

Streptococcus bovis group (LTR70540)

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Organism
Streptococcus bovis group

- *S. alactolyticus*
- *S. equinus*
- *S. gallolyticus subsp gallolyticus (S. bovis I)*
- *S. gallolyticus subsp pasteurianus (S. bovis II.2)*
- *S. infantarius subsp infantarius (S. bovis II.1)*
- *S. infantarius subsp coli (S. lutetiensis)*

Clinical

These organisms are part of the normal flora of the gastrointestinal tract. They have been associated with bacteremia, endocarditis, meningitis (including neonatal meningitis), and rarely urinary tract infections. There is a strong association between *S. gallolyticus subsp gallolyticus* bacteremia and gastrointestinal malignancies and *S. gallolyticus subsp pasteurianus* with meningitis.

**Usual
susceptibility
pattern**

Although these organisms are usually susceptible to penicillin and cephalosporins, tolerance has been noted to both penicillin and/or cephalosporins. The addition of gentamicin for synergy in serious infections may be prudent. Resistance to vancomycin has been described, but is rare.

**Susceptibility
method**

VITEK2. Additional tests (disc diffusion or Etest method) using Mueller-Hinton agar with 5% sheep blood incubated in 5% CO₂ at 35°C for 20 -24 hours.

There are no disc diffusion breakpoint interpretations for penicillin or ampicillin. Perform Etest if manual testing is required.

Note: For Etest use 0.5 McFarland suspension in broth.

Streptococcus bovis group, Continued

Susceptibility reporting

	CSF/ Brain	Blood	Sterile Body Site	Urine	Other	Comments
Amoxicillin				✓		Report same as ampicillin
Ampicillin	✓	✓	✓	✓		See Special Considerations
Cefotaxime	*	*	*	2	2	*Report if patient ≤3 months 2nd line if amp or pen I/R and patient ≤3 months See Special Considerations
Ceftriaxone	✓	✓	✓	2	2	Do not report if patient ≤1 month 2nd line if amp or pen I/R See Special Considerations
Clindamycin			✓		✓	
Levofloxacin				✓		2nd line if amp or nitro I/R Do not report if patient <18 y
Nitrofurantoin				✓		Disc diffusion See interpretation
Penicillin	✓	✓	✓		✓	See Special Considerations
Vancomycin	✓	✓	✓			If vanco nonsusceptible see Special Considerations

Note

Blood isolates

Add comment:

“If patient has an endovascular infection or is immunocompromised, combination therapy with gentamicin should be considered.” **&A220**

Special considerations

<u>Ampicillin/ Penicillin:</u>	Because of variable MICs, these agents should be tested and reported individually.
<u>Cefotaxime/ Ceftriaxone:</u>	Because of variable MICs, these agents should be tested and reported individually. If patient ≤1 month report cefotaxime only. If patient >1-3 months report cefotaxime and ceftriaxone. If patient >3 months report ceftriaxone only.
<u>Vancomycin:</u>	S. bovis group should be susceptible to this antibiotic. Consult Supervisor if not susceptible. If 'nonsusceptible', the organism ID and susceptibility should be confirmed by repeat testing. If confirmed, consider submitting isolate to a reference laboratory.

Streptococcus bovis group, Continued

Interpretation For Etest, report actual MIC result. For interpretation (S, I, or R) report according to the nearest higher doubling dilution (**Appendix 1**).

Antibiotic	Interpretive document	Add comment
Nitrofurantoin	CLSI: <i>Enterococcus</i> spp.	Susceptibility testing for this organism was performed by a non-reference method and/or required modifications to the standard test conditions. Results are probable but not definite." &2130 &2338
All other antibiotics	CLSI: <i>Streptococcus</i> spp. Viridans group	None