

BUGS VS. DRUGS!

THE PHARMACIST'S CHALLENGE PODCAST!

Bugs vs Drugs: The Pharmacist's Challenge Podcast CE Activity 1

Recommended Readings

Gram-negative Bacteria Issue 1

1. Bush K. New β -lactamases in gram-negative bacteria: diversity and impact on the selection of antimicrobial therapy. *Clin Infect Dis.* 2001;32:1085-1089.
2. Cosgrove SE, Kaye KS, Eliopoulos GM, Carmeli Y. Health and economic outcomes of the emergence of third-generation cephalosporin resistance in *Enterobacter* species. *Arch Intern Med.* 2002;162:185-190.
3. Lee SO, Kim YS, Kim BN, Kim MN, Woo JH, Ryu J. Impact of previous use of antibiotics on development of resistance to extended-spectrum cephalosporins in patients with *Enterobacter* bacteremia. *Eur J Clin Microbiol Infect Dis.* 2002;21:577-581.

Gram-negative Bacteria Issue 2

1. Burgess DS, Frei CR. Comparison of β -lactam regimens for the treatment of gram-negative pulmonary infections in the intensive care unit based on pharmacokinetics/pharmacodynamics. *J Antimicrob Chemother.* 2005;56:893-898.
2. Clinical and Laboratory Standards Institute. NCCLS document M7-A5, 2002, NCCLS, Wayne, PA, 19087.
3. Paterson DL, Bonomo RA. Extended-spectrum β -lactamases: a clinical update. *Clin Microbiol Rev.* 2005;18:657-686.

Gram-negative Bacteria Issue 3

1. Koomanachai P, Tiengrim S, Kiratisin P, Thamlikitkul V. Efficacy and safety of colistin (colistimethate sodium) for therapy of infections caused by multidrug-resistant *Pseudomonas aeruginosa* and *Acinetobacter baumannii* in Siriraj Hospital, Bangkok, Thailand. *Int J Infect Dis.* 2007;11:402-406.
2. Li J, Nation RL, Turnidge JD, et al. Colistin: the re-emerging antibiotic for multidrug-resistant gram-negative bacterial infections. *Lancet Infect Dis.* 2006;6:589-601.
3. Li J, Rayner CR, Nation RL, et al. Heteroresistance to colistin in multidrug-resistant *Acinetobacter baumannii*. *Antimicrob Agents Chemother.* 2006;50:2946-2950.
4. Owen RJ, Li J, Nation RL, Spelman D. In vitro pharmacodynamics of colistin against *Acinetobacter baumannii* clinical isolates. *J Antimicrob Chemother.* 2007;59:473-477.
5. Talbot GH, Bradley J, Edwards JE Jr, Gilbert D, Scheld M, Bartlett JG; Antimicrobial Availability Task Force of the Infectious Diseases Society of America. Bad bugs need drugs: an update on the development pipeline from the Antimicrobial Availability Task Force of the Infectious Diseases Society of America. *Clin Infect Dis.* 2006;42:657-668.
6. Tan CH, Li J, Nation RL. Activity of colistin against heteroresistant *Acinetobacter baumannii* and emergence of resistance in an in vitro pharmacokinetic/pharmacodynamic model. *Antimicrob Agents Chemother.* 2007;51:3413-3415.

Gram-positive Bacteria Issue 1

1. Davis SL, Rybak MJ, Amjad M, Kaatz GW, McKinnon PS. Characteristics of patients with healthcare-associated infection due to SCCmec type IV methicillin-resistant *Staphylococcus aureus*. *Infect Control Hosp Epidemiol.* 2006;27:1025-1031.

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Gram-positive Bacteria Issue 2

1. Klevens RM, Morrison MA, Fridkin SK, et al; Active Bacterial Core Surveillance of the Emerging Infections Program Network. Community-associated methicillin-resistant *Staphylococcus aureus* and healthcare risk factors. *Emerg Infect Dis.* 2006;12:1991-1993.
2. Maree CL, Daum RS, Boyle-Vavra S, Matayoshi K, Miller LG. Community-associated methicillin-resistant *Staphylococcus aureus* isolates causing healthcare-associated infections. *Emerg Infect Dis.* 2007;13:236-242.
3. McDonald LC. Trends in antimicrobial resistance in health care-associated pathogens and effect on treatment. *Clin Infect Dis.* 2006;42(suppl 2):S65-S71.
4. Moran GJ, Krishnadasan A, Gorwitz RJ, et al; EMERGEncy ID Net Study Group. Methicillin-resistant *S. aureus* infections among patients in the emergency department. *N Engl J Med.* 2006;355:666-674.
5. Naimi TS, LeDell KH, Como-Sabetti K, et al. Comparison of community- and healthcare-associated methicillin-resistant *Staphylococcus aureus* infection. *JAMA.* 2003;290:2976-2984.
6. Styers D, Sheehan DJ, Hogan P, Sahm DF. Laboratory-based surveillance of current antimicrobial resistance patterns and trends among *Staphylococcus aureus*: 2005 status in the United States. *Ann Clin Microbiol Antimicrob.* 2006;5:2.

Gram-positive Bacteria Issue 3

1. Hyle EP, Lipworth AD, Zaoutis TE, Nachamkin I, Bilker WB, Lautenbach E. Impact of inadequate initial antimicrobial therapy on mortality in infections due to extended-spectrum β -lactamase producing Enterobacteriaceae: variability by site of infection. *Arch Intern Med.* 2005;165:1375-1380.
2. Ibrahim EH, Sherman G, Ward S, Fraser VJ, Kollef MH. The influence of inadequate antimicrobial treatment of bloodstream infections on patient outcomes in the ICU setting. *Chest.* 2000;118:146-155.
3. Khatib R, Saeed S, Sharma M, Riederer K, Fakih MG, Johnson LB. Impact of initial antibiotic choice and delayed appropriate treatment on the outcome of *Staphylococcus aureus* bacteremia. *Eur J Clin Microbiol Infect Dis.* 2006;25:181-185.
4. Kollef MH, Sherman G, Ward S, Fraser VJ. Inadequate antimicrobial treatment of infections: a risk factor for hospital mortality among critically ill patients. *Chest.* 1999;115:462-474.
5. Kollef MH, Ward S, Sherman G, et al. Inadequate treatment of nosocomial infections is associated with certain empiric antibiotic choices. *Crit Care Med.* 2000;28:3456-3464.
6. Paterson DL, Rice LB. Empirical antibiotic choice for the seriously ill patient: are minimization of selection of resistant organisms and maximization of individual outcome mutually exclusive? *Clin Infect Dis.* 2003;36:1006-1012.
7. Sakoulas G, Moise-Broder PA, Schentag J, Forrest A, Moellering RC Jr, Eliopoulos GM. Relationship of MIC and bactericidal activity to efficacy of vancomycin for treatment of methicillin-resistant *Staphylococcus aureus* bacteremia. *J Clin Microbiol.* 2004;42:2398-2402.
8. Teixeira PJ, Seligman R, Hertz FT, Cruz DB, Fachel JM. Inadequate treatment of ventilator-associated pneumonia: risk factors and impact on outcomes. *J Hosp Infect.* 2007;65:361-367.