Table 12. MIC and zone diameter breakpoints for enterococci

Comments 1-3 relate to urinary tract infections (UTIs) only.
[1] UTI recommendations are for organisms associated with uncomplicated urinary tract infections only. For complicated urinary tract infections, systemic recommendations should be used.
[2] If an organism is isolated from multiple sites, for example from blood and urine, interpretation of susceptibility should be made with regard to the systemic site (e.g., if the blood isolate is resistant and the urine isolate susceptible, both should be reported resistant irrespective of the results obtained using interpretative criteria for urine isolates).
[3] Direct susceptibility tests on urine samples may be interpreted only if the inoculum gives semi-confluent growth.
**NB**. For isolates from endocarditis the MIC should be determined and interpreted according to national endocarditis guidelines (Elliott TS et al. Guidelines for the antibiotic treatment of endocarditis in adults: report of the Working Party of the British Society for Antimicrobial Chemotherapy. J Antimicrob Chemother. 2004; **54**: 971-81).

Table 12. MIC and zone diameter breakpoints for enterococci

| | MIC breakpoint (mg/L) | | | | Interpretation of zone diameters (mm) | | | |
|---|---|---|---|---|---|---|---|---|
| Antibiotic | R > | I | S ≤ | Disc content (µg) | R ≤ | I | S ≥ | Comment |
| **Aminoglycosides** | | | | | | | | |
| Gentamicin | 128 | - | 128 | 200 | 14 | - | 15 | High-level gentamicin-resistant enterococci usually give no zone or only a trace of inhibition around gentamicin 200 µg discs. Occasionally, however, the plasmid carrying the resistance gene may be unstable and the resistance is seen as a zone of inhibition with a few small colonies within the zone. Retesting of resistant colonies results in growth to the disc or increased numbers of colonies within the zone.<br><br>Zones should be carefully examined to avoid missing such resistant organisms. If in doubt, isolates may be sent to a reference laboratory for confirmation. |
| Streptomycin | 128 | - | 128 | 300 | 23 | - | 24 | |
| **Penicillins** | | | | | | | | |
| Ampicillin | 8 | **8** | **4** | 10 | 19 | - | 20 | **The MIC breakpoint has changed but a review of the data indicates that no adjustment of the zone diameter breakpoints is necessary.<br>Co-amoxiclav susceptibility can be inferred from the ampicillin result.** |

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|---|---|---|---|---|---|---|---|---|
| | MIC breakpoint (mg/L) | | | | Interpretation of zone diameters (mm) | | | |
| Antibiotic | R > | I | S ≤ | Disc content (μg) | R ≤ | I | S ≥ | Comment |
| **Carbapenems** | | | | | | | | |
| Imipenem | 8 | 8 | 4 | 10 | 16 | 17-18 | 19 | Recommendations for *E. faecalis* only. |
| **Miscellaneous antibiotics** | | | | | | | | |
| Quinupristin/dalfopristin | 4 | 2-4 | 1 | 15 | 11 | 12-19 | 20 | Generally, *E. faecalis* are I or R and *E. faecium* are susceptible.<br><br>The presence of blood has a marked effect on the activity of quinupristin/dalfopristin. On the rare occasions when blood needs to be added to enhance the growth of enterococci, breakpoints are ≥15 mm, ≤14 mm. |
| Fosfomycin UTI[1-3] | 128 | - | 128 | 200/50 | 19 | - | 20 | **Disc content indicates 200 μg fosfomycin/ 50 μg glucose-6-phosphate.** |
| Linezolid | 4 | - | 4 | 10 | 19 | - | 20 | |
| Nitrofurantoin UTI[1-3] | 64 | - | 64 | 200 | 19 | - | 20 | |
| Teicoplanin | **2** | **-** | **2** | 30 | 19 | - | 20 | To ensure that microcolonies indicating reduced susceptibility to the glycopeptides are detected, it is essential that plates are incubated for at least 24 h before reporting a strain as susceptible to vancomycin or teicoplanin.<br><br>**For vancomycin and teicoplanin the MIC breakpoint has changed but a review of the data indicates that no adjustment of the zone diameter breakpoints is necessary.** |
| Vancomycin | **4** | **-** | **4** | 5 | 12 | - | 13 | |
| Tetracycline | 1 | - | 1 | 10 | 25 | - | 26 | |
| Tigecycline | 0.5 | 0.5 | 0.25 | 15 | 20 | - | 21 | There is no intermediate category for disc diffusion, as non-susceptible isolates are rare and were not available for testing. |
| Trimethoprim UTI[1-3] | 1 | 0.06-1 | 0.03 | 2.5 | 21 | - | 22 | There is some doubt about the clinical relevance of testing the susceptibility of enterococci to trimethoprim. The breakpoints have been set to interpret all enterococci as intermediate. |