RISK ALERT

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A Risk Management Newsletter for Hospital Authority Healthcare Professionals

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Opening Message

Communication and Teamwork —a Crucial Piece in the Jigsaw of Patient Safety

In the last few decades, we have witnessed increasing life expectancy and associated increase in prevalence of chronic conditions in most parts of the world. Advance in medical sciences have offered us an ever expanding array of increasingly complex treatment choices for most if not all acute or chronic conditions. As a result, we have developed into multidisciplinary care teams for the care of our sick hospitalized patients. Hospitals have inevitably developed into one of the most complex human organizations in the world.

Most of our colleagues are highly competent professionals who actively undergo continuous education and training to ensure they could master the art and science of up-to-date clinical care. With all the well-trained healthcare professionals providing care to our patients, traditional wisdom would predict that errors and unintended patient harm should be a rarity.

It is therefore baffling that errors resulting in patient harm are still relatively common in hospitals around the globe. In fact, WHO has dedicated 17th September 2019 as World Patient Safety Day and named patient safety as a world priority. Over the years, our usual approach to reduce these harm is to provide more guidelines and training for our staff, which seems not to be working as well as we wish. We are probably still missing a piece in the jigsaw of patient safety.

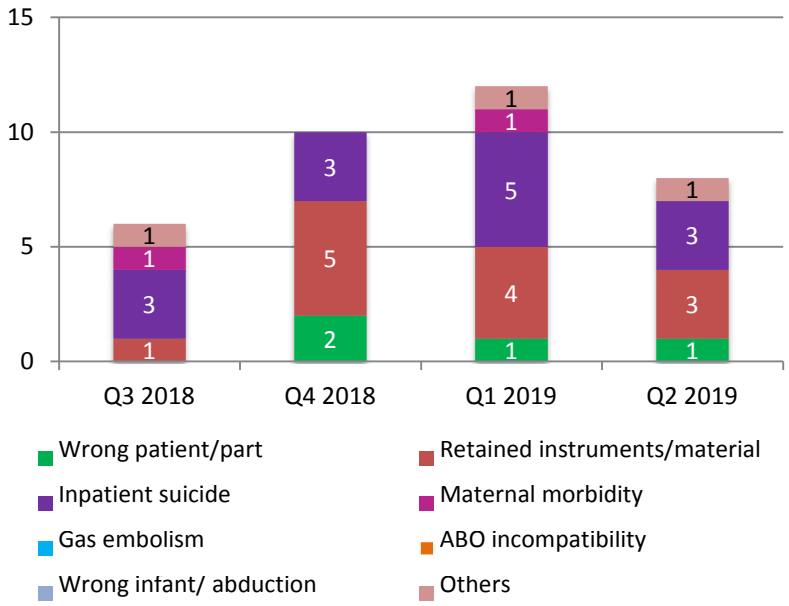
Root cause analysis for incidents over the years have in fact shed some light on what the missing piece actually is. In highly complex and unpredictable clinical situations, it is clear that most errors are caused by failures of communication and team dynamics rather than inadequate individual skills. Evidently, good communication and teamwork is key to convert a group of competent hard working professionals into the multidisciplinary team that we are striving for.

Team based training such as Crew Resources Management (CRM) training focusing on important attributes and dynamics of good teamwork has been started in HA. Elements of CRM training could also be added into usual clinical drills and simulation based trainings. These would help to improve the culture of teamwork in hospitals which in turn would better safeguard our patients' safety.

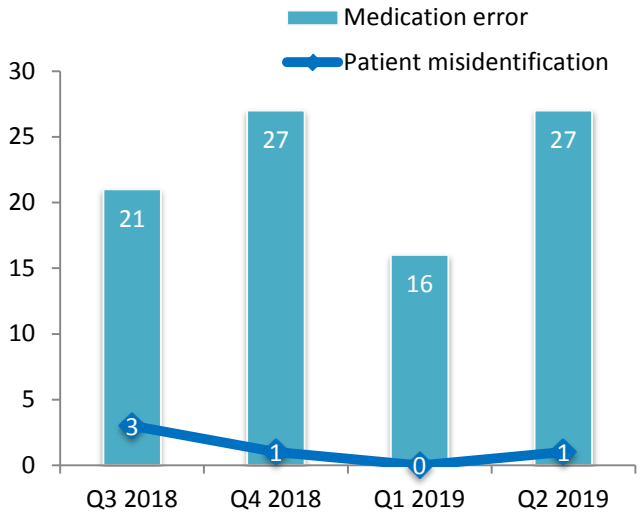
Dr Theresa LI
Cluster Chief Executive, Hong Kong West Cluster

SE & SUE Statistics

Distribution of SE in the last four quarters



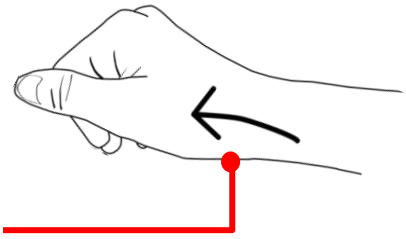
Distribution of SUE in the last four quarters



Sentinel Events

Wrong Part

Wrong Thumb Joint



- A young patient with RIGHT thumb metacarpophalangeal joint (MCPJ) dislocation required emergency operation for closed reduction with open reduction and K-wire fixation if required. The joint for operation was not specified either in the consent form or the OT booking list.
- Site marking was performed using an arrow pointing to the thumb at wrist dorsum.
- The "SIGN IN", "TIME OUT" and "SIGN OUT" were performed. The relevant X-ray was not displayed in the operating theatre.
- After the operation finished, patient was transferred to the recovery room. It was then noted that the K-wire fixation was performed at the wrong joint - interphalangeal joint (IPJ) instead of MCPJ.
- Patient's parent was informed for the need of reoperation. K-wire at IPJ was removed and fixation was performed at the correct MCPJ.

Key Contributing Factors

1. The joint for operation (MCPJ) was not specified in the consent form and the operation booking list.
2. Relevant X-ray was not displayed inside the operating theatre.
3. Surgical Safety Checking process not adhered to.

Recommendations

1. The joint for operation must be specified in the consent form and the operation booking list.
2. Relevant X-ray images to be displayed inside the operating theatre.
3. Training on the proper Surgical Safety Checking procedure.

Gauze Left in Vagina

- A patient suffered from primary postpartum haemorrhage and uterine atony after Caesarean Section.
- A Bakri balloon was inserted to control the bleeding by tamponade effect. A Raytec gauze was packed in the vagina and was documented.
- The patient was transferred to Intensive Care Unit (ICU) for close monitoring.
- On the next day, the attending doctor went through the patient's medical notes before removing the Bakri balloon, but the information about vaginal packing was not noted.
- There was no further documentation about the vaginal packing during transfer to general ward and upon discharge on Day 5.
- The patient was readmitted on day 9 because of increased vaginal discharge. Retained vaginal gauze packing was noted and it was removed immediately.

Key Contributing Factors

1. No comprehensive checking of medical notes before performing balloon removal.
2. Inadequate communication about important information amongst different teams.

Recommendations

1. Leave a small segment of packing gauze outside the packed area for easy identification.
2. Standardise the documentation of vaginal packing in the medical record.
3. Reinforce the importance of comprehensive checking of medical notes before performing any procedure.

Quarter Gauze Left in Wound

- An end stage renal failure patient on continuous ambulatory peritoneal dialysis had Tenckhoff catheter exit site infection.
- Deroofing of the Tenckhoff catheter to free and shave the superficial cuff at exit site was performed. There was oozing from the small wound after the procedure.
- Two pieces of cotton gauze were packed – one under the catheter, and the other one was cut into a quarter (1/4) piece and packed over the catheter tunnel. The patient was discharged on the same day.

- During wound review on the next day, only the cotton gauze under the catheter was removed but not the quarter gauze. The patient was discharged with the advice of wound dressing at home twice daily.
- During clinic follow-up 8 weeks later, the retained quarter gauze at catheter tunnel was noted and removed. Daily wound dressing was arranged at the day ward and the exit site condition improved.

Key Contributing Factors

1. The use of the small square quarter gauze was an uncommon practice.
2. The tiny gauze was completely packed into the Tenckhoff catheter tunnel.

Recommendations

1. Select the right size and type of gauze for packing. Tube gauze or ribbon gauze could be considered to avoid gauze cutting.
2. Review the method of wound packing, such as leaving the gauze tail outside wound to facilitate detection and retrieval.

3 Pieces of 5x5cm Gauze Left in Wound

- An elderly patient was admitted for sacral abscess with incision and drainage performed. A piece of gauze was packed into the wound and was documented. Wound nurse was referred for assessment.
- The patient was subsequently transferred to another hospital. Wound dressing was supported by ward nurses and wound nurses.
- In the following few months after patient discharge, the wound care was continued by Old Age Home (OAH) nurse. There were intermittent Community Geriatric Assessment Team (CGAT) and wound nurse assessment.
- About 10 months after the initial operation, patient was admitted from specialist outpatient clinic in view of increased foul smelling wound discharge despite the undermining wound size was 2x2cm.
- Incision and drainage over right back trunk was performed. 3 pieces of gauzes were found retained at the wound base.

Conclusions

1. The wound care had been provided by several teams in HA as well as by the OAH.
2. After comprehensive review and staff interview, the Panel could not ascertain the specific cause and occasion in which the gauzes were retained.

Recommendations

1. Reinforce the importance of documentation on the number of packings removed and applied.
2. Reinforce the good practice of leaving the 'tail' of packing outside the wound for easy identification of wound packing insertion.
3. Early referral for further assessment if the wound has persistent excessive discharge.

Others

Incorrect Gastrectomy Anastomosis

- An elderly gastric cancer patient underwent robotic assisted laparoscopic gastrectomy with Roux-en-Y anastomosis.
- The patient was stable till post-operative day 6, when the patient had desaturation and shock which required respiratory and inotropic support in Intensive Care Unit.
- Urgent computed tomography scan showed duodenal obstruction.
- Emergency operation revealed incorrect anastomosis in the previous operation causing the obstruction. Revision surgery was performed.
- The patient further deteriorated and succumbed on the next day.

Key Contributing Factor

Checking and tracing of the bowel loops was not well performed.

Recommendation

Reinforce proper checking during surgery to ensure correct anastomosis.

Inpatient Suicides

In Q2 2019, three patients (2 male and 1 female patient, aged between 22 and 64) had committed suicide: two by jumping from height at home during home leave, and one by hanging near the residence after found missing. The management of these cases were considered appropriate following investigations.

Case 1

- A patient with chronic intracerebral vascular lesion was transferred in for neuro-rehabilitation of increased limb numbness and stiffness. Radiological investigations were arranged before decision of surgical intervention. Patient was not at risk of suicide upon suicidal risk assessment on admission.
- Home leave was requested to celebrate Mother's Day with family members.
- The ward was informed that the patient had jumped from height at home 2 hours after home leave.

Case 2

- A patient was admitted for unstable emotion after quarrelling with mother. Patient was attended and assessed by psychiatric team.
- Home leave was granted in view of improved emotion at time of assessment prior to home leave.
- The ward was informed later that the patient had jumped from height at home.

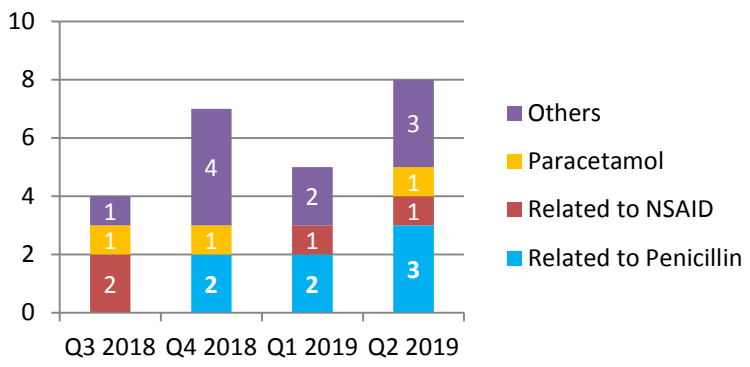
Case 3

- A terminal lung cancer patient with recent disease progression was admitted for shortness of breath, hemoptysis and fever. Patient was not at risk of suicide upon suicidal risk assessment on admission, and was calm and stable in ward.
- Patient was found not at bedside the next day. The patient's relative reported that patient had committed suicide by hanging at a mountain near the residence.

Serious Untoward Events

Of the 28 SUE cases reported in Q2 2019, 27 were due to medication errors and 1 was due to patient misidentification. The medication error cases involved giving known drug allergen (KDA) to patients (8), dangerous drugs (3), anticoagulant (2), antiplatelet (1), insulin (3), chemotherapeutic agents (2) and others (8). One of the known drug allergen cases showed sign of allergic reactions.

Known Allergy	Allergen prescribed
Ketorolac	Ketorolac
Paracetamol	Paracetamol
Ampicillin	Augmentin
Amoxil	Augmentin
Penicillin	Augmentin
Phenazopyridine	Phenazopyridine
Mydrin-P eye drops	Mydrin-P eye drops
Xylocaine spray	Xylocaine spray



Number of KDA cases in the last four quarters

Wrong Vancomycin Infusion Rate and Volume of Dilution

- An elderly patient with cirrhotic liver, pancreatic cyst and urinary tract infection, was prescribed with **Vancomycin IV 1000mg in 250ml Normal Saline (NS) over 120 minutes**.
- While preparing for Vancomycin dilution, **100ml** NS instead of 250ml NS was used.
- Counter-check was not performed as other staff were engaged in resuscitation of another patient.
- Vancomycin was administered by manually adjusting the infusion rate instead of using infusion pump.
- 20 minutes after infusion, patient complained of body and facial itchiness as well as facial flushing.
- It was noted that 90ml Vancomycin was already given to the patient.
- Itchiness and erythema subsided after Piriton injection. Patient was discharged 9 days later.

Rapid infusion of Vancomycin can cause 'Red Man Syndrome'
Ensure correct infusion rate and concentration

Intravenous Thrombolytic Given to a Patient Already on Anticoagulant

- A patient was diagnosed to have myocardial infarction and was prescribed with Clexane (Enoxaparin) .
- Patient developed stroke clinically and radiologically, and was escorted to another hospital for further assessment.
- After handover by escort doctor, assessment of intravenous thrombolytic therapy was arranged for the patient. Thrombolytic therapy was started after review of computed tomography (CT) brain images.
- During infusion of thrombolytic therapy, ward staff noted the patient had received anticoagulant within 24 hours and the infusion was stopped immediately.
- Repeated CT brain scan reviewed a haemorrhagic transformation of the cerebral infarct. Patient developed pneumonia. Patient succumbed 10 days later.

Key Contributing Factors

1. Lack of checkpoint in existing workflow on thrombolytic therapy for ischaemic stroke patients.
2. Ineffective communication among different teams involved.

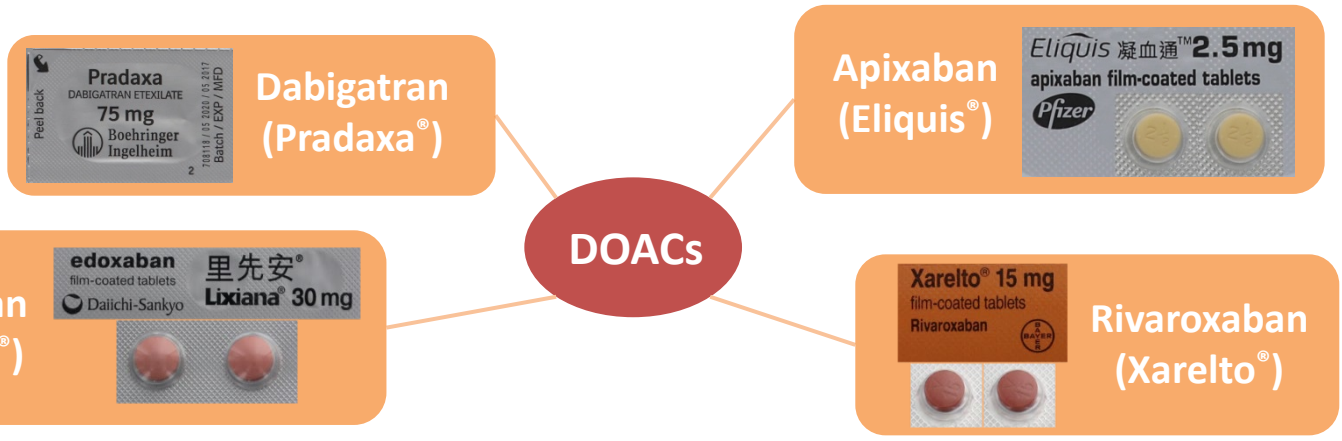
Recommendations

1. Workflow review to include the management of ischaemic stroke patients under different situations.
2. Workflow review to ensure the inclusion and exclusion criteria for thrombolysis are checked, documented and communicated.
3. Reinforce handover of critical clinical information by documentation and direct communication.

Ensure communication of important information among different teams especially during patient transfer

Sharing on Direct Oral Anticoagulants (DOACs)

There were a number of medication incidents related to Direct Oral Anticoagulants (DOACs) recently. The term NOAC (New Oral Anticoagulant, Non-Vitamin K antagonist Oral anticoagulant) has also been used to describe these medicines.



DOACs are currently listed in the HA Drug Formulary (v 15.1; 13 July 2019) for:

1. Primary & secondary stroke prevention for atrial fibrillation with CHA_2DS_2-VASc score≥5;
2. Treatment or prevention of deep vein thrombosis (DVT)/ pulmonary embolism(PE) intolerant/contraindicated to warfarin; and
3. Primary prevention of venous thromboembolic events in adult patients undergoing total hip or knee replacement surgery (except Edoxaban).

Key points on DOACs:

- No requirement for INR monitoring.
- DOAC's activity/effect cannot be easily measured compared to warfarin.
- Currently, no known food interactions.
- DOACs have shorter half-life than warfarin and missed doses may result in more time without anticoagulation thereby greater risk of thromboembolic complications.
- Regular monitoring of renal function is recommended.
- Currently, specific reversal agent (Idarucizumab) to Dabigatran is available in HA, a licensed reversal agent for Rivaroxaban and Apixaban (Andexanet alfa) available in US, though not yet registered in HK, and there is no licensed antidote for Edoxaban.
- Patients should be counselled to inform their dentists or any other healthcare professionals performing invasive treatments or surgery that they are currently taking DOACs.

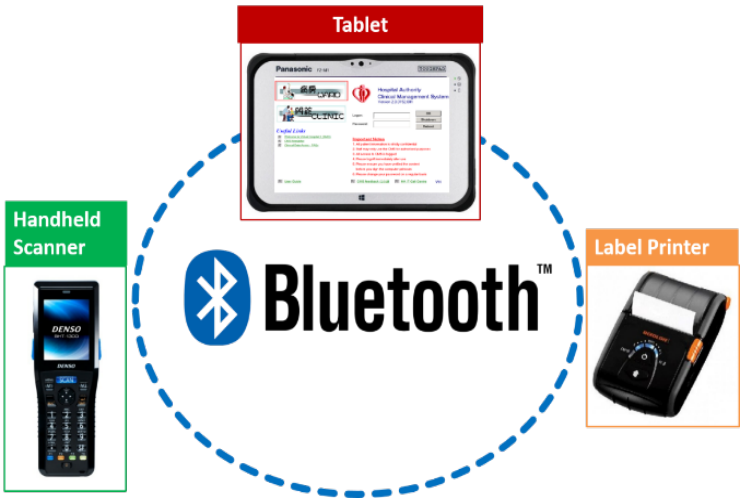
References:
- http://gmmmg.nhs.uk/docs/guidance/151124-NOAC-prescriber-decision-November-2015-v2-0.pdf
- Package inserts of dabigatran (Pradaxa®) Oct 2013; rivaroxaban (Xarelto®) Nov 2017; apixaban (Eliquis®) Oct 2015; edoxaban (Lixiana®) Sep 2016; idarucizumab (Praxbind®) Nov 2015 and andexanet alfa (Andexxa®) Dec 2018

Acknowledgement: Chief Pharmacist's Office

Bluetooth Connection between IPMOE Devices

There are enquiries & report cases from hospitals, about "Missing" Drug administration record in the IPMOE after patient's verification. After investigation, it is due to the disconnection of Bluetooth signal after scanning patient's wristband.

As a result, the confirmation signal cannot be sent back to the Tablet for record purpose.



- For small amount data transfer.
- Range: 10 Metres (30 feet).
- While the Bluetooth signal will work through walls, the more objects that are in between the devices, the less overall range the devices will have.

Practical Tips

- Always read the message on the Barcode scanner.
- When Bluetooth signal is disconnected, follow the instructions on the barcode scanner for device reconnection.
- Develop a habit to check if the administration record is completely saved & displayed in IPMOE after patient verification.

Acknowledgement: HO Health Informatics IPMOE Team