8. Detection of mechanisms of resistance

Mechanism	Recommendation
ESBLs	See Detection of Extended Spectrum beta-lactamases (ESBLs) in *E. coli* and *Klebsiella* spp. (www.bsac.org.uk) and link to the HPA Document- Laboratory Detection & Reporting of Bacteria with Extended-Spectrum beta-lactamases.
Fluoroquinolone resistance	Generally, a 30 μg nalidixic acid disc will detect resistance in Enterobacteriaceae*, H. influenzae, N. gonorrhoeae, N. meningitidis, M. catarrhalis*. However, there are isolates of *S. typhi* and *N. gonorrhoeae* that are nalidixic acid susceptible but ciprofloxacin resistant. An MIC determination should be undertaken on all Salmonellae isolated from invasive infections and if ciprofloxacin is to be used for treatment of *N. gonorrhoeae,* that susceptibility to ciprofloxacin should be confirmed for all nalidixic acid susceptible isolates.
β-Lactamase	For *H. influenzae, M. catarrhalis* and staphylococci see Susceptibility testing Guide (www.bsac.org.uk) Chapter 6 Detection of β-lactamase mediated resistance. David Livermore or David Livermore's Power Point Presentation from the User Group meeting of October 2004 (www.bsac.org.uk).
Dissociated resistance to lincosamides	See testing for dissociated resistance, additional methods (www.bsac.org.uk/-db/-documents/Testing-fordisscit.pdf) For advice on interpretation see footnotes to tables 9, 12 & 13 in the disc diffusion method.