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California Regions

Outpatient Empiric Infectious Diseases Guidelines 2011 – ADULTS

DIAGNOSIS	PATHOGENS	DRUGS OF CHOICE	ALTERNATE DRUGS	COMMENTS
SKIN AND SKIN STRUCTURE INFECTIONS				
Bites (Dog, Cat, Human)	*Strep* spp. *P. multocida* Anaerobes *Staph. aureus* *E. corrodens*	AMOXICILLIN/CLAVULANATE 875/125 mg PO BID x 3-5 days	*PCN-allergic:* CEFUROXIME AXETIL 500 mg PO BID x 3-5 days *-plus either-* (METRONIDAZOLE 500 mg PO BID-TID or CLINDAMYCIN 300-450 mg PO TID) *-or-* DOXYCYCLINE 100 mg PO q12 hrs x 3-5 days *-or-* MOXIFLOXACIN [1] 400 mg PO daily x 3-5 days	• Due to resistance of Pasteurella, avoid cephalexin. • Cefuroxime therapy may require an additional agent for anaerobic coverage: metronidazole or clindamycin. • More complicated or severe bite wounds may require longer treatment durations.[2]
Cellulitis, Skin Infection **Note: For significant cellulitis or cellulitis due to "spider bites" see MRSA section, below*	Group A Streptococci and other beta hemolytic streptococci *Staph. aureus* including methicillin-sensitive (MSSA)	DICLOXACILLIN 500 mg PO QID *-or-* CEPHALEXIN 500 mg PO QID *-or-* CEFADROXIL[3] 500 mg PO BID	CLINDAMYCIN 300-450 mg PO TID	• If abscess present incision/drainage with culture and local care are first-line therapies; antimicrobial therapy may not be required. • Use with caution or avoid use of TMP/SMX with renal insufficiency.
• Superficial abscess/ MRSA Cellulitis	If MRSA is suspected, above treatments fail, or recurrent MRSA (check sensitivities)	TRIMETHOPRIM-SULFAMETHOXAZOLE (TMP/SMX) DS: 1-2 tabs PO BID	DOXYCYCLINE 100 mg PO BID *-or-* CLINDAMYCIN 300-450 mg PO TID	
Diabetic Skin Infection (with acute cellulitis)	*Strep.* spp. *Staph. aureus*	DICLOXACILLIN 500 mg PO QID or CEPHALEXIN 500 mg PO QID	CLINDAMYCIN 300-450 mg PO TID	• Deep culture/ biopsy recommended – Not all organisms isolated require treatment. • Treat until infection resolved. • Cultures and sensitivities should help guide therapy. • For patients who are not responding or relapse, consider ID consultation.
• Deep ulcer (with cellulitis or abscess)	*Staph. aureus* *(except MRSA)* *Strep.* spp. Anaerobes *Enterobacter* Other Gram-neg rods	CEPHALEXIN 1 gm PO TID *-plus-* METRONIDAZOLE 500 mg PO TID *-or-* AMOXICILLIN/CLAVULANATE 875/125 mg PO BID	CIPROFLOXACIN 500 mg PO BID *-plus-* CLINDAMYCIN 300-450 mg PO TID	• Cultures and sensitivities should help guide therapy. • For patients who are not responding or relapse, consider ID consultation.
	Suspect MRSA	TMP/SMX DS: 1-2 tabs PO BID	DOXYCYCLINE 100 mg PO BID *-or-* CLINDAMYCIN 300-450 mg PO TID	

GENITOURINARY TRACT INFECTIONS				
Herpes (genital)	*Herpes simplex virus*	Initial symptomatic episode ACYCLOVIR 400 mg PO TID x 7-10 days Suppressive therapy (Severe episodes >6 times/yr): ACYCLOVIR 400 mg PO BID	ACYCLOVIR 200 mg PO 5x/day x 7-10 days	• Many primary infections may be asymptomatic. • Start treatment as soon as possible after symptoms occur. • Early treatment is much more effective. • Costs of famciclovir and valacyclovir are significantly more than equivalent acyclovir regimens.
		Severe recurrent episodes ACYCLOVIR 400 mg PO TID x 5 days	ACYCLOVIR 800 mg BID x 5 days *-or-* ACYCLOVIR 800 mg PO TID x 2 days	
Urethritis/Cervicitis	Gonococcal (GC): *N. gonorrhoeae* Non-gonococcal (NGC): *Chlamydia trachomatis*	(CEFTRIAXONE 250 mg IM x 1 dose *-or-* CEFIXIME 400 mg PO x 1 dose) *-plus either-* (AZITHROMYCIN 1 gm PO x 1 dose [DOT]* *-or-* DOXYCYCLINE 100 mg PO BID x 7 days) *DOT - Direct observation of drug administration in clinic is preferred for all one-time doses	*Ceph-allergic*:* AZITHROMYCIN 2000 mg PO x 1 dose **Note: Patients with IgE-mediated reactions to cephalosporins have limited treatment options. Consider ceftriaxone desensitization.*	• Doxycycline is not recommended during pregnancy. • If treating empirically for symptoms, treat for both GC and NGC. • Consider testing for other STDs including HIV. • Treat or advise treatment of sexual partners. • Close clinical follow-up including a test-of-cure (TOC) should be considered when using azithromycin alone for GC. • When azithromycin is used, prescribing the Z-pak is not appropriate.
Prostatitis, acute • Young sexually active men	Consider GC and NGC	CEFTRIAXONE 250 mg IM x 1 dose *-plus-* DOXYCYCLINE 100 mg PO BID x 10 days		• If duration of symptoms >3 weeks, treat for 21-28 days. • Optimal = culture prostatic secretions and/or urine.
• Older patients	*E. coli* *Klebsiella spp.*	TMP/SMX DS: 1 tab PO BID x 14 days *-or-* CIPROFLOXACIN 500 mg PO BID x 14 days		
Urinary Tract Infection • Cystitis – uncomplicated or low risk patient	*E. coli* *Staph. saprophyticus*	No abx indicated for asymptomatic bacteriuria in non-pregnant patients TMP/SMX DS: 1 tab PO BID x 3 days *-or-* CEPHALEXIN 500 mg PO BID x 7 days (See comments)	CIPROFLOXACIN 250 mg PO BID x 3 days *-or-* NITROFURANTOIN 100 mg PO BID x 7 days	• Culture not necessary for low risk, uncomplicated cystitis. • Do not prescribe nitrofurantoin in renally impaired patients (GFR <50 mL/min). • Consider cephalexin therapy in areas with high rates (>20%) of *E. coli* resistant to TMP/SMX. Requires one week of therapy.

• Cystitis in Pregnancy	Same as above	CEPHALEXIN 500 mg PO BID x 7-10 days	NITROFURANTOIN 100 mg PO BID x 7 days *-or-* TMP/SMX DS: 1 tab BID x 7 days *(Note: avoid this agent in the 1st and 3rd trimesters of pregnancy)*	Culture recommended.
Pyelonephritis	*E. coli* *Enterococci*	CIPROFLOXACIN 500 mg PO BID x 10 days	CEFPODOXIME 200 mg PO BID x10 days *-or-* TMP/SMX DS: 1 tab PO BID x 14 days *if organism is susceptible*	• Culture recommended. • Consider risk factors for resistant infection: recent ciprofloxacin or TMP/SMX prescription, or documentation of prior drug resistant organism.

DIAGNOSIS	COMMON PATHOGENS	DRUGS OF CHOICE	ALTERNATE DRUGS	COMMENT
RESPIRATORY TRACT INFECTIONS				
Bronchitis, acute	Typically viral etiology	****NO ABX INDICATED****		
• Acute bacterial exacerbation of chronic bronchitis	*Strep. pneumoniae* *Haemophilus influenzae* *Moraxella catarrhalis* *Mycoplasma pneumoniae* *Chlamydia pneumoniae*	AMOXICILLIN 1000 mg PO BID x 5 days	TMP/SMX DS: 1 tab PO BID x 5 days *-or-* DOXYCYCLINE 100 mg PO BID x 5 days *-or-* AZITHROMYCIN 500 mg PO x 1 then 250 mg daily x 4 more days	• Repeated courses of antimicrobials select for resistant organisms. • Culture recommended for poor response to therapy.
Sinusitis, acute	Typically viral etiology	**NO ABX INDICATED**		• Most sinusitis accompanying a URI for ≤10-14 days duration is viral. • Include adequate treatment with a decongestant.
	Strep. pneumoniae *Haemophilus influenzae* Group A Strep.	AMOXICILLIN 1000 mg PO BID x 7 days	DOXYCYCLINE 100 mg PO BID x 7 days *-or-* TMP/SMX DS PO BID x 7 days *-or-* AZITHROMYCIN 500 mg PO daily x3 days	
Otitis Media	Respiratory viruses *Strep. pneumoniae* *H. influenzae* *Moraxella catarrhalis* *Staph. aureus* Group A Streptococci	AMOXICILLIN 1000 mg PO BID x 5 days	CEFUROXIME 500 mg PO BID x 7 days *-or-* AZITHROMYCIN 500 mg PO x 1 dose then 250 mg daily x 4 days	• Most cases are viral, not bacterial.
Pharyngitis	Respiratory viruses Group A Streptococci	PENICILLIN VK 500 mg PO BID x 10 days *-or-* PENICILLIN G BENZATHINE 1.2 million units IM x 1 dose	*PCN-allergic:* CEPHALEXIN 500 mg PO BID x 10 days *-or-* CLINDAMYCIN 300 mg PO BID x 10 days *-or-* AZITHROMYCIN 500 mg PO x 1 then 250 mg daily x 4 more days	• Most cases are viral, only treat Group A Streptococci confirmed by a streptococcal rapid test, culture, or probe. • Suspected viral causes should not be treated with antibacterial agents.

Community Acquired Pneumonia • **Outpatient therapy / Risk Class I:** Adults age 18-50 yrs (males) or 18-60 yrs (females) with no comorbid conditions	Respiratory viruses *Strep. pneumoniae* *Haemophilus influenzae* *Mycoplasma* *Staph. aureus*	AZITHROMYCIN 500 mg PO daily x 5 days *-or-* DOXYCYCLINE 100 mg PO BID x 10 days	CEFUROXIME AXETIL 500mg PO BID x 7-10 days	• If pneumococcus is resistant to PCN, consult with an ID Specialist. • Azithromycin or doxycycline are appropriate for atypical pathogen coverage. • Gram-stain and culture is helpful to diagnose MRSA or pseudomonas infection. • See Regional Guidelines for severity of illness score CURB-65.[4] If ≥2 factors, consider hospitalization or more intensive treatment: Confusion Uremia = BUN >21mg/dL Respiratory rate ≥30/min Blood pressure systolic <90; or diastolic ≤60 mmHg Age ≥ 65 years
• **Outpatient therapy / Risk Classes II-III:** Adults with COPD; smoker; CHF; alcoholic; diabetes; or age > 50 yrs (males) or >60 yrs (females)	In addition to the organisms above: *Moraxella catarrhalis* *Legionella* spp.	CEFUROXIME AXETIL 500mg PO BID x 7-10 days *-plus either-* (AZITHROMYCIN 500mg PO daily x 5-7 days *-or-* DOXYCYCLINE 100 mg PO BID x 7-10 days) If antimicrobial treatment in prior 3 months, also consider culture	AMOXICILLIN 1000 mg PO TID x 10 days *-plus-* AZITHROMYCIN 500 mg PO daily x 7 days *-or-* MOXIFLOXACIN [1] 400mg PO daily x 7-10 days	
GASTROINTESTINAL				
Diverticulitis	*Streptococci* Enterobaceraceae *Ps. aeruginosa* *Bacteriodes spp.* *Enterococci*	CIPROFLOXACIN 500 mg PO BID *-plus-* METRONIDAZOLE 500 mg PO BID-TID	CIPROFLOXACIN 500 mg PO BID *-plus-* CLINDAMYCIN 300-450 mg PO TID *-or-* CEFPODOXIME 200 mg PO BID *-plus-* METRONIDAZOLE 500 mg PO BID-TID	• Treat for 7-10 days.

1. SCAL – Prescribing restricted to Infectious Diseases or Pulmonary Medicine.
2. Reference to IDSA animal bite guidelines can be found in Stevens DI et al. Clinical Infectious Diseases 2005; 41:1387.
3. Tablets / Capsules may be Non-Formulary.
4. Reference to CURB-65 guidelines can be found in Lim WS et al. Thorax 2003; 58:377-82.

This document was prepared collaboratively by the Regional Infectious Diseases Committees, NCAL and SCAL.
It contains suggested antibiotic therapies for common diagnoses. It is intended as a helpful reference and is not a replacement for good clinical judgment.