

The impact of antiseptic versus sterile water cleaning on rates of postnatal perineal infection.

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Background

- In the NHS Tayside trust, Scotland, if an instrumental delivery takes place in the room sterile water is used to clean the perineum.
- In contrast, patients who are taken into theatre for instrumental delivery have the perineal and vulval area cleaned with antiseptic solution - Trisept (chlorhexidine acetate 0.015%; cetrimide 0.15%).

The hypothesis we propose: cleaning with water only results in an increased rate of subsequent perineal wound infection/ breakdown.

Aim

Purpose

To identify rates of infection in those who had perineal trauma sutured in the room (cleaning with water) versus theatre (cleaning with chlorhexidine-based solution) and accept or reject the proposed hypothesis.

Objectives

Collect data retrospectively from maternal triage books: collate and analyse data, present in a coherent format with recommendations for improvement. Implement change; re-audit and analyse the data after a suitable time period.

Standards

NICE, RCOG.

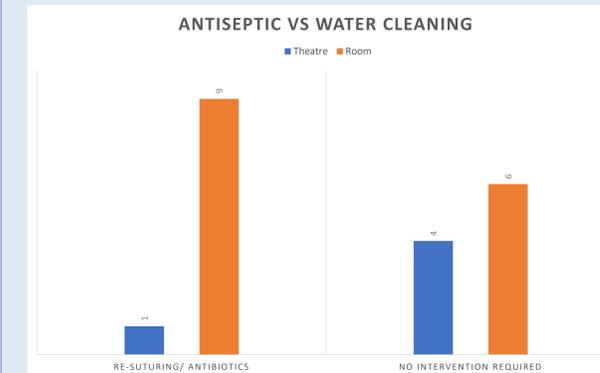
Method

- Retrospective audit.
- Patients for perineal review or experiencing perineal problems to be identified from maternity triage book – include all patients in which the presenting details include perineum/ perineal/ episiotomy.
- Record number of days post-delivery.
- Review the notes using Badgernet system (maternity patient data system; allows real-time recording of all events wherever they occur; in the hospital, community or home).
- Details to include:
 - Delivery mode
 - Type of tear
 - Location of suturing
 - Documentation of skin cleaning
 - Suture used
 - Review outcome

Results

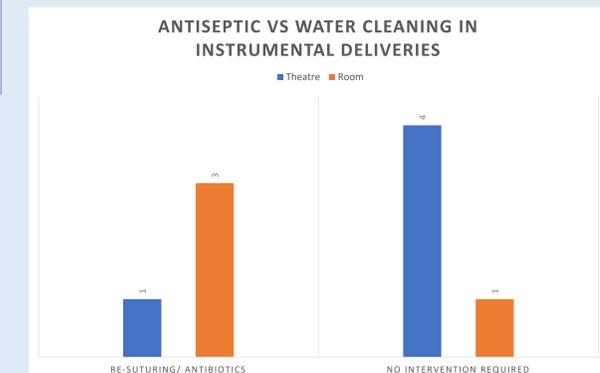
- 23 patients' data initially collected.
- Date range: 27/07/2020 – 25/01/2021.
- 3 patients excluded as their notes weren't available on Badgernet (corresponds with a changeover time from paper to electronic notes).
- 5 theatre patients were identified.
- 15 room cases were identified.
- Of the room patients – 4 specifically stated cleaning of perineal area (although it was not specified with what); the rest did not record cleaning.
- All perineal traumas were sutured with vicryl rapide.

NOTE: there is poor reporting of cleaning (only 4 of 21 cases). Tayside currently uses a proforma on Badgernet to record 'perineal tear repair', however a section on cleaning is not included.



20% theatre cases required re-suturing/ antibiotics (1/5)

60% room cases required re-suturing/ antibiotics (9/15)



20% theatre cases required re-suturing/ antibiotics (1/5)

75% room cases required re-suturing/ antibiotics (3/4)

Discussion

RE-SUTURING/ ANTIBIOTICS

- Theatre case (1/5)
 - 3b tear following a forceps delivery, which subsequently broke down requiring antibiotics and finally re-suturing.
- Room cases (9/15)
 - **7 episiotomies** (3 instrumental, 4 spontaneous cephalic)
 - 1 needed IV abx and re-suturing, 1 needed IV abx, 5 required oral abx
 - **2 second degree tears** (2 forceps)
 - 2 required oral abx

Although the numbers are small, we have shown that there is a strong likelihood that cleaning the perineum with water only versus antiseptic solution results in an increased rate of infection.

INSTRUMENTALS (9 CASES)

- Theatre cases (1/5)
 - 1 required antibiotics and re-suturing
 - 4 were reviewed and sent home with perineal advice; no requirement for abx.
- Room cases (3/4)
 - 3 required re-suturing or antibiotics
 - 1 was reviewed and sent home with perineal advice; no requirement for abx.

Conclusion

- Intrapartum perineal trauma is a common occurrence impacting thousands of women – as tears or episiotomies.
- If we treat this as a surgical site, then in accordance with NICE guidelines we should be using a preparation of chlorhexidine solution for cleaning before cutting and/or suturing.
- Through this retrospective audit, of postnatal women presenting to triage with perineal issues, we have demonstrated a considerable percentage difference in those who receive cleaning with water only versus chlorhexidine solution.
- We still need much larger numbers to demonstrate statistical significance.
- Nevertheless, our recommendation would be that antiseptic cleaning should be used for all deliveries where perineal trauma is likely.
- As an addition, we suggest that recording of cleaning could be improved by including it on the current Badgernet proforma.