

ONCOLOGY III

Learning objectives of Pediatric Leukemias

1. Analyze the prognostic factors for acute lymphoblastic leukemia and determine the outcome based on the patient's individual risk factors and pharmacogenetics.
2. Design a treatment plan based on the diagnosis and individual risk factors for acute pediatric leukemias.
3. Construct individualized therapy for patients with acute leukemias.
4. Demonstrate an understanding of some of the pharmacogenetic tests that can be performed in patients with leukemia.
5. Demonstrate an understanding of the incidence, pathophysiology, classification, and risk factors for acute myeloid leukemia (AML).
6. Develop an understanding of the therapeutic management of AML.
7. Devise a plan for the use of antimicrobial drugs in patients receiving AML therapy.
8. Demonstrate an understanding of the incidence and etiology of the late complications of chemotherapy in leukemia survivors.

Learning objectives of Pediatric Brain Neoplasms

1. Given the stage and treatment history, devise a treatment and monitoring plan for a child with medulloblastoma.
2. Given the stage and treatment history, recommend a treatment and monitoring plan for a child with either a low- or high-grade glioma.
3. Given the stage and treatment history, recommend a treatment and monitoring plan for a child with ependymoma.
4. Based on patient-specific factors, recommend modifications to a treatment plan for a child with medulloblastoma, glioma, or ependymoma.
5. Analyze approaches designed to reduce long-term complications attributed to therapy for pediatric brain neoplasms.

Learning objectives of Central Nervous System Tumors

1. Differentiate common primary brain tumors based on tumor cell type and histologic grade.
2. Develop an initial treatment plan for patients presenting with anaplastic astrocytoma.
3. Design an adjuvant therapy plan for a patient with glioblastoma multiforme (GBM).
4. Compare current treatment options with respect to efficacy for patients with refractory GBM.
5. Devise an acute management plan for a patient who presents with complications resulting from brain metastases.
6. Evaluate the benefits and barriers to various treatment modalities for patients with metastatic brain tumors.

Learning objectives of Myelodysplastic Syndrome and Chronic Myeloid Leukemia

1. Develop an appropriate therapeutic plan for the treatment of patients with myelodysplastic syndrome (MDS) to meet goals of treatment.
2. Compose a rationale for the use of DNA methyltransferase inhibitors in the treatment of MDS and describe the use of these agents in low-risk and high-risk disease.
3. Design a plan for treating the chronic phase of chronic myeloid leukemia (CML) and monitoring the response.
4. Adapt a therapeutic plan for patients with disease progression while on first-line treatment for CML.
5. Distinguish mechanisms of imatinib resistance and develop therapeutic options based on the type of resistance.