



ISSUE 72 Jan 2024

A Risk Management Newsletter for Hospital Authority Healthcare Professionals

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Opening Message

Taking Every Step for Patient Quality and Safety

Ensuring patient quality and safety is a fundamental responsibility of healthcare institutions. It is imperative that we strive for excellence in every aspect of patient care, from the inception of a hospital's design to the daily operations and clinical management to ensure patient safety.

The journey towards ensuring patient quality and safety begins right from the very foundations of a hospital. The design and construction of healthcare facilities play a pivotal role in creating an environment that fosters healing, comfort, and safety for patients, visitors and staff. For example, adequate air changes per hour (ACH) is crucial for infection control; the integration of infrastructure for smart care streamlines the workflow of daily patient care; the installation of automated medication dispensing machines minimizes the occurrence of dispensing errors.

Patient quality and safety is especially important after the completion of the hospital's construction. It is crucial to engage frontline colleagues in enhancement of daily operations and clinical management. By providing comprehensive training, fostering a culture of speak up, and involving frontline colleagues in quality improvement initiatives, we can effectively identify and address vulnerabilities, reduce errors, implement preventive measures and enhance safety culture.

Let's join hands to take every step to provide the highest quality and safety care for our patients!

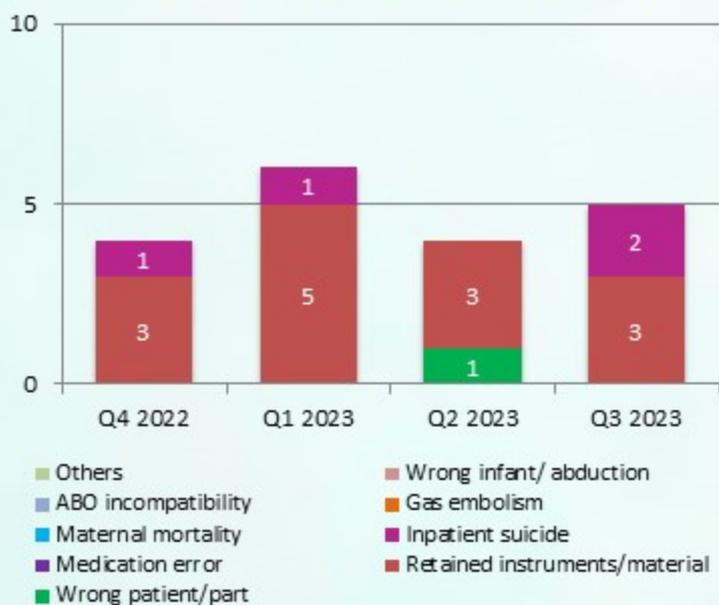
Dr Victor IP

KEC Service Director (Quality & Safety)



SE & SUE Statistics

Distribution of SE in the last four quarters



Distribution of SUE in the last four quarters



Sentinel Events

Retained Material

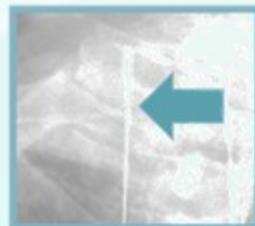
Guide Wire

A patient with a history of sigmoid carcinoma and liver metastasis underwent laparotomy and reversal of Hartmann's operation in a private hospital. He developed post-operative complications and was transferred to the Intensive Care Unit (ICU) for urgent renal support therapy where a **dialysis catheter and central venous catheter (CVC)** were inserted by **Doctor B** under supervision of **Doctor A** at bedside.

After insertion, **resistance was experienced when aspirating blood** from one lumens. **Assuming Doctor B** had removed the guidewire, **Doctor A** manipulated the catheter and lumens were confirmed to be patent. The nurses **assumed Doctor B** had removed the guidewire.

Doctor and nurse then signed on the CVC Insertion Safety Checklist for the two insertions procedures performed.

Review of X-rays showed a retained guide wire, which was successfully retrieved.



Learning Points



1. Guidewire retention is one of the **differential diagnoses** when **resistance is encountered** while aspirating blood after insertion
2. Enhance training on CVC insertion with Seldinger technique, particularly on critical steps of **guidewire removal and troubleshooting**
3. Clearly **define roles and accountability** of doctors and nurses during CVC insertion and subsequent checking and signing of the CVC Insertion Safety Checklist
4. Do **not** open a suture needle unless guidewire removal is confirmed

Plain Gauze



A patient was diagnosed with squamous cell carcinoma after a cervical biopsy performed by a **private** gynaecological oncologist.

She underwent various procedures at **Hospital A**, which included cervical biopsy, vaginal examinations, and brachytherapy.

During the 2nd brachytherapy, a non-raytec gauze, which had been retained, was identified and removed. The exact source of retained gauze could not be ascertained as plain gauze was used in both private and public settings.

Learning Points

1. Re-engineer the workflow of O&G procedures, to ensure accurate **counting and documentation** of all **consumables and instruments** that could be left in patient's body cavity
2. Implement the use of a **receiver to contain used gauze** for counting and documentation, and position waste bins away to prevent accidental disposal of used gauze

Broken Suction Tube Fragment



Nasal-pharyngeal suction was performed to a non-communicable patient on nasogastric (NG) tube feeding by nurses and physiotherapists. The patient was occasionally uncooperative and required assistance during suctioning.

On the same day, staff observed the patient biting a catheter. A nurse removed an intact NG tube and found a **fragment resembling the tip of a suction catheter in patient's mouth**. A subsequent chest x-ray did not show any definite foreign body.

Learning Points

1. **Avoid oro-pharyngeal** suction for **uncooperative** patients
2. Check the **integrity** of the suction catheter **before and after** suctioning
3. Place a **bite blocker** on standby for uncooperative patients if oro-pharyngeal suction is needed

In-Patient Suicide

A patient with a history of depression and repeated suicide attempts, was admitted on a Friday evening after an overdose of paracetamol and rat poison in a suicide attempt. The patient appeared calm and cooperative in the Medical ward, and was put on bihourly suicidal risk observation and assigned a bed near the nursing station for close monitoring. Psychiatry consultation was initiated on the same day.

On Sunday, the patient was found missing during visiting hours. Despite immediate local search, contacting of family and the Police, the patient could not be located. After about two hours, following a loud sound outside the ward, the patient was found to have fallen from height. The patient succumbed despite resuscitation.

Learning Points:

1. Importance of staff knowledge, **psychiatric and security manpower support** for suicide prevention in non-psychiatric units
2. Comprehensiveness of **patient search protocols**, i.e. inclusion of all relevant locations and review of CCTV footage
3. **Facility improvement** and maintenance (e.g. door lock system, CCTV, fall-prevention railings) to **prevent unauthorised access** to and potentially dangerous activities in restricted areas
4. **Tagging and alarm systems** for tracking of vulnerable patients and timely intervention

✶ A patient with no prior psychiatric history was admitted for **self-inflicted injury**, with a fractured and nearly amputated left index finger and three other finger lacerations. After emergency operation, a **volar slab** was applied to left hand up to the forearm for stabilisation and protection.

The patient was agitated and uncooperative post-operatively. She was noted to be struggling and repeatedly **banged her head** on the bed rails, and self-muttering with incomprehensible words. She was transferred to a special observation ward for close monitoring and protective measures were given:

- **Pillows** were placed between the patient's head and bed rails for cushioning.
- **Magnetic limb holders** were applied to the uninjured right upper limb and bilateral lower limbs for protection.
- **Towel** for padding was secured around the patient's head using crepe bandage to avoid dislodgement.



In view of confusion with tendency of self injury, the patient was put on **suicidal precaution** after assessment.

Additional **magnetic shoulder and waist belts** were applied for stabilisation. The patient was then observed to be calm after antibiotics injection and at multiple intervals throughout the night. However, she was later found to be unresponsive. While all restraints were still in place, the volar slab was found on the floor and bandage was noted around her neck. Resuscitation was attempted immediately but in vain.

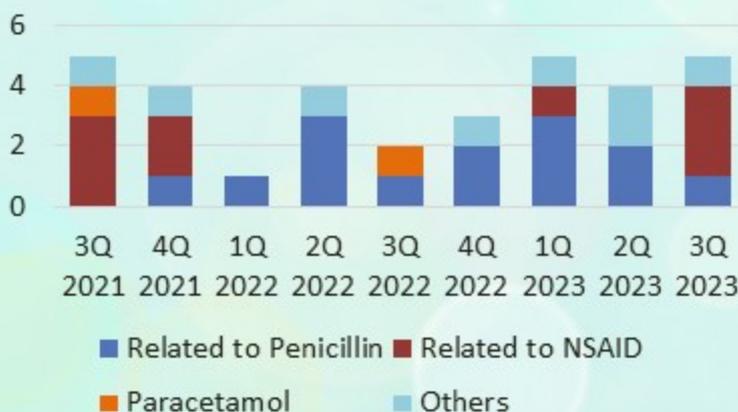
Learning Points

1. Enhance training on **Assessment and Clinical management of patients with confusion and/or self-harm behavior**, e.g. on the use of physical and/or chemical restraints
2. Enhance the **equipment for protecting patients** from self-injury e.g. **Bedrail pads**

Serious Untowards Events

Of the 18 SUE cases reported in 3Q 2023, 16 cases were related to medication errors, including known drug allergy (KDA) (5), anticoagulants (3), chemotherapy agents (1), vasopressors and inotropes (1), insulin (1) and others (5).

Number of KDA cases (3Q 2021 – 3Q 2023)



Known Allergy	Allergen prescribed
Doloxene Co	Voltaren
NSAID	Ketorolac
NSAID	Mefenamic acid
Cephalosporin	Augmentin
Norvasc	Norvasc

Patient Misidentification (Specimen Handling)

Case 1

In a Specialist Clinic, two patients presented with menstrual irregularities.

Patient X, with irregular cycles, could not complete endometrial sampling due to intolerance. A follow-up appointment was scheduled.

Patient Y, with prolonged cycles, underwent successful sampling.

But the sample was mislabeled with the **leftover label** of **Patient X**.

The error was discovered when **Patient Y's** endometrial sampling results were not found in the CMS during a follow-up visit at another hospital.

Both patients had the procedure repeated with normal findings.

Case 2

Patient A's tissue mass was placed in a formalin-filled specimen bottle, alongside the request form in a specimen bag, which then placed into a specimen collection box.

Similarly, **Patient B's endometrium biopsy** was labelled and bagged with its request form before being placed into the same collection box.

After noticing a leak in one of the specimen bags, nurse Y was informed and she transferred the contents into a new bottle. Nurse Y, without verifying the patient identity, made assumption and incorrectly labeled the new bottle.

At the laboratory, a discrepancy between the specimen labels and the request forms was noted. Ward nurse Z, without verifying patient identification, or notifying the doctor, made assumption and relabeled one of the bottles.

Molecular studies later confirmed the specimens had been mislabeled. Patients' clinical management was unaffected.

Learning Points

1. Develop a standard operation procedure for **verifying patient identity at the point of specimen collection and during all subsequent handling**
2. Strengthen **training** on patient identification and specimen handling procedures. Ensure consistent compliance through regular audits and surprise checks
3. Promote effective communication to ensure **any doubts are clarified** before proceeding with specimen processing

Medication Errors

Case 1

A patient with chronic rheumatic heart disease on warfarin therapy was admitted to the intensive care unit and prescribed **Enoxaparin Sodium 40mg subcutaneous bolus injection Q12H (Give if INR <1.8)** via the Inpatient Medication Entry (IPMOE) system.

Due to INR value misread as **1.7** (actual **2.7**), Nurse A proceeded to counter-check the Enoxaparin with Nurse B. Nurse B verified the patient's information displayed on the IPMOE and the drug item, electronic signed through the system. One unnecessary dose was administered. The patient's condition was unaffected.



Learning points

1. Use the **pop-up laboratory result list** of the **"Medication Genie" icon** displayed on the "Drug Administration" module of the IPMOE system to **check the patient's last laboratory result** during drug administration

2. Enhance medication safety through:
- strengthen independent double check
 - surprise check
 - simulation training

The screenshot shows the IPMOE interface. On the left, there are two drug entries: "Ondansetron HCl Dihydrate (ZOFTRAN) injection" and "Dexamethasone Sodium Phosphate 4 mg/mL". A yellow pop-up window titled "Latest result from ePR within 7 days" is overlaid on the right. It contains a table with the following data:

Test	Result	Date
Glucose, Capillary Blood, POCT	---	---
Glucose, Whole Blood, POCT	6.7 mmol/l	05/05/2022 05:54
Potassium	4.6 mmol/l	05/05/2022 05:59
INR	1.11	05/05/2022 05:59
Platelet	307	05/05/2022 05:59



Case 2

A COVID-19 patient was discharged on **Baricitinib**, Paxlovid and Dexamethasone for **additional 5 days**.
** Baricitinib was prescribed as a "special drug" for COVID-19 infection, not as a self-financed item for rheumatoid arthritis)*

A week later, at an outpatient follow-up, a doctor prescribed usual medications together with Baricitinib **for 16 weeks**, which was verified by pharmacy staff.

A month later, the patient was readmitted for epigastric pain. Her regular medication regimen including Baricitinib was resumed. A nurse noticed the extended Baricitinib course and, after consultation, the drug was discontinued. The patient had no adverse effects from the extended Baricitinib course.

Learning points

1. **Review all drug orders** before initiating and confirming prescription
2. Utilise the **"Single Use" function on IPMOE** when prescribing drugs intended to be used once only

Fixed Period
 Single Use

Special Instruction Click **"Advanced"** button for complex prescription
Free Text instruction

When a "Single Use" drug is repeated, a message prompt will appear.

The screenshot shows a message prompt window titled "Question (1-12000-1-Q-241)". It has a "Print Message" button in the top right. The window contains a question mark icon and the following text:

DESCRIPTION
This is marked as "Single Use".

ACTION
Select one option:
1. Repeat this single use item
2. Do not repeat this item.

At the bottom, there are two buttons: "Repeat" and "Do not Repeat".

3. Implement a reminder in the Pharmacy Management System (PMS) that prompts staff to **verify drug indications** when encountering Baricitinib
4. During dispensing process, instead of conducting a drug-by-drug review, review the **complete drug profile**, which can provide hints to potential prescription error

Safe Use Of O₂ Cylinder

BEFORE USE

3 Steps

開大掣

檢存量

校流量



Integral Valve **FX Cylinder**
(Built-in regulators)



A Turn the valve handwheel anticlockwise to a complete stop until is **ON** shown to **Open the Cylinder Valve**



B Check cylinder gauge for **Content Level**



C Set prescribed **Flow Rate** by rotating the dial flow selector



Pin-index Valve **Standard Cylinder**
(Use with external oxygen regulator)



2 Tips

Ensure **no gas leak** of entire system

Ensure **O₂ is adequate** for transfer
Bring **extra** / use **new** O₂ cylinder if needed
(e.g long distance, ventilator / NIV cases)

1 Staff

O₂ cylinder should be managed by **1 staff**

AFTER USE

A **CLOSE**
cylinder valve

B **VENT**
pressure by turning
flow selector fully

C **CLOSE**
flow selector



Q1. How can I ensure that oxygen is adequate for the given transfer journey?

A. Calculate by formula:

$$\text{Duration (min)} = \frac{\text{Remaining contents on cylinder gauge}^\#}{\text{Flow Rate (L/min)}} \times \text{Cylinder FULL Capacity}^* \text{ (L)}$$

#FULL= 100% $\frac{3}{4}$ full = 75% Half full = 50% $\frac{1}{4}$ full = 25%

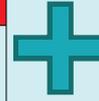
B. Refer to reference table:

Size	Full Capacity* (Litre)	Flow Rate (Litre/Min)									
		1	2	3	4	5	6	8	10	15	
B	145	02:25	01:10	00:45	00:35	00:30	00:25	00:15	00:10	00:05	
C	230	03:50	01:55	01:15	00:55	00:45	00:35	00:25	00:20	00:15	
D	320	05:20	02:40	01:45	01:20	01:05	00:50	00:40	00:30	00:20	
E	700	11:40	05:50	03:50	02:55	02:20	01:55	01:25	01:10	00:45	
FX	700	11:40	05:50	03:50	02:55	02:20	01:55	01:25	01:10	00:45	



Consider some factors might shorten duration of O₂ use

Nasal cannula	↑ O ₂ Flow rate
BiPAP / Oxylog / Other portable ventilators	↑ Pressure setting / Tidal volume / Respiratory rate / FiO ₂
Mask / Connection / Tubing	↑ Gas leak



When in use, regularly check cylinder gauge for remaining O₂ content level

≥ $\frac{3}{4}$ Full when transporting critically ill patient

If needle is in the RED zone, STOP using this cylinder



Trouble shooting		
Problem	Cause	Action
No O ₂ flow	Valve / flow selector is closed	Opened valve + Flow selector
	Cylinder is empty	After the valve and flow selector is opened, check if the needle is in the RED zone. If yes, STOP using it.
	Tubing is disconnected / leaking	Check all connections, and tubing for kinks, splits or blockages

When transporting critically ill patients, ensure O₂ cylinder is at least $\frac{3}{4}$ FULL.

Critical points during Transfer



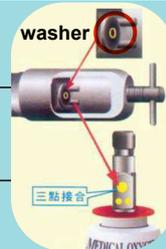
1. Facilitate the route of escort
2. Regularly check the cylinder gauge for remaining O₂ and patients' oxygenation
3. If O₂ is insufficient, transfer the patient immediately to the nearest facility with O₂ supply

Q2. How do I detect gas leak?

Hear or feel a loud leak or hissing sound after opening the valve.

Trouble shooting

Problem	Cause	Action
Low O ₂ flow	Regulator is not tightly attached	Close the valve. Check and tighten connection between the regulator and the cylinder.
	No washer between regulator and cylinder	Replace the regulator
	Tubing or mask is disconnected/ leaking	Check all connections, and tubing for kinks, splits or blockages



Q3. When I turn on the flowmeter, why does the pressure needle rapidly fall to zero?

This applies to pin-index valve standard cylinder only. If the valve is not open, the needle falls due to residual gas from last use, which remained in dead space. This should NOT happen in FX cylinder.



Pin-index Valve Standard Cylinder

Credit: HONSD, CPO & KWC Q&S Reference: Linde HKO

Please refer to department / hospital's advice on use of O₂ cylinder with equipment e.g. BiPAP, portable ventilators and high-flow oxygen therapy.

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