

**FC-089****Is silver worthwhile on all endoprostheses?**R. Grimer, **M. Parry**, L. Jeys*Royal Orthopaedic Hospital, Birmingham, United Kingdom*

Introduction: Silver coated endoprostheses are now becoming more widely used and early results suggest that they may be effective in not only preventing infection arising but also may allow easier treatment of infection if it does arise. This paper explores the cost effectiveness of adding silver to an Endoprosthesis.

Method: To identify if the addition of silver is cost effective a number of factors need to be taken into account. Firstly the cost of the silver per implant. Secondly the rate of infection expected with a conventional implant and the rate with the silver implant. Next, the cost of treating that infection and the success of so doing. As there is little data currently available on much of this, a model has been created which allows specific criteria to be entered for all of the above variables.

Results: Based on currently published data for the Agluna system of silver coating, one of the main benefits is the considerably greater success rate in controlling infection with a debridement, antibiotics and implant retention (DAIR) procedure than with a two stage revision. Figures suggest that with a silver coated implant, DAIR is successful in 70% of cases compared with a conventional prosthesis where it is successful in only 20%. Using the costs of DAIR as £5,000 and a two stage revision as £40,000 then for every 1% reduction in infection rate a silver implant produces, £330 per implant is saved. The model allows for modification of all factors to produce an estimate of the cost effectiveness of silver.

Conclusion: Reducing infection risk can easily pay for itself. If the promise of silver coating is maintained it should be considered for wider use as a cost effective innovation.