

# RISK ALERT



#### **ISSUE 47 OCT 2017**

A Risk Management Newsletter for Hospital Authority Healthcare Professionals

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# Risk Mitigation Strategy Important Steps for Drug Administration

Strictly follow the "FIVE Rights" principle: right DRUG in right DOSE is given to the right PATIENT by the right ROUTE at the right TIME; and document after patient's consumption of medication.

# Patient's identity









Check against Medication Administration Record or scan wristband of patient for In-Patient Medication Order Entry (IPMOE) system checking before drug administration

#### **Alert & reminder**





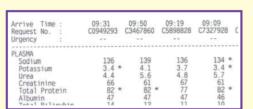




Check patient's information carefully, especially the known drug allergy status, against Clinical Management System (CMS), printout sheet and IPMOE

# **Prescription order**









Countercheck prescription order with reference to patient's medical notes in medical record and laboratory results

# Opening Message

# The Power of Storytelling

In the 34th ISQua's International Conference held in London in early October 2017, delegates and speakers from various countries shared their experiences and evidence on the use and power of storytelling in training healthcare professionals in patient safety and quality improvement. Many different and interesting ways of storytelling, such as comics, role play, video and movie, were shared and discussed at the Conference.

Storytelling is a simple but powerful communication tool when the stories are originated from our authentic experiences and embedded in our patients and our staff members' minds. Through stories, it is easy to connect our heads and hearts. We can step out of our shoes, see things from different perspectives and develop empathy for others. What's more, stories can effectively engage and connect people and bring behavioral responses especially when delivered in an appropriate context.

Quality and Safety in healthcare is a journey of learning, sharing and improvement. Storytelling can make this journey more enjoyable and rewarding.

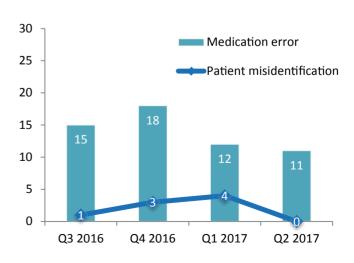


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# SE & SUE Statistics

#### Distribution of SE in the last four quarters 14 12 10 8 6 4 2 0 Q3 2016 Q4 2016 Q1 2017 Q2 2017 ■ Wrong patient / part ■ Maternal morbidity Retained instruments / material Gas embolism Inpatient suicide ABO incompatibility

#### Distribution of SUE in the last four quarters



# Retained Instruments / Material

## A tampon

- A patient had normal spontaneous delivery with first degree laceration in perineal area. She was discharged on post-delivery Day 2.
- On the following day after discharge, the patient retrieved a piece of "cotton wool pack" from her vagina.
- Subsequent vaginal speculum examination and transvaginal scan showed no abnormality.
- The "cotton wool pack" was confirmed to be a tampon.

#### **Key contributing factors**

- 1. Failure to comply with the standard and practice on "counting of accountable items".
- 2. Failure to comply with the departmental guidelines on "repair of episiotomy / perineal tear wound".
- 3. Improper handling of tampon for perineal wound repairing.

#### Recommendations

- 1. Reinforce the practice of "counting of accountable items" against the swab count sheet.
- 2. Strengthen the training on correct way of tampon use for repair of episiotomy / perineal tear wound.

# A Raney clip

- A patient underwent craniectomy and gross total removal of the cerebellar arteriovenous malformation for recurrence of small residual supplies from the RIGHT superior cerebellar artery and posterior inferior cerebellar artery.
- 6 days later, computed tomography (CT) of the patient's brain showed suspected foreign body.
- One Raney clip was subsequently removed from patient's subcutaneous layer at bedside.

# The Raney clips

#### **Key contributing factors**

- 1. Raney clips are not included as accountable item in the current practice.
- 2. Currently, there are variations in the practice of removal of the Raney clips.

#### Recommendations

- 1. Include Raney clip as one of the accountable items.
- 2. Revise the "Intraoperative Counting Record" and work out the counting mechanism among team members.

## A piece of gauze

- A patient with history of cervical cancer was admitted for heavy per vaginal (PV) bleeding. Subsequent speculum examination revealed tumour bleeding.
- Patient's bleeding could not be controlled by direct pressure and Monsel's solution. Doctor B performed vaginal packing with 2 pieces of long gauze. The number and type of gauze used were documented in the medical notes.
- In the next morning round, doctor C noted that the patient's PV bleeding had stopped and ordered the packing to be removed by the on call team. Vaginal packing was removed without documenting the number of removed long gauze.
- 3 days later, the patient informed ward staff that something was sticking out from her vagina. One piece of long gauze was subsequently removed from the patient's vagina.

# **Key contributing factors**

- 1. There was no attempt to document vaginal packing in medical notes before removal procedure.
- 2. Staff assumed that only one piece of gauze was packed into patient's vagina.

- 1. Reiterate the importance of checking medical notes before performing any treatment or procedure.
- 2. Reiterate the importance of properly documenting the number of gauze or other medical materials left inside and removed from the patient's body in medical notes. 3

# Retained Instruments / Material

## A metallic fragment

A metallic fragment was found in two patients on postoperative X-ray. Both patients underwent closed reduction and nailing fixation operation to their femur uneventfully. However, the lag screw driver used in their operations were found broken (2 out of 4 teeth found missing) afterwards. It was subsequently confirmed that the same instrument was used.

Both patients were clinically well. They decided against further operation to retrieve the fragment.







#### **Key contributing factors**

- 1. Low awareness on potential risk of breakage of protruding parts of the lag screwdriver.
- 2. Lack of system from supplier to monitor condition of consignment items.

#### Recommendations

- 1. Develop a mechanism at HA level in the procurement process to ensure monitoring and scheduled replacement of on-loan / consignment items by the supplier.
- 2. Develop measures to facilitate integrity checking of selected surgical instruments during counting and reprocessing.

# A 3mm tip of drill bit

- A patient underwent emergency open reduction of facial fracture and insertion of orbital implant.
- The surgeon found some tactile abnormality and had difficulty fixing the screw.
- The drill bit was checked by a nurse. Some dirt and charcoal of the drill bit tip was found and suspected to have been generated during drilling process.
- The surgeon continued using the drill bit for the operation.
- The tip (~3mm) of the 1.1mm drill bit was found broken and missing before packing for sterilization the following day.
- X-ray of the patient's facial bones and orbits confirmed presence of a radiopaque material in the medial orbital floor compatible with the broken piece of the drill bit.
- The patient agreed not to remove the retained broken tip.



#### **Key contributing factors**

- 1. Lack of a systematic method to check the integrity of instruments with suspected problems.
- 2. High risk of breakage of small drill bits due to metal fatigue and wear-and-tear.

- 1. Develop a systematic method to check the integrity of used powered surgical instruments.
- 2. Limit the utility span / recycling frequency of high risk instruments.

#### The wire loop

- A patient had fracture RIGHT ring finger after a crush injury 4 weeks ago.
- Open reduction and internal fixation with K-wire and tension band wiring to the RIGHT distal phalange was performed for the patient. A pull-out loop metal wire was applied together with a protective axial K-wire.
- 6 weeks postoperatively, K-wire and pull out wire were removed at the Hand Clinic uneventfully. No follow-up X-ray was arranged for the patient on that day.
- The patient attended follow-up 4-weeks later and complained of persistent pain over RIGHT ring finger. X-ray showed retained broken wire loop over previous pull out wire site.
- The broken wire loop was removed in an urgent operation the following day.



#### **Key contributing factors**

- 1. Failure to examine the integrity of the removed wires or compare the shape and length of the wire with previous X-ray image.
- 2. Unfamiliar with the procedure and lack of experience in removing such kind of wire.
- 3. Low awareness on high risk of wire loop retention from breakage of pull-out wire. (The procedure of using pull-out loop wire for fixing distal phalangeal fracture was not commonly done nowadays.)

#### **Recommendations**

- 1. Reinforce the practice of checking the integrity of removed pull-out wire and comparing the wire with previous radiological images.
- 2. Adopt a low threshold for ordering radiological confirmation of complete removal of wire loop in case of doubt or difficulties encountered in the removal process.

# **Metallic fragments**

- A patient was admitted for elective arthroscopic Latarjet procedure to remove metal anchors in LEFT shoulder.
- 2 out of 3 metal anchors were removed during operation.
- The surgeon decided to convert to open procedure for offering a better way of managing the patient.
- During the open procedure, a nurse passed by and noted fragments / dusts being produced. Surgeons replied that the fragments / dusts could be washed away.
- Post-operative X-ray revealed foreign bodies (3 metallic fragments) in patient's LEFT shoulder which were subsequently located by CT imaging.
- The treatment plan was to remove the 3 metallic fragments by using sterile magnet and copious wound irrigation during an elective wound exploration under intra-operative fluoroscopy.
- Post-wound exploration X-ray showed the presence of a 4th metallic fragment along the lower border of upper titanium screw, which was also noted in the pre-exploration images.
- Patient was not advised for further surgery.

#### **Key contributing factors**

- 1. Low awareness on potential risk of breakage or deformity of guide pin.
- 2. Overlook intra-operative x-ray findings of metallic fragment.

- 1. Check for completeness of instruments meticulously especially when instruments were deformed.
- 2. Enhance staff awareness on the "Risk register of high risk instruments".
- 3. Screen all intra-operative x-ray imaging cautiously before the end of operation.

# **Retained Instruments / Material**

## A piece of cement

- A patient underwent RIGHT hip cemented bipolar hemiarthroplasty for femoral neck fracture.
- Staff packed the acetabulum with gauze during cementation.
- Post-operative X-ray revealed a foreign body in patient's right acetabulum.
- A piece of cement (2.5cm x 1.5cm) was removed in a subsequent operation.
- The patient had good rehabilitation progress.

#### **Key contributing factor**

Leakage of the cement (in liquid form) into the patient's acetabulum space intra-operatively.



#### Recommendations

- 1. Explore the source and use cement of other colors to facilitate differentiation between cement and bone during operation.
- 2. Explore routine intra-operative X-ray to check for abnormalities / retained foreign body before wound closure.
- 3. Check independently for any retained cement before proceeding with the implant.

# **Inpatient Suicide**

In Q2 2017, two patients (both female aged over 55) were found missing and committed suicide subsequently. **Case 1** 

- A patient was admitted for increased abdominal pain and newly diagnosed lymphoma. She was started on chemotherapy.
- 11 days after admission, the patient was assessed by clinical psychologist and psychiatrist and was diagnosed to have depressed mood but no suicidal idea. Suicidal precaution was implemented. Flexible visiting hour was granted.
- After subsequent assessments, the patient was found to have improved mood, sense of hope and still no suicidal idea.
- Suicidal precaution was subsequently taken off by the clinical team.
- A week later, patient was last seen walking in ward with her husband. She was found missing about 5 mins later.
- About 90 mins later, the hospital was informed that the patient had committed suicide by jumping from height.

#### Case 2

- A patient with history of Adjustment Disorder, Depression and attempted suicide, was admitted for abdominal pain.
- No suicidal risk was identified during initial assessment.
- The patient was given Tramadol injection for pain relief with good effect.
- 2 days later, the patient complained of increased abdominal pain and was then kept 'nil by mouth'.
- Tramadol injection was given again that evening. Since the patient was found taking her own food afterwards, further explanation and advice on her condition was provided by nurse.
- The following day, the patient had nausea, vomiting of clear fluid and abdominal pain. Tramadol and Maxolon injection were given.
- 2 days later, the patient was found missing. . Nurse then called the patient's mobile phone. The call was answered by the patient's husband who replied that the patient had committed suicide by jumping from height at home.

- 1. Reinforce the message to patients and their visitors of the importance and need for informing clinical staff before leaving the ward.
- 2. Reinforce the practice of careful reading of information in medical notes during patient admission procedure.

# **ABO** incompatibility

## Incorrect blood transfusion to a patient

- A patient on Continuous Ambulatory Peritoneal Dialysis was admitted for peritonitis. The patient required transfusion and his blood group is O+.
- The blood transfusion checking procedures were completed.
- After 2 minutes of blood transfusion, a nurse noticed that there were air bubbles in the tubing, which were difficult to eliminate.
- Since the concerned nurse needed to start a medication round shortly, another nurse was assigned to prepare a new transfusion set.
- The assigned nurse mistakenly connected the new tubing to a patient with blood group AB+ in the adjacent bed, without repeating the full checking procedures.
- After 5 minutes, the nurse discovered the error and stopped the transfusion immediately. About 5mL group O+ blood was transfused. There was no adverse reaction.

#### **Key contributing factors**

- 1. No verification of patient identification before resuming an interrupted transfusion process.
- 2. Inadequate awareness on the importance and need for high risk procedures such as blood administration procedure to be completed by oneself.
- 3. Communication breakdown caused by misinterpretation and unclear instructions between the nurses.

#### **Recommendations**

- 1. Ensure correct patient identification at critical steps during the blood transfusion process (including sample collection, administration and reconnection after interruption).
- 2. Perform assessment, such as patient identification and procedure verification, to ensure transfusion to the correct patient when handling transfusion reconnection after interruption of blood administration process.
- 3. Reinforce amongst staff the importance of delivering clear instructions to avoid misinterpretation and encourage staff to speak up and clarify uncertainties.

# **Maternal Death**

In Q2 2017, one case of maternal death was reported due to severe pre-eclampsia with postpartum haemorrhage.

# Serious Untoward Events

Of the 11 SUE cases reported in Q2 2017, all were due to medication error. The medication error cases involved giving known drug allergen (KDA) to patients (7) and others (4). All of the known drug allergen cases showed no allergic reaction.

Known Allergy	Allergen prescribed
Paracetamol	Paracetamol
Saridol	Paracetamol
Penicillin	Augmentin (4)
Tramadol	Tramadol

# Number of KDA cases in the last four quarters



# Delayed prescription of antiviral drug to an HBV carrier given high-dose corticosteroid therapy

- A patient with IgA nephropathy was prescribed high-dose steroid by renal physician.
- The patient was a known hepatitis B virus (HBV) carrier.
- Surveillance investigation for early detection of hepatitis B flare up was not organized, nor preventive treatment with antiviral medication prescribed to the patient.
- About two-and-a-half months later, the patient developed liver failure due to hepatitis B flare up, necessitating liver transplantation as salvage therapy.

#### **Key contributing factors**

- 1. Inadequate level of vigilance on timely antiviral treatment after administration of high-dose immunosuppressive medications.
- 2. Heavy clinical service workload increasing the risk of frontline staff overlooking or not acting on important clinical information while making treatment decisions.
- 3. Unsatisfactory internal communication between different clinical teams.
- 4. Inadequate experience and training of clinicians in management role(s) in clinical incident management, ascription of responsibilities to other senior members, insufficient sensitivity and sense of exigency.

#### Recommendations

- 1. Explore measures to highlight this risk in published HA treatment guidelines.
- 2. Explore IT solutions or aides such as pop-up alert prompting doctors to consider patient's HBV carrier status when prescribing immunosuppressive therapy.
- 3. Consider highlighting this risk in relevant clinical specialties training.
- 4. Emphasize risk prevention and patient safety in the contents of training and education programmes.
- 5. Explore IT solutions, such as enhancing alignment of timing of Alert Box appearance with relevant CMS steps in the clinical care processes, to reduce the risk of overlooking important information in the CMS.
- 6. Review current practice related to clinical governance and identify areas for improvement with the objective of enhancing internal communication and holistic patient care.

# A patient on Warfarin was given thrombolytic therapy

- A patient with atrial fibrillation on warfarin attended AED for on and off chest pain for 3 days.
- An A&E doctor interpreted the patient's ECG as ST elevation Myocardial Infarction. Cardiologist did not suggest Percutaneous Coronary Intervention (PCI) in view of patient's advanced age.
- The A&E doctor then proceeded to thrombolytic therapy and prescribed a stat dose of "Tenectaplase 6000 units IV".
- After drug administration, the A&E doctor reviewed patient's drug profile and found that patient was on warfarin which was a contraindication to thrombolytic therapy.
- With INR blood result of 2.76, the patient was admitted for fresh frozen plasma transfusion.

# Use thrombolysis checklist stringently before thrombolytic therapy

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