Vancomycin susceptibility testing in Enterococcus faecalis and E. faecium using MIC gradient tests – a modified warning 21 May, 2019.

Original warning was issued 10 July, 2018, against the use of gradient tests for the detection of vanB-positive Enterococci.
Several studies (Norwegian Reference Laboratory, Tromsø, Norway; The EUCAST Development Laboratory, Växjö, Sweden; Robert Koch Institute, Wernigerode, Germany) show that the use of MIC gradient tests with standard inoculum and incubation fail to detect glycopeptide resistance in low-level resistant enterococci (see posters 1754 and 1764, ECCMID 2019). Confirmation of suspected vancomycin resistance with gradient tests, can be significantly improved by the use of a macro method (BHI-medium, McF 2.0 and 48 hours incubation; see poster 1764, ECCMID 2019). Uncertain results should be confirmed with a molecular test for vanA and vanB.

We remind users of the EUCAST standard disk diffusion test for vancomycin in Enterococcus spp. to measure the zone (suspect resistance if <12 mm), and to note whether the zone edge is sharp or fuzzy (suspect resistance if fuzzy) and to take into account any colonies inside the inhibition zone (suspect resistance if colonies in zone). Either of these phenomena indicates glycopeptide resistance and a PCR should be performed to confirm or exclude the presence of vanA and vanB.