



How to avoid confusion between antiseptic and injectable anaesthetics



What's the issue?

Confusion between an antiseptic and an injectable anaesthetic during a surgical procedure. The two substances are identical in appearance (colourless).

They are unwrapped by a paramedical professional (theatre assistant, scrub nurse) and poured into similar-looking (in size and colour) sterile cups on the surgeon's sterile working area in preparation for the operation.

Background

This situation was revealed by spontaneous reports of adverse events made by surgeons. 219 near-miss events have been analysed. This risky situation also exists in other interventional specialties and for different procedures and pharmaceutical products (e.g. in interventional cardiology and radiology, vascular surgery, orthopaedics, outpatient care, etc.).

► Prevention

Make substances look different

■ Mandatory

- Do not transfer products until immediately before use.
- Use containers of different shapes and sizes.

■ Optional

- As far as possible, use coloured antiseptics to disinfect the skin.
- As far as possible, do not unwrap a medicine. Draw the substance up from its original ampoule.

An effective physical barrier

Use very different shapes of cups, each of which is unsuitable for the other procedure!



For antiseptics: a flat container like a saucer, plate or kidney dish from which it is difficult to draw them up with a syringe but in which it is easy to spontaneously soak a compress.

For anaesthetics: a very narrow, small-diameter cup in which it is difficult to soak a compress but from which it is easier to spontaneously draw up with a syringe.



Urge manufacturers to build in this precaution when producing custom surgical procedure packs/trays.

Double checks

■ Mandatory

- The substances used are presented to the user, the name of the active substance is read aloud and checked with the person who prepared it (four-eyes principle).

■ Optional

- Limit those involved: the person who prepares the injection is also the one who gives it.

Remove substances

■ Mandatory

- Remove products from the operating field immediately after use, in this case the antiseptic from the working area after use.

■ Optional

- Review the patient preparation process and change the order: marking up, alcohol sterilisation and injection of anaesthetic before disinfection and draping, which avoids potential substance mix-ups and allows a better adrenergic effect to be achieved.

A set order in which to do things

Preoperative marking up

- No substance in the operating field.
- Preparation of a sterile area for painting and a small sterile cup for the anaesthetic.

Antiseptic cleansing

- Announce the antiseptic substance to the operator and, if he/she agrees, pour onto the plate.
- Remove the plate after disinfecting the operating site.

Anaesthesia

- Announce the anaesthetic substance to the operator and, if he/she agrees, transfer to the small sterile cup.

► Recovery

- Stop the injection at the slightest suspicious sign (sharp pain).
- Check the substances.
- Throw them all away and start again if there are serious doubts about the contents.

► Remedial action

- Inform the patient and get his/her consent to rapid intervention in the necrosed area.
- Take photographs of the area.

Feedback: identification of root causes when analysing near-miss events (NMEs)

- Unwrapped medicines.
- Substances of similar colour.
- Similarity of contents.
- No means of identifying the unwrapped substances (labelling, colour).
- Substances left in the operating field after use.
- Patient had an iodine allergy.
- Involvement of different healthcare professionals (one to unwrap, one to prepare, one to inject).

- Few if any rules on the preparation and management of these medicines.
- Working methods based more on unwritten conventions and habit.
- Routine operating methods.
- No cross-checks between professionals on substance use.
- The stressful situation of a surgical procedure.

References

G. Aulagner, P. Dewachter. "Prévention des erreurs médicamenteuses en anesthésie" guidelines of SFAR [French Society of Anaesthesia and Intensive Care] – November 2006.

Swiss Patient Safety Foundation. QUICK ALERT: "Risques liés à l'utilisation des antiseptiques incolores"; No. 19 - 2011.

Pennsylvania Patient Safety Authority. Patient Safety Advisory "Clear Liquids May Place Patients at Risk"; 2005.

Pennsylvania Patient Safety Authority. Patient Safety Advisory "Dangers Associated with Unlabeled Basins, Bowls, and Cups"; 2005.

ISMP Bulletin, Canada. "Le risque d'accident tragique est toujours présent dans les salles d'opération"; volume 4, number 12; December 2004.

NSW HEALTH Australia. Safety Notice 010/10 "Correct identification of medication and solutions for epidural anaesthesia and analgesia"; 25 August 2010.

For more information



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