

RISK ALERT

ISSUE 70 JUL 2023

A Risk Management Newsletter for Hospital Authority Healthcare Professionals

IN THIS ISSUE

Sentinel Events (SEs) (1Q 2023)

- Retained Instruments / Material
- ✤ In-Patient Suicide

Serious Untoward Events (SUEs) (1Q 2023) Local Sharing

- * Prevention of Tourniquet Retention
- HO PS&RM Seminar Series on Clinical Incident Management

💪 Opening Message

From Risk to Opportunities, simultaneously vice versa

We are now in a decade of pursuing avant-garde and ingenious smart hospital initiatives to keep abreast of the global trend. Patient Safety has always been an indispensable beacon of quality healthcare. While we are striking towards excellence on system innovation to enhance efficiency and facilitate workflow, we might sometimes be exposed to potential novel risk if the unprecedented workflow with new mishaps are not addressed or analyzed. Thus, we healthcare professional in fact need to work closely with stakeholders and continuously review the potential loopholes in our new workflow.



We should always bear in mind with this juggle between advancement of new technology as well as strengthening our workflow with patient-centred care and safety priorities.

Let's migrate to the upcoming new era of technology together with humancentred care in mind altogether!

> Dr Raymond CHEUNG KWC Service Director (Quality & Safety) & PMH Deputy Hospital Chief Executive (Quality & Performance)

SE & SUE Statistics

Distribution of SE in the last four quarters

Distribution of SUE in the last four quarters





Sentinel Events

Retained Material

Wipe

A patient with 78% total body surface area deep dermal and full thickness burns, underwent four debridements and dressing in an Intensive Care Unit (ICU). Due to poor bowel function, she received fleet enema multiple times. During the fourth operation, a wipe was placed in the patient's anal orifice to control faecal incontinence.

On post-operative day 3, a nurse noticed a piece of wipe (<1cm) exposed at the patient's anus while attempting to administer another fleet enema. The wipe was removed and subsequent proctoscopy was performed to confirm no additional foreign material.

- 1. Reinforce training on surgical safety
- 2. Reinforce the practice of audibly alerting scrub and/or circulating nurses when an object has been placed in a patient's orifice in the operating theatre
- 3. Reinforce the importance of close-loop communication between team members

Retained Material

Cement

Case 1

A patient with fractured left neck of femur underwent a left hip hemiarthroplasty using a modified posterior approach. During the operation, surgeons packed the acetabulum with gauze to prevent cement spillage. Inspection and manual palpation of the acetabulum were performed before bone reduction and no cement was noted in the acetabulum. After reduction, the range of movement for the implant was checked, and the operation was finished uneventfully.



Figure 1. Cement

An X-ray taken on post-operative day 1 showed cement was retained in the acetabulum. An emergent operation for exploration and removal of the retained cement was performed without complication. A 2.5 cm cement (Figure 1) was extracted. The patient's rehabilitation was uneventful.

Areas for Improvement Identified:

- 1. Enhance training on the technique/manoeuvre to expose whole acetabulum for assessment before reduction
- 2. Review departmental training on hemi-arthroplasty using a modified posterior approach
- 3. Raise staff awareness of the potential risk of retained cement in similar procedures

Case 2

A patient with a displaced right femur neck fracture underwent right hip arthroplasty. Post-operative day 1 Xray and day 2 computed tomography (CT) scan showed suspected retention of cement. A second operation for removal of the cement and exploration of the skin wound was performed on postoperative day 6, with a 1.5 cm x 1 cm piece of bone cement fragment found in the acetabular fossa.

Area for Improvement Identified:

1. Enhance a structured work-based assessment (including debriefing, coaching & training), starting from the basic trainee level to ensure patient safety and staff competence

Case 3

A patient with left knee osteoarthritis underwent a left total knee replacement surgery. Upon secondary review of an X-ray taken on post-operative day 4, retention of an extra-articular cement was identified in the left knee (Figure 2). The patient agreed with conservative management unless clinical or radiological evidence of foreign body dislodgement was found.

- 1. Reinforce the good practice of adequate pulsatile lavage after cementation
- 2. Consider repeated inspection of the joint for any retained cement
- 3. Consider X-ray if there is a clinical suspicion of cement retention



Figure 2. Cement

Sentinel Events

Retained Material

Ribbon Gauze

A patient underwent a temporary tracheostomy, during which a cuffed tracheostomy tube was inserted and a ribbon gauze with adrenaline was packed at the wound site, as documented in the operation record. On post-operative day 1, gauze removal was documented without specifying the responsible party. On post-operative day 5, the tracheostomy tube was changed to a non-cuffed tube. The patient was discharged and instructed to continue wound dressing at a General Outpatient Clinic (GOPC).

During a subsequent chemotherapy admission two weeks later, the patient reported a gauze had slipped out from the tracheostome while receiving wound care at the GOPC. The ribbon gauze was successfully removed at the bedside.



Areas for Improvement Identified:

- 1. Standardise the practice of leaving the visible tail of packing material and ensure its removal
- 2. Standardise documentation of gauze packing for continuity of care and cross-checking, as well as gauze removal information (when and by whom)
- 3. Verify ribbon gauze removal when in doubt

In-Patient Suicide

A patient with a history of substance-induced psychosis, depression and substance abuse was compulsorily admitted to the hospital's psychiatric observation unit after being found by police for intoxication and suspected "possession of dangerous drug" (PODD). She was diagnosed with schizophrenia and stimulant dependence syndrome. Her mental state improved with medications and a substance-free environment.

Two months later, the patient was granted a day leave to attend a police station for giving a statement regarding the suspected PODD, and to retrieve her identity card. Her level of suicidal risk was assessed as "low" during a multidisciplinary ward round, and was assessed to be mentally fit to give a statement to the police.

The patient was accompanied by a social worker and escorted by two police officers to the police station. After being informed of the formal charge of PODD, the patient absconded and subsequently jumped from a height at her residence, resulting in death.

- **1**. Explore the possibility of police coming to the hospital for the interview with the patient concerned
- 2. Enhance assessment via the Nurses' Global Assessment of Suicide Risk (NGASR)

Of the 22 SUE cases reported in 1Q 2023, 20 cases were related to medication errors, including known drug allergy (KDA) (5), dangerous drugs (3), vasopressors and inotropes (1), insulin (1) and others (10).



| Known Allergy | Allergen prescribed |
|--------------------------|--------------------------|
| NSAID | Aspirin |
| Ampicillin | Rocephin & Ampicillin |
| Penicillin | Augmentin |
| Ampicillin & cloxacillin | Augmentin |
| Chlotin PV | Chloramphenical eye drop |

Medication Error

Case 1

Case 2

A patient with diarrhoea and fever was registered in the AED with a pseudo-ID number due to absence of an original identity document. Her clinical information was reviewed with her claimed HKID number via the "Check ID" function on the Clinical Management System (CMS) but her allergy to ampicillin was overlooked. A record of "No known drug allergy" was then entered into the pseudo-ID record on the CMS.

Two doses of IV Rocephin and 5 doses of Augmentin were administered. A few days later, the patient's original ID was presented and her pseudo ID record was merged with her HKID number. Bilateral forearm erythema was developed, subsequently revealing her known ampicillin allergy.



Areas for Improvement Identified:

A patient with shortness of breath and cough was registered in the AED with a pseudo-ID due to absence of an original identity card.

The triage nurse noticed the patient's penicillin allergy by reviewing his clinical information with his claimed HKID number via the "Check ID" function on the CMS, and placed the patient's triage record in a folder labelled "medication allergy". However, "No known drug allergy" (NKDA) was indicated on the patient's pseudo-ID record. After the patient was admitted to the ward, NKDA was entered upon prescribing the drugs as the patient denied any history of drug allergy and the CMS Alert in ePR under the patient's claimed ID was not checked.

IV Augmentin 1.2g was prescribed and administered to the patient. No immediate drug reaction was observed after administration of the medication. The penicillin allergy history was eventually identified when a doctor reviewed the patient's claimed-ID record on CMS.

- 1. Check patient allergy information in both pseudo-ID and claimed-HKID during prescription, order vetting and administration
- 2. Raise staff awareness of the need for accurate and timely update of drug allergy history in the CMS for patients registered with pseudo-ID

Medication Error

Case 3

A 61-year-old woman with low body weight (34.6 kg) was planned for a mastectomy with sentinel lymph node biopsy and axillary dissection under regional block anaesthesia, in view of her poor lung function. During the regional block procedure by an anaesthetist, the patient went into seizure when approximately 62.5 mg of bupivacaine and 310 mg of lignocaine had been given.

A provisional diagnosis of local anaesthetic toxicity was made. Resuscitation was started immediately in the operating theatre. The patient was transferred to intensive care with mechanical ventilation support. The patient was successfully extubated after four days.

Subsequent investigation revealed that the recommended maximum dose for this patient (by body weight) should be about 86.5 mg for bupivacaine and 173 mg for lignocaine.

Areas for Improvement Identified:

- 1. Appropriate dosing of medications according to the patient's body weight, among other clinical parameters
- 2. Enhanced training and supervision for anaesthetists in performing high risk procedures
- 3. Reminders on important drug dosages in work areas

Case 4

A patient underwent an elective left hip replacement under general anaesthesia. During the operation, the original anaesthetists handed over the case to another senior anaesthetist.

Near the end of the operation, the senior anaesthetist intended to give ondansetron 4mg/2ml (an antiemetic) to the patient before reversal of anaesthesia. However, dexmedetomidine 200mcg/2ml (a sedative) was given instead. The patient developed a transient decrease in blood pressure and pulse, which were managed with boluses of ephedrine.

The medication error was subsequently discovered when one of the original anaesthetists returned to the operating theatre and checked the used drug tray. As dexmedetomidine was not a standard drug item on the anaesthetist drug trolley, it could have been leftover unintendedly from a previous operation.

- 1. Working environment improvement and tools to facilitate the 5 rights checking process by staff administering medications (i.e. adequate lighting, magnifying glass, and use of corrective eyewear)
- 2. Clear and distinct locations for individual drugs in an anaesthetic trolley: drugs should be clearly-labelled and separated from each other, such as by using drawer dividers
- 3. Returning of unused medication after completion of each operation



Prevention of Tourniquet Retention

D Local Sharing

To enhance patient safety during blood collection procedures. this issue shall highlight innovative devices and technologies to minimize the risk of retained tourniquets.

High-visibility tourniquet with integrated reminder plastic plate

- Brightly coloured tourniquet makes it easier to spot and ensures proper removal
- Integrated reminder on the plastic board serves as a constant visual prompt for staff
- Use of a plastic plate in conjunction with the tourniquet can provide additional structure, making the tourniquet more noticeable and less likely to be hidden under clothing



Where is my tourniquet?



Locally Developed Audible Warning Device

- When a tourniquet is removed, the device triggers an audible alarm with the message, "Where is my tourniquet?" serving as a reminder to ensure proper removal and prevent retention
- The presence of an alarm system increases staff awareness and encourages them to be more vigilant during the procedure
- The audible alarm reinforces the importance of tourniquet removal, and reduces the likelihood of human error

Technology Device Auto-release Tourniquet

- The auto-release tourniquet is a technology-based device designed specifically to prevent retained tourniquet incidents
- The Tourni-plus auto-release tourniquet offers settings for automatic release at 3,5,10-minute intervals
- It can be cleaned using alcohol and disinfected using a UV sterilization machine







HO PS&RM SEMINAR SERIES CLINICAL INCIDENT MANAGEMENT



The "Right" way of Handling Clinical Incidents and Medical Errors

The three seminars of the Clinical Incident Management Seminar Series have successfully concluded. The seminars have received overwhelmingly positive response from our enthusiastic audience! Video recordings of each session are now available on the e-Learning Centre (eLC), accessible to all staff members.

