PSAP 2020 Book 3 (*Hematology and Oncology*)
Release date: September 15, 2020
BCPS test deadline: 11:59 p.m. (Central) on March 15, 2021
ACPE test deadline: 11:59 p.m. (Central) on September 15, 2023

Continuing Pharmacy Education (CPE) Credit: The American College of Clinical Pharmacy is accredited by the Accreditation Council for Pharmacy Education (ACPE) as a provider of CPE.

PSAP Target Audience: The target audience for PSAP 2020 Book 3 (*Hematology and Oncology*) is pharmacotherapy specialists and advanced level clinical pharmacists encountering patients with hematologic and oncologic malignancies.

Module I (5.0 CPE): 0217-0000-20-036-H01-P

Chapter: Pharmacogenomics and Precision Medicine
Learning Objectives
1. Evaluate pharmacogenomic test results.
2. Distinguish between evidence-based resources for pharmacogenomics.
3. Assess somatic genetic test results to select appropriate targeted anticancer therapy.
4. Apply pharmacogenomic test results pertaining to drug metabolism to chemotherapy dosing.
5. Design an individualized supportive care regimen for patients with cancer using pharmacogenomic test results.

Chapter: Oral Chemotherapy
Learning Objectives
1. Assess for patient management challenges that may accompany the use of oral chemotherapy (OC) agents.
2. Devise strategies to help optimize adherence to OC.
3. Evaluate monitoring plans and treatment regimens for hypertension, left ventricular dysfunction/heart failure, and QT prolongation associated with OC.
4. Design monitoring plans and treatment regimens for hyperglycemia, hyperlipidemia, and hypothyroidism resulting from OC agents.
5. Develop monitoring plans and treatment regimens for dermatologic adverse effects related to OC.

Module II (4.5 CPE): 0217-0000-20-037-H01-P

Chapter: Oncology Biosimilars
Learning Objectives
1. Compare and contrast differences between biologic and small-molecule drugs.

2. Evaluate the requirements for FDA approval of biosimilar and interchangeable biosimilars.
3. Assess potential benefits from increased adoption of biosimilars.
4. Develop a plan to overcome barriers to biosimilar adoption.

Chapter: Immunotherapy
Learning Objectives
1. Evaluate indications and dosing considerations for immune checkpoint inhibitor therapies.
2. Design pharmacologic interventions for immune checkpoint inhibitor associated immune-mediated adverse events.
3. Design therapeutic monitoring and intervention plans for patients on immune checkpoint inhibitor combinations.
4. Distinguish among T-cell redirection therapies and the presentation/management of associated immune-mediated adverse effects, namely cytokine release syndrome and CAR T-cell-related encephalopathy/ immune effector Cell-Associated Neurotoxicity Syndrome.

Module III (5.0 CPE): 0217-0000-20-038-H01-P

Chapter: Multiple Myeloma
Learning Objectives
1. Evaluate the most recent clinical practice guideline recommendations for the management of newly diagnosed and relapsed/refractory multiple myeloma (MM).
2. Compare and contrast the adverse effect profiles of myeloma-directed therapies.
3. Justify the role of monoclonal antibodies and novel oral therapies for patients with MM.
4. Assess the use of bone-modifying agents in patients with MM.
5. Evaluate clinical practice guideline recommendations for the prevention of venous thromboembolism in patients receiving treatment for MM.

Chapter: Acute Leukemias
Learning Objectives
1. Distinguish between the acute leukemias on the basis of epidemiology, clinical presentation, diagnosis, and recurrent genetic features.
2. Assess the impact of new therapies for acute myeloid leukemia (AML) induction such as adding midostaurin to 7+3, adding venetoclax to hypomethylating agents, adding glasdegib to low-dose cytarabine, adding gemtuzumab ozogamicin to chemotherapy, and using a liposomal formulation of daunorubicin/cytarabine.
3. Analyze the role of targeted therapy for relapsed/refractory AML, including gilteritinib, enasidenib, and ivosidenib.
4. Evaluate the differences in therapeutic design and treatment outcomes between a pediatric-inspired regimen and an adult chemotherapy regimen for newly diagnosed acute lymphoblastic leukemia (ALL) in adolescents and young adults
5. Justify the use of novel agents such as blinatumomab, inotuzumab ozogamicin, and chimeric antigen receptor T cells (CAR T cells) for precursor B-ALL (B-ALL).

Module IV (4.0 CPE): 0217-0000-20-039-H01-P

Interactive Case: Castration-Resistant Prostate Cancer
Learning Objectives
1. Distinguish the mechanism of action, indications for therapy, and adverse effect profile of first-line androgen deprivation therapy (ADT) regimens versus androgen axis signaling inhibitor (AASI) regimens for advanced castration-resistant prostate cancer (CRPC).
2. Assess patients as candidates for AASI, chemotherapy, sipuleucel-T, radium-223, checkpoint inhibitors, and poly (ADP-ribose) polymerase (PARP) inhibitors.
3. Justify treatment for a patient with CRPC according to the patient's response to previous treatment, presence/absence of symptoms, presence/absence of metastases, and concurrent medical conditions.
4. Using the guidelines, manage adverse effects or drug interactions in patients treated for CRPC.
5. Develop a drug therapy monitoring plan appropriate for the patient with CRPC.

Interactive Case: Hematopoietic Stem Cell Transplantation
Learning Objectives
1. Assess risk factors for and severity of acute graft-vs.-host disease (aGVHD) to determine an appropriate front-line treatment course.
2. Distinguish the differences between steroid-refractory (SR) and steroid-dependent (SD) aGVHD.
3. Evaluate the safety and efficacy of available treatments for SR or SD aGVHD.
4. Design an appropriate supportive care plan for a patient that is based on aGVHD therapy.

Module V (3.0 CPE): 0217-0000-20-040-H01-P

Interactive Case: Breast Cancer
Learning Objectives
1. Evaluate diagnostic, prognostic, and genomic tests results for a patient diagnosed with breast cancer.
2. Design a treatment plan for early stage breast cancer based on clinical and biological biomarkers.
3. Design a treatment plan for advanced/metastatic breast cancer based on clinical and biological biomarkers.
4. Design a supportive care plan with bone modifying agents for the management of bone metastases.
5. Apply cardio-oncology guideline recommendations for prevention of cardio-toxicity from breast cancer therapies.

Statistics in Practice: Regression and Correlation – Part 2
Learning Objectives

1. Distinguish regression from correlation models and how each is applied to the analysis and understanding of clinical data.
2. Evaluate the results of common regression and correlation models, and how these results can be used in the interpretation and application of clinical data.
3. Apply the results of a multiple regression model in the analysis of clinical trial data, including how independent variables are best selected for a multiple regression model.
4. Evaluate results from a non-parametric Spearman Rank Order Correlation model.
5. Justify the use of common generalized linear models in regression analysis of different response variable types.