

CCSAP 2022 Book 1 (*Neurocritical Care*)

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BCCCP test deadline: 11:59 p.m. (Central) on September 15, 2022.

ACPE test deadline: 11:59 p.m. (Central) on March 15, 2025.



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 *Neurocritical Care* is not only ICU and ED pharmacists across the spectrum of care but also any pharmacist caring for acutely ill patients whose management may be complicated by these challenging scenarios.

Module I (5.5 CPE) *Neurocritical Care I*

UAN: 0217-0000-22-022-H01-P

Chapter: Treatment of Elevated Intracranial Pressure

Learning Objectives (A)

1. Distinguish the differences between intracranial pressure (ICP) monitoring devices and assess the information they provide.
2. Apply nonpharmacologic therapy interventions to a patient with elevated ICP.
3. Design a dosing plan and monitoring recommendations for the use of osmotherapy in the treatment of elevated ICP.
4. Develop a sedation regimen and monitoring plan for a patient requiring treatment of elevated ICP.

Chapter: Autoimmune Neuromuscular Disorders

Learning Objectives

1. Evaluate the impact of neuromuscular disorders on patient outcomes and patient care in the ICU.
2. Distinguish differences between the most-common neuromuscular disorders managed in the ICU.
3. Evaluate pharmacologic and nonpharmacologic therapies to treat neuromuscular disorders.
4. Design a therapeutic plan for a patient with myasthenia gravis, Guillain–Barré syndrome, or chronic inflammatory demyelinating polyradiculoneuropathy.
5. Justify the pharmacist’s role in the critical care management of neuromuscular disorders.

Module 2 (5.0 CPE) *Neurocritical Care II*

UAN: 0217-0000-22-023-H01-P

Chapter: Aneurysmal Subarachnoid Hemorrhage

Learning Objectives

1. Apply grading systems for subarachnoid hemorrhage and risk factors on presentation to distinguish a patient's risk of complications during hospitalization and need for pharmacologic management.
2. Design a pharmacotherapy plan for a patient with aneurysmal subarachnoid hemorrhage presenting in the initial management phase of therapy.
3. Assess differences in the surgical management of aneurysmal subarachnoid hemorrhage and identify how those differences determine postoperative pharmacotherapy management.
4. Devise a pharmacologic plan to facilitate optimal outcomes in the treatment or prevention of delayed cerebral ischemia and vasospasm.
5. Justify the pharmacist's role in ensuring that Joint Commission National Quality Measures for patients with subarachnoid hemorrhage get met.

Chapter: Drug-induced Neurotoxicity

Learning Objectives

1. Assess patients for factors contributing to drug-induced neurotoxicity.
2. Distinguish various types of drug-induced neurotoxicity.
3. Evaluate the potential for drug-induced neurotoxicity to be part of the differential diagnosis.
4. Develop clinical recommendations that include alternative therapies and alternative management of drug-induced neurotoxicity

Module 3 (4.5 CPE) Neurocritical Care III

UAN: 0217-0000-22-024-H01-P

Chapter: Early Management of Acute Ischemic Stroke

Learning Objectives

1. Distinguish differences between thrombolytic therapies for patients with acute ischemic stroke (AIS).
2. Design pharmacotherapy recommendations for antithrombotic management in patients with AIS.
3. Evaluate candidates and optimize thrombectomy-associated care of the patient with AIS.
4. Assess supportive care needs and management of complications in patients with AIS.
5. Justify pharmacist provision of AIS.

Chapter: Refractory Status Epilepticus

Learning Objectives (A)

1. Distinguish between status epilepticus and refractory status epilepticus
2. Design an optimal therapeutic regimen for the initial treatment of refractory status epilepticus
3. Evaluate continuous-infusion anesthetic medications for the treatment of refractory status epilepticus

4. Evaluate novel agents and last-line therapies for superrefractory status epilepticus
5. Develop appropriate refractory status epilepticus treatment strategies for special populations

Module 4 (5.5 CPE) Neurocritical Care IV

UAN: 0217-0000-22-025-H01-P

Interactive Case: Literature Evaluation and Grading

Learning Objectives

1. Evaluate the overall risk of bias in a published research study.
2. Assess the appropriateness of conducting a meta-analysis.
3. Using the certainty of the evidence, justify either downgrading or upgrading a body of evidence using GRADE approach.

Interactive Case: Neurogenic Fever

Learning Objectives

1. Assess for the pathophysiology of fever in patients with brain injury and its impact on outcomes.
2. Distinguish the differential diagnoses of fever in patients with brain injury.
3. Design appropriate therapy for patients with neurogenic fever.

Interactive Case: Coma Assessment and Toxicologic Considerations

Learning Objectives

1. Distinguish the pathophysiology involved in the patient with coma, particularly as it pertains to medications.
2. Assess diagnostic data, toxidrome evaluation, and metabolic abnormalities that may be derived from drugs.
3. Develop a stepwise approach to evaluating and treating a patient with coma with a focus on toxidromic presentations and treatments.