CCSAP 2020 Book 1 (Cardiovascular Critical Care)
Release date: March 16, 2020
BCCCP test deadline: 11:59 p.m. (Central) on September 15, 2020.
ACPE test deadline: 11:59 p.m. (Central) on March 14, 2023.

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

CCSAP Target Audience: The target audience for CCSAP 2020 Book 1 (Cardiovascular Critical Care) is board-certified and advanced-level critical care pharmacists caring for patients whose management may be complicated by concomitant cardiovascular disease.

Module I (5.0 CPE); UAN 0217-0000-20-026-H01-P

Chapter: Acute Dysrhythmias
Learning Objectives
1. Distinguish the different bradyarrhythmias and develop optimal treatment strategies.
2. Design treatment modalities for atrial tachycardias.
3. Assess the unique pharmacologic considerations for the treatment of Wolff-Parkinson-White syndrome.
4. Develop strategies for the detection and management of non-ACLS ventricular tachycardia.

Chapter: RV Failure with or without PAH
Learning Objectives
1. Assess the adequacy of right ventricular function using established diagnostic modalities.
2. Distinguish between the common etiologies of right ventricular failure based on clinical presentation, laboratory values, imaging results, and cardiac diagnostic modalities.
3. Design a pharmacologic regimen for the treatment of right ventricular failure based on clinical and patient-specific factors.
4. Justify the role of an ICU pharmacist in managing the regulatory requirements of pulmonary hypertension medications.

Module II (4.5 CPE); UAN 0217-0000-20-027-H01-P
Chapter: Invasive and Noninvasive Cardiac Monitoring
Learning Objectives
1. Distinguish the differences between invasive, minimally invasive, and noninvasive monitoring devices used in evaluation of a patient’s hemodynamic status.
2. Evaluate the hemodynamic variables available based on type of monitoring device to determine shock state.
3. Analyze the results of invasive and noninvasive monitoring devices to formulate clinical decisions and recommendations.
4. Account for existing limitations with specific invasive and noninvasive monitoring devices.

**Chapter: Venous Thromboembolism Prophylaxis and Treatment:**

**Learning Objectives**
1. Evaluate critically ill patients for risk of development venous thromboembolism.
2. Design an evidence-based prophylaxis plan for patients at risk for the development of venous thromboembolism.
3. Design an evidence-based strategy including short- and long-term antithrombotic selection and duration of therapy for treatment of VTE.

**Module III (4.0 CPE); UAN 0217-0000-20-028-H01-P**

**Chapter: Hemostasis/Transfusion Therapy**

**Learning Objectives**
1. Distinguish among various blood products and their roles in management of the critically ill patient.
2. Assess for differences in transfusion thresholds for the management of various populations of critically ill patients.
3. Justify the role and place in therapy of hemostatic agents and reversal agents in the management of bleeding in the critically ill patient.
4. Evaluate strategies to manage bleeding in patients not accepting of blood products.

**Chapter: Quality Improvement in Critical Care**

**Learning Objectives**
1. Justify the need for quality improvement in the ICU.
2. Demonstrate the pharmacist’s role in creating, implementing, and measuring impact of multi-disciplinary bundles in the ICU.
3. Assess the impact of pharmacy services on the quality of care delivered in the ICU.
4. Develop an implementation plan for quality improvement of pharmacy services in the ICU.

**Module IV (5.0 CPE); UAN 0217-0000-20-029-H01-P**

**Interactive Case: Antithrombotic Therapy with Cardiac Devices**

**Learning Objectives**
1. Assess risk of thrombosis in patients with various cardiac devices and undergoing procedures (intra-aortic balloon counterpulsation, percutaneous ventricular assist devices, transcatheter therapies, and left atrial appendage closure).
2. Design optimal antithrombotic therapy depending on cardiac device and/or procedure (intra-aortic balloon counterpulsation, percutaneous ventricular assist devices, transcatheter therapies, and left atrial appendage closure) received and risk factors associated with those interventions.
3. Develop an antithrombotic monitoring plan for patients with recently placed cardiac devices.
Interactive Case: Cardiac Arrest

**Learning Objectives**
1. Analyze data from registries and clinical trials to describe outcomes associated with cardiac arrest and individual therapies
2. Interpret data from registries and clinical trials to make evidence-based therapy recommendations for the treatment of cardiac arrest
3. Evaluate whether a patient is a candidate for advanced cardiopulmonary resuscitative therapies (e.g., targeted temperature management, extracorporeal cardiopulmonary resuscitation) and recommend appropriate therapies for an eligible patient

Recorded Webcast: Hypertensive Emergencies/Urgencies

**Learning Objectives**
1. Assess patients for signs and symptoms of hypertensive crisis and compose treatment goals based on clinical assessment
2. Distinguish optimal pharmacotherapy treatment modalities for the management of hypertensive emergency in patients with compelling indications
3. Design clinically appropriate treatment plans for patients experiencing hypertensive emergencies
4. Design clinically appropriate treatment plans for pregnant women experiencing hypertensive emergency secondary to complications from pregnancy