

EMPIRIC ANTIBIOTIC GUIDELINES FOR SKIN AND SOFT TISSUE INFECTIONS IN PATIENTS ON PEDIATRIC SERVICES

This guideline is designed to provide guidance in pediatric patients with a primary skin and soft tissue infection (SSTI). Management of skin and soft tissue infections in patients <2 months of age or those presenting with sepsis or septic shock not related to necrotizing fasciitis is beyond the scope of these guidelines. For sepsis or septic shock, refer to the <u>Pediatric Sepsis Guidelines</u>.

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Setting	Empiric Therapy	Duration/Comments
Minor Skin Infections	Topical Therapy	Duration:
	Mupirocin 2% topical ointment applied BID	5 days
 Localized impetigo (non- bullous or bullous) Secondarily infected skin lesions such eczema, ulcers, or lacerations Folliculitis (small follicular abscess in epidermis) <i>Topical therapy:</i> Generally preferred over oral therapy <i>Oral therapy:</i> Indicated instead of topical therapy for patients with numerous impetigo lesions or in outbreak settings to reduce transmission 	<u>Oral Therapy</u> 1 st line: Cephalexin * 25 mg/kg/DOSE PO TID (max: 1 g/DOSE) If MRSA risk factors present ¹ or allergy that precludes cephalexin use (<u>see footnote⁴</u>): TMP-SMX ^{2*} 6 mg of TMP/kg/DOSE PO BID (max: 320 mg TMP/DOSE) <u>Alternative to TMP-SMX² if sulfa allergy:</u> Clindamycin 10 mg/kg/DOSE PO TID (max: 450 mg/DOSE)	 S. aureus isolates from impetigo are commonly methicillin susceptible (MSSA). Michigan Medicine S. aureus resistance rates are low for TMP-SMX² (2%), compared to clindamycin (19% for MSSA and 25% for methicillin-resistant S. aureus [MRSA] in 2022). If worsening or not improving after 48 hours of oral cephalexin therapy, consider changing to an agent with anti-MRSA activity (i.e., TMP-SMX²).
Staphylococcus aureus, group A Streptococcus		
Absence of purulent drainage or exudate, ulceration, and no associated abscess. Includes erysipelas. <i>Target Pathogens:</i> Group A <i>Streptococcus,</i> <i>Staphylococcus aureus</i> (the role of community- acquired MRSA is unknown)	Outpatient or Step-down (from IV to PO) Inerapy: 1 st line: Cephalexin* 25 mg/kg/DOSE PO TID (max: 1 g/DOSE) If MRSA risk factors present ¹ or allergy that precludes cephalexin use (4): TMP-SMX ^{2*} 6 mg of TMP/kg/DOSE PO BID (max: 320 mg TMP/DOSE) Alternative to TMP-SMX ² if sulfa allergy: Clindamycin 10 mg/kg/DOSE PO TID (max: 450 mg/DOSE) OR Linezolid [®] PO <12 years: 10 mg/kg/DOSE BID (max: 600 mg/DOSE)	 <u>Duration:</u> 5 days May extend therapy up to 7-10 days if lack of symptom resolution at 5 days. Cephalexin and cefazolin provide coverage for group A <i>Streptococcus</i> and MSSA. TMP-SMX provides adequate coverage for group A <i>Streptococcus</i>, MSSA, and MRSA. If worsening or not improving after 48 hours of oral cephalexin therapy, consider changing to an agent with anti-MRSA activity (i.e., TMP-SMX² or linezolid). Linezolid suspension may not be readily available at all community pharmacies. Some insurance companies (including state Medicaid) may require prior authorization.
	precludes cefazolin use (4) <u>Vancomycin IV</u> *	



Setting	Empiric Therapy	Duration/Comments
Purulent Cellulitis or	Incision and drainage (I&D) is recommended as primary	Duration:
Abscesses including	management for abscesses. Antibiotics** are (at a minimum)	5 days
Folliculitis, Furuncles,	recommended if patient meets one of the following criteria:	• May extend therapy up to 7-
<u>Carbuncles</u>	 Substantial surrounding cellulitis 	10 days if lack of symptom
	• Abscess >2 cm in diameter; >1 cm in infants and young	resolution at 5 days.
Abscess: Collection of pus	children	
within the dermis and	 Inability to adequately drain the abscess 	Cultures and susceptibilities are
deeper skin tissues	• Signs or symptoms of systemic illness (e.g., fever ≥38°C)	recommended when I&D is
	Immunodeficiency	performed. Blood cultures are also
Furuncle: Infection of the	Multiple sites	recommended for patients with
hair follicle with	· · · · · · · · · · · · · · · · · · ·	fever, rapidly progressive cellulitis,
suppuration extending	Outpatient Therapy or Step-down (from IV to PO) Therapy	and systemic illness.
through the dermis into	1 st Line:	
subcutaneous tissue	TMP-SMX ^{2,*} 6 mg of TMP/kg/DOSE PO BID	Michigan Medicine S. aureus
	(max: 320 mg TMP/DOSE)	resistance rates are low for TMP-
Carbuncle: Confluence of		SMX ² (2%) and doxycycline (3%),
furuncles with wider	Alternative for sulfa allergy:	compared to clindamycin (19% for
infiltration	Doxycycline ³ 2.2 mg/kg/DOSE PO BID (max: 100 mg/DOSE)	methicillin-susceptible S. aureus
		[MSSA] and 25% for methicillin-
Target Pathogen:	Inpatient (IV) Therapy	resistant S. aureus [MRSA] in 2022).
(including MRSA)	1 st Line:	
	Vancomycin IV*	Tailor antibiotic therapy to results
		of Gram stain, culture, and
	Alternative for vancomycin allergy (not vancomycin infusion	sensitivities.
	reaction):	
	Linezolid ⁸ PO/IV (PO preferred):	**Although ~70% of abscesses may
	<12 years: 10 mg/kg/DOSE TID (max: 600 mg/DOSE)	resolve with I&D alone, an
	≥12 years: 10 mg/kg/DOSE BID (max: 600 mg/DOSE)	additional 10% are more likely to
		resolve with the addition of
		antibiotics. Clinical context should
		be taken into account when
		deciding if antibiotics are
		appropriate.
		Linezolia suspension may not be
		pharmacies. Some insurance
		require prior authorization
		require prior authorization.



Setting	Empiric Therapy	Duration/Comments
Staphylococcal Scalded Skin	<u>1st Line:</u>	Duration:
Syndrome (SSSS)	Cefazolin [*] 33 mg/kg/DOSE IV q8h (max: 2 g/DOSE)	10 days
	+ Linezolid [®] PO/IV (PO preferred):	Consider discontinuing linezolid
Results in loss of	<12 years: 10 mg/kg/DOSE TID (max: 600 mg/DOSE)	when patient is clinically stable
keratinocyte cell adhesion	≥12 years: 10 mg/kg/DOSE BID (max: 600 mg/DOSE	(e.g., vital signs within normal
and leads to blistering of		limits, no vasopressor
upper layer of the skin	Step-down (from IV to PO) Therapy	requirements) for 24-48 hours
	1 st Line:	and rash no longer progressing
Pediatric Infectious	Cephalexin [*] 25 mg/kg/DOSE PO TID (max: 1 g/DOSE)	(usual duration of 3-5 days).
Diseases consultation is		
recommended. Consider	Alternative if MRSA risk factors present or allergy that	Staphylococcal Scalded Skin
Dermatology consult if	precludes cephalexin use (4):	Syndrome (SSSS) is usually
diagnosis is unclear or	TMP-SMX ^{2,*} 6 mg of TMP/kg/DOSE PO BID	diagnosed in children <5 years of
specific skin care	(max: 320 mg TMP/DOSE)	age.
recommendations are		
needed		
Common pathogens:		
Staphylococcus aureus		
(MSSA predominantly		
reported in the literature)	actu	2
Necrotizing Fasciitis	$\frac{1^{3}}{2}$ Line:	Duration:
-	Piperacillin-tazobactam /5 mg of piperacillin/kg/DOSE IV	Empiric antibiotics should be
Early and aggressive	d6n (max: 4 g piperaciliin/DOSE) extended infusion	continued until the following
surgical exploration and	+ <u>vancomycin IV</u> * • <u>Cliadamusia 12 ma (ka (DOCE IV alk (maw 000 ma (DOCE)</u>	criteria are met:
debridement is critical.	+ Clindamycin 13 mg/kg/DOSE IV d8n (max: 900 mg/DOSE)	 Debridement no longer
Emergent surgical	Alternative for low rick ellergy ⁵ to penicilling	needed,
are strengly recommended	Cofonime* 50 mg/kg/DOSE IV/ g8h (max: 2 g/DOSE) extended	Clinical Improvement, and Minimum of 40, 72 hours
are strongly recommended.	infusion	 IVIIIImum of 48-72 hours Item a multiple of average
	+ Vancomycin IV/*	after completion of surgical
Common nathogens:	+ Clindamycin 13 mg/kg/DOSE IV a8h (max: 900 mg/DOSE)	debridement
Group A B-hemolytic		Clindamusin is initiated for anti
Strentococcus	ADD Metronidazole 10 mg/kg/DOSE PO/IV (PO preferred)	toxin activity for Strantococcal and
S aureus	TID (may: 500 mg/DOSE) if perineum or groin involved	Stanbulacescal infections and can
F. coli.		he stopped after 24-72 hours if
Pseudomonas spp	Alternative for alleray that precludes use of both piperacillin-	infection has improved and nationt
Enterobacter spp.	tazobactam and cefepime (4):	is stable
Klebsiella spp	REPLACE cefepime with Aztreonam * 50 mg/kg/DOSE IV	
Proteus spp.,	g8h (max: 2 g/DOSE)	Tailor antibiotic therapy to results
Bacteroides spp.,		of deep tissue Gram stain culture
Clostridia spp.,	Alternative for vancomycin allergy (not vancomycin infusion	and sensitivities.
Peptostreptococcus spp.	reaction):	
	Piperacillin-tazobactam [*] 75 mg of piperacillin/kg/DOSE IV	Linezolid has in-vitro data that
	q6h (max: 4 g piperacillin/DOSE) extended infusion	demonstrates suppression of toxin
	+ Linezolid ⁶ PO/IV (PO preferred):	production with S. aureus and
	<12 years: 10 mg/kg/DOSE TID (max: 600 mg/DOSE)	group A streptococcus. Clinical
	≥12 years: 10 mg/kg/DOSE BID (max: 600 mg/DOSE)	success against toxic shock
		syndrome is reported in case
		reports.



Setting	Empiric Therapy	Duration/Comments
Traumatic Wound	Traumatic wounds without evidence of local infection or	Duration:
Infections WITHOUT Water	systemic signs of infection typically do not need antimicrobial	7 days
<u>Exposure</u>	therapy.	 Therapy may need to be
		extended based on severity of
Usually polymicrobial from	Outpatient (PO) Therapy	infection and response to
environmental	1 st Line:	treatment. Consider Pediatric
contamination.	Amoxicillin-clavulanate ² 25 mg amoxicillin/kg/DOSE PO	ID consult for infections that
	BID (max: 8/5 mg amoxicillin/DOSE)	are deep, extensive or
See section above if	/:1 formulation is recommended (400/57/ 5ml or	respond slowly
faccilitie	200/28.5/5 ml)	
Tasciitis.	If MPSA rick factors present ¹ ADD TMP SMV ^{2,*} 6 mg of	Debridement of devitalized tissues
For animal/human hites	TMP/kg/DOSE PO BID (may: 320 mg TMP/DOSE)	and contaminating debris is critical
refer to Animal Bite		to source control and successful
Guidelines on antimicrobial	Alternative for low-risk alleray ⁵ to penicillins:	healing.
stewardship webpage.	Cephalexin [*] 25 mg/kg/DOSE PO TID (max: 1 g/DOSE)	
	+ Metronidazole 10 mg/kg/DOSE PO TID	Empiric therapy should take into
Evaluate tetanus	(max: 500 mg/DOSE)	account site of wound and prior
immunization status, and if		cultures and colonization.
indicated, administer	Alternative for allergy that precludes use of both	
tetanus immunization +/-	amoxicillin-clavulanate and cephalexin (4):	Tailor antibiotic therapy to results of
tetanus immune globulin.	TMP-SMX ^{2,*} 6 mg of TMP/kg/DOSE PO BID	deep tissue Gram stain, culture, and
	(max: 320 mg TMP/DOSE)	sensitivities.
Target pathogens:	+ Metronidazole 10 mg/kg/DOSE PO TID	
Staphylococcus aureus,	(max: 500 mg/DOSE)	
Clostridia spp.,		
Bacteroides spp.,	Inpatient (IV) Therapy	
Prevotella spp.,		
Porphyromonas spp.,	Ampicillin-sulbactam* 50 mg of ampicillin/kg/DOSE IV	
Peptostreptococcus spp.	q6h (max: 2 g ampicillin/DOSE)	
	Alternative for low rick alleray ⁵ to panicilling:	
	Cefazolin [*] 23 mg/kg/DOSE IV g8b (max: 2 g/DOSE)	
	+ Matronidazola 10 mg/kg/DOSE PO/IV (PO preferred)	
	TID (max: 500 mg/DOSE)	
	Alternative if MRSA risk factors present ¹ . or allerav that	
	precludes use of both ampicillin-sulbactam and cefazolin (4):	
	Vancomycin IV*	
	+ Metronidazole 10 mg/kg/DOSE PO/IV (PO preferred)	
	q8h (max: 500 mg/DOSE)	



SettingEmpire TherapyDuration (Comments)Traumatic Wound Infections WITH WaterOutpatient (PO) Therapy: Levofloxacin* PO: < S years: 10 mg/kg/DOSE PO BID (max: 375 mg/DOSE) < S years: 10 mg/kg/DOSE PO BID (max: 375 mg/DOSE) < S years: 10 mg/kg/DOSE PO TID (max: 500 mg/dose)Duration: T daysUsually polymicrobial from environmental contamination.H Metronidazole 10 mg/kg/DOSE PO TID (max: 500 mg/dose) t Metronidazole 10 mg/kg/DOSE PO BID (max: 320 mg TMP/DOSE)- Therapy may need to be extended based on severity of infection and response to treatment. Consider Pediatric ID consult for infections that are deep, extensive or respond slowlySee section above if concern for necrotizing fasciitis.Inpatient (IV) Therapy: 1 st Line: Cefepime* 50 mg/kg/DOSE IV q8h (max: 2 g/DOSE) extended infusion + Metronidazole 10 mg/kg/DOSE PO/IV (PO preferred) q8h (max: 500 mg/DOSE)Debridement of devitalized tissues and contaminating debris is critical to source control and successful healing.Guidelines on antimicrobial stewardship webpage.If MRSA risk factors present ¹ ADD Vancomycin IV*Empiric therapy should take into account site of wound and prior cultures and colonization.Vibrio vulnificus tetanus immunization ± tetanus immune globulin.Alternative for allergy that precludes cefepime use ⁴ : S years: 10 mg/kg/DOSE PO BID (max: 375 mg/DOSE) > Staphylococcus aureus, Clostridi sopp.Vibrio vulnificus wound infections require extensive debridement and mortality can be high. Consider combination therapy with ceftazidime and doxycycline.	Catting		Duration (Comments
Traumatic wound Infections WITH Water Outpatient (PO) Therapy: Levofloxacin* PO: Duration: 7 days Linections WITH Water Levofloxacin* PO: 7 days Exposure <5 years: 10 mg/kg/DOSE PO BID (max: 375 mg/DOSE) • Therapy may need to be extended based on severity of infection and response to infection and response to treatment. Consider Pediatric ID consult for infections that are deep, extensive or respond slowly See section above if concern for necrotizing fascitis. Inpatient (IV) Therapy: 1 st Line: Inpatient (IV) Therapy: 1 st Line: Debridement of devitalized tissues and contaminating debris is critical to source control and successful healing. For animal/human bites, refer to Animal Bite Guidelines on antimicrobial stewardship webpage. If MRSA risk factors present ¹ ADD Vancomycin IV* Empiric therapy should take into account site of wound and prior cultures and colonization. Vibrio vulnificus steuaus immunization ± tetanus immune globulin. Alternative for allergy that precludes cefepime use ⁴ : Levofloxacin IV/PO (PO preferred): 25 years: 10 mg/kg/DOSE PO BID (max: 375 mg/DOSE) 25 years: 10 mg/kg/DOSE PO BID (max: 375 mg/DOSE) 4 Metronidazole 10 mg/kg/DOSE PO/IV TID (PO preferred): 25 years: 10 mg/kg/DOSE PO BiD (max: 375 mg/DOSE) Wibrio vulnificus wound infections require extensive debridement and mortality can be high. Consider combination therapy with ceftazidime and doxycycline.	Setting	Empiric Therapy	Duration/Comments
Intections WITH Water Levofloxacin* PO: 7 days Exposure < 5 years: 10 mg/kg/DOSE PO BID (max: 375 mg/DOSE)	Iraumatic Wound	Outpatient (PO) Therapy:	Duration:
Exposure<5 years: 10 mg/kg/DOSE PO BID (max: 375 mg/DOSE) ≥5 years: 10 mg/kg/DOSE PO daily (max: 750 mg/DOSE) transition.• Therapy may need to be extended based on severity of infection and response to treatment. Consider Pediatric ID consult for infections that are deep, extensive or respond slowlySee section above if concern for necrotizing fasciitis.If MRSA risk factors present ¹ ADD TMP-SMX ^{2,*} 6 mg of TMP/kg/DOSE PO BID (max: 320 mg TMP/DOSE)• Therapy may need to be extended based on severity of infection and response to treatment. Consider Pediatric ID consult for infections that are deep, extensive or respond slowlySee section above if concern for necrotizing fasciitis.Inpatient (IV) Therapy: 1 ²⁴ Line: Cefepime* 50 mg/kg/DOSE IV q8h (max: 2 g/DOSE) extended infusion + Metronidazole 10 mg/kg/DOSE PO/IIV (PO preferred) q8h (max: 500 mg/DOSE)Debridement of devitalized tissues and contaminating debris is critical to source control and successful healing.Evaluate tetanus immunization ± tetanus immunization ± Staphylococcus aureus, Clostridia sppIf MRSA risk factors present ¹ ADD Vancomycin IV*Empiric therapy should take into account site of wound and prior cultures and colonization.Target pathogens: Staphylococcus aureus, Clostridia sppIf MRSA risk factors present ¹ ADD Vancomycin IV*Vibrio vulnificus mortily can be high. Consider combination therapy with ceftazidime and doxycycline.	Infections WITH Water	Levotloxacin* PO:	7 days
Usually polymicrobial from environmental contamination. ≥5 years: 10 mg/kg/DOSE PO daily (max: 750 mg/DOSE) extended based on severity of infection and response to infection and response to treatment. Consider Pediatric ID consult for infections that are deep, extensive or respond slowly See section above if concern for necrotizing fasciitis. Impatient (IV) Therapy: 1st Line: Cefepime* 50 mg/kg/DOSE IV q8h (max: 2 g/DOSE) Debridement of devitalized tissues and contaminating debris is critical to source control and successful healing. For animal/human bites, refer to Animal Bite Guidelines on antimicrobial stewardship webpage. If MRSA risk factors present ¹ ADD Vancomycin IV* Debridement of devitalized tissues and contaminating debris is critical to source control and successful healing. Evaluate tetanus immunization status, and if indicated, administer tetanus immunization ± Staphylococcus aureus, Clostridia spo Alternotive for allergy that precludes cefepime use ⁴ : Levofloxacin IV/P0 (PO preferred): <5 years: 10 mg/kg/DOSE PO BID (max: 375 mg/DOSE)	<u>Exposure</u>	<5 years: 10 mg/kg/DOSE PO BID (max: 375 mg/DOSE)	 Therapy may need to be
Usually polymicrobial from environmental contamination. + Metronidazole 10 mg/kg/DOSE PO TID (max: 500 mg/dose) infection and response to treatment. Consider Pediatric ID consult for infections that are deep, extensive or respond slowly See section above if concern for necrotizing fasciitis. Inpatient (IV) Therapy: 1 st Line: Cefepime* 50 mg/kg/DOSE IV q8h (max: 2 g/DOSE) Debridement of devitalized tissues and contaminating debris is critical to source control and successful healing. For animal/human bites, refer to Animal Bite Guidelines on antimicrobial stewardship webpage. If MRSA risk factors present ¹ ADD Vancomycin IV* Debridement of devitalized tissues and contaminating debris is critical to source control and successful healing. Fvaluate tetanus immunization status, and if indicated, administer tetanus immune globulin. Alternative for allergy that precludes cefepime use ⁴ : Levofloxacin IV/PO (PO preferred): <5 years: 10 mg/kg/DOSE PO BID (max: 375 mg/DOSE)		≥5 years: 10 mg/kg/DOSE PO daily (max: 750 mg/DOSE)	extended based on severity of
environmental contamination.If MRSA risk factors present ¹ ADD TMP-SMX ^{2,*} 6 mg of TMP/kg/DOSE PO BID (max: 320 mg TMP/DOSE)treatment. Consider Pediatric ID consult for infections that are deep, extensive or respond slowlySee section above if concern for necrotizing fasciitis.Inpatient (IV) Therapy: 1st Line: Cefepime* 50 mg/kg/DOSE IV q8h (max: 2 g/DOSE) extended infusion + Metronidazole 10 mg/kg/DOSE PO/IV (PO preferred) q8h (max: 500 mg/DOSE)Debridement of devitalized tissues and contaminating debris is critical to source control and successful healing.Evaluate tetanus immunization status, and if indicated, administer tetanus immunization ± <i>Staphylococcus aureus,</i> <i>Clostridia</i> spp.Alternative for allergy that precludes cefepime use ⁴ : Staphylococcus aureus, <i>Clostridia</i> spp.Wibro vulnificus wound infections require extensive debridement and mortality can be high. ConsiderTarget pathogens: <i>Staphylococcus aureus,</i> <i>Clostridia</i> spp.If MRSA risk factors present ¹ ADD Vancomycin IV*Vibrio vulnificus wound infections require extensive debridement and mortality can be high. Consider combination therapy with ceftazidime and doxycycline.	Usually polymicrobial from	+ Metronidazole 10 mg/kg/DOSE PO TID (max: 500 mg/dose)	infection and response to
contamination.If MRSA risk factors present ¹ ADD TMP-SMX ^{2,*} 6 mg of TMP/kg/DOSE PO BID (max: 320 mg TMP/DOSE)ID consult for infections that are deep, extensive or respond slowlySee section above if concern for necrotizing fasciitis.Inpatient (IV) Therapy: 1 st Line: 	environmental		treatment. Consider Pediatric
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For animal/human bites, refer to Animal Bite Guidelines on antimicrobial stewardship webpage.extended infusion + Metronidazole 10 mg/kg/DOSE PO/IV (PO preferred) q8h (max: 500 mg/DOSE)and contaminating debris is critical to source control and successful healing.Evaluate tetanus immunization status, and if indicated, administer tetanus immune globulin.If MRSA risk factors present ¹ ADD Vancomycin IV*Empiric therapy should take into account site of wound and prior cultures and colonization.Target pathogens: Staphylococcus aureus, Clostridia sppAlternative for allergy that precludes cefepime use ⁴ : Levofloxacin IV/PO (PO preferred): <5 years: 10 mg/kg/DOSE PO BID (max: 375 mg/DOSE) + Metronidazole 10 mg/kg/DOSE PO daily (max: 750 mg/DOSE) + Metronidazole 10 mg/kg/DOSE PO/IV TID (PO preferred) (max: 500 mg/DOSE)Vibrio vulnificus wound infections require extensive debridement and mortality can be high. Consider combination therapy with ceftazidime and doxycycline.		Cefepime* 50 mg/kg/DOSE IV q8h (max: 2 g/DOSE)	Debridement of devitanzed tissues
refer to Animal Bite Guidelines on antimicrobial stewardship webpage.+ Metronidazole 10 mg/kg/DOSE PO/IV (PO preferred) q8h (max: 500 mg/DOSE)to source control and successful healing.Evaluate tetanus immunization status, and if indicated, administer tetanus immune globulin.If MRSA risk factors present ¹ ADD Vancomycin IV*Empiric therapy should take into account site of wound and prior cultures and colonization.Target pathogens: Staphylococcus aureus, Clostridig sppAlternative factors present ¹ ADD Vancomycin IV*Vibrio vulnificus mortality can be high. Consider combination therapy with ceftazidime and doxycycline.	For animal/human bites,	extended infusion	and contaminating debris is critical
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<i>+</i> Metronidazole 10 mg/kg/DOSE PO/IV TID (PO preferred) mortality can be high. Consider <i>Target pathogens:</i> (max: 500 mg/DOSE) <i>Staphylococcus aureus,</i> If MRSA risk factors present ¹ ADD Vancomycin IV*	tetanus immune globulin.	≥5 years: 10 mg/kg/DOSE PO daily (max: 750 mg/DOSE)	require extensive debridement and
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Staphylococcus aureus, If MRSA risk factors present ¹ ADD Vancomycin IV* ceftazidime and doxycycline.	Target pathogens:	(max: 500 mg/DOSE)	combination therapy with
Clostridig spp If MRSA risk factors present ¹ ADD Vancomycin V^*	Staphylococcus aureus,		ceftazidime and doxycycline.
	Clostridia spp.,	If MRSA risk factors present ¹ ADD Vancomycin IV*	
Bacteroides spp., Tailor antibiotic therapy to results of	Bacteroides spp.,		Tailor antibiotic therapy to results of
Prevotella spp., deep tissue Gram stain, culture, and	Prevotella spp.,		deep tissue Gram stain, culture, and
Porphyromonas spp., sensitivities.	Porphyromonas spp.,		sensitivities.
Peptostreptococcus spp.	Peptostreptococcus spp.		
Consider Aeromonas and	Consider Aeromonas and		
Pseudomonas spp., other	Pseudomonas spp., other		
gram negatives if significant	gram negatives if significant		
water exposure	water exposure		



Footnotes:

- * Renal adjustment may be necessary. See Pediatric Antimicrobial Dosing Guidelines.
- ¹Consider MRSA coverage if any of the following are present: severe sepsis or septic shock, immunocompromised status, personal or household contact with MRSA infection, or colonization in the past 12 months
- ² TMP-SMX = trimethoprim-sulfamethoxazole
- ³ CDC and Indian Health Service (IHS) study demonstrated short courses (7-10 days) of doxycycline can be used in children without causing tooth staining or weakening of tooth enamel. Todd SR et al. J Pediatr. 2015;166(5):1246-1251.
- ⁴ See β -lactam allergy evaluation and empiric guidance for further information.
- ⁵ <u>Low-risk allergies</u> include: pruritus without rash, remote (>10 years) unknown reaction, patient denies allergy but is on record, mild rash with no other symptoms (mild rash: non-urticarial rash that resolves without medical intervention). See <u>β-lactam allergy evaluation and empiric guidance</u> for further information. ⁶ Serotonin Syndrome and Linezolid: Education and Recommendations

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Revision History:

04/2020: Reduced some clindamycin doses to align with adult SSTI and animal bite guideline dosing; updated allergy wording

09/2020: Adjusted aztreonam dosing. 03/2021: Updated vancomycin hyperlinks

09/2021: Updated vancomycin infusion reaction terminology

The recommendations in this guide are meant to serve as treatment guidelines for use at Michigan Medicine facilities. If you are an individual experiencing a medical emergency, call 911 immediately. These guidelines should not replace a provider's professional medical advice based on clinical judgment, or be used in lieu of an Infectious Diseases consultation when necessary. As a result of ongoing research, practice guidelines may from time to time change. The authors of these guidelines have made all attempts to ensure the accuracy based on current information, however, due to ongoing research, users of these guidelines are strongly encouraged to confirm the information contained within them through an independent source.

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