RISK ALERT

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A Risk Management Newsletter for Hospital Authority Healthcare Professionals

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Opening Message

History will repeat itself

Hospital incidents of similar nature did happen again and again despite thorough investigations and implementation of improvement measures. Management has tried hard to identify system faults apart from errors related to staff skills and knowledge, compliance with guidelines and human factors (fatigue, distraction etc). So, have we missed anything or targeted at the wrong goals in preventing recurrence of clinical incidents?

For procedure related incidents, the logical sequence of analysis would be: appropriate training for staff to acquire the requisite skills and knowledge, up to standard performance including compliance with guidelines, and proper hardware or systems to support and reduce fault. Not infrequently there are multiple inter-related causation factors for clinical incidents. Improvement actions, such as procuring new equipment or upgrading hardware, implementing additional procedural steps or double checking by second staff are commonly recommended. However, on the staff side, they raise concerns and question on the necessity and usefulness of all these actions. Understandably, the recurrence of similar avoidable incidents often causes embarrassment to the management and hospital.

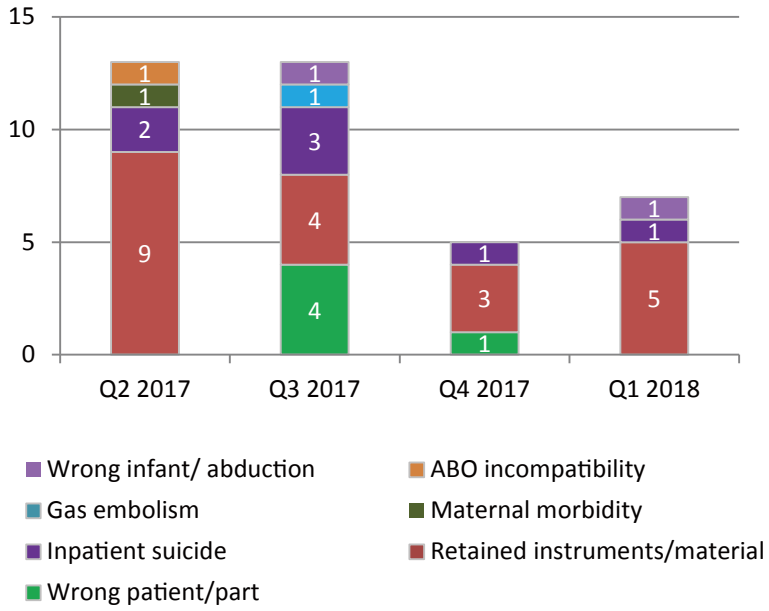
It is unquestionable that most improvement measures are helpful to some extent. However, it is important to look into each incident to identify the root causes, e.g., incompetence, deviant behaviour and system inadequacy, and to assess their contribution to the error.

Two vital issues may not get enough attention. The first is that gaps are not uncommon during busy routine operation though it may not be shown during audit or inspection. Hence, the critical role of middle managers in supervising daily activities should be stressed. The second relates to inappropriate or wrong emphasis during training which may lead to neglect of essential steps or diverged attention from salient matters. Take the recent incidents related to retained guide wire as an example. The recommendation to introduce a new kit for central line insertion is definitely useful but it could be perceived as “clumsy” by staff, not to mention the additional cost. If we go back to basic training, one will recall the fundamental principle of “not to allow disappearance of the tip of the guide wire”. If the operator follows this principle, incidents of retained guide wire will not happen, and the role of proper training and credentialing would not be overemphasized as preventive measures for such incidents.

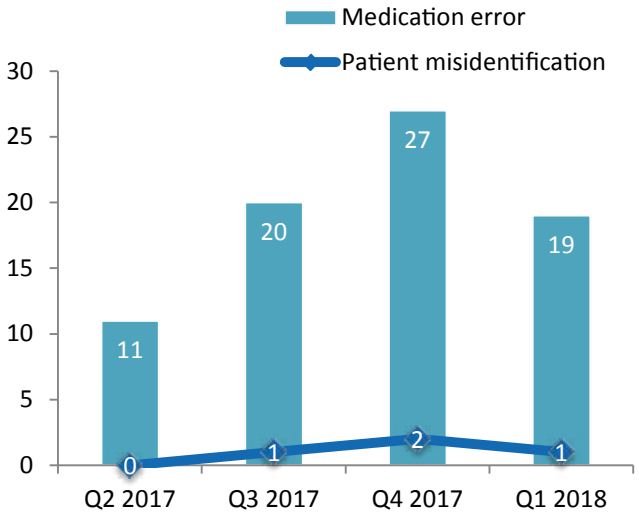
Dr C C LAU, Cluster Chief Executive, Hong Kong East Cluster

SE & SUE Statistics

Distribution of SE in the last four quarters



Distribution of SUE in the last four quarters



Sentinel Events

Retained Instruments / Material

A metallic foreign body

- A patient had history of ruptured anterior communicating artery aneurysm with operation in 2009 with good recovery. She received lower segment caesarean section (LSCS) for her second baby in December 2016.
- A suspected foreign body in the LEFT side of the abdomen was shown on the computed tomography (CT) scan taken in December 2017 for recurrent abdominal discomfort.
- Abdominal X-Ray showed a thin elongated metallic opacity at the LEFT lower quadrant of abdomen.
- Operation to remove the foreign body was performed. A needle hub of the puncture set which was used for Transverse Abdominis Plane (TAP) block procedure during wound closure for previous LSCS was retrieved intact.
- The patient recovered well and was discharged on the next day of operation.

Key Contributing Factors

- The operating team was not aware that the needle hub was dislodged during the TAP block procedure.
- Failure to check the integrity and completeness of the injection set before and after the TAP block procedure.
- Unclear number of items returned by surgeon and failure to check the injection parts during counting.

Recommendations

1. Reinforce the practice to check for integrity and completeness before and after using the instrument in the patient.
2. Review the current practice in documenting the number of items included in a set of instrument / consumables.
3. Review the Operating Theatre Counting Record design.

Retained Instruments / Material

Retained probe cover after trans-vaginal ultrasound

- A patient was admitted for heavy vaginal bleeding and lower abdominal pain after miscarriage.
- Trans-vaginal ultrasound was conducted. As usual practice, 2 probe covers were used to cover the ultrasound probe for scanning.
- After completion of scanning, the probe was retrieved from the vagina and the used probe cover was removed from the probe and disposed without counting .
- The patient was discharged after the examination but returned to the department later. A probe cover was brought back by the patient who claimed that it was dislodged from her vagina.
- Speculum examination was performed to confirm no foreign body.

Key Contributing Factors

- Failure to count the probe covers before disposal.
- Failure to hold the probe cover firmly during the whole scanning procedure.

Recommendations

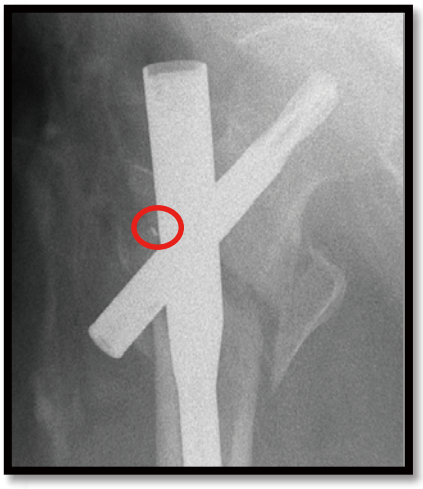
1. Adopt the practice of using only ONE probe cover for transvaginal ultrasound examination, and checking its integrity prior to disposal after the procedure.
2. Adopt the practice of mandatory counting and integrity checking prior to disposal of the probe cover after the procedure should there be need to use more than ONE probe cover.

Retained metal debris at patient's RIGHT hip

- A patient was admitted for RIGHT hip fracture. Proximal Femoral Nail Antirotation (PFNA) was performed.
- Difficulty was encountered during proximal locking blade insertion despite slight hammering.
- The locking blade was removed, integrity checked, reattached and reinserted with slight hammering.
- Intraoperative X-ray was taken to confirm fracture alignment and implant position. A radio-opacity was seen lateral to the nail which was subsequently confirmed by X-ray and CT image. The clinical decision of not retrieving the metal debris was made and the patient was kept on close monitoring.

Recommendation

Review the intra-operative images cautiously before end of operation to purposefully look for retained debris, from various angles if possible, in case it might overlap with bony structures or implant.



Retained Instruments / Material

Retained guide wire after insertion of central venous catheter (CVC) – 2 cases

Case 1

- A patient with carcinoma of anus underwent local excision. Patient's condition was deteriorating.
- USG guidance of CVC insertion was performed for difficult peripheral access.
- After multiple attempts, CVC was inserted at the LEFT femoral vein successfully. Both attending doctor and nurse did not perform post-procedure checking nor complete the Safety Checklist for Bedside Procedures.
- 4 hours after the procedure, another nurse noticed that the Safety Checklist was not completed. The Checklist was completed without verification.
- 6 hours after the procedure, retained guide wire was suspected while reviewing the X-ray image.
- The guide wire was removed intact.

Case 2

- A patient was admitted to Paediatric Intensive Care Unit (PICU) for status epilepticus.
- The CVC was inserted at the RIGHT femoral vein for fluid and total parenteral nutrition infusion.
- No difficulty was encountered during flushing of CVC lumens.
- The infusion fluid was connected to the catheter lumen and infusion was commenced using the infusion device.
- The doctor disposed of the used consumables without counterchecking with nurse.
- The Bedside Procedure Safety Checklist was not used throughout the procedure.
- Post procedure chest X-ray revealed a retained guide wire.
- The CVC with the guide wire was removed uneventfully.

Key Contributing Factors

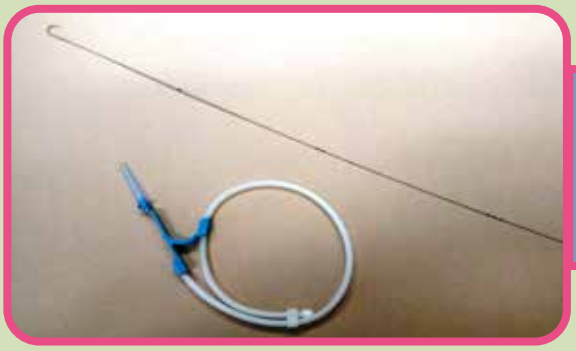
- Unfamiliarity with the technique of the procedure and lack of awareness of the critical steps of procedure to prevent retained guide wire.
- Failure to comply with the procedure safety checking to counter-check whether the guide wire was removed after catheter insertion.

Recommendations

1. Enhance the training of the critical steps involved in the insertion of CVC.
2. Reinforce the practice on critical step check, especially on whether the guide wire was removed, such as seek confirmation of 'guide wire out'.
3. Reinforce the importance of staff compliance to conduct post-procedure checking.
4. Review the department's bedside procedure safety checklist for CVC insertion, and to emphasize on counting guide wires.

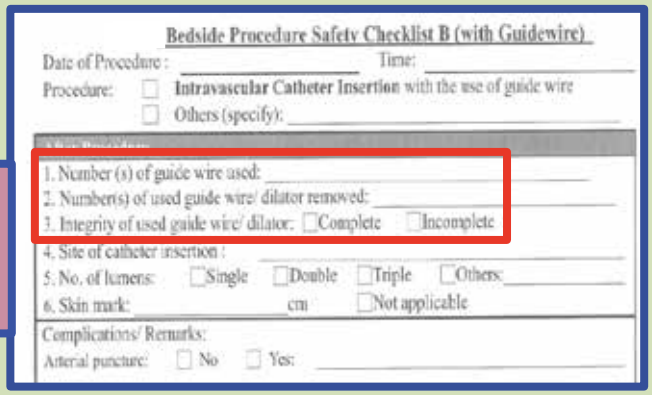
Tips for preventing retained guide wire

CONTROL the guide wire end and ensure it is always VISIBLE while advancing the catheter.



CONFIRM removal of the guide wire before connecting to infusion line.

COUNT the used guide wire before ending the procedure.



Bedside Procedure Safety Checklist B (with Guidewire)

Date of Procedure: _____ Time: _____

Procedure: ☐ Intravascular Catheter Insertion with the use of guide wire

☐ Others (specify): _____

1. Number (s) of guide wire used: _____
2. Number(s) of used guide wire/ dilator removed: _____
3. Integrity of used guide wire/ dilator: ☐ Complete ☐ Incomplete
4. Site of catheter insertion: _____
5. No. of lumens: ☐ Single ☐ Double ☐ Triple ☐ Others: _____
6. Skin mark: _____ cm ☐ Not applicable

Complications/ Remarks:

Arterial puncture: ☐ No ☐ Yes: _____

Inpatient Suicide

In Q1 2018, one male (age over 65) inpatient committed suicide by hanging using a feeding bib.

- A physically dependent patient with underlying medical disease and double incontinence was admitted for fever and low back pain after a fall .
- On admission, he was emotionally stable with no suicidal intent detected. Antibiotics were given for upper airway tract infection and urinary tract infection.
- Physiotherapy, occupational therapy were arranged for ADL training and walking exercise.
- The patient's mental condition was stable during the hospital stay.
- At 2:00 of Day 9 after admission, the patient was found hanging himself with a feeding bib tied onto the lifiting pole of his bed. A suicide note was found at the patient's chest table.
- Resuscitation was performed and the patient was transferred to Intensive Care Unit for further management.
- CT brain showed diffuse hypoxic brain injury.
- The patient succumbed 7 days after hanging.

Recommendation

Explore alternative design of feeding bib to eliminate the considerable risk imposed by the two long straps.

Baby Abduction

Patient left the hospital with her newborn baby without notifying ward staff

Day of Admission

A patient was admitted for premature rupture of membrane.
Emergency LSCS was performed.

3 days later

Patient and her baby girl was allowed to be discharged.

AM shift

- Midwife B provided the discharge documents with education on follow-up plan to the patient.
- Patient informed ward staff that a social worker would accompany her to the sheltered home.

(An hour later)

PM shift

- Midwife C found patient A and her baby were not in bed and missing from ward. Local search was conducted.
- Patient was contacted by phone successfully and was advised to come back from the sheltered home with baby for completion of the discharge process.

Same night

- Patient and her baby returned to ward and the baby tag alarming system was activated.
- Both patient and baby were discharged later.


Baby tagging system

Baby tag

Key Contributing Factors

- Suboptimal communication among staff and patient / family during the discharge process:
  - Staff did not remind the patient on steps to check her and her baby's identification before leaving.
- Limitation of the baby tagging system:
  - It was suspected that the baby tag alarming system was not activated when the mother left the ward with the baby.
- Lack of two way access control system.

Recommendations

1. Display updated notices at eye catching areas to remind parents / relatives not to take their children out of the ward without permission from the ward nursing staff.
2. Explore better baby tagging systems available in the market.
3. Install two way access control system.
4. Deploy a staff / security staff at the ward entrance during visiting hours / peak hours as considered appropriate to allow authorized access / exit only.
5. Consider to use "Permission-to-leave" card if indicated.

Serious Untoward Events

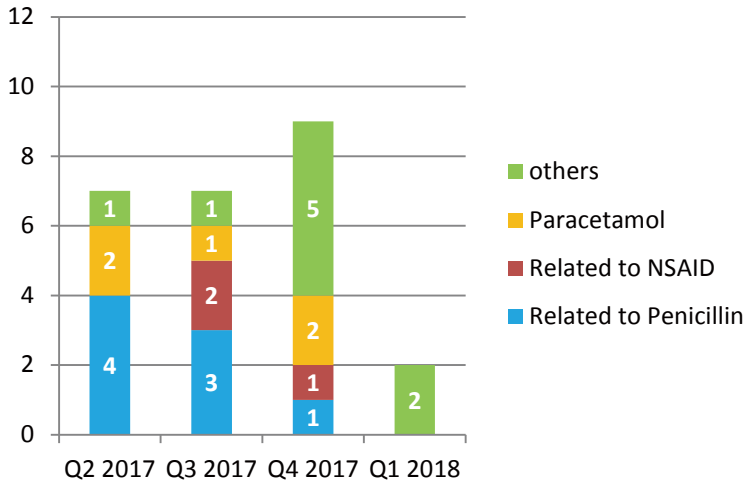
Of the 20 SUE cases reported in Q1 2018, 19 were medication errors and 1 was patient misidentification.

The medication error cases involved giving known drug allergen (KDA) to patients (2), Dangerous Drugs (3), Anticoagulant (4), Insulin (2), and others (8). The 2 known drug allergen cases showed no allergic reaction.

The one patient misidentification was related to an unnecessary prescription by referring to another patient's laboratory report.

Known Allergy	Allergen prescribed
Ofloxacin (Profloxacin)	Levofloxacin
Pilocarpine and Alphagan P eye drops	Pilocarpine and Alphagan P eye drops

Number of KDA cases in the last four quarters



Medication Error

Known Drug Allergy

- The patient had a history of allergy to ofloxacin, clarithromycin and cephalexin, which was marked in clinic consultation notes but entered in the Clinical Information System by "free text " with wrong spelling of "porfloxacin".
- The allergic information was marked in the medical record.
- Levofloxacin was prescribed in Inpatient Medication Order Entry (IPMOE) for chest infection.
- During the drug administration, the nurse noted the prompt message of allergy to "porfloxacin", but could not find the drug relation between "porfloxacin" and levofloxacin.
- 2 doses of drug were given before discovery.
- The patient had no allergic reaction.

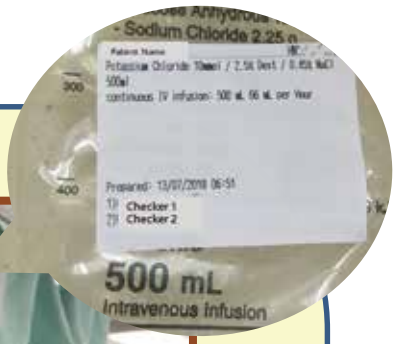
The system cannot perform cross checking on Free Text Allergy!

Serious Untoward Events

Medication Error

In Q1 2018, there were a few medication errors related to administering medication by infusion with incorrect infusion rate or incorrect infusion line and failure to identify incorrect dosage prescription. The involved medications were Morphine, Fentanyl, Actrapid, Heparin and Syntocinon.

These patients did not have any serious adverse effect after the incidents.



Learning points:

Trace back the infusion line to confirm correct infusion fluid to correct infusion site.

Independent double-checking :-
Check displayed setting of the infusion device against the prescription before commencing the drug infusion.

Label the intravenous access lines if there is more than one line.

Reference:

1. HA Guidelines on Safe Medication Management – Prescribing, Dispensing and Administration
2. Basic Nursing Standards for Patient Care Medication Administration – Intravenous Infusion