

## Correspondence

### Treatment of prosthetic joint infections due to Propionibacterium

Sir—We read with interest the recent paper by Jacobs et al. (Acta Orthopaedica Sept 2015) concerning treatment of prosthetic joint infections caused by *Propionibacterium acnes*. The authors suggest from their findings that combination therapy with rifampicin is not more effective than therapy without rifampicin. They cite two of our papers, one of which they use to support their statement “the successful eradication of Propionibacterium biofilms with rifampicin in in-vitro studies” (Bayston et al. 2007). In fact, our paper compared activity against *P. acnes* biofilms of penicillin, linezolid or linezolid plus rifampicin. We did find that the addition of rifampicin to linezolid led to relapse-free eradication after 14 days compared to apparent eradication but relapse when linezolid alone was used. It must be borne in mind that this was an in vitro study, but it suggested that the addition of rifampicin, at least when linezolid was used, was beneficial, but equally importantly, it showed that the safe inexpensive drug, penicillin, was at least equally effective without rifampicin against *P. acnes* biofilms. Almost all non-dermatological *P. acnes* isolates are susceptible to penicillin, and Jacobs et al. confirmed that theirs were too, and it would have been interesting to have used this in their cases.

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Sir—We thank you for your interest in our paper concerning treatment of prosthetic joint infections (PJI) caused by *Propionibacterium acnes* (Jacobs et al. 2015). You made an interesting comment about one of your papers we cited to support our statement “the successful eradication of Propionibacterium biofilms with rifampicin in in-vitro studies”. Few studies have shown a possible benefit of rifampicin in the treatment of *P. acnes* PJI, despite the established effectiveness in staphylococcal PJI. We interpreted your paper (Bayston et al. 2007) and the paper of Furustrand Tabin et al. (2012) that there is in vitro evidence suggesting an effect of rifampicin on *P. acnes* biofilms. The equal effect on the eradication of *P. acnes* biofilms in vitro by penicillin alone and linezolid plus rifampicin is interesting. Unfortunately, despite the in vitro susceptibility of *P. acnes* to penicillin the long-term clinical use of penicillin to treat a PJI caused by *P. acnes* has some difficulties including the treatment duration of a PJI of 3 months and the necessity to use the drug intravenously to achieve adequate levels at the site of infection. Therefore, we prefer to use clindamycin in the treatment of PJI caused by *P. acnes*, which is also recommended in the IDSA guidelines as an alternative treatment option (Osmon et al. 2012).

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