This presentation should be used in conjunction with the full publication:

‘Patient Safety Update including the summary of reported incidents relating to anaesthesia 1 July to 30 September 2013.'
What is the Safe Anaesthesia Liaison Group (SALG)?

• A joint committee of the RCoA, AAGBI and NHS England

• SALG has a data sharing agreement under which critical incidents reported by hospitals to the NRLS are provided for wider sharing

• The Patient Safety Update is a quarterly publication which is the mechanism for sharing reported data

• This presentation provides a précis of the Patient Safety Update for June 2013
What is the Safe Anaesthesia Liaison Group (SALG)?

Why discuss the Patient Safety Update at M&M?

• Raise the profile of patient safety within departments.

• Learn from the experience of others.

• Use the slides that you find useful (there is no need to use them all).

• Slides should be used with the details in the full safety update.

• Add information from your own department.

• Feed back to SALG@rcoa.ac.uk.

PATIENT SAFETY UPDATE DECEMBER 2013
On the SALG Agenda

Emergency Grab Bags

‘Regional survey of portable emergency equipment and drugs carried by resuscitation teams in Severn and Peninsula hospitals’

Shown variation in the contents of bags carried to cardiac arrest and in-hospital emergencies.

Summary available on request from the SALG administrator.

The Resuscitation Council (UK) advice to be updated shortly.

Readers are urged to check their own equipment against the advice.
On the SALG Agenda

Anaesthetists’ involvement in Procurement

Anaesthetists encouraged to become involved in the procurement process for drugs and equipment they use

By having an input to purchasing decisions clinicians may be able to prevent confusion arising between new or similar packaging that may lead to patient safety incidents.

Doctors should be involved in decisions about changing equipment suppliers – lack of familiarity with a device is a well recognised cause of safety incidents.
Incident Report

I attended a cardiac arrest call in theatre... On my arrival I found a patient with GCS of 6. She was receiving high flow oxygen via face mask, and six milligrams of midazolam was given intravenously with no improvement. The surgeon explained that the lady started fitting immediately after the 20ml of 0.5 % levobupivacaine was injected into sacroiliac joint under radiological control. I initiated the protocol for local anaesthetic toxicity. Immediately after the first dose of intralipid, the patient opened her eyes. The rest of the intralipid was transfused as per protocol. We observed a full recovery. The patient was transferred to a ward for continuous monitoring and observation. Arrangements to rule out pancreatitis were made and the patient was discharged two days after the incident with a full recovery and no complications.
Lipid to the rescue!

Comments

Intralipid is well established as a treatment for local anaesthetic systemic toxicity (LAST). Do you know where it is kept in your theatre?

Reading

- [AAGBI Safety Guideline](#)
- ‘Lipid emulsion infusion: resuscitation for local anesthetic and other drug overdose’.
- The [LipidRescue™](#) website (case reports, up-to-date guidance and reviews).
Near miss (and not so near miss) drug errors

Incident Report

SpR drew up water to mix with antibiotics, but had drawn up L-bupivicaine in error. On a separate occasion, bupivacaine was drawn up instead of saline to flush a central line; fortunately the errors were both noticed before the patients came to harm.
Near miss (and not so near miss) drug errors

Incident Report

A patient on an elective gynaecological list was given a dose of thiopentone 500mg instead of the intended antibiotic, co-amoxiclav 1.2g during the maintenance phase of anaesthesia. The error was noted shortly after the entire dose of thiopentone had been given. Antibiotic was correctly administered soon afterwards and the surgery continued. Apart from some transient hypotension at the time of administration, which responded well to vasopressors, the patient suffered no apparent harm as a result. The vials of co-amoxiclav and of thiopentone (which was a non-standard, non-UK formulation brought in to address a UK supply problem) are almost identical...
Near miss (and not so near miss) drug errors

Incident Report

Patient for laparoscopic cholecystectomy. Previous problems with PONV therefore planned to use TIVA with propofol and remifentanil. After induction and intubation noticed that a lot more remifentanil had been given than I would have expected. On inspecting the pump I realised I had inadvertently programmed it as if containing 1% propofol. Pump stopped and reprogrammed correctly, patient required 0.5mg metaraminol to treat hypotension (systolic BP 75) but no other adverse effects... When programming pumps for TIVA following this incident I check the settings with the anaesthetic assistant and complete programming of one pump before turning the other pump on...
Near miss (and not so near miss) drug errors

Incident Report

We have just changed our supplier for water and saline 10ml plastic ampoules, on cost grounds. The new water ampoules are a similar shape to L-bupivacaine (square in cross section). The new saline ampoules have the same green colour as the bupivacaine ampoules. Reported to Commercial Medicines Unit. The trust has agreed to revert to the original supplier of water and saline ampoules.
Near miss (and not so near miss) drug errors

Comments

Medication errors occur in approximately 1:200 anaesthetics, the majority near miss incidents.

The ‘human factors’ leading to medication

- Failure to check or misread vials/labels
- Distraction or lack of vigilance
- Inattention or carelessness
- Pressure of work
- Communication failures

The International Medication Safety Network issued a position statement November 2013.
No delay: Clear communication and escalate upwards

Incident Report

Patient on CICU deteriorated overnight and needed urgent cardiac echo to look for pericardial collection and tamponade. On-call cardiology SpR contacted in morning to do urgent echo. Five hours later... (no TTE yet); patient suffered cardiac arrest. TOE performed by me during resuscitation confirmed tamponade. An earlier identification of pericardial collection by TTE would have prompted an earlier return to the operating theatre, and potentially avoided the cardiac arrest, and could possibly have avoided the severe heart failure and death... I was the cardiology registrar on call... As the day evolved, it became apparent that the day was going to become particularly busy and that this would prevent me attending to the patient... I hadn't heard back from the CICU team and made the assumption that his condition hadn't deteriorated...
No delay: Clear communication and escalate upwards

Incident Report

Patient admitted with thigh/buttock abscess. Known drug abuser injecting IM. Anthrax was confirmed late on same day... (patient died). Necrotising infection should have been identified sooner to allow for early surgery and debridement which could have facilitated a better outcome for this patient. Primary surgery was delayed by 24 hours due to the uncertainty around the patient diagnosis. The patient died of multiorgan failure brought on by sepsis caused by an anthrax infection
No delay: Clear communication and escalate upwards

Incident Report

An action plan was drawn up by the reporters from the key learning points from this incident:

• *If a difference of opinion exists between trainees/middle grades of different disciplines, escalation to consultant level should occur.*
• *Delaying surgery at night or if the morning emergency theatre is not vacant should be agreed by the consultant on call, as competition for the emergency theatre in the afternoon is known to be intense at times.*
• *Current discussions about having a 24/7 emergency theatre available should be put into action.*
No delay: Clear communication and escalate upwards

Reading

The NHS Institute for Innovation and Improvement tools to facilitate good communication:

for the person giving the message
‘SBAR – situation-background-assessment-recommendation’;

and for the person receiving the message
‘Listening – importance of this skill’.
No delay: Clear communication and escalate upwards

We can make 7-days services a working reality – Keith Willett
http://www.england.nhs.uk/2013/10/08/keith-willett/

Seven Day Consultant Present Care
http://www.aomrc.org.uk/projects/seven-day-working.html

BMA commits to high-quality, seven-day working

NHS Services, Seven Days a Week
http://www.england.nhs.uk/ourwork/qual-clin-lead/7ds/
Routine procedures - central lines

Incident Report

Patient from CCU brought to theatre for insertion of CVP line. After the procedure he began having difficulty breathing and so he was intubated. An emergency call was put over the theatre intercom for consultant anaesthetist’s help. After intubation the patient suffered a cardiac arrest. Resuscitation attempts were commenced but were unsuccessful...
Routine procedures - central lines

Incident Report

*Patient’s central line from theatre was not stitched in correctly. After rolling the patient the central line became dislodged, resulting in the patient having a cardiac arrest due to no inotrope delivery...*
Routine procedures - central lines

Incident Report

Never Event. Patient had an oesophagectomy. Post operatively the patient had two gastromyro swallows to assess the oesophageal anastomosis. On discharge it was recommended a repeat gastromyro swallow. This was arranged for (six weeks later). During this investigation it was noted the central line introducer was in situ...
Routine procedures - arterial lines

Incident Report

Ischaemic left arm secondary to brachial arterial line. 33+4 trisomy 21. Arterial line sited for laparotomy/duodenodudodenostomy/resection of Meckel diverticulum and Ladd procedure. GTN/warming/heparin commenced on PICU. Discussion with Vascular Surgeon – no other treatment possible...
Incident Report

Patient sustained motor blockade post epidural insertion. Epidural stopped and recommenced day-1 post-op after resolved motor function witnessed. Motor blockade reoccurred after recommencing epidural; did not resolve after discontinuation. MRI completed and suspected epidural haematoma located.
Routine procedures - epidurals

Incident Report

*Patient had epidural catheter inserted for post-op analgesia. Unable to move legs morning two days later. MRI scan performed urgently which demonstrated an epidural haematoma. Referred to neurosurgeons...*
Routine procedures – nasogastric tubes

Incident Report

Asked by nurses to check an NG position on an unventilated patient on ICU. Although NG appeared to go to the right, it appeared below diaphragm and discrete from right main bronchus, therefore I stated that it was OK to use. At around 8am this morning (following day), I was informed by overnight medical staff that the patient had started NG feed; (three hours later) the patient had partly coughed the tube out, so feed was stopped. Requested a further CXR; this showed that the NG tube was definitely in the right main bronchus. It appears with hindsight that the NG tube was intra-pulmonary. It is likely that the patient received 102mls of NG feed into his right lung.
Routine procedures

Comments

• Routine procedures can be associated with significant harm.

• Retention of central line guidewires - read more from international literature

• The brachial artery is the main artery supplying the forearm and should be used with great care.

• Unexpected weak legs with an epidural are a red flag and should prompt early senior anaesthetic input and early MRI

• e-learning module to reduce errors associated with misplaced nasogastric tubes.
Difficult extubation

Incident Report

Patient with a known grade-4 intubation, was unable to intubate in an emergency situation (after extubation), and despite requesting the difficult airway trolley, the trolley did not arrive from theatres and instead recovery intubation trolley was sent round. Patient sustained a hypoxic cardiac arrest...

Reading

The Difficult Airway Society have produced difficult extubation guidelines
Care of the elderly, your high risk patients

Incident Report

Patient went into PEA arrest in recovery post spinal anaesthetic with sedation for a right hemiarthroplasty. Patient was 97 and had hypertension, ischaemic heart disease (MI previously) and paroxysmal AF. ASA 3. Return of spontaneous circulation achieved after one cycle of CPR and adrenaline. ITU consultant attended and decision was made not to resuscitate if patient arrested again. Family called. Patient arrested again and was kept comfortable. Family informed on arrival.
Care of the elderly, your high risk patients

Reading

AAGBI consensus guideline management of proximal femoral fractures

AAGBI guideline ‘Perioperative Care of the Elderly 2013’ will be published at the end of 2013.

The Anaesthesia Hip Fracture Sprint Audit Project (ASAP) findings will be presented at the AAGBI Winter Scientific Meeting 15-17 January 2014.
What was reported
• 4,447 anaesthesia related incidents were reported

eForm
• 19 incidents were reported using the anaesthetic eForm
• 4 of these were reported as ‘near miss’
• 9 incidents reported via the eForm were reported to the NPSA within 1 day

Local risk management systems
• 4,428 incidents were reported using local risk management systems (LRMS)
• 12% of these were reported as ‘near miss’
• 50% of incidents were reported via LRMS to the NPSA within 30 days
Please report incidents so they can be used for learning

• Use your local system

Or

• Use the anaesthesia eForm [https://www.eforms.npsa.nhs.uk/asbreport](https://www.eforms.npsa.nhs.uk/asbreport)