

Survey of anaesthetic practice on skin preparation prior to central neuroaxial block (CNB) and peripheral nerve block (PNB)

Background

- Infection following CNB and PNB is rare but presents potentially devastating sequelae hence the need to observe strict asepsis¹.
- Experts recommend that exhaustive efforts should be directed at minimizing sources of infection whenever performing regional anaesthesia ^[1].
- Recently an editorial highlighted issues of skin preparation prior to CNB and neurotoxicity ^[2].
- It is therefore critical to balance the two.
- We conducted a departmental survey of current practice on use of Chlorhexidine® and sterile preparation prior to CNB and PNB.

Objectives

- To ascertain current practice within the department with regards to skin preparation prior to CNB and PNB.
- To establish consistency on the use of skin preparation prior to CNB and PNB in the department.

Methods

- A detailed questionnaire was sent to all anaesthetists (8 trainees and 21 consultants) to establish individual practice within the department.

Discussion

- The results indicated that regional anaesthesia was not regularly performed by all respondents.
- Individual practice varied significantly with regards to procedure performance, skin preparation and barrier techniques used to reduce infection.
- In spite of potential for chemical neurotoxicity, 2% Chlorhexidine® is still being used for CNB and PNB.

Future work

Data to be presented to the department at clinical governance meeting and formulate a departmental guideline on use of antiseptic solution when performing regional anaesthesia.

References

- [1] Importance and implications of aseptic technique during regional anaesthesia: J.Hebl; Regional Anesthesia and Pain Medicine, Vol 31, 2006: 311–323.
 [2] Sting in the tail: antiseptics and neuroaxis revisited. D.Bogod; Anaesthesia 2012, 67,1305-1320.

Results

- Total responses received were 25. Weekly, 15 (60%) respondents performed less than 5 spinal anaesthetics, 6 (24%) performed less than 5 combined spinal epidurals (CSE) and 16 (64%) performed less than 5 PNB.
- Full surgical scrub was performed for 100% of CNB with varying barrier techniques: 88% donned sterile gloves, 76% wore gowns, 72% wore a mask and 84% used a drape (**Figure 2**). Different types of skin preparations were used as shown in **Figure 1**.
- Full surgical scrub was used in 4% of cases for PNB with varying barrier technique: 96% donned sterile gloves, 12% wore mask and 20% used a drape (**Figure 3**). For skin preparation 2% Chlorhexidine® was used by 44% of respondents and 0.5% Chlorhexidine® in 40% of cases.

Figure 1 - Types of skin preparation used for CNB

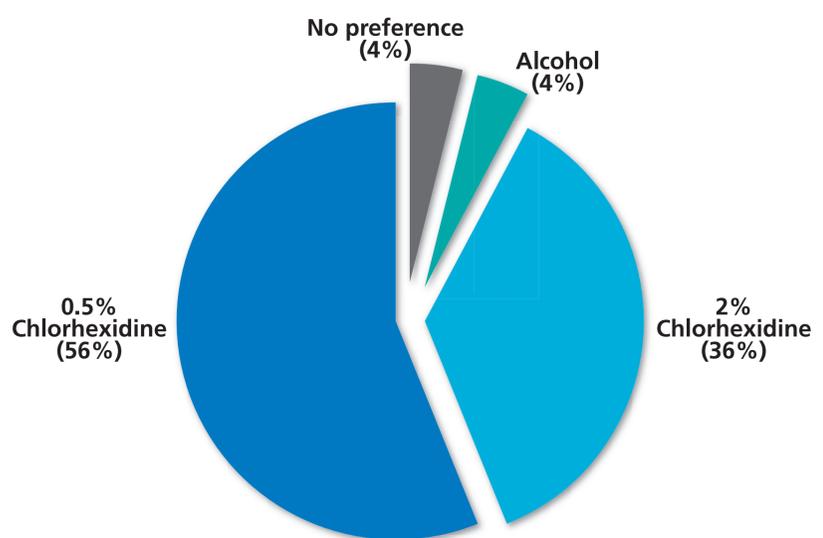


Figure 2 - CNB barrier techniques used

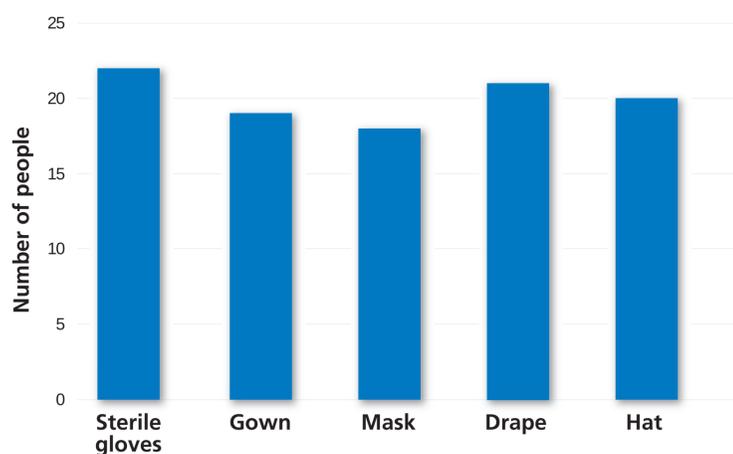


Figure 3 - PNB barrier techniques used

