



Risk of look-a-like equipment in anesthesiology: it's not just medications

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The risk of safety events with look-a-like medication names, labels, and containers has been well described. Not commonly recognized, however, is the risk that look-a-like equipment may pose. Discussed below are two equipment-related, look-a-like threats reported to a hospital-wide, voluntary reporting system using the Patient Safety Learning System (PSLS; Datix Ltd., London, UK). In both cases, the information entered in the PSLS was reviewed by a multidisciplinary Quality and Patient Safety (QPS) Committee consisting of anesthesiologists and other perioperative allied health professionals. After discussing the events, a management plan was undertaken for each circumstance.

25G cutting and non-cutting spinal needles

Following a PSLS report in which a 25G cutting spinal needle (*Quincke* type) was inadvertently opened and used - when a non-cutting (pencil-point)-tip needle (*Whitacre* type) was intended - inspection of the spinal needle packaging for the 25G cutting and non-cutting needles revealed enough similarities (same colour needle hubs, same colour and size of the labeling font on packaging) to warrant review of these products on the anesthesiology equipment cart. A locally performed survey revealed that most staff anesthesiologists preferentially used the non-cutting 25G spinal needle instead of the cutting spinal needle. Moreover, 50% of staff anesthesiologists had at one time or another inadvertently opened a cutting 25G spinal

needle when the non-cutting needle was intended. The QPS Committee thought that removal of the cutting 25G spinal needle from the ordering inventory was supported by the: (1) increased risk of postdural puncture headache (PDPH) with the cutting needle¹; (2) potential for resource waste (unintentional opening of the cutting spinal needle, which is recognized and discarded); (3) preferential use of the non-cutting spinal needle by staff anesthesiologists.

Electrical plugin for anesthesia machine

After uneventful open reduction of an ankle fracture under general anesthesia, the portable *x-ray* machine was no longer required in the operating room (OR). In preparation to remove it from the OR, an electrical cord (thought to originate from the portable *x-ray* machine) was removed from the electrical outlet. Immediately after the power cord removal, there was a 30-sec period of absent vital signs display on the anesthesia machine during the emergence phase. Fortunately, the functioning back-up power source on the anesthesia machine soon enabled return of vital signs display. The cause of the power outage was immediately investigated and found to be the unintentional removal of the anesthesia machine power cord. Review of the PSLS report at the QPS Committee noted that the *x-ray* and anesthesia machine electrical cords were similar in appearance (colour and size) and location on the generator-supported electrical outlet manifold. In response to these issues, the QPS Committee initiated a project to label the distal end of all anesthesia machine electrical cords with an identifying tag (Figure).

These events highlight the role played by similar appearances of equipment in our daily practice. Of note, the ability to report the event (in the PSLS) and review of

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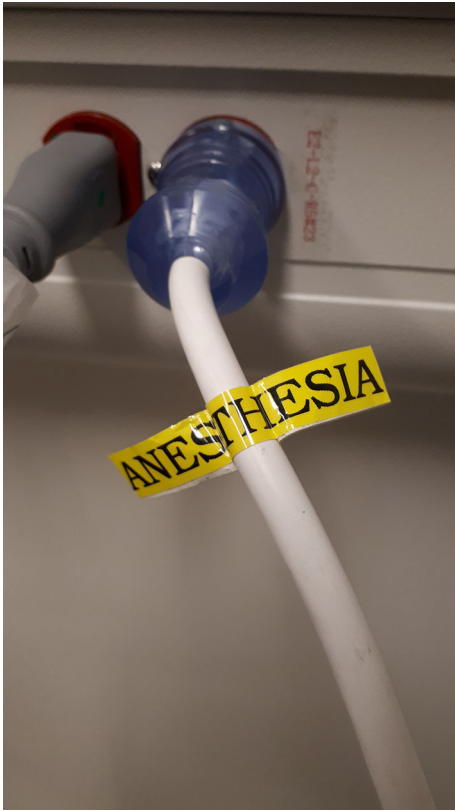


Figure Anesthesia machine electrical cord label

such events (in the context of a QPS Committee) permits a local response to latent threats presented by look-a-like equipment. The actions taken relative to the events (e.g., removing the cutting spinal needle and labeling the power cords) are more effective interventions than messaging and education according to the hierarchy of effectiveness for interventions.²

Conflicts of interest None declared.

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