

## **CRITICAL CARE II**

### **Learning Objectives for Central Nervous System Syndromes in Critically Ill Adults**

1. Interpret factors affecting the acute and long-term psychological well-being of the critically ill.
2. Design initiatives to prevent agitation, pain, and delirium and the development of post-traumatic stress disorder in intensive care unit (ICU) patients.
3. Design effective strategies to optimize pharmacologically based ICU patient comfort while avoiding therapeutic misadventures.
4. Appraise mechanisms for caregiver evaluation of pain, agitation, and delirium in verbal and nonverbal critically ill patients.
5. Justify the use of “analgesia-first” sedation for most critically ill patients.
6. Argue successfully for and design a program that avoids drug-induced coma for most patients through the provision of protocol-driven and goal-directed sedation and analgesia using validated assessment tools.
7. Develop a mechanism for the application of daily sedative interruption in the ICU.

### **Learning Objectives for Endocrine Syndromes in the ICU**

1. Develop an evidence-based algorithm to optimize the diagnosis of adrenal insufficiency and use of corticosteroids in critically ill patients.
2. Assess the risks and benefits of etomidate use in critically ill patients.
3. Justify the application of the relevant clinical trial to the general intensive care unit (ICU) patient population and evaluate quality indicators of tight blood glucose concentration control.
4. Evaluate the predicted incidence, significance, and prevention of hypoglycemia in patients treated with intensive insulin therapy.
5. Develop an opinion and, using data, justify the role of vasopressin in the hemodynamic management of critically ill patients.
6. Evaluate the interactions of dopamine with the endocrine system and the relevance to patient care in the ICU.
7. Analyze the biphasic neuroendocrine changes during critical illness and assess potential treatment strategies to correct neuroendocrine abnormalities.

### **Learning Objectives for Pulmonary Arterial Hypertension**

1. Demonstrate an understanding of the basic pathobiologic mechanisms of pulmonary arterial hypertension (PAH) and what is involved in the diagnosis of PAH.
2. Detect and monitor abnormalities in the cardiac and pulmonary hemodynamic variations of PAH.
3. Evaluate the work-up for PAH and develop a treatment and monitoring plan based on initial test results, comorbidities, and current medication profile.
4. Devise a treatment regimen for the management of the acutely ill patient with PAH.
5. Perform appropriate drug dosing conversions of PAH medications upon transition to either an in-hospital or out-patient setting.
6. Evaluate a PAH medication regimen and determine appropriate alterations based on disease progression and tolerance to medications.

7. Assess the intricacies of combination therapy for PAH, including efficacy, cost, adverse effects, and drug interactions.
8. Analyze the significant pharmacokinetic and pharmacodynamic characteristics for medications used in PAH.
9. Develop an inclusive counseling module which considers pharmacological and nonpharmacological aspects of care such as drug delivery technique and lifestyle changes.