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Stenotrophomonas maltophilia

S. maltophilia is most often associated with colonization, but is an occasional cause of infection. There is no data, at present, to support a relationship between laboratory susceptibility testing and clinical outcome with *S. maltophilia* infection.

Susceptibility testing of *S. maltophilia* is particularly difficult and MICs and zones for the species are affected by both temperature and medium. Many isolates grow better at 30^{0}C and some isolates grow poorly, or not at all, at 37^{0}C. The activities of aminoglycosides, and polymixins against the species are particularly vulnerable to temperature variation and isolates often appear falsely susceptible at 37^{0}C. Isolates should nevertheless be reported resistant to these drugs, and to carbapenems irrespective of zone diameters.

The drug of choice for treatment is co-trimoxazole and testing of this drug on Iso-Sensitest agar is satisfactory. Tentative zone diameter breakpoints for 25 mg content discs are $\leq$19 mm for resistant and $\geq$20 mm for susceptible. Results with trimethoprim alone are not predictive of susceptibility or resistance to co-trimoxazole and results should not be extrapolated. There is some clinical evidence that the addition of other agents such as quinolones (moxifloxacin is the most active) to co-trimoxazole may be therapeutically advantageous. Testing of quinolones by disc diffusion is difficult, with the results affected by the temperature, and zone breakpoints have not been ascertained. Nevertheless, combination therapy may be indicated irrespective of the laboratory results.

In patients where co-trimoxazole is not a suitable agent for treatment (owing to resistance of the isolate or, more commonly sulphonamide intolerance of the patient), other antimicrobials that are known to have limited activity are the b-lactams ticarcillin/clavulanate, aztreonam plus co-amoxiclav, and ceftazidime in combination with other agents. These b-lactams often appear active against isolates of *S. maltophilia* on Iso-Sensitest agar but will appear less active if tested on Mueller-Hinton agar. There is no good evidence available to relate this anomaly to *in vivo* activity.

This advice was compiled with the help of Dr. R. Howe Consultant Microbiologist at Southmead Hospital in Bristol.