

MEDTRONIC REVIEW CLINICAL SUMMARY

Chang et al. Meta-analysis¹: Triclosan-impregnated sutures to decrease surgical site infections systematic review and meta-analysis of randomized trials

AUTHORS: Chang WK, Srinivasa S, Morton R, Hill AG. New Zealand

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PRODUCT DISCUSSED: Triclosan-coated sutures

PURPOSE OF THE STUDY

- To determine the efficacy and safety of triclosan-coated sutures by performing a systematic review and meta-analysis of all RCTs investigating triclosan-coated sutures.

METHODS

- The Cochrane Central Register of Controlled Trials, MEDLINE, EMBASE, PubMed databases, and trial registries were searched for published and unpublished RCTs.
- In vitro experiments, animal studies, studies with co-interventions or studies that were not RCTs were excluded from the analysis.
- Endpoints were the incidence of SSIs and rate of wound breakdown.

RESULTS

- 7 RCTs were analysed.
- 836 patients were identified and randomised to either triclosan-coated sutures (n=443) or uncoated sutures (n=393).
- Triclosan-coated sutures did not statistically significantly reduce the rates of SSIs (odds ratio [OR] 0.77; p=0.45).
- There was no difference in the rates of wound breakdown between the 2 groups (OR 1.07; p=0.93).

CONCLUSIONS

- Due to its greater statistical power than individual trials, a meta-analysis provides the best evidence for assessing the effect of triclosan-coated sutures.
- Triclosan-coated sutures did not decrease the rate of SSI or wound breakdown compared to uncoated sutures.
- Triclosan-coated sutures did not provide clear benefit and therefore cannot be recommended for routine clinical use.
- The increased cost (40%) of triclosan-coated sutures compared with uncoated sutures cannot be justified.
- Further high-quality independent studies of triclosan-coated sutures within the right context are required before routine clinical use can be considered.

"In the absence of clear benefit, it is not currently possible to recommend the routine use of triclosan-impregnated sutures. As such, the estimated 40 % increase in cost incurred from the use of these cannot be justified."

Chang et al. (2012)

References:

1. Chang WK, Srinivasa S, Morton R, Hill AG. Triclosan-Impregnated Sutures to Decrease Surgical Site Infections – Systematic Review and Meta-Analysis of Randomized Trials. *Ann Surg* 2012;255:854–9.

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