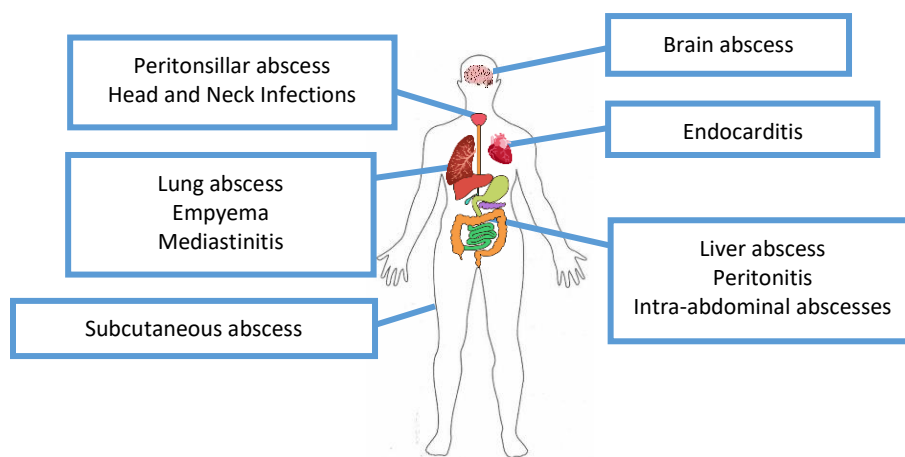


Beat the Bug: *Streptococcus anginosus* Group

Streptococcus anginosus group (SAG), formally known as *Streptococcus milleri* group, include *Streptococcus anginosus*, *Streptococcus constellatus*, and *Streptococcus intermedius*. While these gram-positive cocci are considered a subgroup of viridans-group streptococci species, SAG differs in pathogenesis from other *Streptococcus* spp.¹ What is unique about *S. anginosus* group organisms? Read on to learn more.

What Infections Does SAG Cause?

SAG organisms are part of the normal flora of the mouth, gastrointestinal tract, and urogenital tract. Uniquely, SAG infections have a high association with **abscess** development, often co-infecting with anaerobes.² In a recent evaluation, an abscess was present in 68% of SAG infections.³ Isolation of these organisms in a blood culture should prompt a search for an abscess. Common SAG infections are depicted below.



How Do We Treat SAG Infections?

Abscesses should be drained alongside treatment with antibiotics. SAG are susceptible to penicillins and reported resistance to penicillin is uncommon. Alternative options include ceftriaxone, vancomycin, and linezolid.⁴ Empiric anaerobic coverage is recommended in abscesses (e.g. ampicillin-sulbactam/amoxicillin-clavulanate or ceftriaxone + metronidazole).² Levofloxacin often tests susceptible against SAG, however use is controversial as data suggests that resistance may develop on therapy.⁴⁻⁶ However, in one review of pediatric patients with CNS SAG infections, levofloxacin was effective as oral step down therapy.⁷

Key Takeaway: *Streptococcus anginosus* group organisms include *S. anginosus*, *S. constellatus*, and *S. intermedius*. Penicillin and cephalosporins are usually active and additional anaerobic antibiotics are recommended when treating SAG abscesses. Fluoroquinolones are usually susceptible, but resistance may develop on treatment leading to clinical failure.

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