Amoxicillin-clavulanate and Enterobacteriaceae from urinary tract infections

Harmonization of European breakpoints by EUCAST has highlighted a problem with amoxicillin-clavulanate and Enterobacteriaceae, particularly from urinary tract infections.

The current EUCAST breakpoints for ampicillin, amoxicillin and amoxicillin-clavulanate are breakpoints for treatment of systemic infections and for this they are appropriately set at ≤8 mg/L for Susceptible and >8 mg/L for Resistant for all three aminopenicillins. In addition, amoxicillin-clavulanate breakpoints have been harmonised using a fixed concentration of 2 mg/L of clavulanate rather than a 2:1 (amoxicillin:clavulanate) ratio. In many countries amoxicillin-clavulanate is widely used for treating uncomplicated urinary tract infections. Concentrations of the drug are significantly higher in urine but this is not recognised in the EUCAST breakpoints. Switching from previously used higher breakpoints, mostly based on a 2:1 ratio of amoxicillin:clavulanate, to EUCAST breakpoints has resulted in very significant increases in resistance of Enterobacteriaceae to amoxicillin-clavulanate in many laboratories. Following several requests from users of EUCAST breakpoints, EUCAST is currently reviewing a proposal to introduce specific breakpoints for amoxicillin-clavulanate and Enterobacteriaceae from uncomplicated urinary tract infections.

It is expected that a consultation document on proposed breakpoints will be released later this year. In the meantime, any comment may be sent to the EUCAST Scientific Secretary (derek.brown222@btinternet.com).

9 May 2012