

Cellulitis Review: A Pocket Guide

Adapted from "Cellulitis: A Review" by Adam B. Raff, MD, MPH *JAMA*. 2016;316(3):325-337. doi:10.1001/jama.2016.8825



Left: Non-purulent cellulitis of the foot. Right: Purulent cellulitis on the neck/head.



Standard Antimicrobial Dosing for Staphylococcal and Streptococcal Skin Infections¹

Yellow highlight indicates antibiotics taken orally.

ANTIBIOTIC	SUGGESTED ADULT DOSING	COMMENT
MSSA and Streptococcus Coverage		
Amoxicillin/clavulanate	875 mg 2 times/d orally	Streptococcal and MSSA coverage
Cefazolin	1 g every 8 h intravenously	Avoid in true penicillin allergy causing a severe Type 1 reaction e.g. anaphylaxis, less bone marrow suppression than nafcillin; Parenteral agent in MSSA
Ceftaroline	600 mg every 12 h intravenously	
Ceftriaxone	1-2 g/d intravenously	
Cephalexin	500 mg 4 times/d orally	Avoid in true penicillin-allergic patients with immediate hypersensitivity reactions ²
Dicloxacillin	250-500 mg 4 times/d orally	Oral agent of choice for MSSA
Imipenem/cilastatin	500 mg every 6 h intravenously	Not to exceed 50 mg/kg or 4 g/d, whichever is lower
Meropenem	1 g every 8 h intravenously	
Nafcillin	1-2 g every 4 h intravenously	Parenteral agent of choice in MSSA
Oxacillin	1-2 g every 4 h intravenously	Parenteral agent of choice in MSSA
Penicillin G	2-4 million U every 4-6 h intravenously	
Penicillin VK	250-500 mg every 6 h orally	
Piperacillin/tazobactam	3.375 g every 6 h intravenously	
MRSA Coverage		
Clindamycin	300-450mg 3-4 times/d orally 600 mg every 8 h intravenously	Potential inducible resistance in MRSA; Risk of <i>Clostridium difficile</i> infection
Daptomycin	4 mg/kg every 24 h intravenously	Costly; Risk of myopathy
Doxycycline	100 mg 2 times/d orally	Possible photosensitivity; Variable antistreptococcal activity
Linezolid	600 mg every 12 h orally 600 mg every 12 h intravenously	Costly Risk of serotonin syndrome and anemia, thrombocytopenia, leukopenia (long-term use)
Minocycline	100 mg 2 times/d orally	Variable antistreptococcal coverage
Telavancin	10 mg/kg every 24 h intravenously (infused during 1 h)	Costly
Tigecycline	100 mg followed by 50 mg	Adjust for severe liver impairment; every 12 h intravenously Increase in all cause mortality; Nausea and Vomiting in >2% of patients in clinical trials
Trimethoprim/sulfamethoxazole	1-2 double-strength tablets 2 times/d orally	Increased risk of blistering skin reactions; Risk of elevated serum potassium concentration; Poor streptococcal coverage
Vancomycin	15 mg/kg every 12 h intravenously	Parenteral agent of choice for MRSA infections

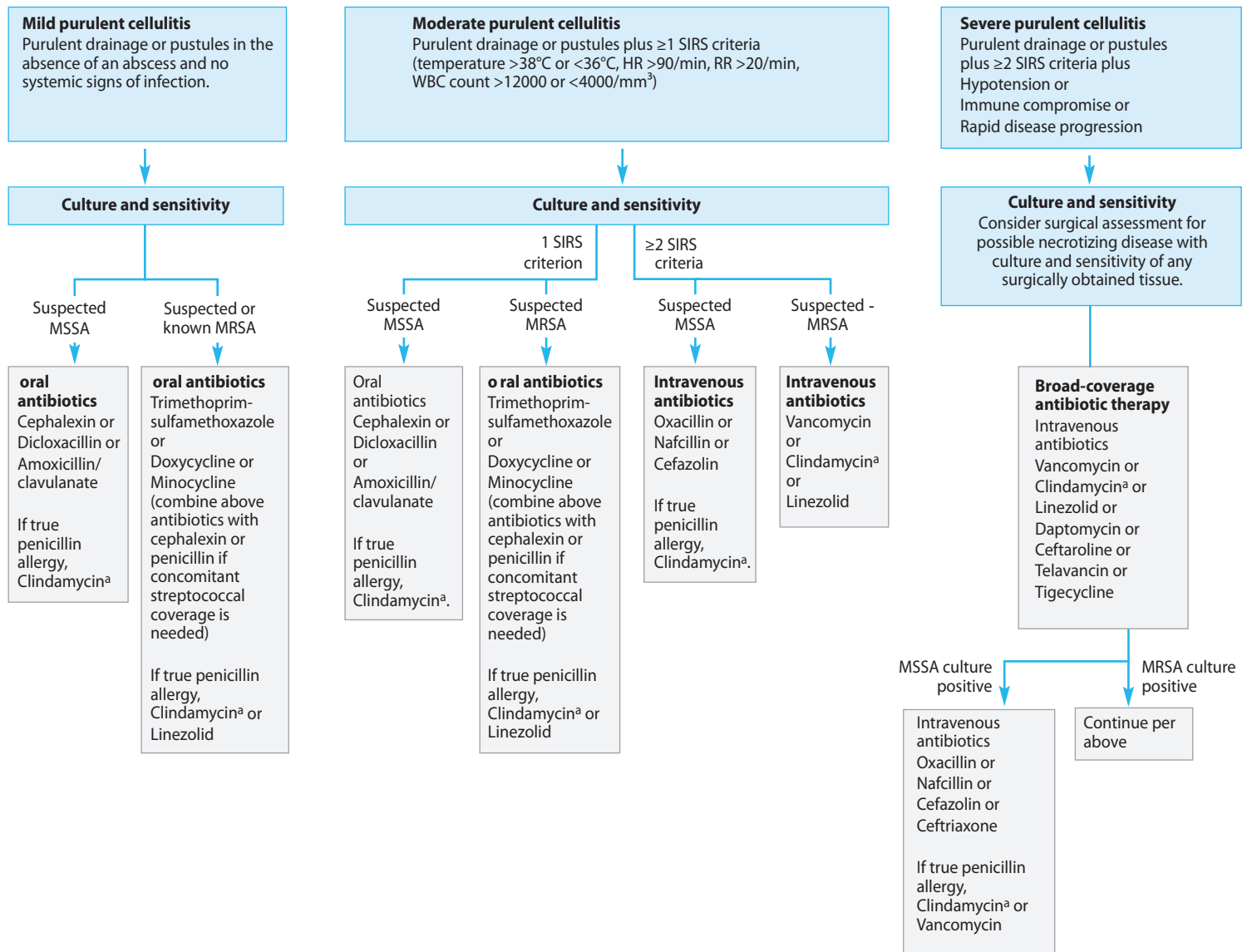
Abbreviations

- MRSA: methicillin-resistant *Staphylococcus aureus*;
- MSSA: methicillin-sensitive *S aureus*.

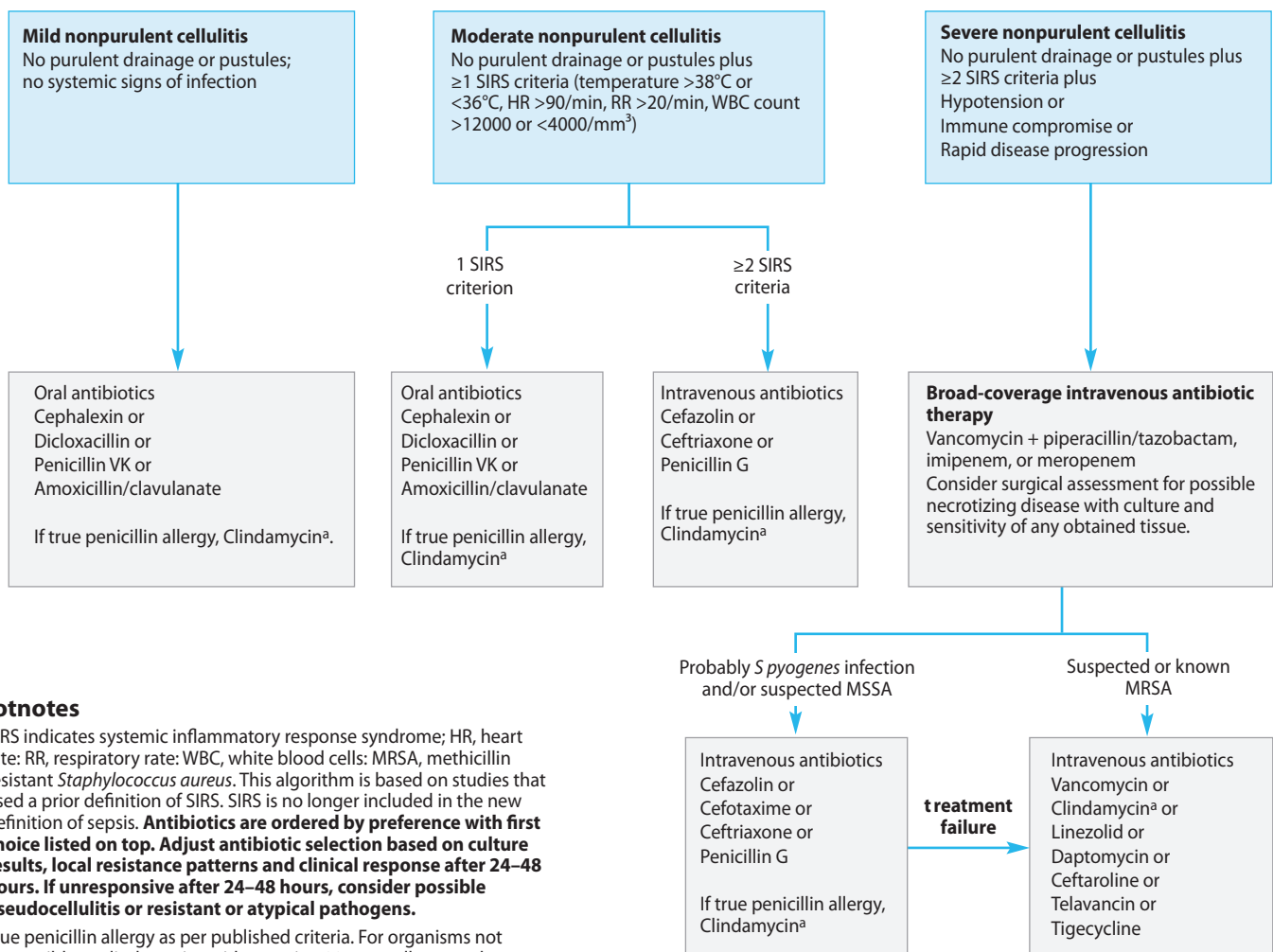
Footnotes

1. Based on published guidelines. Doses are standard based on normal adult weight and renal function.
2. True penicillin allergy as per published criteria.

Treatment Algorithm for Purulent Cellulitis**



Treatment Algorithm for Nonpurulent Cellulitis**



Footnotes

** SIRS indicates systemic inflammatory response syndrome; HR, heart rate; RR, respiratory rate; WBC, white blood cells; MRSA, methicillin resistant *Staphylococcus aureus*. This algorithm is based on studies that used a prior definition of SIRS. SIRS is no longer included in the new definition of sepsis. **Antibiotics are ordered by preference with first choice listed on top. Adjust antibiotic selection based on culture results, local resistance patterns and clinical response after 24–48 hours. If unresponsive after 24–48 hours, consider possible pseudocellulitis or resistant or atypical pathogens.**

a True penicillin allergy as per published criteria. For organisms not susceptible to clindamycin, azithromycin 500 mg orally once, then 250 mg/d for 4 days, or levofloxacin, 500 mg/d orally.