

Poster presentation

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## Do antibiotic-impregnated shunt catheters reduce shunt infection? Data from the UK Shunt Registry

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### Background

In recent years CSF shunt catheters impregnated with rifampicin and clindamycin have been introduced to the UK market (Bactiseal, Codman). These catheters have been shown to be effective in vitro against cultures of *S. epidermidis*. We have used data collected by the UK Shunt Registry to assess the effectiveness of Bactiseal catheters against shunt infection using a case-control design.

### Materials and methods

The UK Shunt Registry contains data on nearly 28,000 CSF shunt related procedures. Our data suggests that primary factors involved in shunt revision (and infection) are patient age, diagnosis and the number of revisions a patient has had.

1099 procedures were identified where Bactiseal catheters were used. Of these 863 had an accurate diagnosis and age entered and we were able to determine the exact number of shunt revisions.

A data base search was performed procedures matched for age, diagnosis and revision status but using conventional catheters. Matches were found for 715 procedures.

### Results

Of the 715 procedures where Bactiseal catheters were used, 16 were subsequently revised where shunt infection was the given reason. Of the 715 controls, 31 were subsequently revised for infection. ( $P = 0.04$ , chi-square).

### Conclusion

Unfortunately, we collect no data on causative organisms, and we rely entirely on the surgeon for the diagnosis of infection. However, with the large number of case-controls evaluated, we have attempted to reduce bias to a minimum. Our data suggest that Bactiseal catheters have the potential to significantly reduce shunt infections by up to 50%.