15. A 25-year-old woman is newly diagnosed with ALL. She will receive prednisone, asparaginase, vincristine, and daunorubicin. Her laboratory values are within normal limits with the exception of a uric acid concentration of 9 mg/dL (535 $\mu\text{mol/L}$), serum creatinine

concentration of 2.1 mg/dL (186 μ mol/L), and lactate dehydrogenase concentration of 950 U/L (15.8 μ kat/L). Which of the following statements best describes the role of rasburicase for AB?

- A. Prevention of hyperkalemia and requirement of dialysis
- B. Prevention of tumor lysis syndrome
- C. Prevention of hyperkalemia and hyperphosphatemia
- D. Prevention of uric acid nephropathy

Answers

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