

## Aerococcus spp (LTR79316)

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**Organism**
**Aerococcus spp.**

- *A. christensenii*
- *A. urinaehominis*
- *A. sanguinicola*
- *A. viridans*
- *A. urinae*

**Clinical**

*Aerococcus spp.* may be found on skin and environmental surfaces. Their clinical significance in mixed cultures is uncertain. They have been associated with bacteremia, endocarditis, meningitis, osteomyelitis and urinary tract infections.

**Usual  
susceptibility  
pattern**

These organisms are usually susceptible to beta lactams and vancomycin.

Susceptibility to aminoglycosides, clindamycin, tetracyclines and quinolones is variable. High level resistance to penicillin and ceftriaxone has been described in *A. viridans*. Carbapenem resistance has also been reported. *A. urinae* is typically resistant to TMP-SMX. *A. sanguinicola* and *A. viridans* isolates more commonly display resistance to quinolones than *A. urinae*. *A. urinae* is usually susceptible to nitrofurantoin. Susceptibility testing to TMP-SMX is not reliable as it is dependent on the testing medium and urinary folate levels. It is safest to report *Aerococcus spp* as resistant.

**Susceptibility  
method**

Disc diffusion or Etest method using Mueller-Hinton agar with 5% sheep blood incubated in 5% CO<sub>2</sub> at 35°C for 20-24 hours. Incubation should be prolonged for 48 hours for slow growing organisms.

For Etest use 1 McFarland suspension in broth.

## Aerococcus spp., Continued

### Susceptibility reporting

	Blood/Sterile Body Site	Urine	Other	Comments
Amoxicillin		✓		Report same as penicillin
Ceftriaxone	✓		2	Etest method 2 <sup>nd</sup> line if pen I/R
Ciprofloxacin		2		Etest method 2 <sup>nd</sup> line if pen or nitro I/R Do not report in patients < 18 y
Nitrofurantoin		✓		Disc diffusion
Penicillin	✓	*	✓	Etest method *Test but do not report
TMP-SMX		R		
Vancomycin	✓		2	Etest method 2 <sup>nd</sup> line if pen I/R See special consideration

#### Note

On isolates where susceptibility results are reported, add comment:

“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

**Urine** isolates - Susceptibility testing should be done on sterile urine isolates.

If *Aerococcus urinae* is isolated from non-sterile urine, add the comment:  
“This organism is generally susceptible to B-lactams (amoxicillin and penicillin) and nitrofurantoin. *Aerococcus urinae* is resistant to trimethoprim/sulfamethoxazole.”  
&2136

**For other specimen sources** - Consult microbiologist regarding the need for susceptibility testing.

#### Special considerations

<u>Vancomycin:</u>	This organism should be susceptible to this antibiotic. Consult Supervisor if I/R. If I/R, the identification of the organisms and its susceptibility need to be confirmed by repeat testing. If confirmed, consider submitting isolate to a reference laboratory.
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## **Aerococcus spp., Continued**

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

Use **CLSI** interpretive document for **Aerococcus sp.**

For-nitrofurantoin: Use **CLSI** interpretive document for **Enterococcus spp.**