

NIAIC MEDICAL DEVICES ONE LINERS

ONE LINERS SPECIAL EDITION: BREATHE EASY

Respiratory devices are used throughout hospitals, primary care and in home settings. A significant number of adverse incidents arise from problems with the devices themselves or are related to training and practices associated with their use. This special edition of One Liners attempts to highlight some of the issues that have given rise to problems and provides advice to help address these. The majority of these problems have been reported by the NHS to the Medical Devices Agency (MDA), but the lessons learned are applicable to the HPSS and the wider health and care community in Northern Ireland.

EVERY BREATH YOU TAKE

There have been reports of respiratory devices are being inappropriately inserted into breathing systems of patients with endotracheal and tracheostomy tubes leading to severe lung damage from excessive gas pressure.

Staff incorporating respiratory devices into breathing systems should always ensure that they do not compromise passage of expired gases. The devices should always be assembled according to manufacturers instructions for use and their use supervised by appropriately trained staff. (see SN(NI)2000/43, SN(NI)2002/25, HN(NI)2002/09).

ONCE BITTEN TWICE SHY

A number of incidents have been received where the Laryngeal Mask Airway (LMA) has fractured or split during removal. In all cases no bite block was present. The instructions for use clearly state that a bite block should always be used with the LMA especially during emergence of anaesthesia until the LMA has been removed, to avoid damage to the tube and teeth.

Always ensure that a bite block is used and kept in place until the LMA is removed.

CROSSED WIRES!

There have been incidents involving the cross connection of the tubing to disposable suction canisters, despite clear labelling and in some cases colour coding.

Users should ensure that they follow the manufacturers instructions in correctly assembling disposable suction canisters and that staff are trained in the safe operation of the device. Suction should be available for all Hospital respiratory therapy procedures and be checked for functionality before use.

DEFLATED

There have been reports of manufacturing defects with the cuffs of both endotracheal and tracheostomy tubes being discovered after intubation. Resultant deflation or insufficient inflation of the cuff has led to inadequate ventilation. In the majority of cases, these defects have been visually obvious and would have been detected by pre-use checks of the cuff.

Always ensure that pre-use checks of cuffed tubes are carried out before intubation and in accordance with the manufacturer's

STUCK IN THE MIDDLE

Difficulties in withdrawing intubation stylets have been reported

If resistance is encountered during the removal of the stylet from the endotracheal tube, the tube and stylet should be withdrawn together and the procedure repeated with a NEW tube and stylet.

BELOW PAR?

There are continued reports of manual resuscitators failing due to incorrect assembly following cleaning/sterilisation.

Reusable resuscitators must only be operated, cleaned and reassembled by appropriately trained staff. It is important that instructions for use are followed and functional testing is carried out after cleaning and assembly, to ensure correct operation (see SN(NI)2001/52) and where the resuscitator is in infrequent use, at regular intervals.

FLAT BROKE

There is concern with the number of reports received associated with failure of LMA cuffs following the sterilisation process. Cleaning/sterilisation processes must always be followed according to the instructions for use including the number of cleaning/sterilisation cycles that can be safely applied to the product. The cuff must be fully deflated before sterilisation.

It is important that pre-use checks are performed as stated in the instructions for use: examine the interior of the airway tube, flex the airway tube holding at each end, deflate the cuff fully and examine the airway connector, examine for discolouration following sterilisation. Users are reminded to follow the manufacturer's recommendations regarding the number of cleaning/sterilisation cycles that can be safely applied to the product.

BLOWN GAS KIT!

There have been several serious incidents involving injury with medical gas regulators.

All handlers of medical gas cylinders must receive training in their safe use. Users should always follow manufacturers instructions for use and should be aware of: cleanliness when storing, transporting or connecting gas cylinders to regulators or other medical devices; opening gas cylinders slowly; returning cylinders to the manufacturer/supplier when there is excessive resistance to opening; and always turn off cylinders when they are not in use.