RISK ALERT

ISSUE 59 OCT 2020

A Risk Management Newsletter for Hospital Authority Healthcare Professionals

IN THIS ISSUE

Opening Message

Less is More

In busy clinics like Medical Specialist Outpatient Clinics, one of the major tasks for the clinic in-charge, in between seeing patients, answering calls and supervising junior colleagues, would be the screening of a whole pile of laboratory reports. He or she would need to sort these all out, identify the urgent ones requiring intervention among numerous normal reports which they just sign (or use their name chop to "chop, chop, chop").

Normal laboratory reports constitute up to 50% of all reports, and it is not uncommon that in between these normal reports there are one or two "hidden" reports harbouring critical abnormal results. The latter account for 2.5% of all laboratory reports. This hide-and-seek game poses a trap to our clinicians, as well as to our patients.

So why don't we go for a change? Why don't we screen out these normal laboratory reports, not print them, and not allow them to distract ourselves?

Starting in some hospitals back in 2017, including North District Hospital (NDH), Tuen Mun Hospital and Tseung Kwan O Hospital, normal laboratory reports are filtered. Taking NDH as an example, 1,600 laboratory reports are screened out automatically and not printed each day. This means saving 384,000 pieces of paper or 5 trees per year, as well as sparing 3 working hours for the doctor per day.

A simple application of technology can help us conserve time, protect the environment, while we can keep safe, accurate and focused.

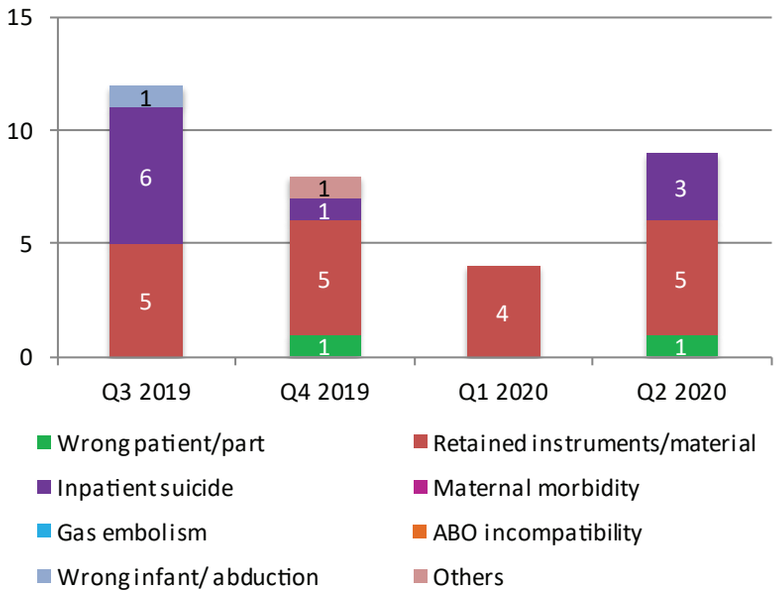
Dr Su-Vui LO,

Cluster Chief Executive,

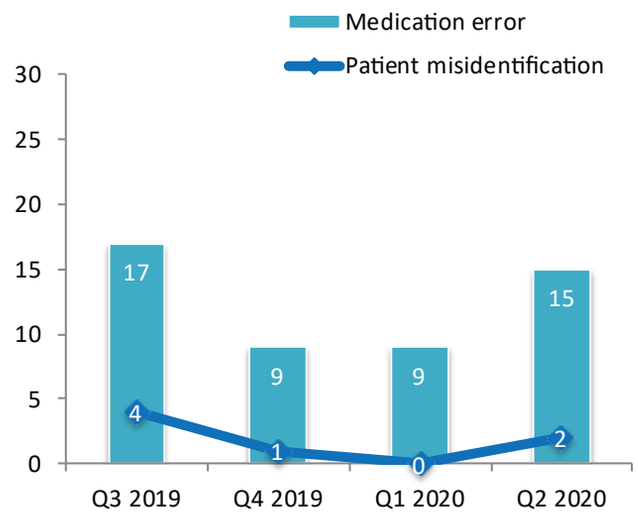
New Territories East Cluster

SE & SUE Statistics

Distribution of SE in the last four quarters



Distribution of SUE in the last four quarters



Sentinel Events

Retained Instruments / Material

Central Venous Catheter (CVC) Guide Wire

- A patient required intubation and resuscitation. A CVC was inserted for inotropes.
- After 2 attempts of insertion, the attending doctor confirmed the placement of CVC by withdrawing blood from two of 3 catheter lumens.
- At the same time, the patient developed an electrocardiogram change and adrenaline was administered.
- The assistant nurse helped to confirm the patency of the third lumen by flushing 0.9% sodium chloride solution.
- Another nurse asked whether the guide wire had been removed. It was found that a guide wire was placed inside the sharps box and a question was raised as to whether it was the one just used.
- Meanwhile, an urgent chest X-ray was taken. A retained CVC guide wire was identified while reviewing the X-ray.
- The guide wire was removed by interventional radiology.

Key Contributing Factors

1. No standardisation of counting all materials used before disposal.
2. No standardisation of procedure set used. A disposable dressing set was used instead of a suture set.
3. Unclear role delineation of an assistant.

Collect **guidewire(s)** & check **integrity** **before** performing **suture**!

Recommendation

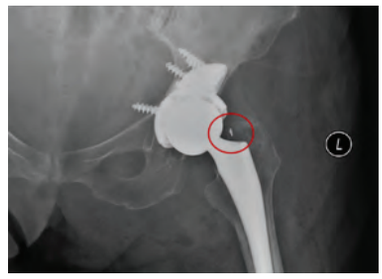
Develop a departmental protocol for CVC insertion to standardise the procedure steps and role delineation of each team member.

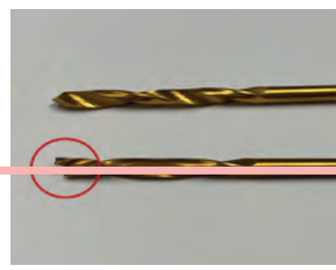
An eCourse is newly introduced to the eLC platform.

The eLC eCourse can be accessed by this hyperlink (with quiz after viewing the long video):

"Safety Precautions in Central Venous Catheter Insertion"

Drill Bit Fragment





- A patient underwent LEFT total hip replacement operation.
- A 2.5mm drill bit was used to create two holes in patient's greater trochanter.
- Completeness was checked and no abnormality was detected after use and during instrument counting.
- A 0.5cm drill bit tip fragment was found missing during instruments reprocessing.
- Post-operative X-ray revealed retained drill bit fragment.
- The patient agreed with the treatment plan for serial X-ray monitoring.

Key Contributing Factors

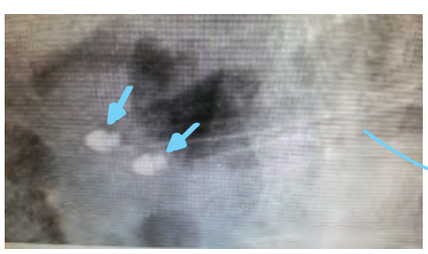
1. Time pressure during the counting process, as more than 1,000 items were involved.
2. High risk of instrument breakage due to a fine drill bit (2.5mm in diameter) on impact with bones and prostheses.
3. The damage pattern of the drill bit.

Recommendations

1. Identify critical instruments used during the operation and adjust the checking threshold. In case of any doubt, involve surgeon to perform double checking.
2. Explore the feasibility of limited or single usage of fine drill bits.
3. Enhance awareness towards the wear and tear of instruments through experience sharing.

Segment of Silicone Nasogastric Tube

- A patient with multiple chronic illness required feeding via a nasogastric tube (NGT).
- One day, the NGT was found coiled in the patient's month. The feeding was stopped and the coiled NGT was removed by an assistant nurse.
- A new NGT was inserted without documentation on the NGT removal and insertion. Feeding was resumed after confirming the placement by X-ray.
- About one month later, the NGT was found coiled in patient's mouth again. The NGT was removed, reinserted and documented.
- Post-procedure X-ray revealed an abnormal opacity, and the NGT was then removed with X-ray taken. The same radio-opaque line was shown in the X-ray image.



- Oesophago-gastro-duodenoscopy was performed, and a 35cm long broken silicone NGT segment was found and removed. An Entriflex feeding tube was inserted for feeding.
- All previous X-ray images were reviewed, and it was found in one of the images a vague double radio-opaque line under the diaphragm. However, without the context of possible retained NGT, the broken segment was difficult to be identified.

Key Contributing Factors

1. The NGT was frequently found coiled in the patient's mouth; the patient also munched any content inside her oral cavity increasing the chance of breaking the NGT.
2. Upon removal of the coiled NGT, there was no checking of the integrity, especially the presence of the tip of the tube.
3. Lack of consistent practice for documentation of NGT removal.

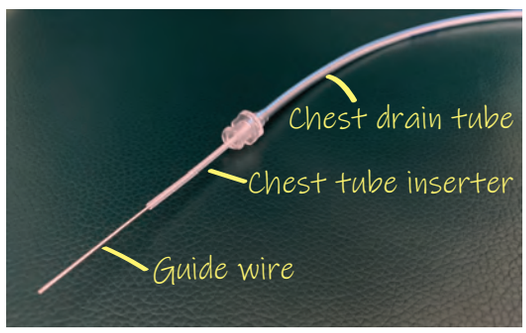
Recommendations

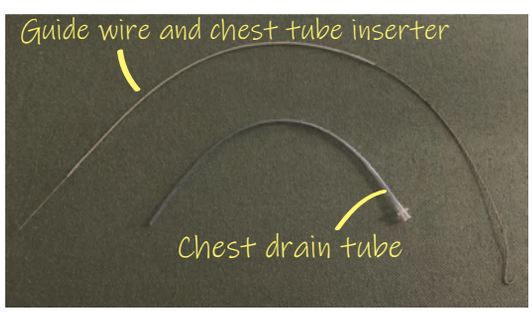
1. Strengthen the practice of checking integrity, especially the presence of the tip of the NGT upon removal.
2. Align the practice of documentation for NGT insertion and removal, with compliance monitored.

A Chest Drain Set Guide Wire

- Bedside chest drain insertion was performed for a patient with pleural effusion. A chest drain set was used and the procedure was performed uneventfully.
- Post procedure chest X-ray revealed a retained guide wire.
- The guide wire should have been withdrawn with the chest tube inserter (inner sheath) together in one piece after placement of the chest drain tube was confirmed.
- However, only the chest tube inserter was removed and the guide wire was left in-situ without being noticed.
- Another chest drain insertion procedure was performed with the retained guide wire removed. The guide wire was checked and confirmed intact.

Chest drain kit set





Key Contributing Factors

1. The doctor had time constraints to attend the scheduled out-patient consultation session.
2. Guide wire and chest tube inserter were presumed to be removed together in one piece.
3. Countercheck of guide wire after procedure was not performed.

Recommendations

1. Concentrate on performing and assisting the procedure especially during critical steps.
2. Perform the "SIGN OUT" procedure and countercheck the number of instruments used together with ‘‘Pointing and Calling".
3. Conduct regular training on chest drain insertion for doctors and nurses.

Metallic Fragment

- A patient with fractured LEFT calcaneum underwent open reduction and fixation operation with locking plate to the LEFT tarsal bone.
- Number of surgical items and its integrity were confirmed in the pre- & post-procedure safety check.
- The operation was uneventful and the patient was discharged on the next day.
- X-ray taken in post-procedure week 8 revealed a 1.5mm metallic fragment inside the patient’s calcaneum.
- Upon retrospective review of all previous X-ray images, the fragment was shown since the completion of operation, including the intra-operative images.

Key Contributing Factors

1. Unsuspected tiny metallic fragment (around 1.5mm in size) from surgical instrument or implant left behind during operation.
2. Visualisation of X-ray image was obscured by the presence of C-arm cursor.

Recommendations

1. Consider removing the C-arm cursor on the X-ray image during operation.
2. Consider adopting good practice of viewing the final X-ray images in both standard mode (‘bones in white’) and inverted mode (‘bones in black’) for the analysis and interpretation of images at the end of operation.

Wrong Patient / Part

Brachial Plexus Nerve Block was Performed on RIGHT instead of LEFT Side of Patient

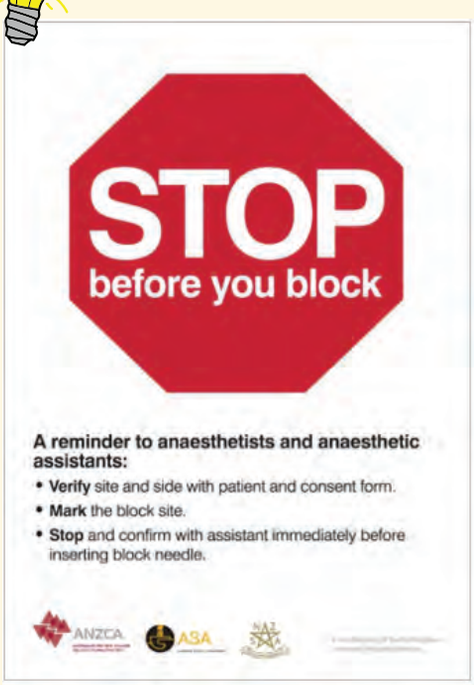
- A patient with fractured LEFT distal radius was arranged for open reduction and internal fixation operation.
- An arrow was marked on patient's LEFT dorsum as surgical site marking.
- Before operation, the skin preparation trolley and ultrasound machine were placed on patient's LEFT side.
- Blood pressure cuff was set on patient's RIGHT arm. Intravenous (IV) cannulation was set on RIGHT hand.
- "SIGN IN" was performed. The blanket covering patient's LEFT arm was flipped, and the marking on LEFT hand was checked.
- Before performing nerve block, the drip stand was moved to the patient's LEFT side, and the skin preparation trolley was moved to the RIGHT side.
- Nerve block injection was given with ultrasound guided on patient's RIGHT brachial plexus (supraclavicular approach).
- After the nerve block procedure, it was noticed the IV cannula was set on patient's RIGHT hand. Upon removal of the LEFT upper limb blanket, it was found that the LEFT distal radius was bandaged.
- After discussion with the patient, the patient preferred regional anaesthesia to general anaesthesia.
- LEFT brachial plexus nerve block was performed uneventfully.

Key Contributing Factors

1. "SIGN IN" and "TIME OUT" were performed, but there was no mechanism to perform "TIME OUT" before nerve block.
2. Correct site was not checked and confirmed before the nerve block procedure and staff was misled by the visual cues of patient's posture and position of equipment.
3. Staff in operating room did not speak up and clarify despite having doubts.

Recommendations

1. Formulate and implement mechanism for conducting "TIME OUT" before regional anaesthetic procedures.
2. Reinforce all staff to seek clarification whenever in doubt and cultivate speak-up culture.



"STOP before you block"

A site check to prevent wrong side blocks.

The principle :

* Anaesthetists and anaesthetic assistants conduct a "stop moment" to check CORRECT site and side of procedure.
* Immediately before needle insertion when performing a peripheral nerve block.

Acknowledgement: Department of Anaesthesiology, QMH

References:

ANZCA website: https://libguides.anzca.edu.au/safety/home

ANZCA professional standard: PS03 Guidelines for the Management of Major Regional Analgesia

Patient Suicide

In Q2 2020, three patients (2 female and 1 male patient, aged between 62 and 67) had committed suicide: two by hanging in hospital and one by hanging at home after leaving the hospital without notification.

Case 1

- A patient with adenocarcinoma of the lung with multiple metastases was admitted for shortness of breath.
- DNACPR was signed on admission.
- Suicidal screening on admission showed that patient was not at risk of suicide.
- On day 2 after admission, patient's bedside curtain was found half drawn. It was noted that the patient hanged with a scarf tightened to the monkey pull.
- Patient succumbed despite resuscitation.

Case 2

- A patient with depression and recently diagnosed colorectal cancer with liver metastasis was admitted for suspected subacute intestinal obstruction.
- Suicidal screening on admission showed that patient was not at risk of suicide.
- On day 3 after admission, patient went shopping at convenience store and did not return after 1.5 hours.
- Hospital search for the patient was in vain. Relatives were contacted. The case was reported to the Police.
- Subsequently, patient was found hanging at home and was certified dead at the Accident & Emergency Department.

Case 3

- A patient with Stage III olfactory neuroblastoma after receiving concurrent chemoradiotherapy was assigned to an isolation room for neutropenic fever.
- Suicidal screening on admission showed that patient was not at risk of suicide.
- On that night, patient was found not in bed. Patient's toilet door was closed but not locked. Patient sat on the floor in the shower area with a shower hose around the neck. The shower curtain was found to be collapsed.
- Patient was unconscious and was transferred to bed. Resuscitation was initiated.
- Patient remained in asystole and was certified dead subsequently.

Conclusion: The overall assessment and management were considered appropriate and timely.

Overall Contributing Factors

1. The unanticipated change in mental state of the patient leading to unpredictable suicidal impulse.
2. Patient concealed suicidal idea and plan which caused difficulty to detect suicidal risk.
3. Presence of environmental risk in patient bathroom.

Recommendations

1. Speed up the process of environmental modification based on relevant guidelines on hospital security design.
2. Enhance the communication with family members on patient's suicidal warning signs or unusual expression/ instruction.

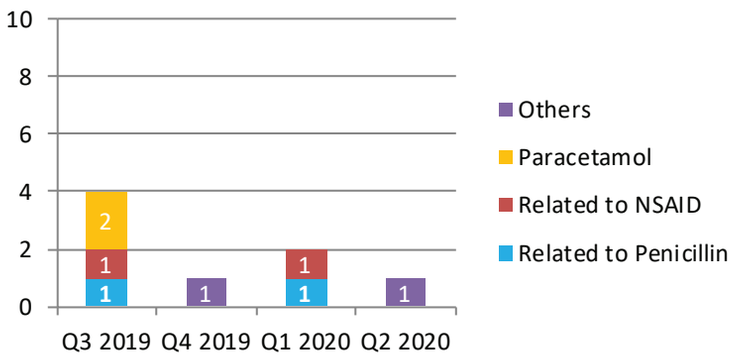
Serious Untoward Events

Of the 17 SUE cases reported in Q2 2020, 15 cases were due to medication errors and 2 were due to patient misidentification.

The medication error cases involved giving known history of allergic drug (KDA) to patient (1), dangerous drug (2), anticoagulant (2), antiplatelet (1), insulin (1), vasopressors & inotropes (1), chemotherapeutic agent (1), concentrated electrolytes (1) and others (5).

Known Allergy	Allergen Prescribed
Holopon	Buscopan

There was no allergic reaction in the known drug allergy case which occurred in Accident & Emergency (A&E) Department.

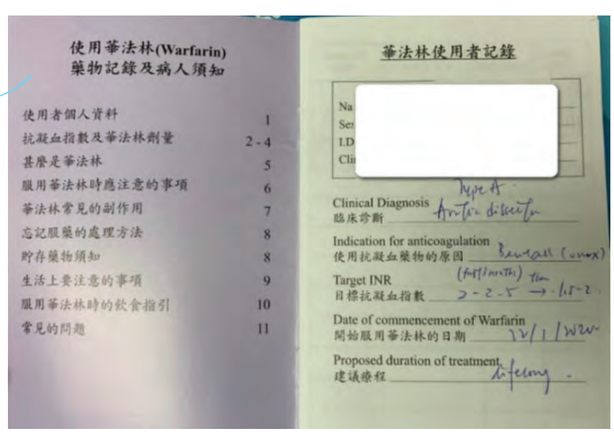


Number of KDA cases in the last four quarters

Medication Error

Warfarin 3mg on Even Days Instead of Daily was Prescribed

- A patient who had undergone aortic valve replacement was prescribed Warfarin, aiming to keep the international normalised ratio (INR) within the range of 2.0–3.0 for the first 3 months and subsequently within 1.5–2.0.
- A warfarin booklet stating the therapeutic range of INR was given to the patient upon discharge from hospital.
- Subsequently, patient was diagnosed with atrial fibrillation, diabetes mellitus and hypertension and was referred to the Specialist Outpatient Department (SOPD) for follow up.
- At the first consultation in SOPD, the attending doctor intended to to reduce the warfarin dose from “3mg on even days / 3.5mg on odd days” to “3mg daily”.


使用華法林(Warfarin)
藥物記錄及病人須知

使用者個人資料 1
抗凝血指數及華法林劑量 2 - 4
甚麼是華法林 5
服用華法林時應注意的事項 6
華法林常見的副作用 7
忘記服藥的處理方法 8
貯存藥物須知 8
生活上要注意的事項 9
服用華法林時的飲食指引 10
常見的問題 11

華法林使用者記錄

Clinical Diagnosis 臨床診斷 Aortic disease
Indication for anticoagulation 使用抗凝血藥物的原因 Bacwall (AVR)
Target INR 目標抗凝血指數 2 - 2.5 → 1.5-2
Date of commencement of Warfarin 開始服用華法林的日期 12/1/2020
Proposed duration of treatment 建議療程 Lifelong

- The doctor documented “warfarin 3mg daily” on the consultation notes but inadvertently prescribed warfarin 3mg on even days only in the out-patient medication order entry (OPMOE).
- After around 2 weeks, the patient attended A&E Department for dizziness and vomiting with upper limb ataxia and the INR was 1.1. The patient was diagnosed to have a posterior circulation infarct.
- Patient was admitted to the hospital and discharged a few days later after Warfarin titration with no residual neurological deficit.

Key Contributing Factors

1. Alternate daily dosing was intended to change to same daily dose but the odd or even day prescription was mistakenly omitted.
2. Unaware of Warfarin workflow.
3. Suboptimal SOPD Pharmacy environment during renovation increased the risk of lapse of concentration.

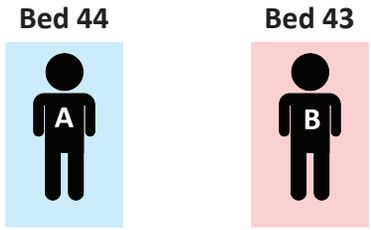
Recommendations

1. Explore possibility of system checking when Warfarin is prescribed at wrong frequency.
2. Review the orientation program for the newcomer.
3. Implement strategies to reduce distractions and improve the environment for safe drug dispensing during renovation.

Patient Misidentification

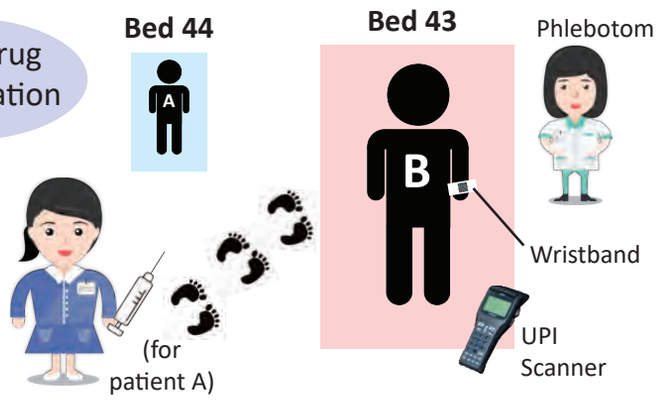
Insulin was Administered to the Wrong Patient

- Patient A was admitted for LEFT lower leg cellulitis and newly diagnosed diabetes mellitus (DM).
- Antibiotics and Insulin (Actrapid) were prescribed.



- Patient B, who was nursed in the next bed of patient A, was admitted for LEFT lower leg cellulitis with normal blood glucose level.

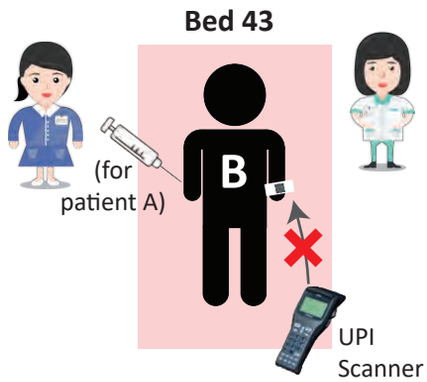
Before drug administration



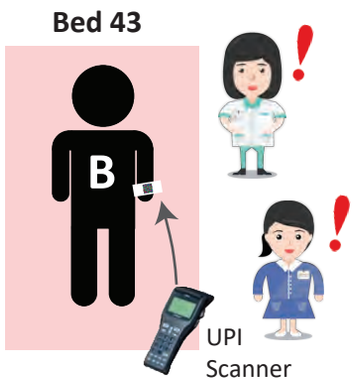
- Nurse approached patient B while intending to administer Insulin and antibiotics to patient A. The UPI handheld scanner was placed at bed-end.
- At that time, a phlebotomist was performing blood taking at patient B's LEFT side where the wristband was worn.
- Patient B denied having DM. The nurse told patient B that he was newly diagnosed to have DM.

Drug administration

The nurse administered Insulin (Actrapid) to B without scanning the wristband.



After injection



- The phlebotomist taking blood for patient B informed the nurse that the abnormal blood glucose result might belong to patient A.
- The nurse scanned patient B's wristband and noted wrong patient identity. A bolus dose of 20ml D50 was given to patient B.

Key Contributing Factors

1. Both Patients A & B have similar diagnoses and stayed in the same cubicle.
2. The nurse had low situational awareness for possible wrong patient identification, and not using the UPI device to scan the wristband.

Recommendations

1. Mentors should be assigned to coach the nurse to promote risk awareness and perception.
2. Departmental nursing audit on administration of medications should be conducted regularly.

Nurses **must** scan barcode on patient's wristband to verify the right patient **before administration of drugs**.