RISK ALERT

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A Risk Management Newsletter for Hospital Authority Healthcare Professionals

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Message from Dr Derrick AU, Director (Quality & Safety)

The Worst Adverse Event

Your beloved family member is hospitalized. You know she is in good hands because the hospital had good reputation, the doctors and nurses are polite - and seem competent. What may be the worst adverse event that could happen to her during her stay?

I think to most people, the worst adverse event that could happen is one that causes grave harm to their beloved, and more than that, one that they did not expect.

This happens to be the key focus for learning from Sentinel Events (SEs), i.e. learning from unexpected events that may result in serious injury or even death.

My next question is: From a healthcare professional's position, what is the worst adverse event?

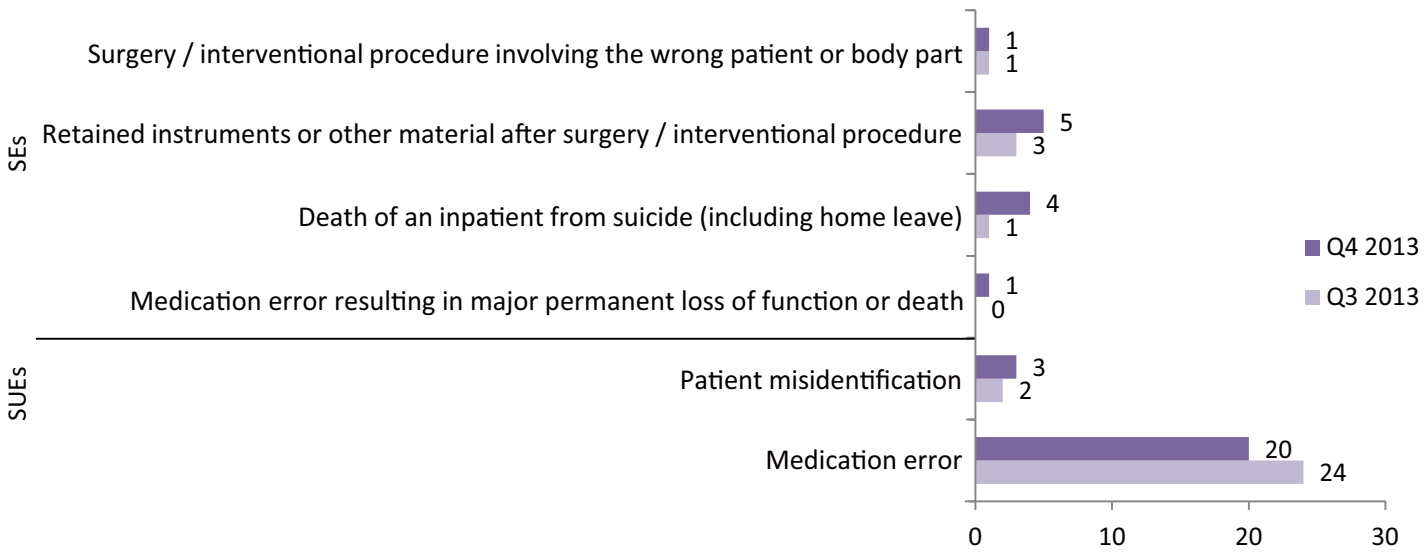
Perhaps it would be a sentinel event that, at a closer look, turns out to be quite avoidable.

This, in my mind, is why we should take Root Cause Analysis (RCA) seriously. RCA can be quite time-consuming and, yes, sometimes feel like a ritual, but it is important. And it is important to do it well.

To do RCA well requires more than making the process review and action plan comprehensive. You can throw salt and pepper and sugar and all the spices from the kitchen shelf onto the plate, but the proof of a pudding is in the eating. Root Cause Analysis means what it reads: be focused, get deeper than the superficial, get at the root.

Let's all take a fresh look at Sentinel Event reporting and Root Cause Analysis in HA. A fresh look can make a difference.

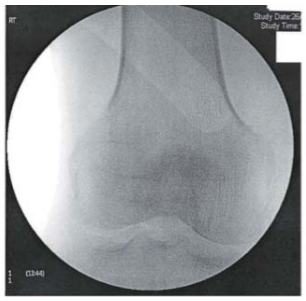
Distribution of Sentinel (SEs) & Serious Untoward Events (SUEs) (Q4 2013)



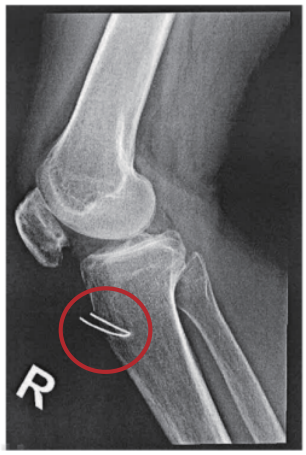
Retained Consumables and Instruments

1 Incomplete Removal of Metallic Wire

- A patient had partial patellectomy with a metallic wire loop implanted in the right knee in August 2011.
- In June 2013, an elective operation was performed to remove the wire loop.
- No wire could be seen in the limited field of intra-operative X-ray.
- A follow-up X-ray in August 2013 showed that a fragment of broken wire was retained in the tibia.
- The retained wire segment was removed uneventfully.



Intra-operative X -ray of knee



Follow up X -Ray showing retained metallic wire

Key Contributing Factors:

1. Pre-operative X-ray was not taken.
2. Intra-operative X-ray did not cover the whole knee joint.
3. Metal fatigue of wire after implantation for two years.

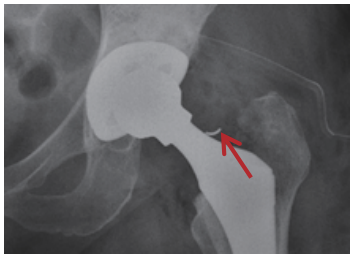
Recommendations:

1. Arrange X-ray examination before implant removal.
2. Implement team briefings on safety checks.
3. Alert staff on the risk of metal fatigue of implants.

2 A Broken Fragment of Calcar Planer

Small fragment found missing

- A cementless total hip replacement was performed on a patient uneventfully.
- A small part (about 4 x 0.5mm) of the Calcar Planer (an instrument used to shave bone away) was found missing during assembling in the Theatre Sterile Supply Unit.
- Imaging found that the missing part had been retained in the submuscular plane of the hip.
- The fragment was removed surgically.
- The patient had good rehabilitation progress subsequently.



Retained fragment in hip

Key Contributing Factors:

1. Unsatisfactory alignment between metal surfaces of the instrument used in the broaching process.
2. The staff mainly focused on checking the known defects of the instrument.

Recommendations:

1. Feedback to the manufacturer to review instrument design for facilitating anchorage and alignment.
2. Update the existing instrument defect database for high-risk items.

3 Catheter Tip Cut and Retained in Newborn's Intestine

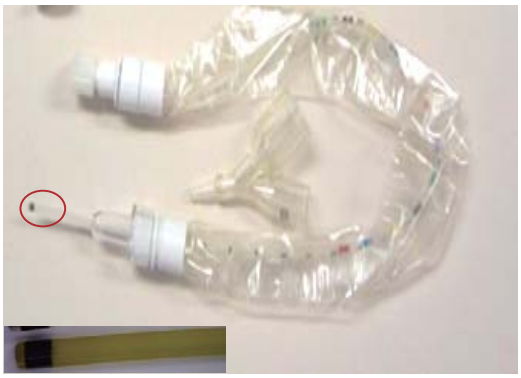
- A premature newborn developed respiratory distress after birth and was intubated.
- Surfactant treatment was given via a Multi-Access catheter designed for accessing the airway.
- After endobronchial administration of surfactant, the case doctor retracted the catheter from the endotracheal tube (ETT).
- The case nurse noticed there was residue surfactant inside the catheter. She re-inserted the catheter into the ETT and flushed the residue.
- When the ETT position was found satisfactory, the nurse cut the excessive length of ETT.
- The nurse was not aware that the catheter was not completely retrieved at the time of ETT cutting.
- On the next day, X-ray imaging revealed that a suspected fragment of catheter was retained.
- The 18mm catheter was passed out with faeces uneventfully after 12 days.

Key Contributing Factors:

1. Lack of a standardized guideline on ETT shortening and surfactant administration.
2. Ineffective communication between doctors and nurses.

Recommendations:

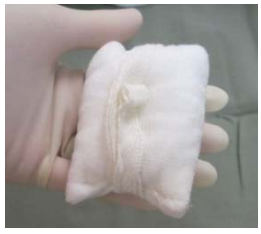
1. Develop a guideline on ETT shortening and surfactant administration.
2. Educate staff on the safety practice.



Fragment of cut catheter (circled)

4 A Tampon Found in an Episiotomy Wound

- One tampon is included in each delivery set and in episiotomy repair set.
- During episiotomy repair, the doctor used a tampon to stop bleeding and did not place the cotton thread of tampon outside the wound.
- Nurses did not notice the missing tampon during the swab count.
- The patient noticed continuous foul smelling vaginal discharge.
- The patient was admitted for suspected retained tampon which was later removed in the ward.



Tampon in set

Key Contributing Factors:

1. Inadequacy in the counting process and documentation.
2. Improper handling of tampon for wound packing.

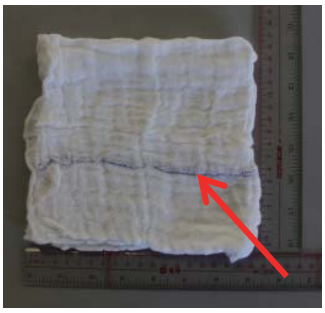
Recommendations:

1. Review the counting mechanism and documentation of tampon and gauze used in episiotomy wound repair.
2. Strengthen training to new residents on episiotomy wound repair and use of tampon.

Long cotton thread of tampon for identification

Retained Consumables and Instruments (Continued)

5 An Abdominal Pad was Retained in the Abdomen



Abdominal pad with radio-opaque thread (in blue)

- Towards the end of caesarean section, the doctor asked for an extra abdominal pad while nurses were performing the counting process.
- The extra abdominal pad was not documented in the Count Sheet.
- 2 days after the operation, the patient had left abdominal pain.
- Ultrasound revealed a radio-opaque thread-like shadow.
- The abdominal pad was removed surgically.

Key Contributing Factors:

1. Non-compliance with the counting process.
2. Ineffective communication among team members.

Recommendations:

1. The counter-checking process should be performed and signed by the SAME nurse.
2. The Count Sheet should be revised to include all gauzes and pads used and packed inside the wound.

Administered Double Dose of the Prescribed Amount of $NaHCO_3$

- A patient with history of acute coronary syndrome and congestive heart failure was admitted for percutaneous coronary intervention. However, the patient's condition continued to deteriorate.
- 8.4% sodium bicarbonate ($NaHCO_3$) 200mL was prescribed.
- Four bottles of $NaHCO_3$ (100mL each) were taken to the bedside. Nurses administered all 4 bottles (assumed total 200mL) to the patient.
- The patient's condition further deteriorated and the patient subsequently succumbed.
- On the next day, a nurse discovered 400mL instead of 200mL of $NaHCO_3$ had been administered to the patient.

Sample of 100mL bottle of 8.4% sodium bicarbonate

Key Contributing Factors:

1. Non-compliance with the principle of "5 rights" .
2. Ineffective process for safety checks in intravenous drug administration.

Recommendations:

1. Review the intravenous drug administration procedure to ensure compliance with "5-rights".
2. Enforce the system of independent checking to enhance safety.
3. Improve the system of drug shelf labeling to alert staff of drug preparation.

SENTINEL EVENTS Q4 2013

Injected Retrobulbar Anaesthetic into the Wrong Eye

- The patient was to undergo **LEFT** eye cataract surgery.
- The operation site was marked by the surgeon.
- TIME-OUT was performed.
- Local anaesthetic was injected into the **RIGHT** retrobulbar space.
- The circulating nurse noticed the injection was done on the wrong side.
- The condition of **RIGHT** eye was stable.
- **LEFT** eye operation was completed uneventfully.

Key Contributing Factors:

1. The site marking was covered by the cap.
2. The injection site was not counter-checked before anaesthetic was administered.

Recommendations:

1. The surgical wraps should not cover the surgical site marking.
2. The TIME-OUT procedure should be redesigned to ensure participation of all team members in safety checks before administration of anaesthetic and surgery.

Patient Suicide

In Q4 2013, there were 4 patient suicides involving 3 males and 1 female aged between 34 and 82. Out of the 4 patients, two had history of suicidal attempts and both had received psychiatric care.

Two in-patients committed suicide by hanging in toilets. The objects they used for hanging were waist belt and a strip of cloth torn from bed linen respectively. They were admitted into non-psychiatric ward and had underlying chronic lung disease and systemic illness involving multiple organs respectively.

The other two patients jumped from height during their home leave. Of the two, one was under the care of a psychiatric ward while the other one, who had underlying gastrointestinal cancer, in a non-psychiatric ward.

Key Contributing Factors:

Patient: Patients had concealed the suicidal ideas and plans.
Environment & facility: Presence of high risk facilities in patient toilets.
Communication & Management:

- Communication breakdown between family members and the healthcare team on patients' suicidal thoughts.
- Delay in reactivating suicide precaution measures when patients had unstable emotions.

Recommendations:

Environment & facility:

1. Conduct environmental scanning and inspection for high-risk facilities.
2. Modify and minimize potential anchorage for hanging.

Communication & Management:

3. Advise family members of patients with advanced cancer to be alert to patients' behaviour and suicidal thoughts.
4. Strengthen communication with patients' family members on suicidal thoughts.
5. Reinforce healthcare teams to be vigilant about suicidal risks from the expressions and behaviour of patients.
6. Review the nursing guideline to strengthen observations for preventing patient suicide.

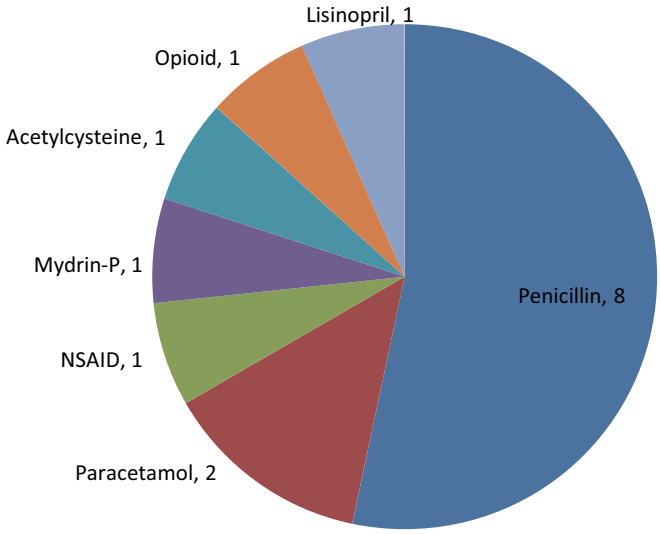
Metal rods that patients used for hanging in toilets

SERIOUS UNTOWARD EVENTS Q4 2013

23 SUE cases were reported in Q4 2013, of which 20 were medication errors and 3 patient misidentifications. Medication error cases included known drug allergy (15), anticoagulants (3), insulin (1) and inotrope (1).

Medication Incidents related to Known Drug Allergy (KDA)

Distribution of Known Drug Allergy in 4Q13



Amongst the 15 KDA cases, 8 were related to Penicillin Group allergy and 2 to Paracetamol. Other allergens included NSAID, Mydrin-P, Acetylcysteine, Opioid and Lisinopril.

Of the 15 cases, most patients did not show any allergic response. One patient developed skin rash over his trunk and limbs.

Key Contributing factors:

1. Non-compliance with the "5 rights" principle.
2. Use of ward stocks and left-over drugs from other patients by-passed the vetting system of the pharmacy.
3. Allergy information was entered as free-text in the Clinical Management System (CMS).

Recommendations:

1. Update allergy alert information in CMS immediately.
2. Remind nurses not to use left-over drugs from other patients.
3. Review ward stock items to minimize the number of Penicillin Group antibiotics stored in wards.
4. Avoid free-text entries of allergens in CMS.

Incorrect Documentation Resulting in Unnecessary Insulin Given

- Nurse A checked the blood glucose and haemoglobin levels for a patient by using the Point-of-Care Test (POCT) device.
- She recorded "H'stix:15.6mmol/L, Hemocue:12.9g/dL" on the patient's gum label. Another blood specimen was also sent to the main laboratories.
- Nurse B charted the results as in the label in the Clinical Information System (CIS) accordingly.
- Insulin infusion was prescribed in view of the high blood glucose level.
- The patient was found drowsy and sweating. Rechecking of blood glucose level was 2.4 mmol/L.
- Insulin infusion was stopped immediately. 50% Dextrose 40mL was infused.
- Nurse C reviewed laboratory glucose results and the glucometer reading. It was found that the original glucometer reading should be 5.6 mmol/L instead of 15.6mmol/L.

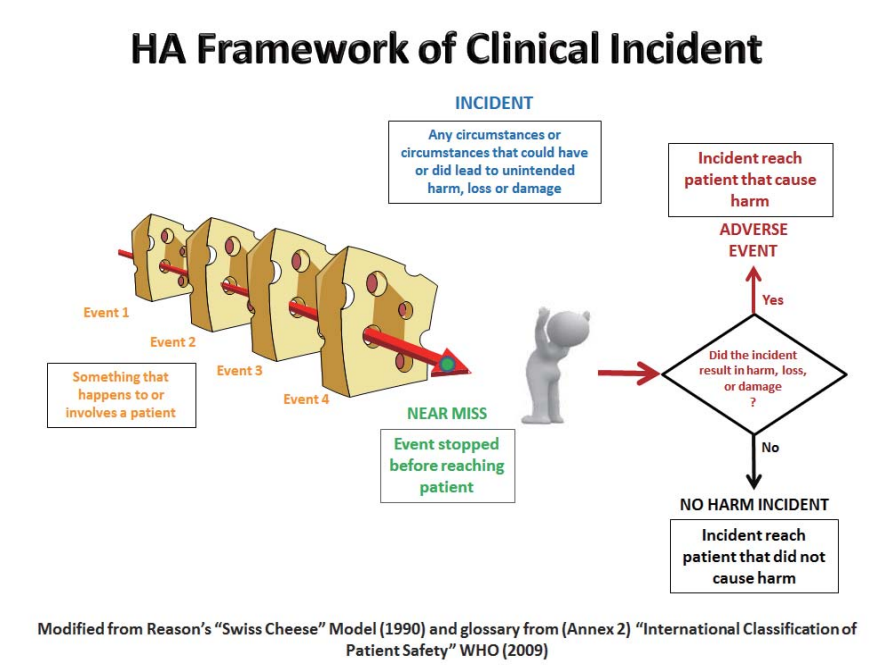
Key Contributing factors:

1. Transcription error of the patient's blood glucose level in record.
2. Lack of a standardized form for blood glucose recording and monitoring.

Recommendations:

1. Develop a standardized form for POCT blood glucose recording results requiring signatures by both operator and counter-checking staff.
2. Design and implement the clinical workflow for monitoring patient requiring insulin therapy.

Sharing on Reported Near Miss Case



WHY REPORT NEAR MISS?

- Help establish and continue safe practices
- Enable communication of facts, causes and corrective actions
- Provide valuable information about how to avoid/prevent future incidents

Investigating near miss is critical to preventing accidents because: near miss share the causes and root causes of accidents; and it is just one or two barriers away from the harm/loss/accident.

Near Miss Definition: Event stopped before reaching patient

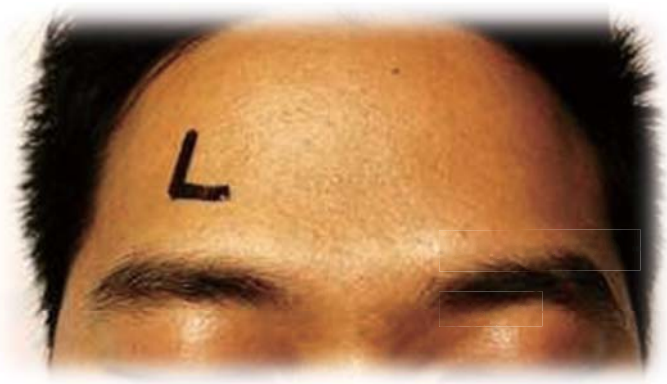
DO YOU KNOW?
New feature in AIRS

System has been enhanced to facilitate the reporting of near miss events, with the following 4 templates:

*** Medication**
*** Blood Transfusion**
*** Imaging & Radiation**
*** Generic**

NEAR MISS CASE SHARING

It doesn't seem RIGHT



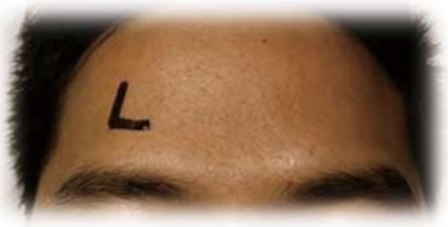
- *A patient was scheduled for **left eye operation**.*
- *The procedure and risks were explained, and the consent form was signed. All documents recorded the operation site as left eye.*
- *Nurse A checked the patient's identity, explained the procedure and marked the surgical site.*
- *Ward staff B checked the identity of the patient and the consent form, then the patient was brought to the theatre for operation.*

continue on next page...

Sharing on Reported Near Miss Case (Continued)

NEAR MISS CASE SHARING (continued)

... The surgeon discovered that the patient's RIGHT eye was marked with "L" (Indicated as "LEFT").
The surgeon marked the correct site (LEFT eye) and the operation was carried out uneventfully.



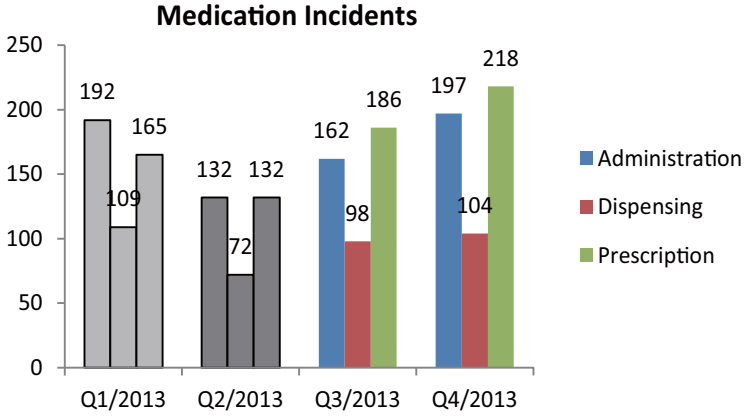
KEY LEARNING POINTS

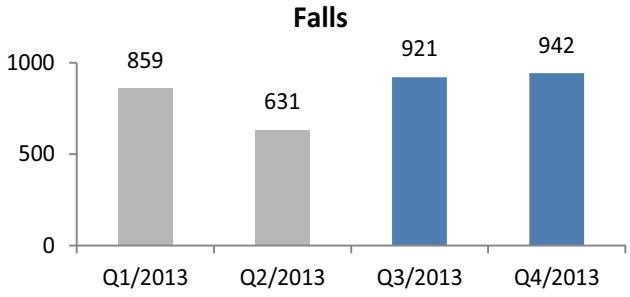
1. After checking the consent form, the operating surgeon / designate should do the **site marking involving laterality before administration of pre-medications**.
2. Before the patient arrives at the theatre, the ward and theatre nurse should **check the patient identity, the procedure, the site against the consent and the patient**.
3. For eye operations, mark an **"R" for the right operating eye** and an **"L" for the left operating eye**. No other symbols should be used for marking. Do NOT mark non-operative sites.

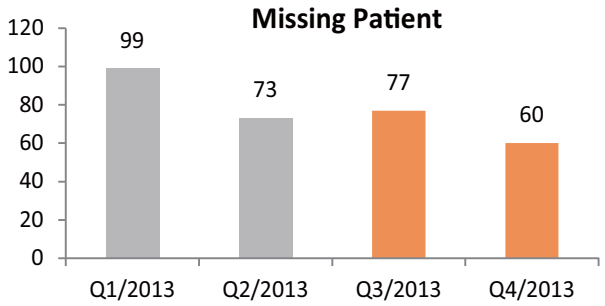
Reference: HA Surgical Safety Policy

We would like to express our gratitude to the concerned team for reporting this near miss case in AIRS for our sharing and learning!

Top Categories of AIRS Incidents (Jul-Dec 2013)







Note:
1. Incident reporting in AIRS is voluntary.
2. Include near miss incidents without affecting patients.