Deep Space Neck Infection
Clinical Practice Guidelines

Deep Neck Infections include: retropharyngeal, parapharyngeal and peritonsillar abscess.
(Specifically NOT including lymphadenitis or Lemierre's Syndrome)

Diagnostic Tests

Labs:	• Rapid strep, strep culture if negative • If patient is going to OR: Order Wound culture (Both Anaerobic and Aerobic Cultures) of aspirate • Consider CBC or CRP if it will change management • Consider age appropriate EBV testing when clinical suspicion (high rate of false negative monospot in children under 5 years) • BMP if appears dehydrated
CT Neck with IV Contrast:	• Image if worsening/not improving on antibiotics or suspect requires surgical drainage • Consider waiting to image with suspected peritonsillar/parapharyngeal infection when able to follow clinical exam. This presentation does not need imaged if clinically improving with antibiotics • Consider imaging earlier for suspected retropharyngeal abscess and when diagnosis is more difficult clinically

Treatment Recommendations

- IV ampicillin-sulbactam 200 mg ampicillin/kg/day divided every 6 hours is first line therapy
- Use IV clindamycin 30 mg/kg/day divided q 8 hours if patient has PCN allergy, EBV/mono or suspicion for MRSA in conjunction with ceftriaxone 50 mg/kg/dose q24. Clindamycin should not be used as monotherapy.
- If using clindamycin and ceftriaxone, transition to PO clindamycin and cefdinir at discharge.
- IV Dexamethasone (Max. 10mg) x1 for significant trismus/pain
- IV Fluid hydration as needed and supportive care including appropriate pain management
- If abscess is > 2.5 cm or no improvement after 24-48 hours on IV antibiotic; consult ENT for I&D of abscess
- Consider re-imaging or potential change in antibiotics if no improvement after 24-48hrs
- Second-Line antibiotics: Ceftriaxone and Vancomycin
- The diagnosis of Lemierre's disease should be considered in ill-appearing febrile children and adolescents with sore throat, exquisite neck pain, or respiratory distress. Antimicrobial therapy for Lemierre's disease should be ceftriaxone and metronidazole.
- For sicker patients, individualized care is recommended

CH Deep Neck Infection Bacterial Isolates 2015-2019 A

Bacteria	Peritonsillar	Retropharyngeal	Parapharyngeal
Group A *streptococci*	26.5%	37.2%	60%
H. Influenzae	14.7%	7.1%	0%
H. parainfluenzae	13.2%	16.3%	30%
MSSA*	6.3%	11.9%	10%
MRSA*	3.1%	7.1%	10%
Anaerobes	93.3%	83.7%	66.7%

*MRSA – Methicillin resistant *S. aureus*; *MSSA – Methicillin susceptible *S. aureus*

References:
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2: Chang L, Chi H, Chiu NC, Huang FY, Lee KS. Deep neck infections in different age groups of children. J Microbiol Immunol Infect. 2010 Feb;43(1):47-52. doi:10.1016/S1684-1182(10)60007-2. Epub 2010 Mar 29. PubMed PMID: 20434123.
3: Johnston D, Schmidt R, Barth P. Parapharyngeal and retropharyngeal infections in children: argument for a trial of medical therapy and intraoral drainage for medical treatment failures. Int J Pediatr Otorhinolaryngol. 2009 May;73(5):761-5.doi: 10.1016/j.ijporl.2009.02.007. Epub 2009 Mar 17. PubMed PMID: 192970
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