Re-audit of accessibility of current guidelines for the anaesthetic machine check and management of anaesthetic emergencies

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Introduction And Methods

Patients undergoing procedures under anaesthesia or sedation in theatre and non-theatre areas are at risk of anaesthesia-related incidents, cardiac arrest and peri-arrest problems. Royal College of Anaesthetists (RCoA) and Association of Anaesthetists of Great Britain and Ireland (AAGBI) recommend access to guidelines for management of such problems in all areas where these procedures take place.

Several rounds of audit have been undertaken at Good Hope Hospital to investigate the availability of printed guidelines in theatre and non-theatre areas. Spot-check audits were performed in 2009, 2012 and 2015. A clinical area was deemed compliant with audit standards if the full set of guidelines were present and up to date. So far results have been sub-optimal with compliance generally 40% or less.

In November 2015 this was highlighted to theatre management and measures have been taken to improve availability of guidelines, including the provision of laminated booklets in each theatre.

Re-audit was undertaken in December 2015 to evaluate the success of these interventions.

Ten theatres were audited for the presence of:
AAGBI Anaesthetic Machine Check 2012
AAGBI Management of Local Anaesthetic Toxicity 2010
AAGBI Management of a Patient with Suspected Anaphylaxis during Anaesthesia 2009
AAGBI Management of a Malignant Hyperthermia Crisis 2011
Resuscitation Council Adult Life Support Algorithm 2015
Resuscitation Council Paediatric Life Support Algorithm 2015
Resuscitation Council Adult Arrhythmia Algorithms 2015

Four 'high risk' areas were audited for the presence of:
Resuscitation Council Adult Life Support Algorithm 2015
Resuscitation Council Paediatric Life Support Algorithm 2015
Resuscitation Council Adult Arrhythmia Algorithms 2015
Resuscitation Council Anaphylaxis Algorithm 2015

Results

The most recent audit in December 2015 showed that theatre areas were **100% compliant**, all having a full sets of guidelines. The four remaining high risk areas did not contain any guidelines. The overall compliance thus improved to **85%**.

Comparison of Percentage Compliance by Area between audit and re-audit

Discussion

As highlighted by the RCOA and AAGBI, availability of these guidelines is an important safety issue; they are essential tools to negate the effect of human factors in high-pressure emergency situations. Immediate access to the guidelines enables prompt and correct management.

Poor compliance in September 2015 was due to incomplete, out of date or absolute absence of the guidelines. This was put down to a number of factors:

- Recent building works and environmental upheaval within the department
- Lack of designated personnel to update the guidelines
- Decreasing reliance on paper guidelines as more electronic sources used.

Ownership of the project by enthusiastic individuals has led to remarkable change in theatres. This has ensured that an up to date guideline booklet is available in each theatre, however non-theatre areas still need further input.

Going forward these are important areas to focus on in order to reduce clinical risk.

This will require leadership as well as collection of appropriate guidelines, decision regarding location of guidelines and liaison with other departments, including non-anaesthetists. Regular re-audit is essential to avoid complacency.

Sources

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