

pyrazinamide), representing a higher percentage than in previous reports and potentially reflecting its presence in unpasteurized dairy products in the California-Baja region. Local epidemiological trends in endemic MTB complex species should be considered when evaluating and managing MTB complex OAI. Bone biopsy produced the highest culture yield in this study. Given the rarity of this disease, multicenter collaborative studies are needed to improve our understanding of the presentation and management of pediatric MTB complex OAI.

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#### 1151. Clinical Characteristics of Persistent Staph Aureus Bacteremia in Children

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**Session:** P-64. Pediatric Bacterial Studies (natural history and therapeutic)

**Background.** Persistent *Staphylococcus aureus* bacteremia (pSAB) is a poorly defined entity, but associated with significant morbidity and mortality in children. We aim to better describe the epidemiological features of this clinical entity.

**Methods.** We performed a retrospective case series analysis of pediatric patients with pSAB at a single center children's hospital using electronic medical data from 2016 – 2020. Bacterial persistence was defined as culture growth > 72 hours after first blood culture.

**Results.** Twenty-two patients with pSAB were included in the analysis. Sources of persistent infection were endovascular infection (n=11, 50%), osteoarticular infection (n=6, 27%), isolated central line associated blood stream (n=4, 18%), isolated skin and soft tissue infection (n=2, 9%), and no known primary infectious site (n=1). Methicillin resistance occurred in 41% (n=9) of cases of pSAB. Total duration of therapy varied, with a median of 4 weeks from negative cultures (range of 2 – 8 weeks). Total days of positive cultures in pSAB were not significantly associated with methicillin susceptibility of the bacterial isolate, use of double gram-positive coverage, nor presence of a central venous catheter. Use of double gram-positive coverage occurred in 50% of cases with a mean duration of therapy of 11 days, most frequently in cases of septic thrombophlebitis (Table 1). Rifampin and gentamicin were the most commonly used agents.

Table 1. Clinical Characteristics of Children Treated with Double Gram-Positive Coverage

Age	Primary Agent	Secondary Agent	Source of Infection	MSSA/MRSA	Days of Positive Cultures	Duration of Double Coverage (days)	Central Venous Access Present	Hospital Unit
6 weeks	Oxacillin	Vancomycin, Rifampin, Gentamicin	Septic Thrombophlebitis	MSSA	9	13	Yes	NICU
7 weeks	Vancomycin	Gentamicin	Septic Thrombophlebitis	MRSA	5	4	Yes	PICU
2 years	Vancomycin	Ceftaroline, Gentamicin	Septic Thrombophlebitis, Anterior mediastinal infection	MRSA	6	12	No	PICU
9 years	Oxacillin, Cefazolin	Gentamicin, Rifampin	Osteomyelitis (presumed endovascular infection)	MSSA	7	16	No	General Pediatrics
5 months	Vancomycin	Rifampin	Septic thrombophlebitis	MRSA	7	16	No	PICU
3 years	Oxacillin	Rifampin	Osteomyelitis, septic thrombophlebitis	MSSA	7	14	No	PICU
11 months	Vancomycin	Rifampin	Septic arthritis	MRSA	5	3	Yes	General Pediatrics
8 months	Vancomycin	Clindamycin, Rifampin	Septic Thrombophlebitis	MRSA	5	18	No	PICU
10 years	Oxacillin	Gentamicin	Endocarditis	MSSA	7	7	No	General Pediatrics
2 weeks	Oxacillin	Rifampin	Endocarditis	MSSA	4	19	No	NICU
2 years	Vancomycin	Rifampin	CLABSI	MRSA	5	7	Yes	General Pediatrics

**Conclusion.** Children presenting with persistent *S. aureus* bacteremia present with a heterogeneous group of underlying conditions and epidemiological features. While pediatric recommendations for double gram-positive coverage for synergy have not been established, their use for pSAB is common, especially in endovascular infections where culture persistence is often an expected outcome. Further research should examine risk factors for pSAB and define optimal treatment modalities and duration.

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#### 1152. Microbiology of Pediatric Neck Infections Based on Age and Anatomic Location

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**Session:** P-64. Pediatric Bacterial Studies (natural history and therapeutic)

**Background.** Studies of pediatric neck infections demonstrate an increase in methicillin resistant *Staphylococcus aureus* (MRSA), and predominance of *Staphylococcus aureus* (*S. aureus*) in infants, and commonly polymicrobial infections. Thus, some providers treat acute neck infections with empiric broad spectrum antibiotics, often with two drugs. Our institution often uses clindamycin plus ampicillin-sulbactam as empiric therapy for hospitalized children with acute neck infection. We aimed to identify the microbiology of acute neck abscesses at our

institution to determine if stratifying by age and abscess location would allow for single agent therapy.

Table 1. Causative organism based on anatomic location of neck infection.

ORGANISM	MEDIAL	LATERAL	BOTH	TOTAL
<b>Staphylococcus aureus</b>	11	31	2	44
<b>Group A</b>	16	6	0	22
<b>Streptococcus</b>				
<b>Streptococcus anginosus</b>	16	2	1	19
<b>Fusobacterium</b>	6	1	0	7
<b>Prevotella</b>	7	0	0	7
<b>Haemophilus influenzae</b>	4	1	0	5
<b>Streptococcus viridans</b>	4	0	0	4
<b>Peptostreptococcus</b>	3	0	0	3
<b>Eikenella</b>	3	0	0	3
<b>Group C</b>	1	0	0	1
<b>Streptococcus</b>				
<b>Other β-hemolytic Streptococcus</b>	0	1	0	1
<b>Streptococcus pneumoniae</b>	1	0	0	1
<b>Gemella</b>	1	0	0	1
<b>Escherichia Coli</b>	1	0	0	1

**Methods.** Diagnosis codes identified patients hospitalized with acute neck infections. Cases with underlying malignancy, cervicofacial malformations, or lymphatic malformations were excluded. Patients with surgical cultures were categorized into two groups based on anatomic location of infection: medial (retropharyngeal, parapharyngeal, and peritonsillar), lateral (other locations), or both. Within each group, causative pathogen(s) were explored and further categorized by age (infants: < 1 year old; non-infants: ≥1 year old).

**Results.** 412 patients were hospitalized for acute neck infection of which 132 had surgical cultures. 110 had growth of one or more pathogens (20 infants, 90 non-infants). 53 infections were located medially, 54 laterally, and 3 had both locations involved. *S. aureus* was most commonly identified, with lateral infections accounting for the majority (Table 1). 40/44 *S. aureus* isolates were susceptible to clindamycin. Among medial infections, *Streptococcus Anginosus* and Group A *Streptococcus* were most common followed by *S. aureus* (Table 1). 17/20 (85%) positive cultures in infants grew *S. aureus* with 8/17 (47%) MRSA. No polymicrobial infections were identified in infants. Among non-infants, 0/39 lateral infections had polymicrobial growth but 23/50 (46%) of medial infections did.

**Conclusion.** Local epidemiology based on anatomic location and patient age suggests a single agent (clindamycin for lateral and penicillin with beta-lactamase inhibitor for medial) may be reasonable for non-infants with uncomplicated neck infections. For infants, coverage of MRSA, regardless of anatomic location, is advisable.

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#### 1153. ESBL Producing *E. coli* Urinary Tract Infections in Children: Is Carbapenem Always Necessary?

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**Session:** P-64. Pediatric Bacterial Studies (natural history and therapeutic)

**Background.** Urinary tract infections (UTI) are common in children with a prevalence of 5% in infants. UTI are the main reason for beginning antibiotics in children's hospitals and *E. coli* is approximate 80% of urinary pathogens.