



Job Aid

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EUCAST AST Zone Diameter Reading Rules

General rules

- Read to the point of complete inhibition as judged by the naked eye with the plate held at 30cm from the eye. Take into account double zones and colonies within the zone.
- Read MH (clear) sensitivity plates from the back with reflected light and the plate held above a dark background
- Read Blood sensitivity plates from the front with the lid removed and with reflected light
- Do not use transmitted light (plate held up to light) or a magnifying glass, excepting Vancomycin (VA5) and enterococci
- Measure the zones of inhibition to the nearest millimetre with a ruler

Examples:



E. coli
Ciprofloxacin



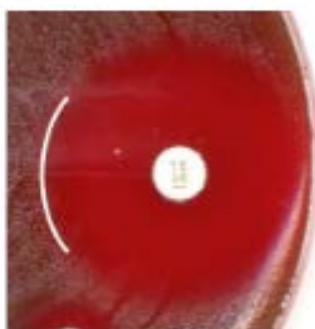
S. aureus
Linezolid



S. aureus
Erythromycin



S. pneumoniae
Chloramphenicol



S. pneumoniae
Tetracycline



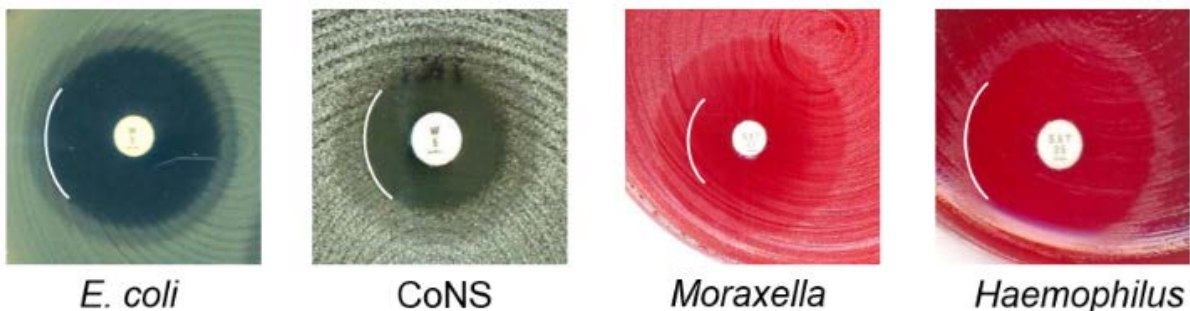
S. pneumoniae
Cefaclor

Exceptions to the rule

- Swarming – read inhibition of growth and ignore swarming



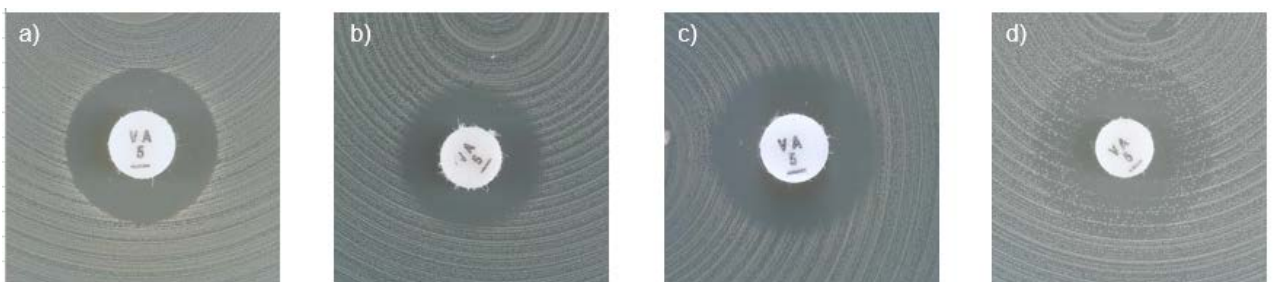
- Trimethoprim and trimethoprim-sulfamethoxazole – follow instructions for reading and read inner zone but ignore haze or faint growth up to the disc within a zone with an otherwise clear edge:



- Enterobacterales & ampicillin/augmentin - Ignore fine growth that may appear as an inner zone:



- Enterococci and vancomycin – must read after 24 hours incubation. Look for a clear zone of ≥ 12 mm with a sharp edge. Colonies within a zone of 12mm OR a fuzzy zone (regardless of zone size) need MIC determination.



Examples of inhibition zones for *Enterococcus* spp. with vancomycin.

a) Sharp zone edge and zone diameter ≥ 12 mm. Report susceptible.

b-d) Fuzzy zone edge or colonies within zone. Perform confirmatory testing with PCR or report resistant even if the zone diameter ≥ 12 mm.