

Royal Hospital for Women (RHW)
BUSINESS RULE
COVER SHEET



Health
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Within this document we will use the term woman, this is not to exclude those who give birth and do not identify as female. It is crucial to use the preferred language and terminology as described and guided by each individual person when providing care.

1 BACKGROUND

The aim of this CBR is to utilise a surgical bundle to reduce surgical site infections (SSI) for caesarean births

2 RESPONSIBILITIES

2.1 Staff medical

Prescribe appropriate antibiotics, with repeat dosing if required

2.2 Staff nursing and midwifery

Remove hair using clippers, attend chlorhexidine clean over lower abdomen, administer prescribed antibiotics and monitor wound-healing

3 PROCEDURE- Clinical practice points

3.1 Pre-Operative

Hand hygiene

- Adhere to the five moments of hand hygiene

Skin flora

- Advise woman to shower with either standard wash product or with chlorhexidine wash on the day of surgery
- Apply first alcohol chlorhexidine 2% wipe to woman's abdomen on the ward/unit just prior to going to theatre. Do not wash off
- Apply second alcohol chlorhexidine 2% wipe to woman's abdomen in the anaesthetic bay

Hair removal

- Use clippers only (never a razor) for hair removal if required. Clip in ward/unit prior to transfer to theatre, as close to time of surgery as possible
- Use clippers in same direction as hair so that stubble is left behind, and skin laceration is avoided

3.2 Intra-operative

Antibiotic prophylaxis

- Give single dose of cephazolin (if no allergy) intravenously (IV) 30-60 minutes prior to surgical incision, in the following doses:
 - current weight < 120kg, give 2g
 - current weight ≥ 120kg, give 3g **OR**

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- Give clindamycin 600mg IV PLUS gentamicin in case of known severe penicillin allergy as per eTG
- Repeat prophylactic antibiotic if significant blood loss (> 2 litres)
- Repeat prophylactic antibiotic if the operation exceeds four hours

Skin preparation

- Use alcohol chlorhexidine antiseptic for skin cleaning and allow to air dry prior to commencement of surgery
- Clean the vagina with povidone-iodine or chlorhexidine, for woman having a caesarean in labour or with pre-labour ruptured membranes³
- Avoid manual removal of the placenta if possible

3.3 Post-Operative

Dressing

- Use moist wound healing. e.g. occlusive dressing
- Consider negative pressure dressings for woman at risk (e.g. raised BMI, history of wound infections, co-morbidities such as type 1 diabetes)

Healing

- Leave surgical dressing untouched for five days, unless compromised
- Complete form 'Surgical Site Infection Surveillance Chart' (SES110.026) for woman following a caesarean birth
- Escalate to the obstetric RMO if there are wound concerns including:
 - increasing erythema
 - bleeding/drainage or discharge from wound
 - small dehiscence or fistula
 - poor healing
- Collect bacterial swab from wound and send to pathology if concerns for infection
- Consult wound management CNC as required

4 DOCUMENTATION

- Electronic medical record
- Pre-op checklist

5 EDUCATION NOTES

5.1 Bundle

- Care bundles are groupings of best practice interventions with respect to a disease process, which individually improve care, but when applied together result in a substantially greater improvement in patient care

5.2 Skin flora

- Most SSI are caused by the patient's own flora. Bacteria double every 20 minutes. These bacteria live in colonies on the skin. To remove them they need both physical (gentle rubbing) and chemical action (alcohol and chlorhexidine)
- Ideally a shower within two hours of surgery reduces most of the bacteria on the skin. When not possible due to labour, it is important to use alcohol chlorhexidine wipes in the Birth Unit and the Anaesthetic Bay to reduce the biofilm so the asepsis in operating theatre (OT) has a chance to work.

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- Chlorhexidine binds to the stratum corneum. This means it kills bacteria for many hours after it has been applied. It is accumulative and applications at different stages of the bundle will attain better antimicrobial effect
- It is in the drying process of the antiseptics that bacteria are killed. All antiseptics must be allowed to air dry and never wiped off.

5.3 Antibiotic prophylaxis

- Perioperative prophylactic antibiotics need to be concentrated in the tissue (not just in the blood) to be effective

5.4 Skin preparation/intraoperative management

- Alcohol is highly bactericidal and effective for preoperative skin antiseptics but does not have persistent activity when used alone. Rapid, persistent, and cumulative antiseptics can be achieved by combining alcohol with chlorhexidine gluconate or an iodophor e.g. povidone-iodine
- Chlorhexidine and iodophor should not be interchanged. If chlorhexidine showers and wipes are used, alcohol and chlorhexidine should be used in OT
- In an emergency (CAT1) caesarean, following transfer to OT and the anaesthetic bay, the lead surgeon is to make the decision whether the dual agent skin preparation should be used.
- Spontaneous placental removal/controlled cord traction at the time of caesarean section is associated with a lower risk of endometritis
- Showering with chlorhexidine wash offers no clear benefit over non-antiseptic wash prior to abdominal surgery
- Vaginal preparation prior to caesarean section for women in labour or with ruptured membranes reduces risk of endometritis, fever and wound infection

5.5 Dressing

- Benefits of dressing for moist wound healing:
 - results in faster and better quality of healing
 - facilitates autolytic debridement
 - reduces pain
 - reduces scarring
 - activates collagen synthesis, facilitates and promotes keratinocyte migration over the wound surface
 - supports the presence and function of nutrients, growth factors, and other soluble mediators in the wound microenvironment

6 RELATED POLICIES/PROCEDURES

- [Caesarean Birth-Maternal preparation and receiving the neonate\(s\)](#)
- [Raised BMI in pregnancy, birth and postnatal](#)
- [SESLHDPR/297 Wound – Wound Assessment and Management](#)
- [Infection Prevention and Control in Healthcare Settings PD2023_025](#)

7 REFERENCES

1. ACORN Standards for Peri Operative Nursing. 2023. Australian College of Operating Room Nurses. Standards for the Safe and Quality Care in the Perioperative Environment. SSQCPE for Individuals. Patient skin antiseptics
2. CDC Guidelines for the Prevention of Surgical Site Infections. 2017

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3. Hass, D., Morgan, S., Contreras, K., and Kimball, S. (2020) Vaginal preparation with antiseptics solution before caesarean delivery for preventing post-operative infections. <https://pubmed.ncbi.nlm.nih.gov/32335895/>
4. Clinical Excellence Commission. 2020. Infection Prevention and Control Handbook V3. <https://www.cec.health.nsw.gov.au/keep-patients-safe/infection-prevention-and-control/resources/handbook>
5. Martin EK, Beckmann MM, Barnsbee LN, Halton KA, Merollini K, Graves N. Best practice perioperative strategies and surgical techniques for preventing caesarean section surgical site infections: a systematic review of reviews and meta-analyses. BJOG. 2018 Jan 16. doi: 10.1111/1471-0528.15125. [Epub ahead of print]
6. Nuutila K, Eriksson E. Advances in Wound Care: Moist wound Healing: 2021, <https://pmc.ncbi.nlm.nih.gov/articles/PMC8568799/>
7. Liu Z, Dumville JC, Norman G, Westby MJ, Blazeby J, McFarlane E, Welton NJ, O'Connor L, Cawthorne J, George RP, Crosbie EJ, Rithalia AD, Cheng HY. Intraoperative interventions for preventing surgical site infection: an overview of Cochrane Reviews. Cochrane Database Syst Rev. 2018 Feb 6;2:CD012653
8. Caissutti C, Saccone G, Zullo F, Quist-Nelson J, Felder L, Ciardulli A, Berghella V. Vaginal Cleansing Before Cesarean Delivery: A Systematic Review and Meta-analysis. Obstet Gynecol. 2017 Sep;130(3):527-538
9. Global Guidelines for the Prevention of Surgical Site Infection. World Health Organization. 2016, Geneva Switzerland
10. Nuutila, K., & Eriksson, E. (2021). Moist Wound Healing with Commonly Available Dressings. Advances in wound care, 10(12), 685–698. <https://doi.org/10.1089/wound.2020.1232>
11. Seidelman, J., Mantyh, C., Anderson, D. (2023) Surgical Site Infection Prevention. A review. JAMA, Volume 329 (3)
12. Haas DM, Morgan S, Contreras K, Kimball S. Vaginal preparation with antiseptic solution before cesarean section for preventing postoperative infections. Cochrane Database of Systematic Reviews 2020, Issue 4. Art. No.: CD007892. DOI: 10.1002/14651858.CD007892.pub7
13. Wolfhagen N, Boldingh QJJ, Boermeester MA, de Jonge SW. Perioperative care bundles for the prevention of surgical-site infections: meta-analysis. Br J Surg. 2022;109(10):933-942. doi:10.1093/bjs/znac196
14. Preoperative bathing or showering with skin antiseptics to prevent surgical site infection [Intervention Review] | QUT ePrints updated 2024 accessed 31/2/2024
15. Therapeutic Guidelines-accessed via CIAP 8th December,2025

8 ABORIGINAL HEALTH IMPACT STATEMENT DOCUMENTATION

- Considerations for culturally safe and appropriate care provision have been made in the development of this Business Rule and will be accounted for in its implementation.
- When clinical risks are identified for an Aboriginal and/or Torres Strait Islander woman or family, they may require additional supports. This may include Aboriginal health professionals such as Aboriginal Liaison Officers, health workers or other culturally specific services

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9 CULTURAL SUPPORT

- For a Culturally and Linguistically Diverse CALD woman, notify the nominated cross-cultural health worker during Monday to Friday business hours
- If the woman is from a non-English speaking background, call the interpreter service: [NSW Ministry of Health Policy Directive PD2017_044-Interpreters Standard Procedures for Working with Health Care Interpreters.](#)

10 NATIONAL STANDARDS

- Standard 3 – Preventing and controlling infections
- Standard 4 – Medication safety
- Standard 5 – Comprehensive Care
- Standard 8 – Recognising and responding to acute deterioration

11 REVISION AND APPROVAL HISTORY

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Dec 2025	V1	Final draft
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