

Learning Objectives for 2010 Oncology Pharmacy Home Study Syllabus for Recertification

Breast Cancer

1. Compare the clinical outcomes related to the duration and sequence of letrozole and tamoxifen for the adjuvant treatment of breast cancer.
2. Outline the clinically relevant toxicities between the respective treatment arms.
3. Discuss how this information may be incorporated into standard treatment recommendations for the treatment of early-stage breast cancer.

Central Nervous System Malignancies

1. Evaluate the role of bevacizumab in the treatment of recurrent glioblastoma.
2. Identify the need for irinotecan dose reductions in patients taking enzyme-inducing antiepileptic drugs.
3. Identify common and severe toxicities associated with the use of bevacizumab with or without irinotecan for the treatment of recurrent glioblastoma.

Colon Cancer

1. Describe the *KRAS* mutations that have been identified in colorectal cancer.
2. Outline methods used to test for *KRAS* mutations.
3. Explain how *KRAS* mutations can be used as both a prognostic and predictive factor in patients with colorectal cancer.
4. List the results of the major clinical trials that have assessed *KRAS* status, including the specific differences in results in patients with *KRAS* mutations or those with *KRAS* wild-type tumors.
5. Outline ASCO's recommendations for *KRAS* testing in patients having a diagnosis of colorectal cancer.

Disease-Related Symptoms

1. Describe the role of unfractionated heparin, low-molecular-weight heparin (LMWH), and warfarin in primary and secondary prevention of deep venous thrombosis (DVT) and/or pulmonary embolism (PE) in patients with cancer.
2. Recommend appropriate use of antithrombotic agents for an individual patient with cancer when provided details about their situation.
3. Recommend the appropriate duration of LMWH therapy after DVT.

Gynecologic Malignancies

1. Compare the clinical outcomes for the four cisplatin-containing doublets when used in the treatment of progressive or recurrent cervical cancer.
2. Describe the differences in toxicity profiles between the four cisplatin-containing doublets.
3. When given patient-specific information, choose a rational regimen for the treatment of recurrent progressive cervical cancer.

Hematopoietic Stem Cell Transplantation

1. Explain the mechanism of action of plerixafor for hematopoietic stem cell mobilization.
2. Recommend appropriate use of plerixafor for hematopoietic stem cell mobilization.
3. Discuss the results of phase III data comparing plerixafor plus filgrastim versus placebo plus filgrastim for hematopoietic stem cell mobilization in patients with non-Hodgkin lymphoma
4. Define the optimal number of CD34+ hematopoietic stem cells to be infused in an autologous stem cell transplant recipient with non-Hodgkin lymphoma.
5. Identify adverse effects associated with plerixafor.

Literature Evaluation and Biostatistics in Oncology

1. Compare and contrast superiority, equivalence, and non-inferiority trials.
2. Describe how common statistical concepts apply in non-inferiority trials.
3. Explain the concept of bio-creep.

Lung Cancer

1. Describe the development and criteria for clinical trial inclusion in treatment recommendations in selecting initial therapy for stage IV NSCLC.
2. Identify patient populations who may benefit from individualized approaches using patient- and disease-specific data to select NSCLC treatment.
3. Evaluate the current understanding of histology and molecular analysis of tumor tissue on NSCLC treatment selection.

Melanoma

1. Describe the role of systemic therapy for metastatic malignant melanoma.
2. Discuss an individual's prognosis for metastatic melanoma based on the site of metastasis.
3. Outline a treatment plan for an individual with metastatic melanoma.

Multiple Myeloma

1. Explain the toxicity profile of lenalidomide and dexamethasone in treating patients with multiple myeloma.
2. Explain the relative clinical benefit of the high-dose versus low-dose lenalidomide-dexamethasone-containing arms.
3. Assess the appropriateness of the trial design for patients undergoing treatment for multiple myeloma.

Pancreatic, Stomach, and Liver Tumors

1. Describe the pathogenesis and pathophysiology of pancreatic tumors.
2. Identify the risk factors, clinical symptoms, and staging for pancreatic tumors.
3. Explain the role of angiogenesis inhibitors with respect to pancreatic tumors.
4. Outline the appropriate pharmacologic and nonpharmacologic treatment of pancreatic tumors.
5. Discuss the pharmacology and toxicities associated with each chemotherapeutic agent used to treat pancreatic tumors.

Pediatric Oncology

1. Describe how asparaginase-induced pancreatitis typically presents and how it is diagnosed in children with acute lymphoblastic leukemia (ALL).
2. Describe common management strategies for asparaginase-induced pancreatitis in children with ALL.
3. List the most common patient demographic factors associated with asparaginase-induced pancreatitis among children with ALL.
4. Discuss the extent to which asparaginase-induced pancreatitis is likely associated with ALL treatment failure in children.
5. Describe the most likely outcome when children with ALL with asparaginase-induced pancreatitis are rechallenged with additional asparaginase.

Prostate Cancer

1. Describe the mechanism of action of gonadotropin-releasing hormone (GnRH) antagonists and the potential advantage of GnRH agonists in the treatment of prostate cancer.
2. Explain the place in therapy for GnRH antagonists for the treatment of prostate cancer.
3. Outline a plan for monitoring efficacy and toxicity for a patient with prostate cancer treated with GnRH antagonists.

Supportive Care

1. Explain changes in nail physiology relative to observed nail changes secondary to chemotherapy.
2. Discuss the appropriate clinical assessment of patients with chemotherapy-induced nail toxicity.
3. Explain the individual mechanisms of nail toxicity for chemotherapy agents.
4. List the different presentations of nail toxicity for chemotherapy agents.
5. Recommend appropriate treatment strategies for patients who develop nail toxicities from chemotherapy.