

Infection	Likely Pathogens	FH Empiric Antibiotic Option(s) and Dose	
Neonatal (less than 45 weeks Post Menstrual Age)			
Neonatal Sepsis (Not in NICU)	<i>S. agalactiae</i> (GBS) <i>E. coli</i> <i>Listeria</i>	ampicillin + gentamicin (refer to FH Neonatal PDTM for doses)	
Neonatal Meningitis (Not in NICU)	<i>S. agalactiae</i> (GBS) <i>E. coli</i> <i>Listeria</i> <i>HSV</i>	ampicillin + gentamicin ± cefoTAXime ± acyclovir (refer to FH Neonatal PDTM for doses)	
Pediatric (45 weeks Post Menstrual Age to less than 17 years)			
		First Choice	Penicillin Allergy**
Sepsis	<i>N. meningitidis</i> <i>S. pneumonia</i> <i>E. coli</i> <i>S. aureus</i>	cefTRIAxone 75 to 100 mg/kg IV Q24H *OR* 50 mg/kg IV Q12H ± vancomycin 20 mg/kg IV Q6H	cefTRIAxone 75 to 100 mg/kg IV Q24H *OR* 50 mg/kg IV Q12H ± vancomycin 20 mg/kg IV Q6H
Meningitis / encephalitis	<i>N. meningitidis</i> <i>S. pneumoniae</i> <i>H. influenza</i> <i>HSV</i>	cefTRIAxone 50 mg/kg IV Q12H ± vancomycin 20 mg/kg IV Q6H ± acyclovir Less than or equal to 3 months: 20 mg/kg IV Q8H Greater than 3 months to 12 years: 10 to 15 mg/kg IV Q8H Over 12 years: 10 mg/kg IV Q8H	cefTRIAxone 50 mg/kg IV Q12H ± vancomycin 20 mg/kg IV Q6H ± acyclovir Less than or equal to 3 months: 20 mg/kg IV Q8H Greater than 3 months to 12 years: 10 to 15 mg/kg IV Q8H Over 12 years: 10 mg/kg IV Q8H
Cerebral abscess or subdural empyema	<i>Streptococcus spp.</i> <i>Staphylococcus aureus</i> <i>Anaerobic organisms</i> <i>Gram-negative organisms</i> <i>Haemophilus influenzae</i>	cefTRIAxone 50 mg/kg IV Q12H +/- (cloxacillin 50 mg/kg IV Q4H *OR* vancomycin 20 mg/kg IV Q6H) + metronidazole 10 mg/kg IV Q8H	cefTRIAxone 50 mg/kg IV Q12H +/- vancomycin 20 mg/kg IV Q6H + metronidazole 10 mg/kg IV Q8H
Pharyngitis/tonsillitis	<i>S. pyogenes</i> (Group A <i>strep</i>)	penicillin V 8.5 to 16.5 mg/kg PO TID *OR* amoxicillin 8.5 to 16.5 mg/kg PO TID	clindamycin 7 to 13 mg/kg PO TID
Acute Otitis Media	<i>H. influenzae</i> <i>S. pneumoniae</i> <i>M. catarrhalis</i>	amoxicillin 13 to 30 mg/kg PO TID *OR* 40 to 45 mg/kg PO BID *OR* amoxicillin clavulanic acid 30 mg/kg (amoxicillin component) PO TID OR 45 mg/kg PO BID (using the 7:1 formulation)	cefuroxime 15 mg/kg PO BID *OR* azithromycin 10 mg/kg PO Q24H x 1 day then 5 mg/kg PO Q24H x 4 days
Mastoiditis	<i>S. pneumonia</i> <i>S. pyogenes</i> (Group A <i>strep</i>) <i>S. aureus</i>	cefTRIAxone 75 to 100 mg/kg IV Q24H *OR* 50 mg/kg IV Q12H +/- vancomycin 20 mg/kg IV Q6H +/- metronidazole 10 mg/kg IV TID	cefTRIAxone 75 to 100 mg/kg IV Q24H *OR* 50 mg/kg IV Q12H +/- vancomycin 20 mg/kg IV Q6H +/- metronidazole 10 mg/kg IV TID

**Avoid all beta-lactams antibiotics (i.e., penicillins, cephalosporins, carbapenems) if severe delayed reaction to beta-lactams (e.g. Stevens-Johnson syndrome, toxic epidermal necrolysis, or drug reaction with eosinophilia and systemic symptoms).

cefoTAXime may be interchanged with cefTRIAxone for pediatric patients if receiving calcium containing IV products. cefoTAXime 50 mg/kg IV Q6H (for severe infections)

Infection	Likely Pathogens	FH Empiric Antibiotic Option(s) and Dose	
Pediatric (45 weeks Post Menstrual Age to less than 17 years)			
		First Choice	Penicillin Allergy**
Sinusitis	<i>H. influenzae</i> <i>S. pneumoniae</i> <i>M. catarrhalis</i> <i>S. aureus</i> <i>S. pyogenes (Group A strep)</i> <i>Anaerobes (older children)</i>	<u>Mild:</u> amoxicillin 13 to 30 mg/kg PO TID OR 40 to 45 mg/kg PO BID *OR* amoxicillin clavulanic acid 30 mg/kg (amoxicillin component) PO TID (using the 7:1 formulation) <u>Severe:</u> Treat as for mastoiditis	<u>Mild:</u> cefuroxime 15 mg/kg PO BID <u>Severe:</u> Treat as for Mastoiditis
Cervical lymphadenitis	<i>S. aureus</i> <i>S. pyogenes (Group A strep)</i>	<u>Mild:</u> cephalexin 10 to 25 mg/kg PO Q6H *OR* clindamycin 7 to 13 mg/kg PO TID <u>Moderate to Severe:</u> cefazolin 25 to 33 mg/kg IV Q8H *OR* clindamycin 7 to 13 mg/kg IV Q8H *OR* vancomycin 20 mg/kg IV Q6H	<u>Mild:</u> clindamycin 7 to 13 mg/kg PO TID <u>Moderate to Severe:</u> cefazolin 25 to 33 mg/kg IV Q8H *OR* clindamycin 7 to 13 mg/kg IV Q8H *OR* vancomycin 20 mg/kg IV Q6H
Preseptal cellulitis	<i>S. pneumoniae</i> <i>S. aureus</i>	<u>Mild:</u> cephalexin 10 to 25 mg/kg PO Q6H <u>Moderate to Severe:</u> cefazolin 25 to 33 mg/kg IV Q8H *OR* clindamycin 7 to 13 mg/kg IV Q8H *OR* vancomycin 20 mg/kg IV Q6H	<u>Mild:</u> clindamycin 7 to 13 mg/kg PO TID <u>Moderate to Severe:</u> cefazolin 25 to 33 mg/kg IV Q8H *OR* clindamycin 7 to 13 mg/kg IV Q8H *OR* vancomycin 20 mg/kg IV Q6H
Orbital cellulitis	<i>S. aureus</i> <i>S. pneumoniae</i> <i>Other strep</i> <i>H. influenzae</i>	cefTRIAxone 50 mg/kg IV Q12H +/- vancomycin 20 mg/kg IV Q6H +/- metronidazole 10 mg/kg IV TID	cefTRIAxone 50 mg/kg IV Q12H +/- vancomycin 20 mg/kg IV Q6H +/- metronidazole 10 mg/kg IV TID
Dental Abscess	Polymicrobial: <i>Viridans streptococci</i> <i>Peptostreptococcus</i> <i>Prevotella</i> <i>Porphyromonas</i> <i>Fusobacterium</i>	penicillin V 8.5 to 16.5 mg/kg PO TID + metronidazole if spread beyond local tooth metronidazole 10 mg/kg PO TID If liquid needed - metronidazole benzoate 16 mg/kg PO TID *OR* amoxicillin-clavulanate 4:1 formulation 10 to 15 mg/kg (amoxicillin component) PO TID	clindamycin 7 to 13 mg/kg PO TID

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Infection	Likely Pathogens	FH Empiric Antibiotic Option(s) and Dose	
Pediatric (45 weeks Post Menstrual Age to less than 17 years)			
		First Choice	Penicillin Allergy**
Community Acquired Pneumonia over 3 months of age	Respiratory Viruses <i>S. pneumoniae</i> <i>H. influenza</i> <i>S. aureus</i> <i>M. pneumoniae</i> <i>C. pneumoniae</i>	<p><u>Mild:</u> Consider no treatment if likely viral *OR* amoxicillin 30 mg/kg PO TID</p> <p><u>Moderate:</u> ampicillin 50 to 100 mg/kg IV Q6H ± azithromycin 10 mg/kg PO Q24H x 1 day then 5 mg/kg PO Q24H x 4 days</p> <p><u>Severe (PICU admission):</u> cefTRIAxone 50 mg/kg IV Q12H ± vancomycin 20 mg/kg IV Q6H ± azithromycin 10 mg/kg IV/PO Q24 hours +/- oseltamivir less than 12 months: 3 mg/kg/dose PO BID x 5 days more than 12 months (weight based) less than or equal to 15 kg: 30 mg/dose PO BID x 5 days more than 15 to 23 kg: 45 mg/dose PO BID x 5 days more than 23 to 40 kg: 60 mg/dose PO BID x 5 days more than 40 kg: 75 mg/dose PO BID x 5 days</p>	<p><u>Mild:</u> Consider no treatment if likely viral *OR* cefuroxime 15 mg/kg PO BID</p> <p><u>Moderate:</u> cefuroxime 25 to 50 mg/kg IV Q8H ± azithromycin 10 mg/kg PO Q24H x 1 day then 5 mg/kg PO Q24H x 4 days</p> <p><u>Severe (PICU admission):</u> cefTRIAxone 50 mg/kg IV Q12H ± vancomycin 20 mg/kg IV Q6H ± azithromycin 10 mg/kg IV/PO Q24 hours +/- oseltamivir less than 12 months: 3 mg/kg/dose PO BID x 5 days more than 12 months (weight based) less than or equal to 15 kg: 30 mg/dose PO BID x 5 days more than 15 to 23 kg: 45 mg/dose PO BID x 5 days more than 23 to 40 kg: 60 mg/dose PO BID x 5 days more than 40 kg: 75 mg/dose PO BID x 5 days</p>
Hospital Acquired Pneumonia	*Site/unit dependent variable resistance patterns <i>S. aureus</i> <i>H. influenza</i> <i>Enterobacter</i> <i>P. aeruginosa</i>	cefTRIAxone 75 to 100 mg/kg IV QH *OR* 50 mg/kg IV Q12H *OR* piperacillin-tazobactam 75 mg/kg (piperacillin component) IV Q6H ± vancomycin 20 mg/kg IV Q6H	cefTRIAxone 75 to 100 mg/kg IV QH *OR* 50 mg/kg IV Q12H ± vancomycin 20 mg/kg IV Q6H ± gentamicin 2.5 mg/kg IV Q8H
UTI over 2 months of age	<i>E.coli</i> <i>Klebsiella</i> <i>Proteus</i> <i>Enterobacter</i> <i>Enterococcus</i> <i>S.saprophyticus (adolescents)</i>	<p><u>Mild:</u> cephalixin 10 to 25 mg/kg PO Q6H</p> <p><u>Severe:</u> gentamicin 2.5 mg/kg IV Q8H OR 7 mg/kg IV Q24H ± ampicillin 50 to 100 mg/kg IV Q6H *OR* cefTRIAxone 75 to 100 mg/kg IV QH *OR* 50 mg/kg IV Q12H</p>	<p><u>Mild:</u> cotrimoxazole 4 mg TMP/kg PO BID</p> <p><u>Severe:</u> gentamicin 2.5 mg/kg IV Q8H OR 7 mg/kg IV Q24H *OR* cefTRIAxone 75 to 100 mg/kg IV QH *OR* 50 mg/kg IV Q12H</p>

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Infection	Likely Pathogens	FH Empiric Antibiotic Option(s) and Dose	
Pediatric (45 weeks Post Menstrual Age to less than 17 years)			
		First Choice	Penicillin Allergy**
Cellulitis (Non-purulent)	<i>S. pyogenes (Group A strep)</i>	<u>Mild:</u> cephalexin 10 to 25 mg/kg PO Q6H <u>Moderate to Severe:</u> cefazolin 25 to 33 mg/kg IV Q8H *OR* clindamycin 7 to 13 mg/kg IV Q8H *OR* vancomycin 20 mg/kg IV Q6H	<u>Mild:</u> clindamycin 7 to 13 mg/kg PO TID <u>Moderate to Severe:</u> clindamycin 7 to 13 mg/kg IV Q8H *OR* vancomycin 20 mg/kg IV Q6H
Cellulitis † (Purulent or Abscess)	<i>S.aureus</i>	<u>Mild:</u> cephalexin 10 to 25 mg/kg PO Q6H *OR* clindamycin 7 to 13 mg/kg IV Q8H *OR* cotrimoxazole 4 to 6 mg TMP /kg/dose PO Q12H <u>Moderate to Severe:</u> vancomycin 20 mg/kg IV Q6H *OR* cefazolin 25 to 33 mg/kg IV Q8H *OR* clindamycin 7 to 13 mg/kg IV Q8H	<u>Mild:</u> clindamycin 7 to 13 mg/kg IV Q8H *OR* cotrimoxazole 4 to 6 mg TMP /kg/dose PO Q12H <u>Moderate to Severe:</u> vancomycin 20 mg/kg IV Q6H *OR* clindamycin 7 to 13 mg/kg IV Q8H
Necrotising fasciitis	<i>S. pyogenes (Group A strep)</i> <i>S. aureus</i> <i>Aerobic and Anaerobic organisms</i> May be polymicrobial	piperacillin-tazobactam 75 mg/kg (piperacillin component) IV Q6H + vancomycin 20 mg/kg IV Q6H + clindamycin 7 to 13 mg/kg IV Q8H	ciprofloxacin 7.5 to 15 mg/kg IV Q12H + vancomycin 20 mg/kg IV Q6H + clindamycin 7 to 13 mg/kg IV Q8H
Dog/Cat/Human Bite	Polymicrobial: <i>S.aureus</i> <i>Streptococcus</i> <i>E. corrodens (human)</i> <i>Pasteurella (dog/cat)</i> <i>C. cynodegmi (dog/cat)</i> Anaerobic organisms	<u>Mild:</u> amoxicillin-clavulanate 4:1 formulation 10 to 15 mg/kg (amoxicillin component) PO TID <u>Severe:</u> piperacillin-tazobactam 75 mg/kg (piperacillin component) IV Q6H	<u>Mild:</u> clindamycin 7 to 13 mg/kg PO TID + cotrimoxazole 4 mg TMP/kg PO BID <u>Severe:</u> clindamycin 7 to 13 mg/kg IV Q8H + cotrimoxazole 5 mg TMP/kg IV Q6H
Osteomyelitis or Septic arthritis over 3 months of age	<i>S.aureus</i> <i>S. pyogenes (Group A strep)</i> <i>S.pneumoniae</i>	cefazolin 33 to 50 mg/kg IV Q8H OR 25 to 37.5 mg/kg IV Q6H *OR* vancomycin 20 mg/kg IV Q6H *OR* cefuroxime 50 mg/kg IV Q8H (if unimmunized)	cefazolin 33 to 50 mg/kg/dose IV Q8H OR 25 to 37.5 mg/kg IV Q6H *OR* vancomycin 20 mg/kg IV Q6H *OR* cefuroxime 50 mg/kg IV Q8H (if unimmunized)

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†Consider agents with MRSA activity (vancomycin, cotrimoxazole, or clindamycin). Local MRSA rates are available in [Fraser Health antibiograms](#). The following factors have been associated with MRSA in previous studies:

- Previous known MRSA infection in child or a significant contact (e.g., family member)
- Family member is a healthcare worker
- First nations child or Pacific Island origin (e.g., Samoan)
- Day care attendance
- Prolonged hospitalization in the last 1 year
- Antibiotic therapy in the last 2 months
- Critically ill
- Chronic skin condition (e.g., atopic eczema)

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Modified from BC Children's Hospital Empiric Antimicrobial Guide. Endorsed by the Fraser Health Department of Pediatrics and Antimicrobial Stewardship Program.