# 2021 Infectious Diseases Pharmacy Specialty Recertification Literature Study: Module 1A-B (Cert # L219149)

#### **Articles and Learning Objectives**

Module 1A: Treatment of Community-Acquired Pneumonia ACPE Number: 0204-9999-21-975-H01-P

This module focuses on the guidelines and studies regarding the treatment of community-acquired pneumonia.

Metlay et al. Diagnosis and treatment of adults with community-acquired pneumonia. An official clinical practice guideline of the American Thoracic Society and Infectious Diseases Society of America. *Am J Respir Crit Care Med.* 2019 Oct 1; 200(7):e45-e67.

#### Learning Objectives:

- Describe the 2019 clinical practice guideline from the American Thoracic Society (ATS) and Infectious Diseases Society of America (IDSA) for the diagnosis and treatment of communityacquired pneumonia (CAP) in adults.
- Develop recommendations for the management of community-acquired pneumonia (CAP) in adults.

Jones et al. Empirical anti-MRSA vs standard antibiotic therapy and risk of 30-day mortality in patients hospitalized for pneumonia. *JAMA Intern Med.* 2020;180(4):552-560

# Learning Objectives:

- Describe the study of empiric anti-methicillin-resistant *Staphylococcus aureus* (MRSA) and standard antibiotic therapy in patients hospitalized for community-acquired pneumonia (CAP).
- Develop recommendations for empiric antibiotic therapy in patients hospitalized for community-acquired pneumonia (CAP).

Deshpande et al. De-escalation of empiric antibiotics following negative cultures in hospitalized patients with pneumonia: rates and outcomes. *Clin Infect Dis.* 2020 Mar 4.

- Describe the study of the de-escalation of empiric antibiotics following the receipt of negative culture results in hospitalized adults with pneumonia.
- Develop recommendations for the de-escalation of empiric antibiotics following the receipt of negative culture results in hospitalized adults with pneumonia.

# Module 1B: Treatment of Bacteremia and Candidemia ACPE Number: 0204-9999-21-976-H01-P

This module focuses on the management of infections in hospitalized patients, including Staphylococcus aureus bacteremia and Candidemia.

Lodise TP et al. The emperor's new clothes: prospective observational evaluation of the association between initial vancomycin exposure and failure rates among adult hospitalized patients with MRSA bloodstream infections (PROVIDE). *Clin Infect Dis.* 2020; 70(8):1536-1545.

# Learning Objectives:

- Discuss the methods used in the PROVIDE study that evaluated the relationship between vancomycin exposure and treatment failure rates in hospitalized adults with methicillinresistant Staphylococcus aureus (MRSA) bloodstream infections.
- Apply the efficacy and safety findings from the PROVIDE study to the dosing of vancomycin based on area-under-the-curve (AUC) thresholds in hospitalized adults with methicillinresistant Staphylococcus aureus (MRSA) bloodstream infections.
- Recommend appropriate vancomycin dosing and pharmacokinetic monitoring for hospitalized adults with methicillin-resistant *Staphylococcus aureus* (MRSA) bloodstream infections.

Tong et al. Effect of vancomycin or daptomycin with vs without an antistaphylococcal  $\beta$ -lactam on mortality, bacteremia, relapse, or treatment failure in patients with MRSA bacteremia: a randomized clinical trial. *JAMA*. 2020; 323(6):527-537.

- Describe the methods used in the CAMERA2 study of the addition of an antistaphylococcal ßlactam antibiotic to standard vancomycin or daptomycin therapy for adults with methicillinresistant Staphylococcus aureus (MRSA) bacteremia.
- Apply the efficacy and safety findings from the study of adding an antistaphylococcal ß-lactam antibiotic to standard vancomycin or daptomycin therapy for adults with methicillin-resistant Staphylococcus aureus (MRSA) bacteremia.
- Develop recommendations for the addition of an antistaphylococcal beta-lactam to standard vancomycin or daptomycin therapy for adults with methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia.

Minejima et al. Defining the breakpoint duration of *Staphylococcus aureus* bacteremia predictive of poor outcomes. *Clin Infect Dis.* 2020 Feb 3;70(4):566-573.

#### Learning Objectives:

- Describe the methods used in the study of the association between *Staphylococcus aureus* (*S. aureus*) bacteremia duration and clinical outcomes in hospitalized adults.
- Recommend appropriate management for patients with prolonged *Staphylococcus aureus* (*S. aureus*) bacteremia.

Geriak et al. Clinical data on daptomycin plus ceftaroline versus standard of care monotherapy in the treatment of methicillin-resistant Staphylococcus aureus bacteremia. *Antimicrob Agents Chemother*. 2019; 63(5):e02483-18.

#### Learning Objectives:

- Describe the methods used in the study comparing initial daptomycin plus ceftaroline combination therapy with daptomycin or vancomycin monotherapy in adults with methicillinresistant Staphylococcus aureus (MRSA) bacteremia.
- Apply the efficacy and safety findings from the study comparing initial daptomycin plus
  ceftaroline combination therapy with standard vancomycin or daptomycin monotherapy for
  adults with methicillin-resistant Staphylococcus aureus (MRSA) bacteremia.
- Develop recommendations for antibiotic treatment of adults with methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia.

Kullberg et al. Isavuconazole versus caspofungin in the treatment of candidemia and other invasive Candida infections: the ACTIVE trial. *Clin Infect Dis.* 2019; 68(12):1981-1989.

- Describe the ACTIVE trial comparing isavuconazole with caspofungin for the treatment of patients with candidemia or other invasive *Candida* infections
- Develop recommendations for antifungal treatment of patients with candidemia or other invasive Candida infections.

Chesdachai et al. The effect of infectious diseases consultation on mortality in hospitalized patients with methicillin-resistant *Staphylococcus aureus*, *Candida*, and *Pseudomonas* Bloodstream Infections. *Open Forum Infect Dis.* 2020; 7(1):ofaa010.

- Describe the study of the effect of infectious diseases (ID) consultation on mortality in hospitalized patients with methicillin-resistant *Staphylococcus aureus* (MRSA), *Candida*, or *Pseudomonas* bloodstream infections.
- Develop recommendations for the use of infectious diseases (ID) consultation for hospitalized patients with methicillin-resistant Staphylococcus aureus (MRSA), Candida, or Pseudomonas bloodstream infection.