RISK ALERT

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A Risk Management Newsletter for Hospital Authority Healthcare Professionals

The Hospital Authority (HA) has released the "Annual Report on Sentinel and Serious Untoward Events 2013/14". It has been widely reported in the media the surge in the number of Sentinel Events (SEs) in 2013/14, in which the most common one was "retained instruments or other material after surgery / interventional procedure". Why was that so?

Further examination of the figures revealed that these SEs occurred throughout the year with no significant increase during winter time when there was increased service demand or during the third quarter of the year when the majority of the newly graduated doctors joined the HA.

There was also a view that HA used non-branded equipment (山寨工具) in surgeries or other interventional procedures which caused retained instruments or other material after surgery / interventional procedure. In fact, all the instruments / devices involved were branded and manufactured overseas by overseas manufacturers. Root cause analysis reports indicated that lack of alertness in instrument completeness checking and inadequate communication among staff were the major contributing factors of these SEs.

One possible explanation could be related to the new techniques and technologies employed to improve quality of care in these procedures. As we know, rapid technological advances in medical care have made many effective treatments possible. This inevitably increases the complexity of the surgical procedures and instruments used, thereby causing significantly increased risk. HA recognizes and understands the need of communicating the risk to all colleagues, hence the 'Surgical Safety Checklist' developed by the World Health Organization has been promulgated to our staff. It seems that the issue is beyond counting. Clinical staff may have focused on the number but unaware that part of an instrument could be broken. They may have overlooked on the completeness when counting the instruments after each procedure. We recognize this "new" problem and have alerted our colleagues on the need to inspect instruments for completeness after such procedure. For sharing and learning purpose, HA has compiled and will regularly update a list of broken instruments / devices associated with SE.

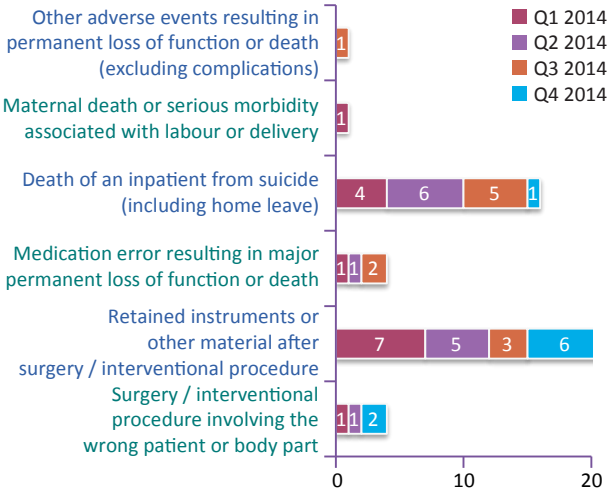
HA will continue to invest and enhance risk management processes to improve patient safety. This will not be possible without the dedicated effort of our colleagues in reporting the SE/SUE, understanding the problem, and making changes and improvement.

Our patients deserve nothing less.

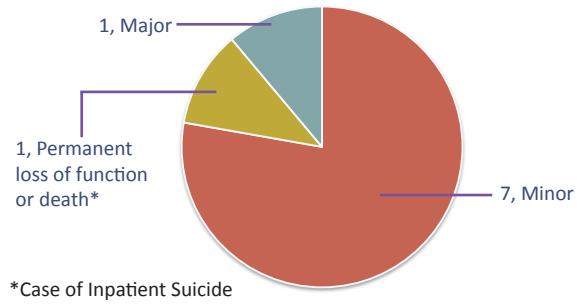
Dr Rebecca LAM
Chief Manager (Patient Safety & Risk Management)

In This Issue

Distribution of SEs in the last four quarters

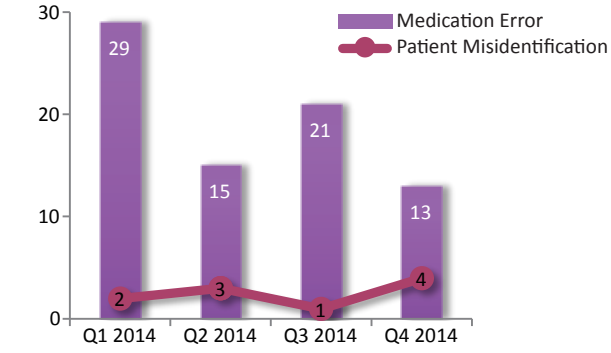


Consequence of SEs in Q4 2014



*Case of Inpatient Suicide

Distribution of SUEs in the last four quarters

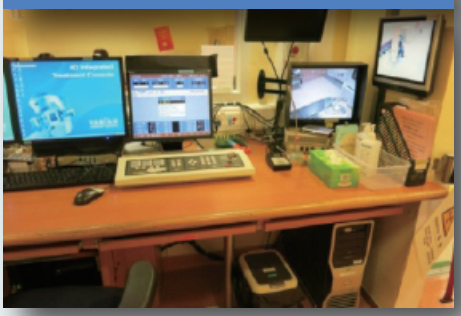


Wrong Patient / Part

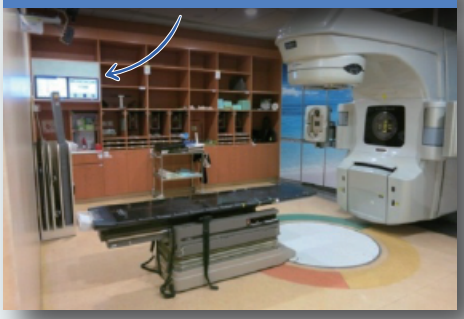
Wrong Radiotherapy Plan

- Patient X had rectal cancer and required radiotherapy after Hartmann's operation.
- Patient X was prepared by staff A & B for the administration of the 21st fraction of radiotherapy.
- Another patient's treatment plan for radiotherapy to a similar region was inadvertently uploaded into the computer system that controls the treatment machine.
- Pre-intervention checks performed in treatment room failed to pick up the error and staff A left for lunch after patient set-up.
- Staff B & C performed "time out" against the hardcopy of patient X's treatment record but not with the treatment machine computer monitor display.
- Radiotherapy was given according to the wrong plan.
- Immediately after the treatment, it was realized that treatment plan of another patient was used wrongly for patient X.
- Remedial actions in dose adjustment of subsequent treatment fractions were done and the overall dose was not significantly different from the planned dose.

Computer system in the control room



Computer monitor in the treatment room



Contributing Factors:

1. Suboptimal awareness on the importance of correct patient identification.
2. Unclear role delineation for "time out" and lack of a checklist to facilitate its conduction.
3. Small in-room monitor for computer display of patient information.

Recommendations:

1. Review departmental guidelines and role delineation regarding "time out".
2. Derive a checklist for "time out".
3. Replace in-room monitor with larger size.

Percutaneous Nephrostomy at the Wrong Side

Patient consented to an urgent LEFT percutaneous nephrostomy (PCN) for hydronephrosis.

Doctor wrongly requested a RIGHT PCN.

Two radiologists and a radiographer conducted safety check against the request form.

After the procedure, CT revealed PCN was performed on the wrong side.

Contributing Factors:

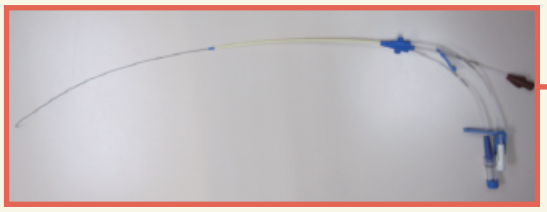
1. Lack of a system to verify information between clinical note, consent form and patient.
2. Ineffective process to ensure proper. compliance with the Procedural Safety Checklist.

Recommendations:

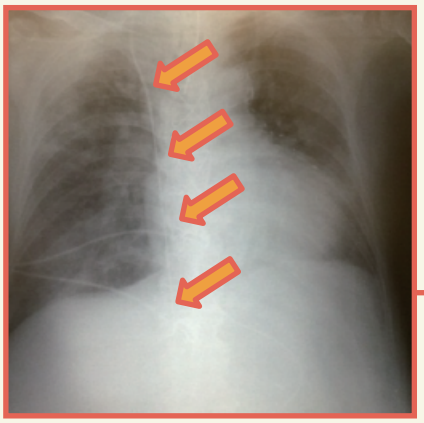
1. Review the system of workflow, which includes
   a. filing a copy of procedure request form in patient record
   b. performing site marking by the referring department, and
   c. involving patient for safety check whenever possible.
2. Follow Procedural Safety Checklist by team approach.

Retained Instruments / Material

Retained Guide Wire - Case 1



- A patient receiving mechanical ventilator support required inotropic therapy.
- Dr A inserted the central venous catheter (CVC) via internal jugular vein under the supervision of Dr B.
- During insertion, the patient deteriorated and Dr B performed cardioversion and fluid resuscitation.
- Dr A affirmed that the CVC guide wire was removed when asked by a nurse.
- On the next day, Dr B examined the chest X-ray and noticed the CVC guide wire had migrated to the inferior vena cava.
- The guide wire was subsequently removed.



Contributing Factors:

1. Lack of a standardized safety check for central venous catheterization.
2. Unclear role delineation.

Recommendations:

1. Review the procedure and implement way(s) to prevent the guide wire from migrating into the catheter completely during catheterization.
2. Standardize safety checking procedure.

Retained Guide Wire - Case 2

- A patient developed sepsis 2 weeks after Hartmann's operation for perforated sigmoid colon.
- Dr X inserted a triple lumen CVC under ultrasound guidance supervised by Dr Y, and succeeded at the second attempt.
- Intravenous infusion via the CVC was then started.
- Occlusion alarm of the infusion pump sounded repeatedly.
- After about 20 minutes, the CVC was removed and the guide wire was found inside it.

Contributing Factors:

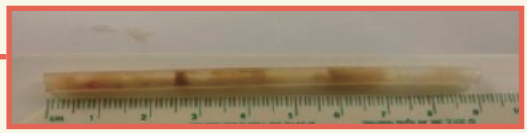
1. Failure to hold the guide wire at all times during CVC placement.
2. Lack of visual inspection to check the integrity of the guide wire and verification by another doctor / nurse after CVC insertion procedure.

Recommendations:

1. Reinforce the importance of holding the end of the guide wire once seen emerging out from the distal lumen port.
2. Review the Bedside Procedure Checklist in Clinical Information System currently used by Intensive Care Unit to see if it contains all the salient guidelines in the hospital checklist including post-procedure checking ("sign out").
3. Check the correct number and integrity of guide wire by a second healthcare professional upon removal and before starting the CVC intravenous infusion.

Broken Tube in Nasopharynx

- A patient required oesophago-gastro-duodenoscopy (OGD) guided insertion of feeding tube.
- 5 days later, the patient pulled out the feeding tube. A nurse confirmed the tube was intact.
- A new feeding tube was inserted but had to be removed because it was not in the right place.
- On subsequent OGD guided feeding tube insertion, a 9cm long broken tube segment was noted in the nasopharynx and was removed.
- The tube was confirmed to a be a broken segment of a suction catheter.



Contributing Factor:

Broken suction catheter was not noted on removal.

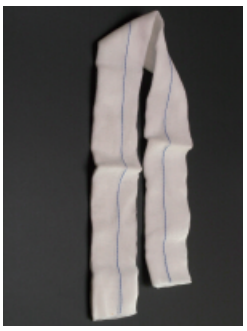
Recommendations:

1. Reinforce staff alertness to the risk of breakage of suction catheter during use.
2. Promote routine checking of the completeness of instruments / consumables on removal.

Retained Gauze after Caesarean Section

10 long raytec gauzes were prepared for use.

1 long raytec gauze was used and returned to the scrub nurse.



Doctor asked for 2 long raytec gauzes.

1 was used to pack between the uterus and bladder.

This was not noticed by the scrub nurse.

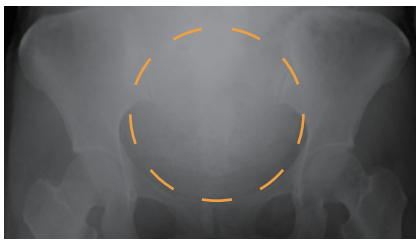
Two nurses counted raytec gauzes during wound closing:

8 in Swabsafe, 1 in kidney dish, 1 on OT table.

Wound was closed, only 9 long raytec gauzes were found.

X-ray confirmed a long raytec gauze was retained in patient's abdomen.

It was removed surgically.



Contributing Factors:

1. Misleading visual counting.
2. Ineffective communication between the surgeon and the nurses.

Recommendations:

1. Use tactile counting instead of visual counting.
2. Reinforce "read back" to acknowledge important information especially during wound packing and gauze removal.

Broken Urinary Catheter

- A patient was on long term urinary catheter.
- After failed attempts of inserting transurethral urinary catheter, the urologist decided to insert suprapubic catheter (SPC).
- During the procedure, Dr E's finger and the SPC were cut by the trocar.
- Dr E removed the SPC but did not check its completeness.
- Dr E successfully inserted another SPC.
- The nurse assisting in the procedure did not notice the cut SPC.
- 7 days after the procedure, the SPC was blocked. Upon removal, it was checked intact and so documented.
- Transurethral urinary catheter was then inserted successfully.
- 4 days later, cystoscopic examination revealed a 29cm segment of the cut SPC which was subsequently removed.

Contributing Factors:

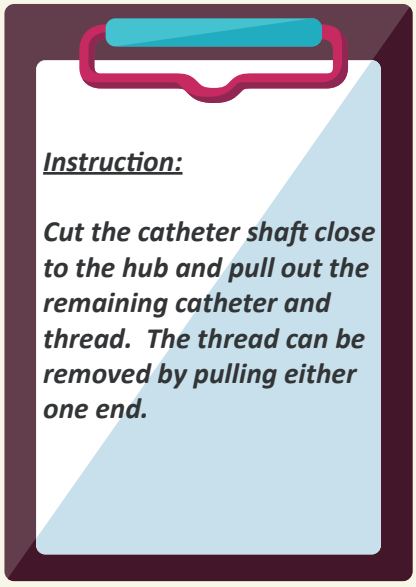
1. The doctor was distracted by the cut injury when removing the trocar.
2. The doctor did not communicate with the nurse on the cut SPC.

Recommendations:

1. Review the counter-checking system for removal of catheters and drains.
2. Develop a guideline on insertion of SPC.

Retained Thread of Self-locking Drainage Catheter

- A patient required bilateral PCN.
- 2 self-locking pigtail catheters were inserted at the radiology department.
- Instruction on removal of the catheters was marked in the radiology report "Cut the catheter shaft close to the hub and pull out the remaining catheter and thread. The thread can be removed by pulling either one end."
- 3 days later, Dr A removed both PCNs:
  - Left PCN was removed and checked to be complete.
  - On removing the right PCN, part of the thread was noticed at the wound site. Dr A pulled out the whole thread smoothly.
- At the follow-up 11 days later, patient complained of left PCN wound discomfort. A 5cm long thread was seen at the wound site and a 35cm thread was then removed.



Contributing Factors:

1. Staff was unfamiliar with the design of the device and unaware of the risk of retained thread after cutting the "hub" off the catheter.
2. Staff had inadequate training and supervision on removal of a pigtail catheter with 'suture locking mechanism'.

Recommendations:

1. Develop protocol to confine the use of PCN with "suture locking mechanism" to situations with increased risk of catheter displacement.
2. Enhance staff training and supervision on removal of the self-locking PCN.

Sentinel Events

Patient Suicide During Home Leave

- A schizophrenic patient had multiple admissions for psychiatric care over the last 27 years.
- Two months after the last hospital admission, the patient underwent different rehabilitation programs and attended full day training for occupational therapy.
- Patient was mentally stable and denied any psychotic symptoms.
- On day 119 after admission, both patient and family requested day leave.
- On day 121 after admission, patient was mentally stable and granted a day leave.
- Family reported that the patient had left home alone and jumped on the same day.

Conclusion:
The RCA Panel found the assessment and care to the patient appropriate and made no recommendation.

Serious Untoward Events

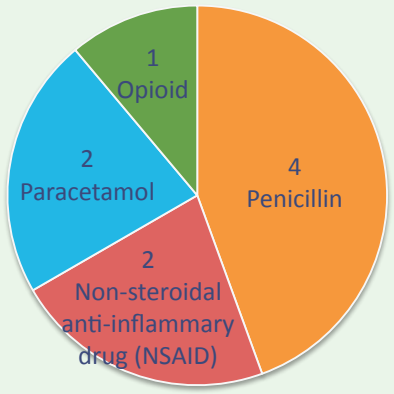
There were 17 SUE cases reported in this quarter, of which 13 were medication error and 4 were patient misidentification.

The 13 medication errors involved giving known drug allergens (KDA) to patients (9), use of dangerous drugs (1), anti-coagulants (2), and vasopressors and inotropes (1).

Of the 9 KDA, 7 patients had no allergic reactions. The other two patients developed mild allergic symptoms such as itchy rashes, which subsided after receiving medication.

The 4 patient misidentification incidents involved incorrect administration of medication to other patient instead of the intended one (3); and uploading another patient's image to CMS resulting in unnecessary CT (1).

Distribution of KDA in Q4 2014



Medication Incidents Related to KDA

Case Highlight 1: Ketorolac is an NSAID

Ketorolac is an NSAID

- A patient attended Accident & Emergency Department (AED) for gouty attack.
- The patient told the doctor that he was allergic to Aspirin and the doctor noted in the AED record.
- The doctor then prescribed Toradol injection and a nurse dispensed it from the ward stock.
- Patient complained of itchy rashes which subsided after treatment.

Contributing Factors:

1. Inadequate knowledge about non-steroidal anti-inflammatory drug (NSAID): both Aspirin and Ketorolac are NSAIDs.
2. Insufficient alertness on patient with drug allergy.

Recommendations:

1. Strengthen education on drug allergy at departmental orientation program.
2. Reinforce staff compliance with AED Standard Operating Procedure on handling patient with known drug allergy.
3. Enhance measures for NSAID administration in AED.

GENERIC NAME: Ketorolac
BRAND NAME: Toradol

Medication Incidents Related to KDA

Case Highlight 2: Glycerin Thymol Gargle contains Salicylate

- A patient with known allergy to Aspirin was admitted for multiple oral ulcers, tonsillitis and fever.
- Chlorhexidine mouthwash was prescribed.
- A nurse dispensed a bottle of Glycerin Thymol Gargle instead of chlorhexidine from the ward stock to the patient.
- The patient did not develop allergic reaction despite use of the alternative mouthwash.

Contributing Factors:

1. Insufficient drug knowledge.
2. Non compliance with HAHO guidelines on known drug allergy checking and administration of medication.

Recommendations:

1. Alert staff to the fact that Glycerin Thymol Gargle contains Salicylate (which is present in Aspirin).
2. Remind staff to check ingredients of pharmaceutical products before dispensing, especially to patients with allergic history.

Local Sharing

List of Broken Instruments Related to SEs

A list of broken instruments related to SEs is available at Patient Safety & Risk Management (PS&RM) intranet for sharing and learning. Staff can access the list at the following link to view the details:

http://qsdportal/psrm/Website/PSRM%20Website/Safety_brokenalert.html

Local Sharing

When an Instrument / Material is Retained...

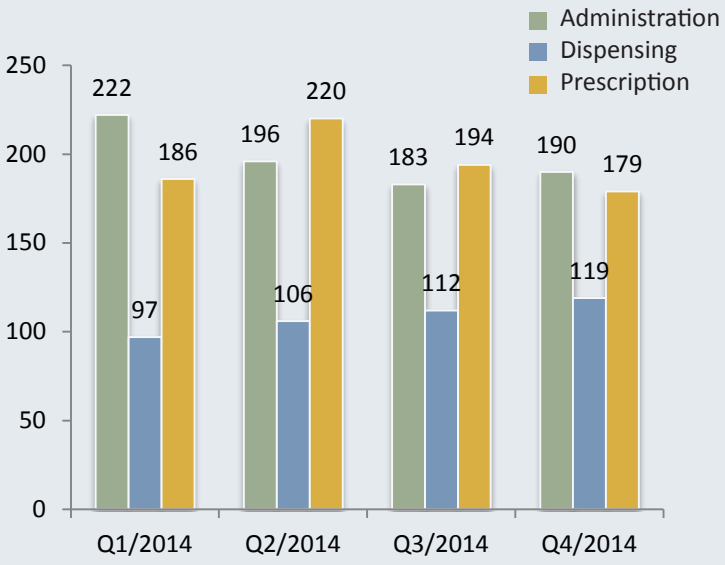
- Patient A had open reduction and fixation for right ankle fracture dislocation.
- During the operation, drill bit used for drilling cortical bone was suspected to be broken.
- Intraoperative X-ray confirmed that a broken tip of drill bit (2mm x 6mm) was left in the bone.
- Clinical assessment suggested that removal of the foreign body was not necessary.
- The decision to leave the broken drill bit in place were clearly documented in OT record.
- The incident was disclosed to the patient with proper documentation.
- The case was also reported via AIRS timely.

1. Check on the completeness of surgical instruments
2. Clinical assessment
3. Documentation and reporting via AIRS
4. Disclosure to patient

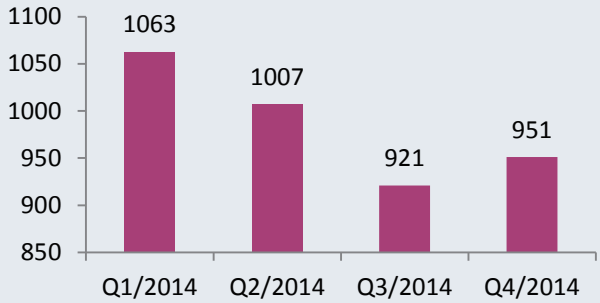
This case illustrates proper checking of surgical instrument and subsequent management of retained instrument.

Top Categories of AIRS Incidents

Medication incidents in the last four quarters



Number of patient falls in the last four quarters



Number of missing patients in the last four quarters