EBA Recommendations for Safe Medication Practice 2015

Drug syringe preparation and labeling

All medications prepared for routine use in anaesthesia, intensive care, emergency medicine and pain medicine should be clearly labelled.

The EBA recommends that pre-filled syringes should be used wherever possible. Hospital pharmacies and manufacturers should be encouraged to supply them particularly in the first instance for high risk medicines and ones administered as infusions that are prone to dilution errors and infection.

The EBA recommends the International Organization for Standardization (ISO) Anaesthetic and respiratory equipment – User-applied labels for syringes containing drugs used during anaesthesia – Colours, design and performance. 1st ed. Geneva: ISO, 2008. ISO 26825:2008(E).

Labels should never be put on to empty syringes. Once a drug is drawn into a syringe the syringe should be immediately labelled before the syringe leaves the operators hand. The medication name on the user applied label should be matched with the drug name on the ampoule, one medication and one syringe at a time.

All drug infusion bags and infusion lines should similarly be labelled. It is particularly important that infusion lines should be labelled at both their ends close to their connectors to facilitate checking and reduced wrong connection errors.

In the absence of pre-printed labels for syringes, hand-written ones should be prepared, or syringes should be labelled directly using permanent marker pens.

In an urgent situation if a medication is prepared and immediately administered to a patient with the syringe or container never leaving the hands of the person drawing it up labelling is not required but it is still good practice if there is sufficient time.

Any medicine or fluid that cannot be identified at any time during a procedure (e.g., in an unlabelled syringe or other container) should be considered unsafe and immediately discarded.

Drug packaging and labeling

The labelling and packaging of all drugs should facilitate their easy identification. When a drug is available from more than one manufacturer, the clarity of the labelling and the avoidance of lookalike packaging or labelling should be considered when making purchasing decisions. Labelling should conform to applicable national or international standards as these are adopted.

Drug contamination and transmission of infections

Contamination of any drug must be avoided. To minimise the risk of cross infection between patients the contents of any one ampoule should be administered to only one patient. The use of multidose ampoules is not recommended.

To prevent the transmission of nosocomial infections such as Hepatitis C and Malaria, between patients the use of saline bags with reusable administration ports to provide fluid for drug dilution and syringes for flushing IV lines for more than one patient should no longer take place. Single ampoules of saline or preferably single prefilled syringes of saline should be used instead.

Drug cupboards, anaesthetic trays and storage systems

Drugs should be stored in ways designed to facilitate their easy identification and minimize the risk or error of misidentification. Arranging medicines in drug cupboards in their pharmacological medication class groups can reduce the risk of between-class errors, which are generally likely to be more dangerous than within-class errors. Consideration should be given to storing drug ampoules in their original packaging until just before they are drawn up. Special care should be taken with ampoules that look similar, have similar names, or have labels that are difficult to read.

Local anaesthetic agents should be stored separately from anaesthetic drugs and high risk medicines such as intravenous potassium stored securely.

Gallipots, bowls or other open containers for drugs, antiseptics or saline should no longer be used on the sterile field to prevent possible contamination and drug errors some of which have been fatal.
Adequate, uncluttered surface space and appropriate trays, clean for each patient, should be provided for drawing up, arranging and holding the syringes and drugs used in each anaesthetic. Wherever possible this should be standardised.

Flushing cannulas

To reduce the risk of inadvertent administration of anaesthetic drugs in recovery or on the ward all intravenous cannulas should be flushed appropriately.

Distractions

Distractions are a significant cause of medication errors. All members of the anaesthesia team should avoid distractions or interrupting others during the preparation and administration of patients' medications. Similarly working under the pressure of time and in unfamiliar circumstances should be avoided.

Double checking at any stage, particularly with high risk medications is recommended

Reliability and resilience of medication supply

All drugs supplied should meet current national standards and regulations. When there are supply problems like for like replacements should always be sought and end users promptly made aware of any changes to packaging or concentrations. For high risk medicines e.g. heparin / protamine, hospitals should invest in sufficiently larger buffer stocks to be able maintain a continuity of supply to clinicians throughout periods of external shortages.

Incident reporting

All anaesthetists should report any medication incidents to their local and/or national incident reporting systems and these should be regularly reviewed in departmental meetings so that the lessons can be learned and passed on. The focus should be on having a safety culture, the prevention of the recurrence of adverse events, and managing such events when they occur.

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