

PSAP 2020 Book 1 (*Critical and Urgent Care*)

Total Available Hours: 20.5

BCPS test deadline: 11:59 p.m. (Central) on July 15, 2020.

ACPE test deadline: 11:59 p.m. (Central) on January 14, 2023.

Module I (5.5 CPE)

Chapter: Acute Ischemic Stroke

Learning Objectives

1. Design a patient-specific pharmacotherapeutic regimen to treat adverse events associated with intravenous alteplase, including hemorrhage and angioedema.
2. Distinguish key differences between the most recent guidelines for early management of acute ischemic stroke and the previous guidelines.
3. Assess a patient's candidacy for intravenous fibrinolytic therapy on the basis of updated inclusion and exclusion recommendations.
4. Evaluate the role of thrombolysis and thrombectomy with respect to eligibility criteria, efficacy, complications, and post-intervention considerations.
5. Devise an evidence-based, patient-specific antiplatelet plan for early secondary prevention after minor ischemic stroke or high-risk transient attack.
6. Justify the pharmacist's role as an integral part of the stroke response team for acute ischemic stroke.

Chapter: Trauma and Neurocritical Care

Learning Objectives

1. Evaluate management modalities for the different types of shock common in trauma patients.
2. Design pharmacotherapy to reverse pathophysiologic- and pharmacologic-induced coagulopathies in traumatically injured patients.
3. Devise a plan to manage intracranial perfusion in a traumatically injured patient with elevated intracranial pressures.
4. Design pharmacologic management of potential secondary complications of CNS injury (epilepsy and neuroendocrine disorders).
5. Assess a patient's injuries and construct a plan for prophylactic antimicrobial therapy as indicated.

Module II (4.0 CPE)

Chapter: Treatment of DVT and PE

Learning Objectives

1. Evaluate risks and benefits of oral versus parenteral agents in initiation of treatment for deep vein thrombosis (DVT) and pulmonary embolism (PE).
2. Distinguish key differences between direct oral anticoagulants.
3. Devise a treatment plan for using thrombolytics in massive/submassive PE.

4. Develop treatment goals and monitoring parameters for special populations requiring anticoagulation for DVT and PE.

Chapter: Heparin Dosing, Monitoring, and Reversal

Learning Objectives

1. Evaluate the role of activated partial thromboplastin time (aPTT), anti-factor Xa, and activated clotting time in heparin monitoring.
2. Assess the role of viscoelastic tests such as thromboelastography and rotational thromboelastometry during heparin therapy.
3. Analyze the heparin-dosing strategies used in common diseases (general indications).
4. Evaluate heparin management strategies in special scenarios (e.g., extremes of weight, pregnancy, neuraxial analgesia, baseline prolonged aPTT, heparin resistance).

Module III (6.0 CPE)

Chapter: Pain, Agitation, and Delirium

Learning Objectives

1. Assess for common factors that contribute to pain, agitation, delirium, and impairment of sleep in ICU patients.
2. Design a plan to optimize pain control in a critically ill patient using an opioid-sparing regimen.
3. Devise a plan to identify and mitigate potential toxicities of sedation in a critically ill patient.
4. Evaluate and apply evidence-based tools that prevent delirium and sleep impairment in critically ill patients.

Chapter: Smoke Inhalation and Toxic Exposure

Learning Objectives

1. Evaluate patients for the pathophysiology of smoke inhalation injury, and develop a treatment plan for pharmacologic management.
2. Assess the efficacy and safety of pharmacologic options to treat suspected cyanide poisoning.
3. Distinguish the differences in clinical course and drug therapies needed for a chemical inhalation on the basis of the class of chemical inhaled and its specific pathophysiology.
4. Design an appropriate decontamination plan with an appropriate decontamination solution on the basis of the type of chemical cutaneous exposure.
5. Devise a treatment and monitoring plan for a patient on the basis of the type of chemical cutaneous exposure.

Chapter: Endocrine Emergencies

Learning Objectives

1. Identify the appropriate patient for whom to initiate corticosteroids when concern exists for critical illness–related corticosteroid insufficiency (CIRCI) caused by sepsis or septic shock, acute respiratory distress syndrome (ARDS), and cardiac arrest.
2. Determine the most appropriate dosing and route of administration for hydrocortisone when initiating it for the treatment of CIRCI related to sepsis or septic shock.

3. Develop a plan for corticosteroid use in a patient with early severe ARDS.
4. Determine the role of corticosteroid use during cardiac arrest and after return of spontaneous circulation.
5. Distinguish between the laboratory and clinical characteristics that differentiate diabetic ketoacidosis (DKA) from hyperglycemic hyperosmolar state (HHS) in a patient.
6. Devise a treatment and monitoring plan for a patient presenting with DKA or HHS, including fluids, electrolytes, and insulin.

Module IV (5.0 CPE)

IC: Anticoagulation for Unique Situations

Learning Objectives

1. Assess the risk-benefit of anticoagulation use during intra-aortic balloon pump counterpulsation.
2. Justify the necessity for anticoagulation in patients with an Impella device.
3. Evaluate the risk-benefit of anticoagulation modification in left ventricular assist devices (HeartMate II, HeartWare, and HeartMate 3).
4. Compare and contrast the use of heparin or bivalirudin for extracorporeal membrane oxygenation.

Interactive Case: Anesthesia and Ventilator Management

Learning Objectives

1. Distinguish between the types of regional anesthesia techniques and their role in pain management in critically ill patients.
2. Evaluate the risk-benefit of using volatile anesthetics for managing sedation in the ICU.
3. Demonstrate a basic understanding of the principles of mechanical ventilation, and analyze the role of interventions to avoid complications during mechanical ventilation.

Statistics in Practice: Comparing Three or More Groups

Learning Objectives

1. Select appropriate statistical tests for comparing three or more groups according to the data and study design.
2. Assess the appropriateness of adjustments for multiple comparisons in hypothesis tests of three or more groups.
3. Interpret results from statistical tests commonly used in published research to compare three or more groups.