This presentation should be used in conjunction with the full publication: ‘Patient Safety Update including the summary of reported incidents relating to anaesthesia 1 April to 30 June 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.
On the SALG Agenda

SALG Patient Safety Conference

- Wednesday 23 October 2013 at Cardiff City Hall.
- Dr Chris Jones, deputy CMO in Wales
- Professor Steve Bolsin, Frederic Hewitt Lecture.

More information including how to book is available on the RCoA website.
On the SALG Agenda

Incident data reported in Scotland

• An NHS organisation in Scotland will provide cleansed incident data for sharing through the Patient Safety Update.

• The data will be shared under the supervision of the Cladicott Guardian.

• SALG would like to hear from those in Scotland or Northern Ireland to arrange data sharing.

• Do not send any information about incidents by email without contacting SALG@rcoa.ac.uk first.
On the SALG Agenda

The Berwick Advisory Report

“Collaborative learning through safety and quality improvement networks can be extremely effective and should be encouraged across the NHS. The best networks are those that are owned by their members, who determine priorities for their own learning.”

The emphasis on transparency and learning from data echo the values of SALG and the need for critical incident reporting and subsequent learning.
Drug errors in anaesthesia – how do we reduce them?

Incident Report

“Patient given muscle relaxant instead of midazolam…”

Comment

‘Drug swaps’ most commonly involve muscle relaxants, antibiotics, opioids/sedatives or vasoactive drugs. Causes include failure to check, distraction, inattention, time pressures, or communication errors.
Drug errors in anaesthesia – how do we reduce them?

Recommendations

• Reduce distractions and interruptions during critical tasks
• Ensure all drug syringes and infusions are labelled clearly
• Utilise double checking techniques
• Simplify and standardise the range of drugs and concentrations used
• Use a standardised layout for drug trays
• Use prefilled syringes and a bar-code reader
• Raise awareness, encourage reporting and learning from incidents within your department
Drug errors in anaesthesia – how do we reduce them?

• Have you adopted any techniques to reduce the incidence of drug error in your practice?

• Have you cascaded these changes to the rest of the department?

• We are interested to hear your experiences and suggestions.

• Please contact us via salg@rcoa.ac.uk.
‘Non-technical skills’ and patient outcomes

Incident report

“Patient transferred from ward due to GI bleed requiring gastroscopy. Anaesthetist asked to be available. Gastroscopy performed in theatre. Extent of patient’s comorbidities not communicated. Blood results not available... Procedure attempted under sedation by endoscopist then anaesthetist. Escalation to GA needed. Arrested at induction. Unsuccessful PEA arrest...”
‘Non-technical skills’ and patient outcomes

Recommendations

• There is a correlation between non-technical skills (situation awareness, team-working, decision-making and task management) and technical skills.

• Practice simulated emergencies as a team that does not usually work together
Maintaining quality care when resources are stretched

Incident report

“Patient for routine inguinal hernia repair. Uneventful induction, transferred to the theatre, developed severe bronchospasm. Given BLS and ALS. Developed PEA, resuscitated, transferred to Hospital B ICU.”
Maintaining quality care when resources are stretched

Incident Report

“Patient admitted to A&E at Hospital A with GCS 8-12, confusion, abdominal pain and pyrexia. Immediately contacted medical and anaesthetic team for assessment of stabilisation and transfer. Patient deteriorated requiring intubation, CVC line and arterial line insertion... diagnosis of intra-abdominal sepsis... antibiotics administered. No radiological investigations performed at hospital A. After four hours patient referred to Hospital B critical care consultant. Arrived at Hospital B two hours later. ET tube measured at 29cm, endobrochial position on arrival altered to 24cm and check x-ray performed. End tidal CO₂ greater than 10. Patient inadequately sedated. Admission clerking and transfer documentation incomplete...”
Incident Report

“The patient was admitted to Hospital A ED with severe sepsis and acute renal failure... given fluids, arterial line, central line, started on noradrenaline, two unit packed red cell transfusion, 250ml 8.4% sodium bicarbonate... stable with reducing acidosis. We arranged for transfer to Hospital B for urgent dialysis, unavailable at Hospital A. His first serum potassium was 5.7mmol/l and then 6.2mmol/l. His last arterial blood gas did not have a potassium level on it... He was ready for transfer and I left to stabilise another patient in theatre at Hospital A. He left the ED 90 mins later... On arrival at hospital B critical care he had a cardiac arrest with serum potassium consistently greater than 8mmol/l...”
Maintaining quality care when resources are stretched

**Incident Report**

“Patient unwell on ward requiring ITU care (Hospital A). No ITU bed available. Patient transferred to main recovery for resuscitation. Patient remained in recovery all day with no formal critical care nursing, or qualified nurse looking after them. Multiple incidents occurred... staff present gave the highest standards of care possible despite the patient being cared for in the wrong environment with limited resource... Agreed in future either theatre staff would assist in ITU so that an ITU nurse could be based with the patient in recovery or that an agency ITU nurse would be booked to special the patient for the duration of their stay in recovery room.”
Maintaining quality care when resources are stretched

Interhospital transfers for intensive care may be required at short notice, outside normal working hours and more often, as services become increasingly specialised.

Reading

• AAGBI Safety Guideline ‘Interhospital Transfer’

• AAGBI Safety Guideline ‘Immediate Post-anaesthesia Recovery’

• Intensive Care Society ‘Guidelines for the Critically Ill Adult’
Maintaining quality care when resources are stretched

Recommendations from the above reading:

• advance planning, and formation of networks to coordinate and manage clinically indicated transfers.

• Use of the AAGBI pre-departure checklist

• When using a post anaesthesia care unit temporarily, ensure primary responsibility for the patient lies with the hospital’s critical care team.
Nuss Bar Removal

- Cardiac/liver injury during insertion is a possibility.
- Injury may also occur due to displacement of the bar with compression of adjacent structures.

Incident report

*Procedure: Nuss bar removal. Once the case began, having pulled out the stabilisers successfully, the surgeons commenced to pull out the Nuss bar. Once the bar was fully removed severe bleeding was noted bilaterally from the surgical sites....*
Nuss Bar Removal

Recommendations

• Rotated bars require assessment in relation to the major vessels

• Consider chocardiography or spiral computed tomography

• NICE guidance recommends only undertaken:
  • only undertaken by surgeons with cardiac or thoracic training and experience
  • where there are facilities for managing serious complications.
Surgical Never Events are still occurring

Incident report

“Informed by consultant radiologist that a patient had a CT scan that showed a retained metal retractor having previously had an oesophago-gastrectomy.”
Surgical Never Events are still occurring

Recommendations

Refer to the NHS Serious Incidence Framework 2013

NHS England has established a Never Events Taskforce to consider ways to reduce surgical never events, which will be reporting in autumn 2013.
Arterial puncture and central lines common complication

Incident Report

An anaesthetised patient had a central line inserted after surgery... accidentally inserted into the right internal carotid artery. This was recognised by blood gas result. I was asked to advise and identified that line was in carotid artery cephalad to an abnormally low carotid bifurcation. The following week I learnt that the patient had died from a stroke....
Arterial puncture and central lines common complication

- Accidental arterial puncture during insertion of an internal jugular venous line reported incidence 1-11%.

- Complications are unlikely, unless a guidewire or catheter is inserted.

- Even in the presence of ultrasound; central venous cannulation may not be a benign procedure.

Useful advice
Incident Report

The majority of nursing staff were log rolling another patient; the patient, who had had sedation reduced, spontaneously coughed and displaced his tracheostomy tube... performed approximately five hours previously in theatre by the ENT surgeons. Patient then started to desaturate...
Incident Report

“Patient developed bleeding from the site of his surgical tracheostomy. This became severe. He was reviewed by the ICU, anaesthetic and ENT registrars. The decision was made to take him to theatre as a ‘category 1’ patient. He began to deteriorate as the bleeding into his trachea worsened... treatment was delayed. He suffered a cardiac arrest due to hypoxia from pulmonary blood. A period of CPR was unsuccessful...”
Tracheostomy care study – NCEPOD

• Tracheostomy care is the subject of the next NCEPOD report

• Data collection will start in winter 2013

• Information and organisational questionnaires are available from the NCEPOD website.
Check anaesthetic machine final configuration before use

Incident Report

“Patient underwent anaesthetic induction with the filter and catheter mount attached to the 'wrong' limb of a Bain circuit, and was ventilated with the ventilator attached to the Bain limb resulting in rebreathing and Anaesthetic machine hypercapnia. This occurred due to incorrect equipment set up for a two-bag test (introduced to this trust two weeks ago). The test bag had been placed directly on the patient end of the Bain circuit with filter and catheter mount omitted. The non-test bag had then been replaced with a filter and catheter mount. The error was identified and corrected before further impact on the patient was noted. The entire anaesthetic dept is aware of this, the second incident of its type to occur in our trust in a fortnight. The test bags have been labelled 'test' and we are investigating buying red bags to distinguish them. It has been reported locally. The lead ODP trainer and anaesthetic clinical lead are aware of further training required.”
Check anaesthetic machine final configuration before use

Recommendations

• AAGBI Safety Guideline ‘Checking Anaesthetic Equipment’

• two-bag test as a functional check after the breathing system, vaporisers and ventilator have been checked individually.

• Breathing systems should always be inspected visually for correct configuration and assembly prior to use.
Incident report

“Patient for left hip hemiarthroplasty. Co-morbidities: hypertension. Pre-op bloods/ECG nil significant. Anaesthesia: fascia iliaca block awake, spinal 0.5% heavy marcaine 2.6mls. Level of block T8. Haemodynamically stable and communicative until cement went in. Two minutes after cementing: unconscious, PEA arrest, 3-4 minutes CPR. Return of spontaneous circulation. Surgical procedure completed, patient transferred to ICU after a brief stay in Level 3 Recovery. Probable cause of arrest: bone cement implantation syndrome. Myself and (surgeon) spoke to family and the theatre team...”
Hip cement – Hip fracture audit

Information: Hip Fracture Anaesthesia Sprint Audit Project (ASAP) which completes data collection in September 2013.

Further reading

What was reported
- 4,916 anaesthesia related incidents were reported

**eForm**
- 17 incidents were reported using the anaesthetic eForm
- 2 of these were reported as ‘near miss’
- 7 incidents reported via the eForm were reported to the NPSA within 1 day

**Local risk management systems**
- 4,899 incidents were reported using local risk management systems (LRMS)
- 14% of these were reported as ‘near miss’
- 58% of incidents were reported via LRMS to the NPSA within 30 days
Figure 1 shows the degree of harm incurred by patients within the anaesthetic specialty during the period 1 April 2013 to 30 June 2013. All 15 deaths were reported through LRMS.
Figure 2 shows the type of incidents that occurred within the anaesthetic specialty that were reported using LRMS or the anaesthetic eForm for the period 1 April 2013 to 30 June 2013. The categories were determined at local level.
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