



Implementation of an evidence-based bundle to reduce surgical site infection after caesarean section

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Introduction

- One in three women have caesarean section (CS) in Australia and about 10% have a surgical site infection (SSI). Hospital readmission for SSI after CS impacts the health service as well as women’s bonding with their babies.
- Until recently, evidence-based interventions were implemented individually to reduce risk of SSI. A bundle approach combining several interventions has been effective in reducing SSI after general surgical and orthopaedic procedures and, more recently, after CS.
- After a multidisciplinary discussion and education, we introduced this bundle approach in our unit.

SSI prevention interventions

1. Antiseptic soap shower
2. Avoid shaving
3. Povidone iodine vaginal prep
4. Alcoholic chlorhexidine abdominal prep
5. Appropriate antibiotic dosing
6. Alexis retractor for BMI \geq 35
7. Triclosan coated suture
8. Wound dressing according to “Dressing Trial”

Objective

- To evaluate the effect of an evidence-based bundle on readmission rates for SSI.

Methods

- A pre and post-implementation audit at a regional hospital in Queensland, Australia.

Results

- With the CS rate over the years remaining at around 30%, there was a downward trend in SSI admission rates. This downward trend was mostly due to rates of wound infection for both emergency and elective CS.

	Pre-bundle	Post -bundle
Admission rate	3.3%, 3.7%	3.0%, 2.6%, 2.9%
Wound infection rate	2.1%, 2.7%	1.7%, 1.7%, 1.4%

- There was a downward trend towards return to theatre post-implementation (OR 0.66, 95% CI 0.40 – 1.08).
- Although the rate of women with insulin-dependent diabetes remained unchanged, the rate of women with BMI \geq 35 increased significantly over the 5-year period and it is possible that the reduction in SSI admission rate could have been even higher.

Conclusion

- We would recommend a bundle approach of interventions to reduce post CS SSI.

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