Neuraxial anaesthesia: are we drawing up right? A quality improvement project

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1 BACKGROUND

Techniques in regional anaesthesia should enforce sterility whilst maintaining prevention of arachnoiditis and meningitis as identified by the National Audit Project 3 and subsequent letters (1, 2).

Anaesthetists and Operating department practitioners (ODP's) should wear a facemask and use sterile gloves to open glass ampoules whilst assisting during the drawing up of neuraxial drugs to prevent contamination of the sterile field from naso-oral flora (3, 4).

Chlorhexidine Gluconate spray can travel after application and should not be used with exposed neuraxial needles (5). The sterile tray and needles should be opened afterwards.

A unidirectional technique (aspiration only) should be employed to draw up intrathecal opioid as improper use has been associated with reduction in intrathecal doses of drug dosages due to dead space (6).

2 AIMS

A quality improvement project (QI) designed to assess adherence to the recommended national and manufacturer published guidelines regarding drawing up of drugs regarding neuraxial anaesthesia.

3 METHODS

- Single blinded, retrospective review of records, conducted at a single district general hospital.
- All consecutive elective patients selected over a 12 month period
- Review of practices and techniques pertinent to ODP's and Anaesthetists whilst drawing up drugs for imminent neuraxial blockade
- Ethical approval not required for this QI project.

4 RESULTS

0% of ODP's used facemasks during the procedure
None used sterile gloves/alcohol wipes to wipe the neck of ampoules after breaking them

11% of ODP's opened glass ampoules without gloves

23 % of patients had chlorhexidine sprayed onto their back with an open sterile tray where contamination could have occurred

51% Used bi-directional (aspiration and injection) with a filter needle

89% of ODP's used non-sterile gloves

5 CONCLUSIONS

- Although no patient harm occurred, adherence to national and manufacturer recommendations was very poor.
- If practice continues there is a potential for sub-therapeutic dosing of intrathecal opioid and subsequent implications regarding patient safety, and poor quality of service.
- Recommendations include education of operating department practitioners and Anaesthetists via departmental events and posters to promote and improve awareness of ideal practice.

6 REFERENCES

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