What is an appropriate control group to identify risk factors for Clostridium difficile-associated diarrhoea?

_J Antimicrob Chemother_ 2001; 48: 747–748
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Sir,

In our case–control study, we identified length of hospital stay (>28 days), respiratory tract infection (RTI) and use of clarithromycin as risk factors for _Clostridium difficile_–associated diarrhoea (CDAD). Since _C. difficile_ is resistant to macrolides, its overgrowth may be favoured by clarithromycin.

Wilcox criticized the choice of control patients with diarrhoea and suggested asymptomatic patients would have been better. Our study is not unique in using a diarrhoea control group. Nelson et al. performed a case–control study for CDAD using two different control groups: an asymptomatic ward-matched group and a diarrhoea group. Both control groups gave similar results, identifying cefuroxime plus clarithromycin and then switch to oral co-amoxiclav plus clarithromycin. However, a review of the questionnaire forms demonstrated that in the elderly clarithromycin was used as monotherapy. In the last few years clinicians have become aware of the risk of cephalosporin usage for CDAD in the elderly and try to avoid and to replace them. Presently, macrolides are a popular alternative covering most infective agents of bacterial and atypical pneumonia.

Our study cannot distinguish whether RTI and clarithromycin are independent risk factors. It may be possible that a factor other than antimicrobial use in RTI predisposes to CDAD. The best control group would be healthy carriers to control for the risk factor for induction of CDAD.

References


