

**IDSAP 2022 Book 2 (*Infections in Critically Ill Patients*)**

**Release date: November 15, 2022**

**BCIDP test deadline:** 11:59 p.m. (Central) on May 15, 2023.

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



**Continuing Pharmacy Education Credit:** The American College of Clinical Pharmacy

and the American Society of Health-System Pharmacists are accredited by the Accreditation Council for Pharmacy Education as providers of continuing pharmacy education.

**IDSAP Target Audience:** The target audience for IDSAP 2022 Book 2 (*Infectious Diseases in the ICU*) is board-certified infectious diseases pharmacists caring for critically ill patients with infections.

**Module 1 (4.5 CPE) Infections in Critically Ill Patients I**

**UAN: 0217-9999-22-239-H01-P**

**Chapter: Anti-infective Therapy in Sepsis and Septic Shock**

**Learning Objectives**

1. Compare and contrast the timing of antimicrobial therapy in patients with sepsis and septic shock.
2. Design an appropriate empiric anti-infective regimen for a patient with sepsis or septic shock for different infection types.
3. Evaluate the effects of sepsis and septic shock on the PK of anti-infective therapy.
4. Apply PK/PD principles to optimize an anti-infective regimen for a patient with sepsis or septic shock.

**Chapter: Supportive Management of Sepsis**

**Learning Objectives**

1. Evaluate patients for risk of poor clinical outcomes due to sepsis and/or septic shock.
2. Design a fluid resuscitation strategy that maximizes hemodynamic stabilization and minimizes iatrogenic harm.
3. Develop a vasopressor support regimen and liberation strategy.
4. Design a corticosteroid therapy regimen for the management of septic shock.
5. Justify supportive measures for patients with sepsis and/or septic shock.

**Module 2 (4.5 CPE) Infections in Critically Ill Patients II**

**UAN: 0217-9999-22-240-H01-P**

**Chapter: PK/PD in Patients Receiving ECMO and RRT**

**Learning Objectives**

1. Analyze a renal replacement therapy plan and anticipate the impact it will have on antimicrobial pharmacokinetics.
2. Justify an empiric antimicrobial dosing regimen that accounts for the impact of extracorporeal membrane oxygenation on drug pharmacokinetics.
3. Devise an antibiotic dosing strategy for a critically ill patient receiving continuous renal replacement therapy and extracorporeal membrane oxygenation.

### **Chapter: Antimicrobial Stewardship in the ICU**

#### **Learning Objectives**

1. Analyze the unique challenges of antimicrobial stewardship in the ICU.
2. Apply common antimicrobial stewardship activities to critically ill patients.
3. Design a plan to improve antimicrobial use in the ICU.
4. Distinguish the types of metrics used to monitor the impact of antimicrobial stewardship interventions.

### **Module 3 (3.5 CPE) Infections in Critically Ill Patients III**

**UAN: 0217-9999-22-241-H01-P**

### **Chapter: Community-Acquired Meningitis**

#### **Learning Objectives**

1. Distinguish the differences in etiology of community-acquired meningitis based on patient characteristics.
2. Assess lab results and patient's signs and symptoms to classify patients with central nervous system infections.
3. Develop a treatment plan for a patient with community-acquired meningitis from initial presentation to discharge from the hospital.
4. Justify the need for preventive measures for bacterial meningitis.
5. Develop an antimicrobial stewardship intervention aimed at improving antibiotic use in patients with community-acquired meningitis.

### **Chapter: Iatrogenic CNS Infections**

#### **Learning Objectives (A)**

1. Evaluate the anatomy of the CNS as it relates to drug disposition.
2. Design an appropriate treatment regimen for a patient with an iatrogenic CNS infection.
3. Develop a monitoring plan for a patient with an iatrogenic CNS infection.
4. Assess the safety and efficacy of intraventricular antimicrobial administration.
5. Design optimal infection prevention strategies to prevent the occurrence of iatrogenic CNS infections.

### **Module 4 (3.5 CPE) Infections in Critically Ill Patients IV**

**UAN: 0217-9999-22-242-H01-P**

### **Interactive Case: Decreasing Blood Culture Contamination**

#### **Learning Objectives**

1. Distinguish blood culture contamination from bloodstream infection.
2. Evaluate the clinical impact of a contaminated blood culture.
3. Assess institutional practices regarding blood culture collection for improvement targets
4. Design process improvements to reduce the rate of contaminated blood cultures.
5. Develop a plan to minimize undesired consequences of a contaminated blood culture.

### **Interactive Case: Duration of Therapy in Critical Care**

#### **Learning Objectives**

1. Design an antibiotic treatment regimen for an ICU patient using antibiotic stewardship strategies.
2. Justify evidence-based usage of procalcitonin to shorten antibiotic duration in a patient case.
3. Apply literature on antibiotic duration of therapy to a patient case.
4. Justify appropriate duration of prophylactic antibiotics in an ICU patient.