Efficacy and cost-effectiveness of a gentamicin-loaded collagen sponge as an adjuvant antibiotic prophylaxis for colorectal surgery

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Record Status
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Citation

Authors' objectives
Evaluate the clinical efficacy of GCS for the prevention of surgical site infection following colorectal surgery, and to estimate its cost-effectiveness and potential budget impact from the point of view of the MUHC.

Authors' conclusions
A gentamicin-loaded collagen sponge appears to be promising in preventing surgical site infection following colorectal surgery, though there is a paucity of high-quality RCTs demonstrating this. It is possible that improved adherence to the oral and intravenous antibiotic protocol at the MUHC might lower the infection rate from the assumed value of 15% to a negligible risk that eliminates the need for further intervention. The cost-effectiveness of GCS depends on the assumed risk of infection.

There is strongly suggestive evidence that use of gentamicin loaded collagen sponge is capable of lowering surgical site infection rates following colorectal surgery in patients already receiving prophylactic antibiotic treatment. The extent of the benefit that can be expected from the use of Collatamp will depend on the base rate of post-operative infections.

When last examined, the use of prophylactic antibiotic for colorectal surgery at the MUHC was below optimal while the base infection rate was high (15%).

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