RISK ALERT

ISSUE 58 JUL 2020

A Risk Management Newsletter for Hospital Authority Healthcare Professionals

IN THIS ISSUE

Opening Message

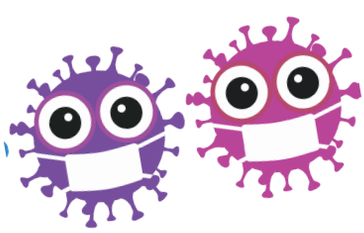
Medication Safety During COVID-19

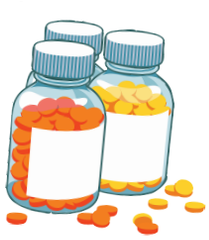
Our daily lives have been changing a lot since the COVID-19 pandemic started. We spend much more time at home instead of hanging out. Since HA announced the activation of the Emergency Response Level in January 2020, various measures have been implemented in order to reinforce infection control, including social distancing. HA staff rapidly transformed the way we worked, morphing into virtual teams, discussing our work and ideas via webinars or video meetings instead of meeting face-to-face. Like it or not, we are all living under a "new norm", impacting almost every facet of our lives.

In some countries which have been hit hard by the virus, we have seen that medication safety has been affected in many different, if not unexpected, ways. We have seen hospital drug order processing undertaken by pharmacists working at home instead of the hospital pharmacy. Unproven medications for prophylaxis and treatment of COVID-19 were tried to combat this novel infection, which sometimes resulted in unnecessary patient harm. To reduce nurses' exposure to COVID-19 patients due to personal protective equipment shortages, some overseas hospitals kept ICU patients' infusion pumps outside of patients' rooms by using long extension tubing.

Given the fact that many experts predict the persistence of the virus in the coming years, our working environment will continue to transform in the foreseeable future. Under the "new norm", it could be a challenge for us to continue with advocating the culture of medication safety in our daily practice.

We have a well-established AIRS system to monitor medication safety in HA and it has given us valuable data to plan our endeavors to improve mediation safety over the years. Perhaps it is time for us to monitor closely whether our medication safety risk portfolio would spring up a few welcomed or unwelcomed surprises under the "new norm".

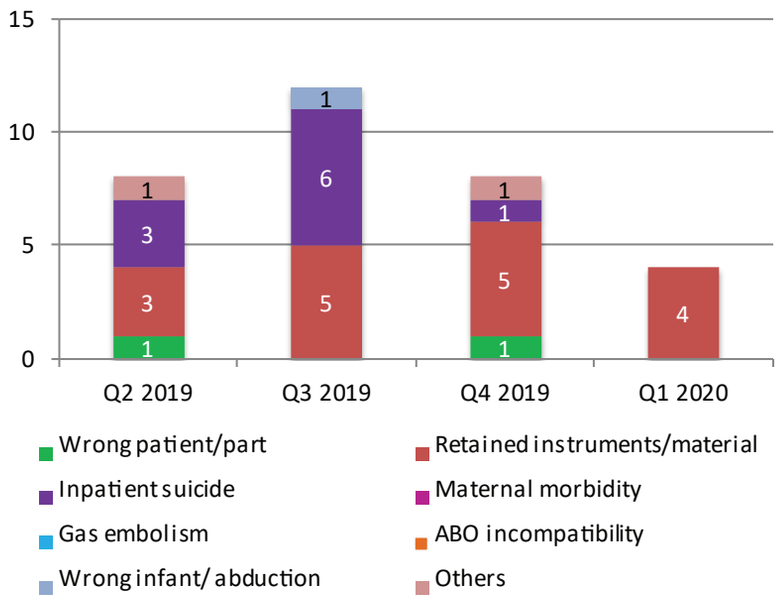




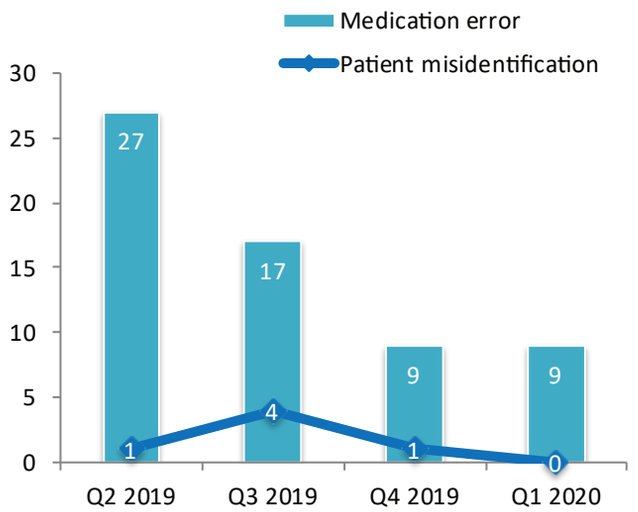
Dr K S Tang,
Chairman of Medication Safety Committee

SE & SUE Statistics

Distribution of SE in the last four quarters



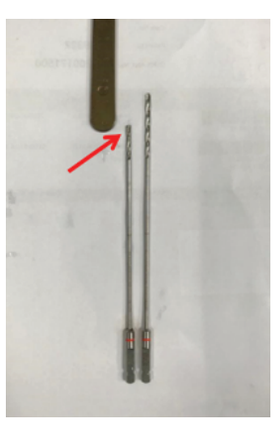
Distribution of SUE in the last four quarters



Sentinel Events

Retained Instruments / Material

1.5cm Tip of Drill Bit



- A patient with acute traumatic closed fracture of LEFT olecranon was scheduled for open reduction and internal fixation under regional anaesthesia.
- The on-loan instrument set 'Olecranon elbow plating system' was delivered to the hospital in the afternoon of the day before operation.
- 'SIGN IN' and 'TIME OUT' were performed.
- During the operation, the surgeon decided to use "figure-of-8 wiring" for fixation. The first attempt to create bone tunnel using a long drill bit from the on-loan set was unsuccessful.
- K-wire with K-wire driver and drill sleeve were used to create a new hole and the figure-of-8 wiring was applied uneventfully.
- After surgery, an approximately 1.5cm of the used drill bit tip was found broken during reprocessing.
- Intra-operative X-rays were reviewed again and the broken tip was found inside the bone.

  *** The broken drill bit and the figure-of-8 wiring overlapped, making it not easily identifiable during intra-operative X-ray screening.*

- It was decided not to reoperate for removal of drill bit after discussion with patient.

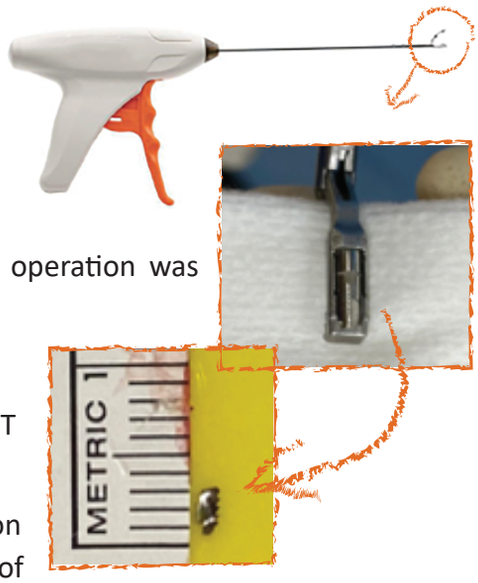
Key Contributing Factors

1. The operating team was unfamiliar with the on-loan instruments.
2. Ineffective communication on using another type of instrument for the operation.

Recommendations

1. Build safety culture for surgeons and nurses to check and verbalise integrity of instruments after use, especially for easily broken items.
2. Get the operating team familiar with the instrument set(s) the day before the operation.

0.5x2mm Metallic Foreign Body



- A patient underwent anterior cruciate ligament reconstruction and meniscal repair of LEFT knee.
- 'SIGN IN' and 'TIME OUT' were performed.
- A consignment single-use instrument (Mini Suture Passer) was requested during operation without prior notification or briefing with the team. The operation was uneventful.
- The instruments' integrity were checked and confirmed before and after use.
- A routine post-operative X-ray revealed a radio-opaque foreign body in the LEFT knee.
- Another operation for removal of foreign body was performed after discussion with patient. A broken metal chip (sized 0.5x2mm) from the inner upper jaw of the tissue clamp was retrieved.

Key Contributing Factor

Inadequacy of a robust mechanism in handling consignment single-used, new, on-loan / on trial instruments to be used for operation, in terms of staff familiarisation with and confidence in checking the newly introduced instrument, and prior notification of using it before operation to the team.

Recommendations

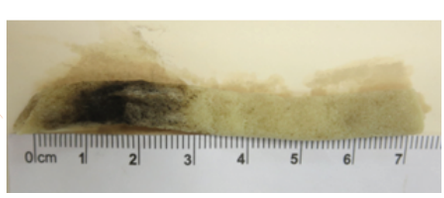
1. Strengthen the existing mechanism in handling consignment single-used, new, on loan / on trial instruments to be used for operation.
2. Enhance communication between the operating team on specific instruments to be used for operation, e.g. by making remarks on the booking list via the Operating Theatre Management System.

Dressing Material

- A patient was referred to the Community Nursing Service (CNS) for sacral sore care since December 2017.
- The patient's wound outlet was getting smaller with deep tunnels and increased amount of exudate.

Hydrofera blue foam

- Hydrofera blue foam was used for packing and was changed daily with a 3 cm tail fixed on the buttock skin.
- In January 2020, the patient was admitted due to worsening wound condition.
- The wound packing information could not be retrieved upon admission. The foam was not noted or removed during sacral wound dressing. Patient was discharged home and wound care by CNS resumed.
- In March 2020, the patient was readmitted as there was no improvement. During wound irrigation, a piece of 7 cm Hydrofera blue foam was flushed out from wound.
- After reviewing the record, the flushed-out foam was compatible with the one packed in January 2020.



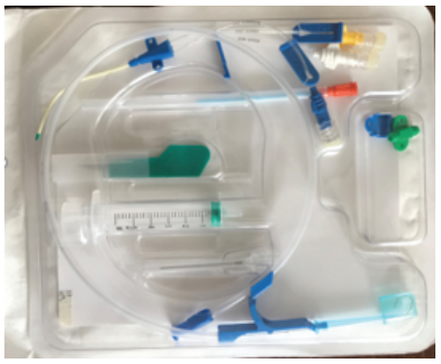
Key Contributing Factors

1. Lack of alignment in the transfer of wound packing information between inpatient, out-patient and community carers.
2. Retrospective documentation of wound management after home visit, leading to incorrect wound packing record.

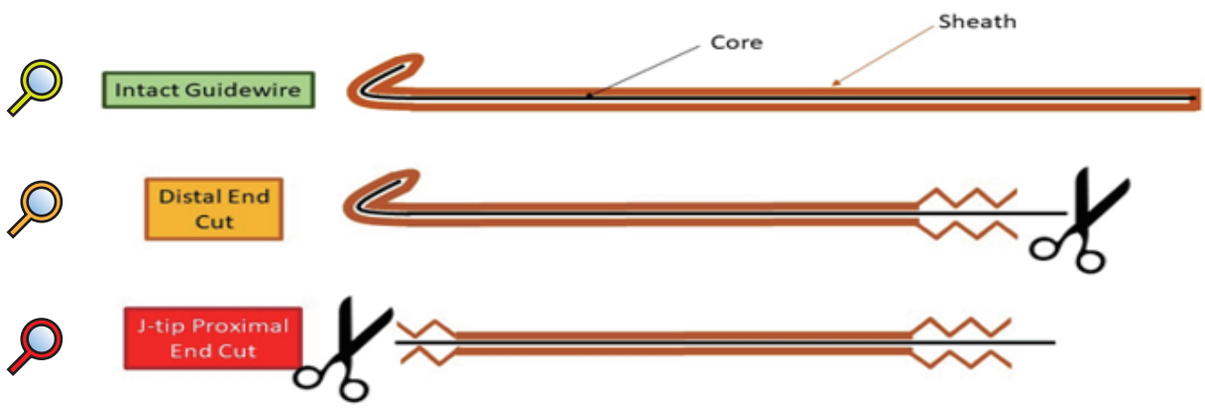
Recommendations

1. Establish an effective communication system on wound documentation and its related management with the next carer.
2. Explore means to facilitate timely documentation of wound packing information.

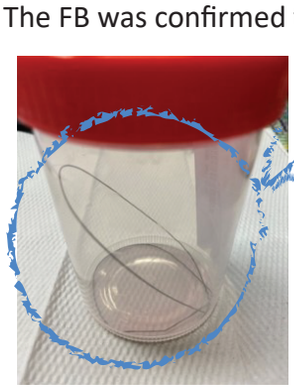
Sheath of Guide Wire



- A 62-day-old baby with biliary atresia underwent Kasai operation.
- A peripherally inserted central catheter (PICC) was inserted under anaesthesia before operation.
- The procedure was performed under ultrasound guidance. The first attempt at RIGHT arm was not successful.
- The second attempt at RIGHT ankle was aborted due to unsmooth guide wire insertion.
- The anaesthetist cut away the distal 2 cm of the guide wire due to contamination during insertion.
- During the third attempt at the LEFT ankle, the anaesthetist cut away the J-tip because it was deformed.
- The PICC was inserted successfully.



- The nurse checked the total length of the 3 segments of guide wire at the end of procedure. It was compatible with the original length of the guide wire and the surface was smooth.
- A post-operative abdominal X-ray revealed a radio-opaque line inside the PICC.
- Multidisciplinary teams were consulted and the PICC with the foreign body (FB) were completely removed under image intensifier guidance.
- The FB was confirmed to be the external sheath of the PICC guide wire without its internal core.



Core was pulled out and was mistaken as the guide wire in whole

- The baby's condition remained stable afterward.

Key Contributing Factors

1. Not aware of the consequence of cutting the guide wire and not noticing the guide wire sheath was detached after the procedure.
2. Repeated failure of insertion induced anxiety and posted time pressure to the operator, leading to a lapse of concentration.

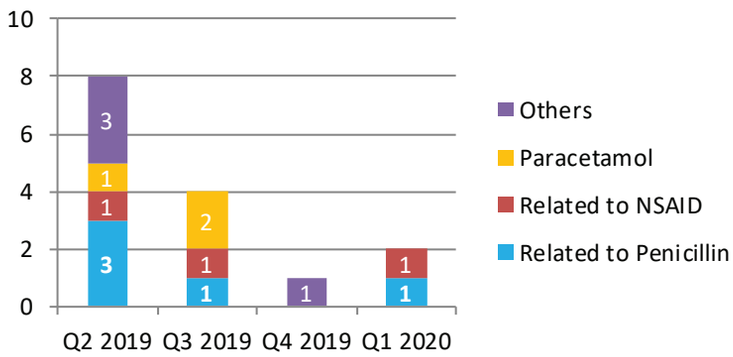
Recommendations

1. Guide wire must not be cut during the insertion of central venous catheter. It is recommended to change to a new set if needed.
2. Alert staff about possible outcome if guide wire was cut, and arouse their awareness when checking the guide wire after procedures.

Serious Untoward Events

Of the 9 SUE cases reported in Q1 2020, all cases were due to medication errors. The medication error cases involved known drug allergy (KDA) (2), dangerous drug (2), anticoagulant (2), antiplatelet (1), insulin (1) and others (1). There was no allergic reaction in the known drug allergy cases.

Known Allergy	Allergen prescribed
Penicillin	Augmentin
Cortal (Aspirin)	Aspirin



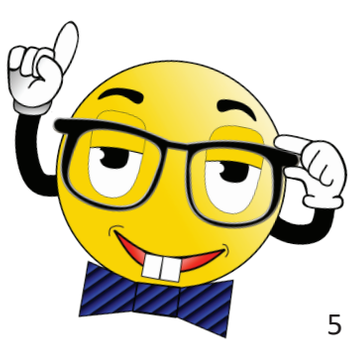
Number of KDA cases in the last four quarters

Medication Error

Aspirin prescribed to patient with known Aspirin allergy

- A patient had a history of drug allergy to 'Cortal' (Aspirin) and it was documented as free-text entry in the Clinical Management System (CMS).
- After admission for chest pain, repeated electrocardiogram (ECG) showed ischaemic changes.
- Aspirin 80 mg was prescribed via Inpatient Medication Order Entry (IPMOE) and was vetted at the Pharmacy.
- One dose of aspirin was administered to the patient as ward stock item.
- The allergy history was noted a few hours later. The patient did not have any allergic reactions.

The system CANNOT perform cross-checking on allergies documented in Free Text!



Acknowledgement: PMH Medication Safety Committee

Insulin Infusion Safety Tips (I)

Different concentration & different infusion rate for different indications

(hyperglycemia, hyperkalemia or perioperative management of DM patients)

Case Sharing 1

Hyperkalemia

Hypoglycemia!!!

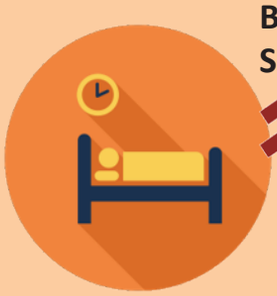
Doctor prescribed:

INFUSION	05/Jan - 05/Jan	**Insulin Neutral Human** (ACTRAPID HM) injection 100U/mL continuous IV infusion: **50 unit(s)** in **49.5 mL Dextrose 50%** over 30 Minute(s) once for 1 DOSE(S)

Intended dose of Actrapid:

8-10 units *instead of 50 units*

Case Sharing 2



Hypoglycemia!!!

Doctor prescribed:

INJECTION	06/Apr - 07/Apr	**Insulin Neutral Human** (ACTRAPID HM) injection 100U/mL intermittent IV infusion: **50 unit(s)** make up to **50 mL Gelofusine** 3 mL per Minute

Intended continuous IV infusion:

3 mL "per hour" *instead of "per minute"*

*** Default infusion rate unit in IPMOE:*

- *Route "**intermittent IV infusion**" – **per minute***
- *Route "**continuous IV infusion**" – **per hour***

1. Beware that wrong dose and wrong infusion rate of insulin infusion can adversely affect the patient.
2. Beware of the limitations in IPMOE:
   - No intelligence checking of prescribed dose, concentration and infusion rate.
   - Default infusion rate unit is different for "intermittent IV infusion" and "continuous IV infusion".
3. Always seek clarification for prescription of LARGE insulin dose over a SHORT administration time.

Acknowledgement: PMH Medication Safety Committee

Insulin Infusion Safety Tips (II)

How to use standard regimen to minimise prescribing error?

The following standard regimens have been newly created in IPMOE:

1. Hyperkalemia (DI drip)

INJECTION
11/Apr - -
Insulin Neutral Human (ACTRAPID HM) injection 100U/mL
intermittent IV infusion: 8 unit(s) in 50 mL Dextrose 50%
over 30 Minutes STAT for 1 DOSE

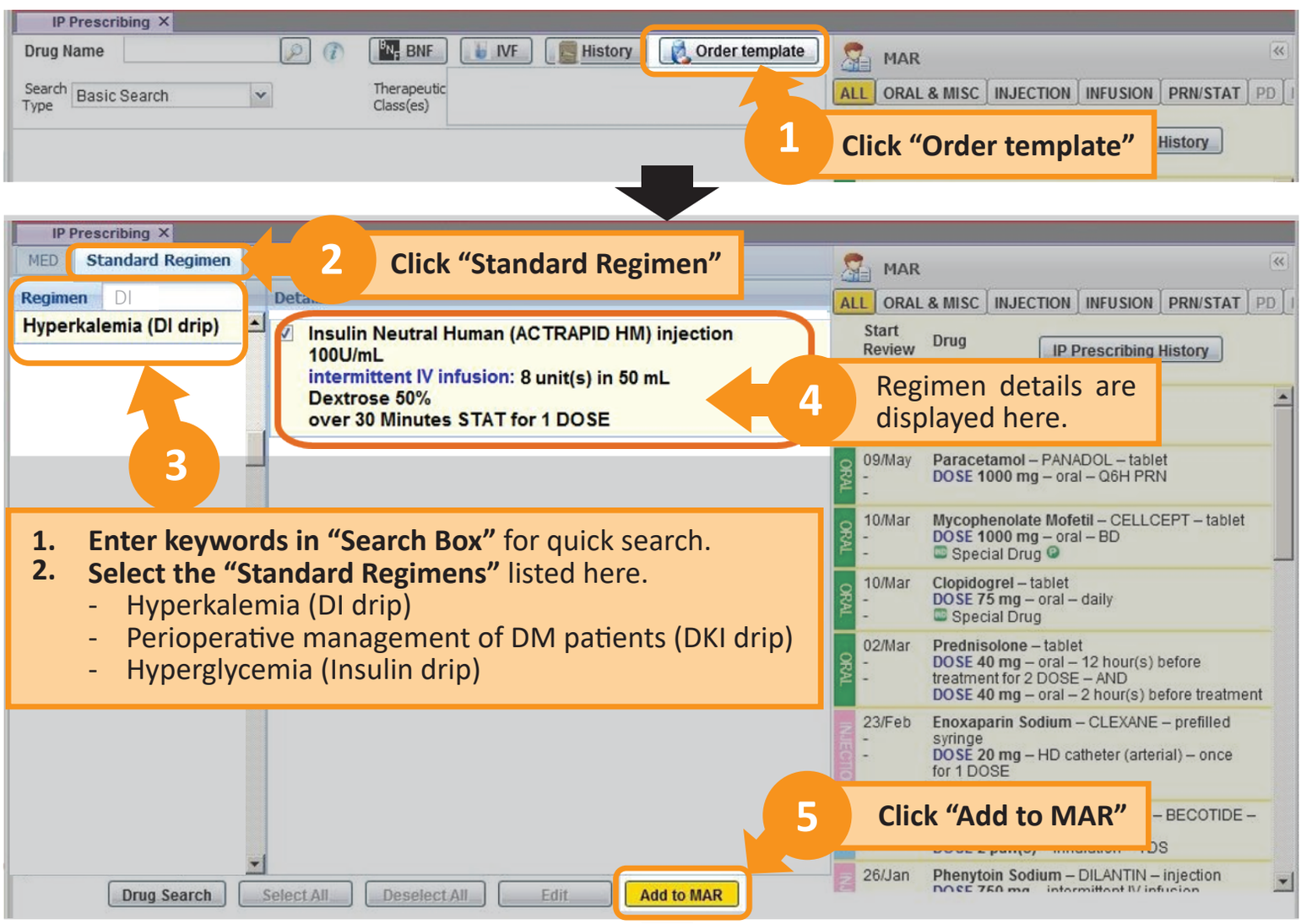
2. Perioperative management of DM patients (DKI drip)

INFUSION
11/Apr - -
Insulin Neutral Human (ACTRAPID HM) injection 100U/mL
continuous IV infusion: 6 unit(s) to 10 unit(s) in 500 mL Potassium Chloride 10mmol in D5 500ml
100 mL per Hour
Give Follow DKI protocol

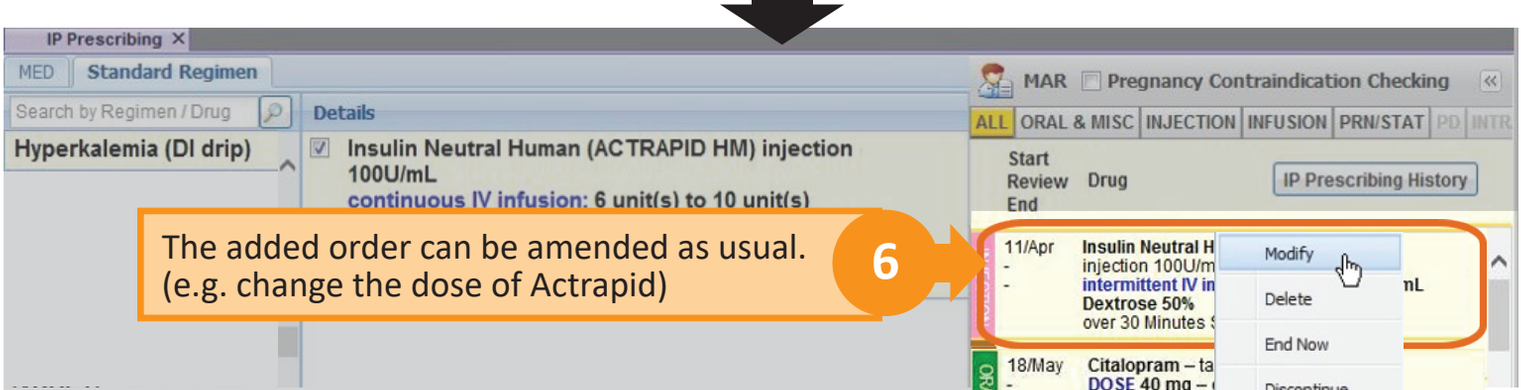
3. Hyperglycemia (Insulin drip)

INFUSION
11/Apr - -
Insulin Neutral Human (ACTRAPID HM) injection 100U/mL
continuous IV infusion: 50 unit(s) in 50 mL Sodium Chloride 0.9%
1 mL per Hour

How to prescribe the above standard regimens in IPMOE ?



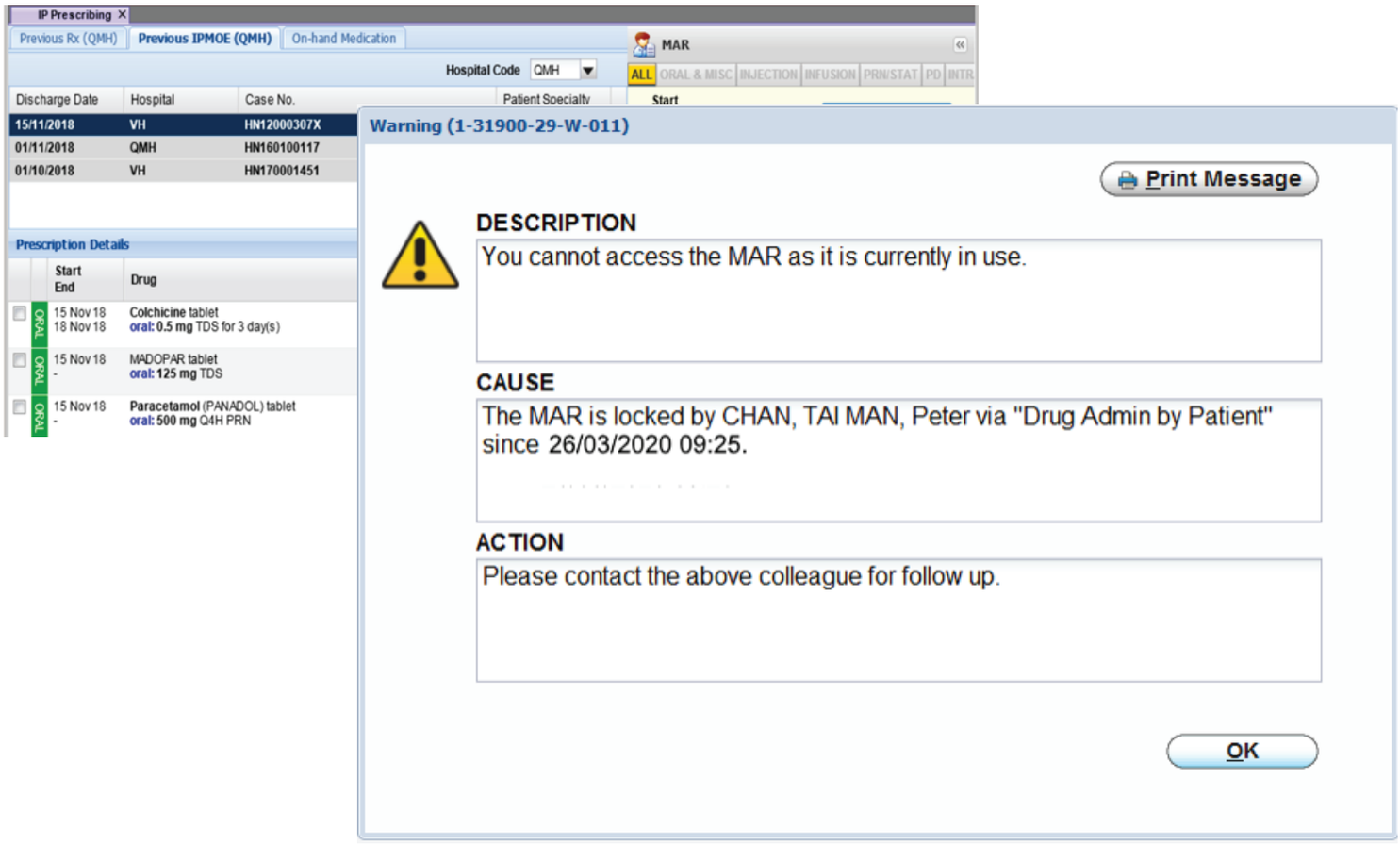
1. **Enter keywords in "Search Box"** for quick search.
2. **Select the "Standard Regimens"** listed here.
   - Hyperkalemia (DI drip)
   - Perioperative management of DM patients (DKI drip)
   - Hyperglycemia (Insulin drip)



Hospital Authority CMS IPMOE Clinical Management System

LOCKING OF MAR IN IPMOE

When colleagues are using IPMOE, they may encounter the following message prompt:



- This happens when there is **concurrent access** to the patient's IPMOE. It may be doctors accessing the 'IP Prescribing' function to prescribe medications, or nurses accessing the 'Drug Admin by Patient' or 'Drug Admin by Ward' for drug administration processes.
- The IPMOE would be **locked** to ensure that there is only ONE colleague working on the MAR at any one time. This avoids concurrent updates of MAR or duplicated actions, for example, duplicated drug prescription or administration.

Learning Point

When the MAR in IPMOE is locked, please communicate with your colleague who has concurrent access to avoid concurrent updates or duplication of actions.

Acknowledgement: HO Health Informatics IPMOE Team