



RISK ALERT

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A Risk Management Newsletter for Hospital Authority Healthcare Professionals

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Opening Message

Engaging clinical teams in patient safety

Providing safe and high quality healthcare service have always been the top priority in HA. It could be achieved through fostering patient safety culture among our clinical teams and engaging our staff in continuous quality improvement. Providing feedback following Safety Walk Rounds could encourage our staff's commitment in patient safety. Showing appreciation to staff who have actively safeguarded patient safety, for examples by reporting a near miss event, or stopping an incident from happening, would also be a way to positively reinforce our staff to engage in patient safety and cultivate a culture of providing quality services.



Providing adequate training to our staff could ensure the quality of care and safe delivery of patient service. Appropriate communication skill is essential in establishing good doctor-patient relationship. Crew resource management (CRM) training is another important strategy to mitigate risk through improving inter-personal communication skills among frontline staff in healthcare sector.

Team communication could be challenging in contemporary multi-disciplinary healthcare environment. Conflict often occurs when people from different department and background, having different priorities, interests, and character, work together as one team. Clinical skills training should not be limited to technical skills but should also include communication among team-mates. This could help improving teamwork, staff's competency, clinical efficiency, improving morale, reducing human error and ultimately save lives.

Let's engage our co-workers and work closely as a team to ensure the safety of our patients!

Reference:

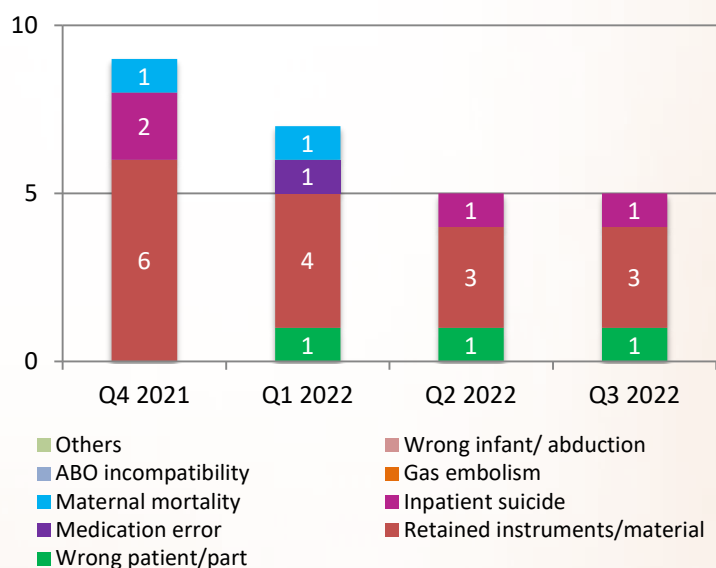
[Scott G, et al \(2022\). Exploring the impact of employee engagement and patient safety. International Journal for Quality in Health Care. 34\(3\), 1-8.](#)



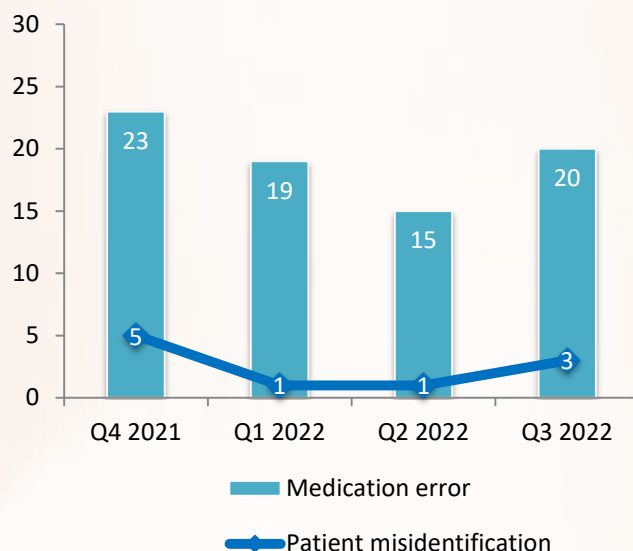
Dr HAU Lap Man

Service Director (Quality & Safety)
New Territories West Cluster

Distribution of SE in the last four quarters



Distribution of SUE in the last four quarters



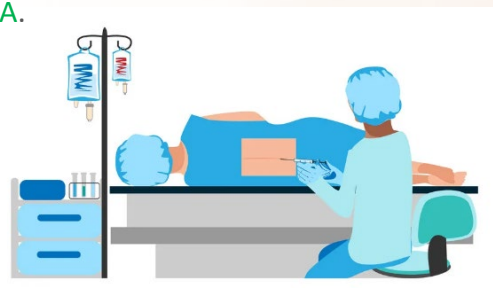
Sentinel Events

Wrong patient / body part

Spinal Anaesthesia instead of General Anaesthesia

A patient attended the nurse preanaesthetic clinic (NPAC) in July 2022 and was briefed on the risk of Spinal Anaesthesia (SA) and General Anaesthesia (GA) in which she indicated that she preferred SA and was documented. On the same day, she attended a preoperative anaesthetic clinic (POAC) with the anaesthesia plan further explained by anesthesiologist and consent signed for GA.

On the day of operation, patient's GA consent was verified at the Operating Theatre reception. But list anaesthetists were pre-occupied with the NPAC note and proceeded with SA for the patient. After SA was completed, patient verbalized that she had consented to GA. After the operation, patient was discharged on the same day uneventfully.



How did it happen?

1. Incomplete pre-induction review
2. Confusing documentation in the Pre-Operative Anaesthetic Consultation summary

How to prevent?

1. Ensure comprehensive pre-induction review
2. Ensure proper sign-in process
3. Add "mode of anaesthesia" for checking in Surgical Safety Checklist
4. Prevent confusing documentation in the Pre-Operative Anaesthetic Consultation summary

123 SURGICAL SAFETY 123	
THEATRE, BEFORE ANAESTHESIA	
<input type="checkbox"/> Anaesthetist (Surgeon in LA) has confirmed the following patient's information ▪ Name & HKID ▪ Diagnosis ▪ Procedure / Side	
<input type="checkbox"/> Anaesthesia safety check completed (Concentration & dosage of LA)	
Known drug allergy	<input type="checkbox"/> Yes <input type="checkbox"/> No
Fixed dentures / Crowns / Loose teeth	<input type="checkbox"/> Yes <input type="checkbox"/> No
Check safe blood availability	<input type="checkbox"/> Yes <input type="checkbox"/> Not applicable
"STOP Before You Block" In case of regional anaesthesia, site & laterality check against surgical procedure with Nurse	
<input type="checkbox"/> Yes Nurse signed: _____	
SIGN IN - Anaesthetist (Procedure Operator in LA)	
Signed :	1
Print :	
Date :	
Time :	

In this surgical safety checklist, the mode of anaesthesia is NOT included in the pre-procedure checking items.

Thread-like Foreign Body

- ❖ A patient with history of revision open reduction and internal fixation (ORIF) for left femoral shaft fracture in 2020, underwent implant removal.
- ❖ During the operation, all 16 screws and 2 plates were removed. Integrity of removed implants and used instruments was checked by the operating team. Intraoperative fluoroscopic screening confirmed no new fracture. Postoperative Day 1, X-ray revealed a threadlike object inside the medullary cavity of the patient's proximal femur. The thread-like metallic fragment was likely **chipped off from the edge of the hole of the plate with high friction while drilling (Figure 1)**, during the previous operation in 2020. Surgical removal of the thread was considered unnecessary. Patient was discharged on Day 4.



Figure 1. Locking plates and screws for ORIF

How did it happen?

- Proximal location of the concerned plate hole with tight soft tissue around and difficulty of surgical exposure.
- Obscured by the implants, the foreign body could not be detected in postoperative routine X-ray images in 2020.
- The shape of foreign body was similar to the screw holes, difficult to be discerned in intraoperative X-ray images.

Broken Fragment Chipped from Instrument

- ❖ A patient was admitted for elective spinal surgery. Six pedicle screws were inserted into the pedicles of L3-L5 vertebrae uneventfully. The integrity of the used instruments was checked before and after each use. Intraoperative X-ray was done to review the position of pedicle screws. Final surgical count revealed no abnormality.
- ❖ On postoperative Day 5, a hemi-circular object near the right L3 pedicle screw was noted on the spinal X-ray. The reprocessed instruments were retrieved. A defect was found at the tip of one of the retaining sleeves (Figure 2). The patient's condition remained stable without any adverse effect. Surgical removal was considered unnecessary.

How did it happen?

- The foreign body was likely a small fragment chipped from the **tip of the retaining sleeve** during insertion of the last pedicle screw

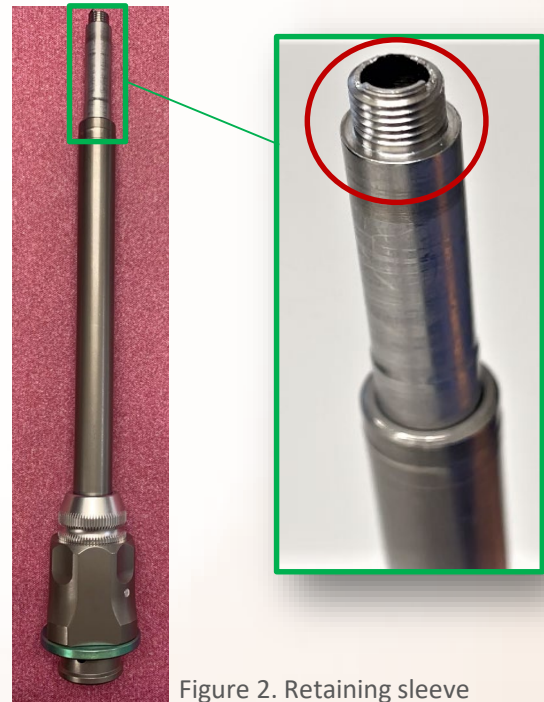


Figure 2. Retaining sleeve

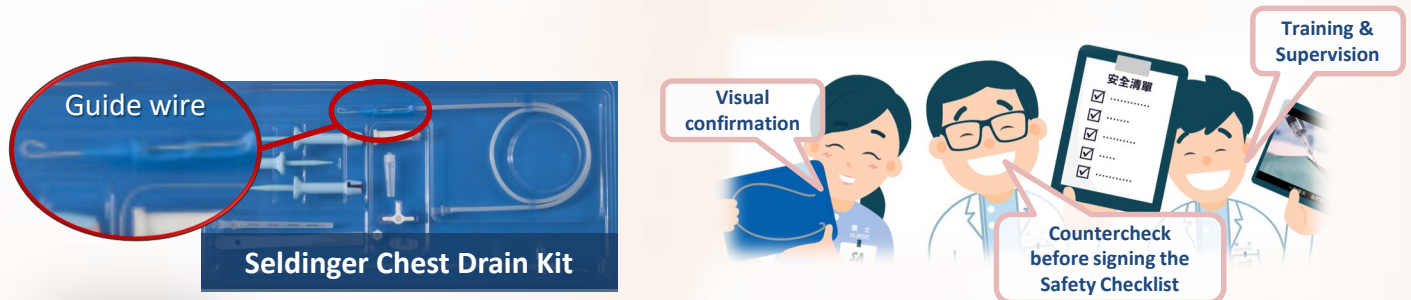
Learning Points

- 1. Retained broken fragments from instruments are not totally avoidable in view of the inherent risk of instruments' wear and tear**
- 2. X-ray checking at different angles (with zoom-in function) before wound closure should be performed as far as possible for any clinical suspicion of foreign body**
- 3. Be particularly alert when checking the integrity of instruments, especially those instruments at high risk of wear and tear, e.g. cannulated instruments, and consider prompt replacement when appropriate**

Guide Wire

An elderly patient with left pneumothorax underwent bedside chest drain insertion (Seldinger Chest Drain Kit). The first attempt of distal catheter insertion failed. The second attempt was performed over the same guide wire. Clear yellowish pleural fluid was drained. The doctor believed that he had removed the guide wire. When tidying up the trolley, the assisting nurse noted that the waste bags had been disposed. Visual confirmation of the guide wire was not done. The Bedside Procedure Safety Checklist was later signed by the case doctor and a senior nurse without visual counter-check of the removed guide wire.

Post-procedure CXR and computed tomography revealed a guide wire coiled at the patient's left lung. Patient underwent operative procedure for removal of guide wire.



Areas for Improvement Identified:

- Staff skills: enhance senior support in handling complex cases and the chest drain insertion with the Seldinger Chest Drain Kit
- Checking procedure: enhance training material by showing the contents of the Seldinger Chest Drain Kit (including a metal guide wire and a plastic stiffener)

In-Patient Suicide

An elderly female with metastatic lung cancer was admitted for cord compression. Do-Not-Attempt Cardiopulmonary Resuscitation was agreed by the patient. Clinical psychologist (CP) was consulted for low mood. Noting patient's suicidal ideation, the CP recommended the clinical team to take precaution and refer the patient for psychiatric assessment. Patient was then transferred to an Oncology ward and under the care of Palliative Care Service (PCS). Patient was reassessed by another CP but the suicidal risk was not effectively communicated within the PCS team. On the day of the incident, the patient complained of upper limb weakness at 06:30. At 06:55, patient was found unconscious with plastic bag covering her head and blue tablets inside her mouth. The plastic bag was removed at once. The patient further deteriorated and succumbed on the same day.

Learning Points

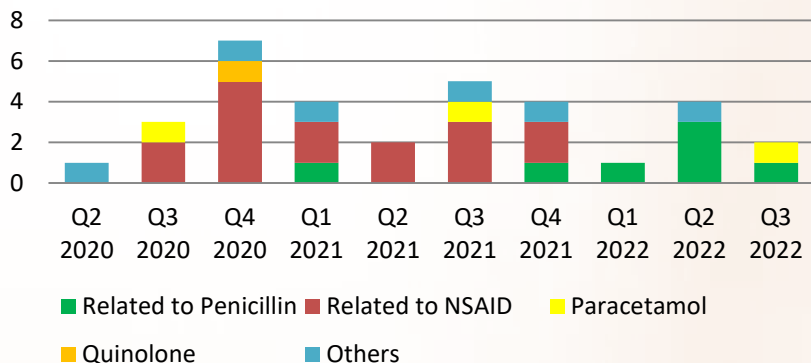
- Strengthen verbal and written communication of important messages between clinical psychologist team and the clinical team
- Standardise the documentation of summary and key messages from PCS case conference
- Reinforce the importance of proper documentation after care / consultation is given



Serious Untoward Events

Of the 23 SUE cases reported in 3Q 2022, 20 cases were related to medication errors, including known drug allergy (KDA) (2), dangerous drugs (1), vasopressors and inotropes (2), anticoagulants (5), chemotherapy agents (2), insulin (1) and others (7).

Number of KDA cases (Q2 2020 – Q3 2022)



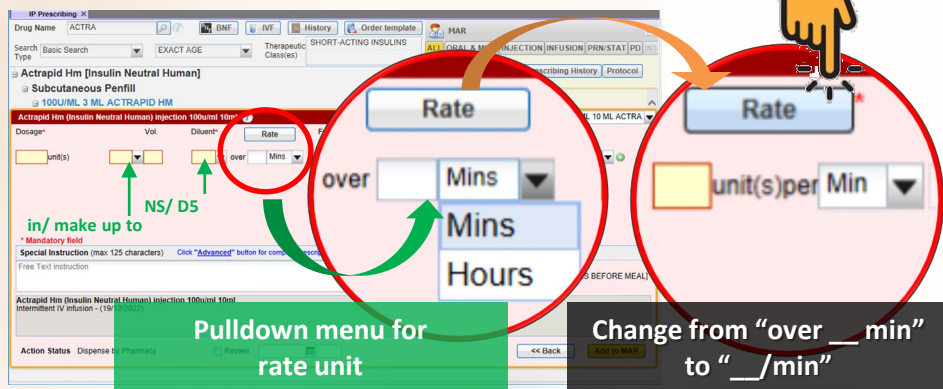
Known Allergy	Allergen prescribed
Tazocin	Augmentin
Coltalin	Panadol

Prevention of Pitfalls in Prescription Intermittent vs Continuous Infusion

Local Sharing

Prescribing error due to selection of **wrong dose** or **wrong infusion rate** in Inpatient Medication Order Entry (IPMOE) could adversely affect the patient. In IPMOE, the default infusion rate unit is different for “**intermittent intravenous (IV) infusion**” and “**continuous IV infusion**”. This issue shall highlight a few screenshots to enhance staff awareness on the potential pitfalls.

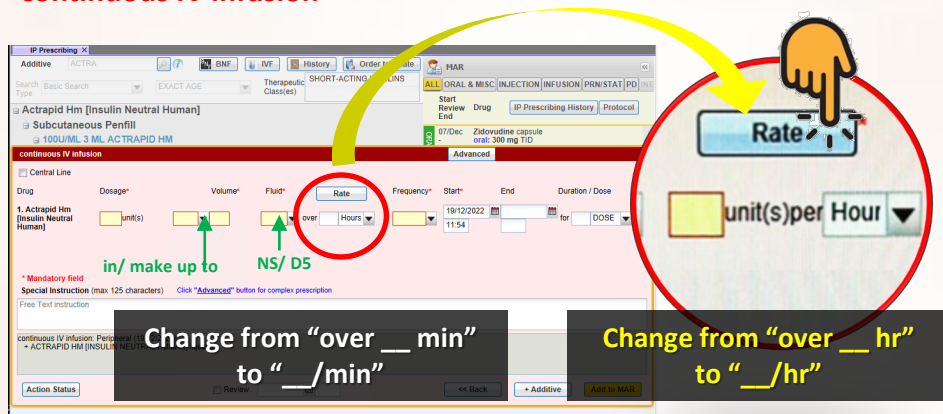
Default screen when prescribing “intermittent IV infusion”



Safety Tips

1. Stay alert on the **rate unit** selected when using IPMOE
2. Pay attention when using intermittent infusion setting for Actrapid
 - Potential error in prescription due to default setting on the Rate “..... over Mins” for “..... Dose”
3. Use standardized template [continuous Actrapid infusion (**continuous** infusion)] for DKA and Hyperglycaemic state
4. Always clarify when a **LARGE** dose is prescribed over a **SHORT** administration time

Default screen when prescribing “continuous IV infusion”



Correct Patient Identification

To enhance staff awareness on the importance of Correct Patient Identification (CPI), HA Patient Safety & Risk Management Department has organised the CPI creative writing contest in September 2022 to encourage HA colleagues to share their tips and insights on CPI. Among nearly 100 submissions, the Panel of Judges has selected the following Top-6 finalists for the Champion and Merit awards ([Instagram Link](#)).



Ranking	Topic	Contestant
Champion	《一出錯成千古恨，安全措施為病人》	Mr Robert Koon Yuen LI, SCHMED RN(Infirmary)
Merits	《不論身分分身份》	Ms Y W NG, PMH P(Pharm)
	《醫護「首」則》	Mr Kenny K Y KWOK, QMH PCA II(NEATS)
	《病人辨識小Fun享》	Ms K L CHAN, PMH APN(Q&S)
	《真病人一號》	Ms Sharon CHOW, NLTH P(Pharm)
	《就快到廿一》	Mr Chung Yuen CHAN, TPHPSY RN(Psy)

Dangerous Drugs

To enhance staff awareness, this issue shall highlight some incidents related to dangerous drug handling.

1 An intubated patient developed tonic-clonic seizure. Midazolam 2mg IV bolus prn was ordered verbally. A Nurse prepared and mixed midazolam (15mg in 3ml) with NS (12 ml) up to 15 ml (i.e. 1mg per 1 ml) in a 20 ml syringe. The same nurse misperceived that there was 3mg in 15ml on hand, and administered 10ml, i.e. midazolam 10 mg to patient.

3 A patient on assisted ventilation (CPAP) was prescribed with IV Valium 10mg Q8H. Checking out 2 ampoules of Valium (5mg/ml, 2ml/ampoule), the prepared Valium without label (4ml) was passed to a Nurse in isolation room for administration together with other drugs. On the next day, two ampoules were checked out again for administration. Upon subsequent checking and clarification, it was discovered that two doses of Valium 20mg instead of 10 mg, were administered to the patient.

2 A patient complained of wound pain in Post-Anaesthetic Care Unit (PACU) and was prescribed with IV morphine 1.5mg once.

An ampoule of morphine 15mg in 1ml was checked out by two nurses, and prepared in a 3ml syringe (without labelling of drug name and strength). Assuming the morphine was diluted to 1.5mg/ml per usual practice in operating theatre without further confirmation, the doctor confirmed the volume to be administered as 1ml with one of the nurses, who then administered the undiluted 1ml (15mg) to the patient. The incident was discovered upon documentation of the discarded dose in the dangerous drug register.

Safety Tips

1. Proper labelling of drug dose and dilution on the syringe
2. Independent double checking
3. Preparation of exact dose of the prescribed drug for injection
4. Standardization of practice in writing the diluted strength (1mg per 1ml) or total volume (15mg in 15ml NS)
5. Enhancing the communication of prescribed dosage instead of volume only





Long Term Steroid

Glucocorticoids are a class of medication useful in the treatment of many inflammatory, allergic, immunologic, and malignant conditions. On the other hand, patients with hypopituitarism / adrenal insufficiency will need long term steroid replacement. Despite their proven efficacy, glucocorticoids bear a wide variety of side effects and careful monitoring for dosage adjustment is necessary. This issue shall highlight long-term steroid cases and safety tips.



Case 1 – A patient with post-irradiation panhypopituitarism on long-term hydrocortisone (20mg om, 10mg pm) was admitted for pneumonia.

Stress cover dose of IV hydrocortisone was started. A few days later, the IV hydrocortisone was switched to nasogastric (NG) route and planned to step down the dosage when sepsis is resolved. However, the treatment order was incorrectly written as “prednisolone 40mg om and 20mg pm”. When the patient was transferred to another hospital, high dose steroid was continued. Six weeks later, the patient complained of dizziness and tachycardia. His spot glucose was 28.6 mmol/L. He was admitted for hyperosmolar-hyperglycemic syndrome and the incident was discovered.

Case 2 – A patient with complete pituitary excision on long-term hydrocortisone was admitted for fever. He was put on IV antibiotic and IV hydrocortisone after admission. A doctor assumed the steroid was for treating the patient’s wheeze. The IV hydrocortisone was later changed to oral prednisolone and weaned off as the wheeze resolved. The patient was later transferred to a convalescent hospital. A few days later, the patient developed hypotension and required fluid resuscitation.



Learning Points

- Be particularly alert when adjusting dosage and type of glucocorticoid for patient on steroid therapy
- Input an “Alert Message” in CMS / MOE when patient is on long-term steroid replacement



Patients on Long-Term Steroid – Warning Signs if.....

Overdose

- Vertigo
- Blurred vision
- Tachycardia
- Sleepiness
- Confusion or hallucination
- Extreme thirst



High blood sugar



High blood pressure

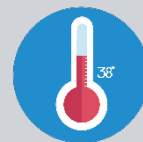


Frequent urination



Sudden Withdrawal

- Dizziness or fainting
- Weakness
- Fatigue
- Decreased appetite
- Weight loss
- Abdominal pain
- Joint and muscle pain



Fever



Diarrhoea



Hypotension



Low blood sugar



Electrolyte imbalances



Dehydration

Long Term Steroid

1 Corticosteroid Dose Conversion Table

The potency and duration of action of the various glucocorticoids can vary greatly. The use of Corticosteroid conversion table can guide the proper conversion among glucocorticoids with different levels of potency.



	Equivalent dose (mg)	Potency relative to hydrocortisone		Duration of action (hours)
		Anti-inflammatory	Mineralocorticoid	
Glucocorticoids				
Short acting				
Hydrocortisone*	20	1	1	8-12
Cortisone acetate	25	0.8	0.8	8-12
Intermediate acting				
Prednisone	5	4	0.8	12-36
Prednisolone	5	4	0.8	12-36
Methylprednisolone*	4	5	0.5	12-36
Long acting				
Dexamethasone*	0.75	30	0	36-54
Mineralocorticoid				
Fludrocortisone	-	15	150	24-36

*These medications are also available for intravenous administration. Doses of intravenous medications are not equivalent to oral medications.

Reference: Samuel S et al (2017). Pharmacologic Characteristics of Corticosteroids. Journal of Neurocritical Care. 10(2), 53-59.]

2 Coming Enhancement on Clinical Management System Alert in HA

To prevent unintentional discontinuation of steroid for patients on long-term replacement

Change "On steroid" to "On long-term steroid replacement"

Add optional validity period

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Suggestion or feedback is most welcome. Please email us through HA intranet at address: [HO Patient Safety & Risk Management](#)