



AB046. 40. Should surgical site infection wound bundles become mandatory in colorectal surgery?—a meta-analysis

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Background: The global impact of surgical site infection (SSI) is increasingly recognized, both in terms of post-operative complications and oncological outcomes. Reducing SSIs is multi-factorial, with a cumulative additive benefit of each bundle element. While other meta-analyses have been performed looking at surgical wound bundles most relate to interventions before 2016. This study

therefore undertook an up to date meta-analysis looking at existing bundle impact on SSIs.

Methods: An ethically approved PROSPERO-registered (ID: CRD42018104923) meta-analysis following Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines and using databases PubMed, Scopus and Web of Science, from January 2008 to July 2018, was undertaken. Articles scoring ≥ 17 using MINORS criteria were included.

Results: A total of 5,104 articles were reviewed and 27 studies met inclusion criteria. There was a significant decrease in SSI rates with implementation of a wound bundle (17.5% vs. 9.7%). Sub-analysis showed a significant reduction in superficial SSIs by 54% ($P < 0.00001$) and in organ-space SSIs by 42% ($P = 0.0006$). The use of a wound bundle also significantly reduced hospital lengths of stay ($MD = -0.79$; $P < 0.00001$).

Conclusions: This meta-analysis shows that use of an evidence-based, surgical care wound bundle in patients undergoing colorectal surgery significantly reduces the risk of SSI and length of hospital stay. They should become mandatory.

Keywords: Colorectal surgery; prevention bundle; surgical site infections (SSI); surgical wound infection; wound bundles

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