

## References

### Antimicrobial Dosing

1. Lexicomp Online®, AHFS® Drug Information
2. Sanford Guide to Antimicrobial Therapy
3. Li PK et al. ISPD peritonitis recommendations: 2016 update on prevention and treatment. *Peritoneal dialysis international* 2016;36:481.
4. Baddour et al. Infective Endocarditis in Adults: Diagnosis, Antimicrobial Therapy, and Management of Complications. *Circulation*. 2015; 132: 1435-1486.
5. Bugs and Drugs®, Alberta Health Services; July 26, 2017.
6. Clinical Pharmacokinetic Service and Anticoagulation Guidelines. Pharmacy Services UK Healthcare University of Kentucky. January 2017.
7. Nicolau et al. Experience with a once-daily aminoglycoside program administered to 2,184 adult patients. *Antimicrob Agents Chemother*. 1995; 39(3): 650-655.
8. Tsuji BT et al. International Consensus Guidelines for the Optimal Use of the Polymyxins: Endorsed by the American College of Clinical Pharmacy (ACCP), European Society of Clinical Microbiology and Infectious Diseases (ESCMID), Infectious Diseases Society of America (IDSA), International Society for Antiinfective Pharmacology (ISAP), Society of Critical Care Medicine (SCCM), and Society of Infectious Diseases Pharmacists (SIDP). *Pharmacotherapy* 2019;39:10-39.
9. Koomanachai P et al. Pharmacokinetics of colistin methanesulfonate and formed colistin in end-stage renal disease patients receiving continuous ambulatory peritoneal dialysis.

### Beta-Lactam Allergies

1. The NB Provincial Health Authorities Anti-infective Stewardship Committee. June 2016. Antimicrobial Treatment Guidelines for Common Infections. 2017. <http://en.horizonnb.ca/home/careers-and-education/learning/antimicrobial-use.aspx>
2. Robinson JL et al. Practical Aspects of Choosing an Antibiotic for Patients with a Reported Allergy to an Antibiotic. *Clinical Infectious Diseases*. 2002; 35:26–31
3. Philippe Lagacé-Wiens and Ethan Rubinstein. Adverse reactions to  $\beta$ -lactam antimicrobials. *Expert Opinion on Drug Safety*. 2012; 11(3): 381-399
4. Krishna MT et al. Enhancing antibiotic stewardship by tackling “spurious” penicillin allergy. *Clin Exp Allergy*. 2017; 47:1362–1373.
5. Gadde J, Spence M, Wheeler B, Adkinson NF, Jr. 1993. Clinical experience with penicillin skin testing in a large inner-city STD clinic. *JAMA* 270:2456-2463.
6. Joint Task Force on Practice P, American Academy of Allergy A, Immunology, American College of Allergy A, Immunology, Joint Council of Allergy A, Immunology. 2010. Drug allergy: an updated practice parameter. *Ann Allergy Asthma Immunol* 105:259-273.
7. Sogn DD, Evans R, 3rd, Shepherd GM, Casale TB, Condemi J, Greenberger PA, Kohler PF, Saxon A, Summers RJ, VanArsdel PP, Jr., et al. 1992. Results of the National Institute of Allergy and Infectious Diseases Collaborative Clinical Trial to test the predictive value of skin testing with major and minor penicillin derivatives in hospitalized adults. *Arch Intern Med* 152:1025-1032.
8. Albin S, Agarwal S. 2014. Prevalence and characteristics of reported penicillin allergy in an urban outpatient adult population. *Allergy Asthma Proc* 35:489-494.
9. Legendre DP, Muzny CA, Marshall GD, Swiatlo E. 2014. Antibiotic hypersensitivity reactions and approaches to desensitization. *Clin Infect Dis* 58:1140-1148.
10. Coombs P GP. Classification of allergic reactions responsible for clinical hypersensitivity and disease. *Clinical aspects of immunology*, 1968 Oxford, UK Oxford University Press (pg 575-96).
11. Campagna JD, Bond MC, Schabelman E, Hayes BD. 2012. The use of cephalosporins in penicillin-allergic patients: a literature review. *J Emerg Med* 42:612-620.
12. Baldo BA. 1999. Penicillins and cephalosporins as allergens--structural aspects of recognition and cross-reactions. *Clin Exp Allergy* 29:744-749.

13. Green GR, Rosenblum AH, Sweet LC. 1977. Evaluation of penicillin hypersensitivity: value of clinical history and skin testing with penicilloyl-polylysine and penicillin G. A cooperative prospective study of the penicillin study group of the American Academy of Allergy. *J Allergy Clin Immunol* 60:339-345.
14. Salkind AR, Cuddy PG, Foxworth JW. 2001. The rational clinical examination. Is this patient allergic to penicillin? An evidence-based analysis of the likelihood of penicillin allergy. *JAMA* 285:2498-2505.

### Respiratory Tract Infections

10. Athanassa Z et al. Early switch to oral treatment in patients with moderate to severe community-acquired pneumonia. *Drugs*. 2008;68:2469-81.
11. Dimopoulos G et al. Short- versus long-course antibacterial therapy for community-acquired pneumonia – a meta-analysis. *Drugs*. 2008;68:1841-54.
12. Global Initiative for Chronic Obstructive Lung Disease (GOLD). Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease (updated 2016). <http://www.goldcopd.org/guidelines-global-strategy-for-diagnosis-management.html>
13. Lim WS et al. British Thoracic Society guidelines for the management of community acquired pneumonia in adults: update 2009. *Thorax*. 2009;64:iii1-55
14. January 2015 annotated British Thoracic Society guideline for the management of community acquired pneumonia in adults (2009) summary of recommendations. <https://www.brit-thoracic.org.uk/guidelines-and-quality-standards/community-acquired-pneumonia-in-adults-guideline/annotated-bts-guideline-for-the-management-of-cap-in-adults-2015/>
15. Mandell LA et al. Summary of Canadian guidelines for the initial management of community-acquired pneumonia: an evidence-based update by the Canadian Infectious Diseases Society and the Canadian Thoracic Society. *Can Respir J*. 2000;7:371-82.
16. Mandell LA et al. Infectious Diseases Society of America/American Thoracic Society consensus guidelines on the management of community-acquired pneumonia in adults. *Clin Infect Dis*. 2007;44:S27-72.
17. National Institute for Health and Care Excellence (NICE). Pneumonia in adults: diagnosis and management – clinical guideline 191. 2014.
18. O'Donnell DE et al. Canadian Thoracic Society recommendations for management of chronic obstructive pulmonary disease – 2007 update. *Can Respir J*. 2007;14(Suppl B):5B-32B.
19. Schuetz P et al. Effect of procalcitonin-based guidelines vs standard guidelines on antibiotic use in lower respiratory tract infections – the ProHOSP randomized controlled trial. *JAMA*. 2009;302:1059-66.
20. Schuetz P et al. Procalcitonin to initiate or discontinue antibiotics in acute respiratory tract infections. *Cochrane Database Syst Rev*. 2012;9:CD007498.
21. Woodhead M et al. Guidelines for the management of adult lower respiratory tract infections – full version. *Clin Microbiol Infect*. 2011; 17:e1-59. (Guidelines of the European Respiratory Society and The European Society for Clinical Microbiology and Infectious Diseases)
22. Sinai Health System-University Health Network Antimicrobial Stewardship Best Practices. Pneumonia: Community-Acquired Frequently Asked Questions.
23. Shorr AF et al. Viruses are prevalent in non-ventilated hospital-acquired pneumonia. *Respiratory Medicine*. 2017;122:76.
24. Kalil AC et al. Management of adults with hospital-acquired and ventilator-associated pneumonia: 2016 clinical practice guidelines by the Infectious Diseases Society of America and the American Thoracic Society. *Clin Infect Dis*. 2016;63:e61-e111.
25. Daneman N et al. Duration of hospital admission and the need for empiric antipseudomonal therapy. *J Clin Micro* 2012;50:2695-2701.
26. Feller-Kopman D and Light R. Pleural Disease. *N Engl J Med* 2018;378:740-751.
27. Davies HE et al. Management of pleural infection in adults: British Thoracic Society pleural disease guideline 2010. *Thorax* 2010;65:ii41-53.
28. Global Initiative for Chronic Obstructive Lung Disease. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2020 report. [www.goldcopd.org](http://www.goldcopd.org)

29. National Institute for Health and Care Excellence (NICE). Chronic obstructive pulmonary disease (acute exacerbation): antimicrobial prescribing – NICE guideline 114. 2018.
30. Prins HJ et al. CRP-guided antibiotic treatment in acute exacerbations of COPD in hospital admissions. *Eur Respir J* 2019;53:1802014.
31. Butler CC et al. C-reactive protein testing to guide antibiotic prescribing for COPD exacerbations. *N Engl J Med* 2019;381:111.

#### Urinary Tract Infections

1. Blondel-Hill EM & Fryters S. Bugs and Drugs for iOS. Alberta Health Services. 2016.
2. Drekonja DM et al. Urinary tract infection in male veterans. *JAMA Intern Med.* 2013;173:62-68.
3. Eliakim-Raz N et al. Duration of antibiotic treatment for acute pyelonephritis and septic urinary tract infection – 7 days or less versus longer treatment: systematic review and meta-analysis of randomized controlled trials. *JAC.* 2013;68:2183-2191.
4. Gupta K et al. IDSA and ESCMID guidelines for treatment of acute uncomplicated cystitis and pyelonephritis in women. *CID.* 2011;52:e103-20.
5. Hooton TM et al. IDSA guidelines on diagnosis, prevention, and treatment of catheter-associated urinary tract infection adults. *CID.* 2010;50:625-63.
6. Hooton TM & Gupta K. Acute simple cystitis in women. UpToDate Oct 17, 2018.
7. Hooton TM. Acute simple cystitis in men. UpToDate Jul 27, 2018.
8. Hooton TM & Gupta K. Acute complicated urinary tract infection (including pyelonephritis) in adults. UpToDate Apr 20, 2018.
9. Lutters M & Vogt-Ferrier N. Antibiotic duration for treating uncomplicated, symptomatic lower urinary tract infections in elderly women. *Cochrane Database of Systematic Reviews* 2008. CD001535.
10. Monmaturapoj T et al. A prospective, randomized, double dummy, placebo-controlled trial of cefditoren pivoxil 400 mg once daily as switch therapy after intravenous ceftriaxone in the treatment of acute pyelonephritis. *Int J Infect Dis.* 2012;16:e843-9.
11. Nicolle LE et al. IDSA guidelines for the diagnosis and treatment of asymptomatic bacteriuria in adults. *CID.* 2005;40:643-54.
12. Pohl A et al. Modes of administration of antibiotics for symptomatic severe urinary tract infections. *Cochrane Database of Systematic Reviews* 2007. CD003237
13. Sanchez M et al. Short-term effectiveness of ceftriaxone single dose in the initial treatment of acute uncomplicated pyelonephritis in women. A randomized controlled trial. *Emerg Med J* 2002;19:19-22.
14. Sandberg T et al. Ciprofloxacin for 7 days versus 14 days in women with acute pyelonephritis: a randomised, open-label and double-blind, placebo-controlled, non-inferiority trial. *Lancet.* 2012;380:484-90.
15. Talan DA et al. Comparison of ciprofloxacin (7 days) and trimethoprim-sulfamethoxazole (14 days) for acute uncomplicated pyelonephritis in women—a randomized trial. *JAMA.* 2000;283:1583-90.
16. van Nieuwkoop C et al. Treatment duration of febrile urinary tract infection: a pragmatic randomized, double-blind, placebo-controlled non-inferiority trial in men and women. *BMC Medicine.* 2017;15:70.
17. WHO. Antimicrobial resistance: global report on surveillance. 2014.
18. Zalmanovici Trestioreanu A et al. Antibiotics for asymptomatic bacteriuria. *Cochrane Database of Systematic Reviews* 2015. CD009534.

#### Sepsis

1. Singer M. et al. The Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3). *JAMA* 2016;315:801-810.
2. Surviving Sepsis Campaign. Surviving Sepsis Campaign Response to Sepsis-3. March 2016. <http://www.survivingsepsis.org/>
3. BC Sepsis Network. BC Sepsis Network special communication on the third international consensus definitions for sepsis and septic shock (Sepsis-3). April 2016. <https://bcpsqc.ca/documents/2012/09/SepsisLetter.pdf>

### Skin and Soft Tissue Infections

1. Stevens DL et al. Practice guidelines for the diagnosis and management of skin and soft tissue infections: 2014 update by the IDSA. CID . 2014.
2. Talan DA et al. Trimethoprim-sulfamethoxazole versus placebo for uncomplicated skin abscess. NEJM. 2016;374:823.
3. Daum RS et al. A placebo-controlled trial of antibiotics for smaller skin abscesses. NEJM. 2017;376:2545.

### Diabetic Foot Infections

1. Hinchliffe RJ et al. IWGDF guidance on the diagnosis, prognosis, and management of peripheral artery disease in patients with foot ulcers in diabetes. Diabetes Metab Res Rev. 2016;32(Suppl. 1):37-44
2. Lipsky BA et al. IDSA guideline for diagnosis and treatment of diabetic foot infections. CID. 2012;54:132-173.
3. Lipsky BA et al. IWGDF guidance on the diagnosis and management of foot infections in persons with diabetes. Diabetes Metab Res Rev. 2016;32(Suppl. 1):45-74.
4. Selva Olid A et al. Systemic antibiotics for treating diabetic foot infections. Cochrane Database of Systematic Reviews. 2015;9:CD009061.

### Clostridium Difficile Infection

1. McDonald LC et al. Clinical practice guidelines for *Clostridium difficile* infection in adults and children: 2017 update by the Infectious Diseases Society of America (IDSA) and Society for Healthcare Epidemiology (SHEA). CID. 2018;66:987-994.

### Intra-Abdominal Infections

1. Chow AW et al. Canadian practice guidelines for surgical intra-abdominal infections. Can J Infect Dis Med Microbiol. 2010;21:11-37.
2. Solomkin JS et al. Diagnosis and management of complicated intra-abdominal infections in adults and children: guidelines by the Surgical Infection Society and the Infectious Diseases Society of America. 2010; CID. 2010;50:133-164.
3. Sawyer RG et al. Trial of short-course antimicrobial therapy for intraabdominal infection. NEJM. 2015;372:1996-2005.
4. Gomi H et al. TG13: Updated Tokyo Guidelines for acute cholangitis and acute cholecystitis. J Hepatobiliary Pancreat Sci. 2013;20:60-70.
5. Montravers P et al. Short-course antibiotic therapy for critically ill patients treated for postoperative intra-abdominal infection: the DURAPOP randomized clinical trial. Intensive Care Med. 2018;44:300-310.
6. Pappas PG et al. Clinical practice guideline for the management of candidiasis: 2016 update by the Infectious Diseases Society of America. CID. 2016;62:e1-50.
7. Mazuski JE et al. The Surgical Infection Society revised guidelines on the management of intra-abdominal infection. Surgical Infections. 2017;18:1-76.

### Central Nervous System Infections

1. Van de Beek D et al. ESCMID guideline: diagnosis and treatment of acute bacterial meningitis. Clin Microbiol Infect. 2016;22:S37-S62.
2. Tunkel AR et al. Practice guidelines for management of bacterial meningitis. CID. 2004;39:1267-1284.
3. Tunkel AR et al. 2017 Infectious Diseases Society of America's clinical practice guidelines for healthcare-associated ventriculitis and meningitis. 2017. DOI: 10.1093/cid/ciw861

### Sepsis in CPO Colonized Patients

1. Gutierrez-Gutierrez B et al. Effect of appropriate combination therapy on mortality of patients with bloodstream infections due to carbapenemase-producing Enterobacteriaceae (INCREMENT): a retrospective cohort study. Lancet Infect Dis 2017;17:726.
2. Paul M et al. Combination therapy for carbapenem-resistant Gram-negative bacteria. J Antimicrob Chemother 2014;69:2305.

3. Paul M et al. Colistin alone versus colistin plus meropenem for treatment of severe infections caused by carbapenem-resistant Gram-negative bacteria: an open-label, randomized controlled trial. *Lancet Infect Dis* 2018;18:391.
4. Rodriguez-Bano J et al. Treatment of infections caused by extended-spectrum-beta-lactamase-, AmpC-, and carbapenemase-producing Enterobacteriaceae. *Clin Microbiol Rev* 2018;31:e00079.
5. Tumbarello M et al. Infections caused by KPC-producing *Klebsiella pneumoniae*: differences in therapy and mortality in a multicenter study. *J Antimicrob Chemother* 2015;70:2133.
6. Zak-Doron Y et al. The association between empiric antibiotic treatment and mortality in severe infections caused by carbapenem-resistant gram-negative bacteria: a prospective study. *Clin Infect Dis* 2018;67:1815.