RISK ALERT

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A Risk Management Newsletter for Hospital Authority Healthcare Professionals

Without doubt, appropriate use of medications can significantly improve health outcomes. Advances in medical science, however, have made the practice of medicine forever complex. Medication incidents are not uncommon and often lead to avoidable patient harm and financial losses. As a result, enhancing medication safety has become an imminent and important endeavor.

The Medication Safety Committee (MSC) established under the Drug Management Committee (DMC) in 2006, aims to enhance medication safety at the corporate level. The mission of MSC, with a multi-disciplinary membership comprising doctors, nurses and pharmacists, is to promote safer use of medicines by developing appropriate strategies and recommendations which will be translated into relevant guidelines for implementation in a sustained and effective manner. Building up an incident reporting and safe medication use culture is the ongoing mission of MSC.

A notable proportion of SUEs but no SE involved the use of known drug allergen (KDA) was reported. We aim to minimize the risk of KDA by:
(1) Implementing In-patient Medication Order Entry (IPMOE) which supports system intelligence checking of medications;
(2) Issuing HA Guideline on KDA Checking which provides a framework on KDA checking in prescribing, dispensing and administration; and
(3) Educating healthcare professionals, such as on structural entry of patient allergy history instead of free-text to facilitate KDA checking by systems.

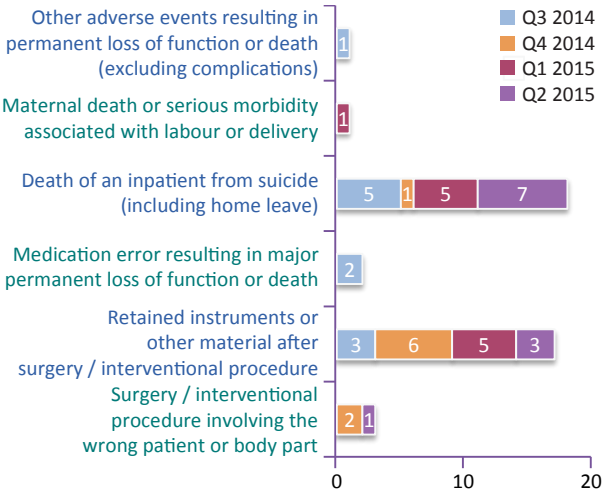
MSC is committed to communicate and engage frontline colleagues through cluster's representatives, annual medication safety forum, publication of Medication Safety Bulletin and medication safety hospital visits. Good practices include an audio alert - "我係Augmentin, 屬於Penicillin group, 請小心檢查病人敏感歷史" would be activated upon opening of night cupboard drawer storing Augmentin, for alerting staff to check patient's allergy history. I am sure that each and every hospital, department, or clinical area can tap into our colleagues' experience and creativity in developing their own good practices at the workplace.

MSC will concentrate its efforts on promoting medication safety through enhancing awareness (knowing the risks) and alertness (being vigilant and prepared) among HA colleagues. More importantly, support and contribution from frontline colleagues remain pivotal in making medication use safe for our patients.

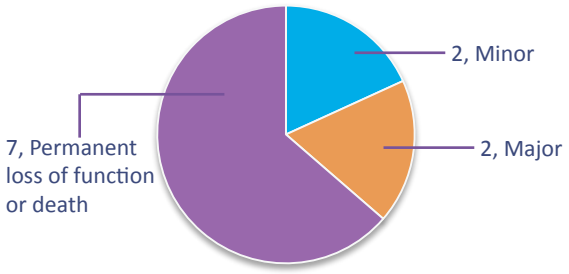
Dr Nelson WAT
Chairman of Medication Safety Committee, HAHO

IN THIS ISSUE

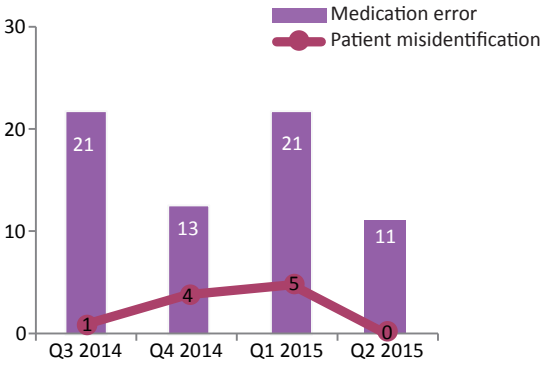
Distribution of SEs in the last four quarters



Consequence of SEs in Q2 2015

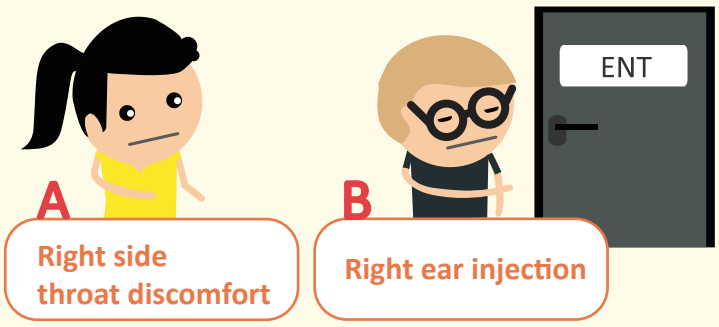


Distribution of SUEs in the last four quarters



Wrong Patient / Part

Two female patients were waiting to see ENT doctor.



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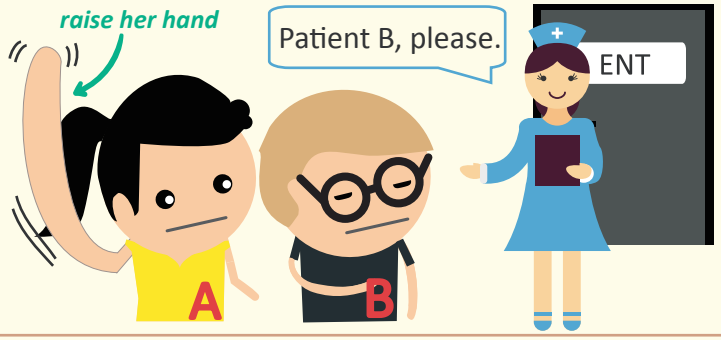

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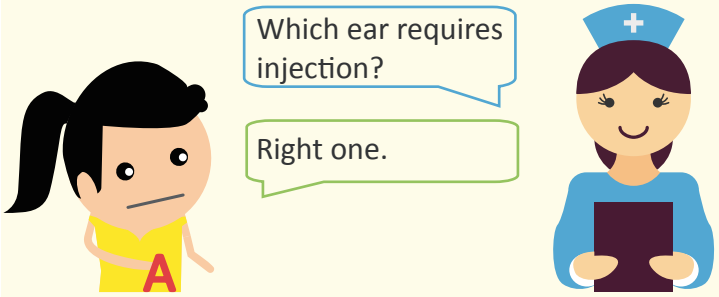

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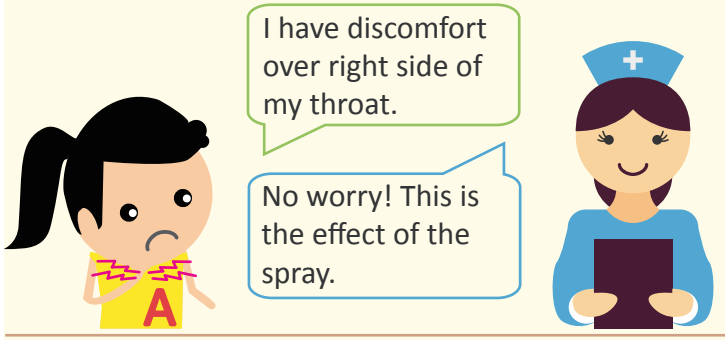
Nurse applied xylocaine spray (local anaesthetic) to the right ear of patient A.

4



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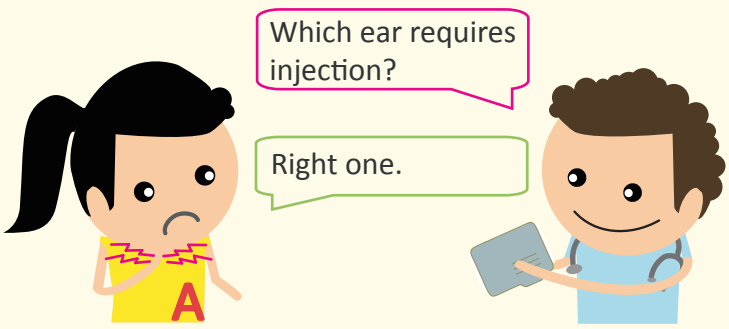

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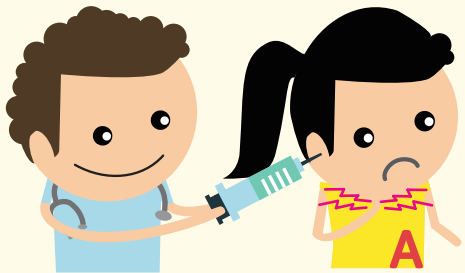
The doctor injected 4mg dexamethasone to her right ear.



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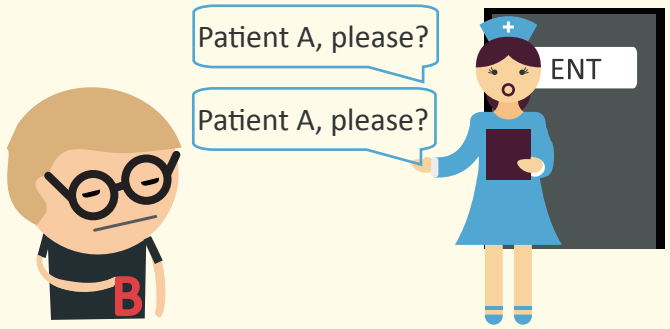

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Contributing factor:
Lack of stringent patient identity checking process.

Recommendation:
To strengthen on correct patient identification before procedures.

Before any intervention, CHECK

- **Patient identity**
- **Procedure and type of anaesthesia as stated on the informed consent**
- **Known alerts e.g. allergy**

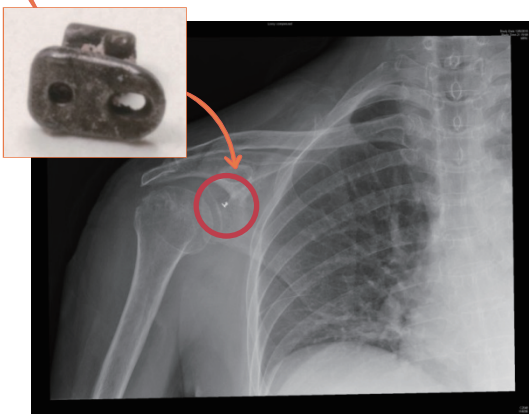
TIME OUT

Retained Instruments / Material

Retained tip of COOLPULSE® electrode

The VAPR® VUE™ Radiofrequency System with COOLPULSE® is designed to provide soft tissue ablation (vaporization), contouring, cutting and haemostasis of blood vessels during arthroscopic surgical procedures.

Suction channel is available for removal of fluid and debris from joint space.



- Patient underwent right arthroscopy for repair of rotator cuff.
- A COOLPULSE® electrode was used for haemostasis.
- The suction channel of electrode was blocked and the surgeon requested a replacement.
- The operation was uneventful.
- The completeness of both electrodes used was not checked.
- Post-operative X-ray showed a 4mm-metallic foreign body inside the right shoulder joint.
- The foreign body removed surgically was a part of the COOLPULSE® electrode tip.

Contributing factor:

Failure to check the completeness of used instrument during the operation.

Recommendations:

1. Include single-use devices (SUD) and endoscopic instruments in instrument checking process.
2. Alert staff on the risk of possible damage of SUD.

Retained guide wire

- Doctor A was assisted by nurse B for the insertion of a triple lumen central venous catheter (CVC) at bedside.
- Nurse B did not attend the whole procedure but returned when the procedure was finished.
- Safety Checklist for Bedside Procedures was not used and post-procedure counting was not performed.
- Patient was transferred to Intensive Care Unit (ICU) immediately after the procedure.
- Chest X-ray in ICU showed retained guide wire, which was eventually removed together with the catheter.

Contributing factors:

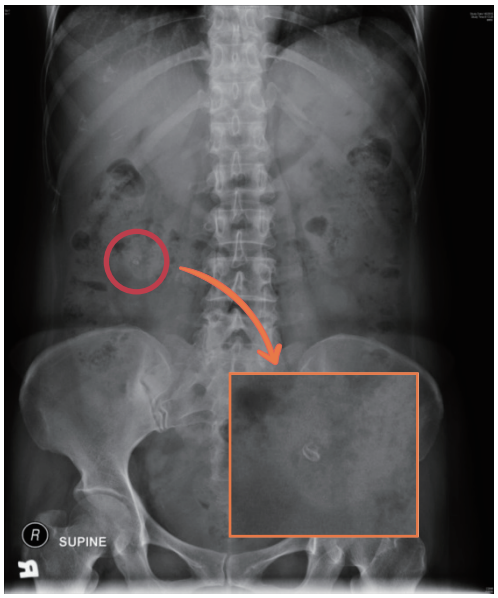
1. Safety Checklist for Bedside Procedures was not used.
2. Lapse of concentration in high stress situation.
3. Nurse did not attend to the whole CVC insertion procedure.

Recommendations:

1. Reinforce the compliance on use of Safety Checklist for Bedside Procedures.
2. Attach a Bedside Procedure Checklist on each set of CVC.
3. Explore the possibility of deploying additional manpower during busy situations.

Retained guide wire coating

- A patient underwent elective right Percutaneous Nephrostomy (PCN) lithotripsy under X-ray guidance.
- During operation, the hydrophilic plastic cover of the Terumo guide wire was torn by the punctured needle.
- The broken fragments were retrieved accordingly.
- Fluoroscopic examination did not show any retained fragment.
- Renal stone was removed and a PCN was inserted.
- The incident was not documented and communicated with the case doctor.
- Seven days later, the patient was discharged after the PCN was removed.
- At follow up, doctor noticed a U-shaped foreign body at the lower pole of right kidney on X-ray.
- Subsequent investigation suggested the foreign body was likely a fragment of the Terumo guide wire coating.
- Patient was monitored and followed up regularly.



Radifocus® guide wire M is a Nitinol hydrophilic guide wire covered with polyurethane and hydrophilic coating.

Polyurethane radiopaque jacket: smooth surface to minimize adhesion to the wire, allow a soft and atraumatic navigation.

Contributing factors:

1. Difficult to confirm completeness of broken coating by visual checking.
2. Lack of written documentation and handover of the incident.

Recommendations:

1. Avoid bending of guide wire over the sharp tip of needle.
2. Perform intraoperative X-ray if coating material is suspected to be retained.
3. Reinforce complete documentation of surgical procedures.
4. Improve clinical handover with ward staff.

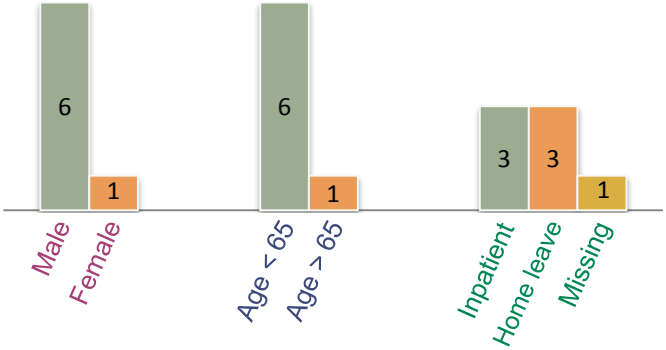
Patient Suicide

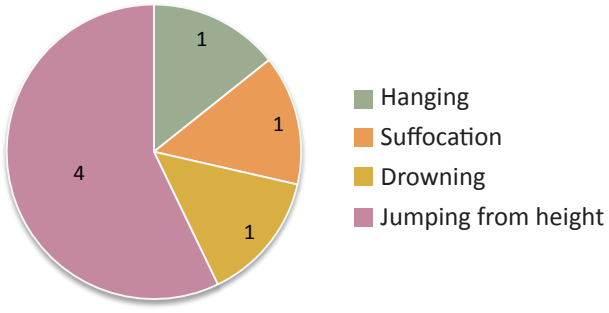
In Q2 2015, a total of 7 patients (6 males and 1 female, aged between 21 to 76) had committed suicide.

Three of them had underlying psychiatric illnesses.

Three were on home leave, two of them committed suicide by jumping from height and the remaining one by drowning.

The details of the four in-patient suicides, including one found missing in ward, are outlined below.





Case 1

- A patient had underlying chronic lung disease and was admitted for chest infection.
- One day after admission, doctor planned to discharge the patient.
- Patient was found hanged in the toilet after lunch.

Case 2

- A patient attended emergency department for fever and chronic diarrhoea.
- 10 days later, the patient was called back for increased white cell count and was then hospitalised.
- 3 days after admission, the patient was suspected to have a chronic illness and further investigations were required.
- The patient was found missing in ward at around 5am one day and hospital security helped searching for the patient.
- An hour later, police confirmed that the patient had fallen from height at a building near hospital.

Case 3

- A patient, having bipolar affective disorder, was admitted for psychiatric care.
- Three weeks later, the patient was allowed strolling within hospital compound daily as part of clinical management.
- The patient was mentally stable, with no psychotic or depressive symptoms during his five months' hospital stay.
- One day, patient did not return to ward after his usual afternoon stroll and was found dead fallen from height at a building near hospital.

Case 4

- A patient with advanced lymphoma was given chemotherapy with curative intent.
- The patient developed multiple complications: infection, gastrointestinal bleeding and partial intestinal obstruction.
- After starting the second cycle of chemotherapy, the patient developed neutropenic fever and was placed in a single room for reverse isolation.
- One day at about 5am, a patient care assistant found that the patient had committed suicide by suffocation.

Contributing factors:

1. Presence of high risk facilities in old hospital premises.
2. Knowledge deficit on management of chronic illness.

Recommendations:

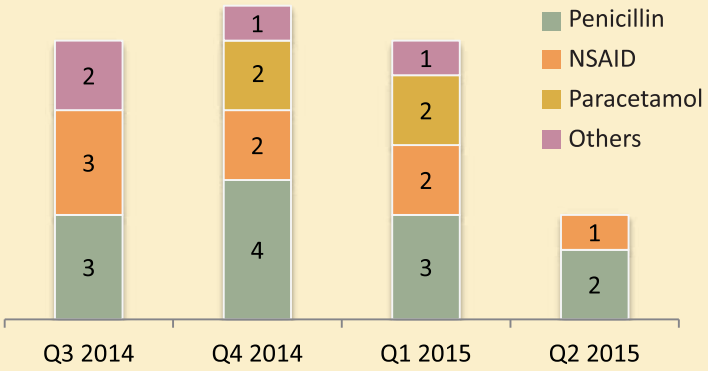
1. Conduct safety walk round to identify high risk facilities.
2. Submit renovation plan for improvement of patient toilet and bathroom.
3. Explore exit control to prevent patients from leaving hospital.
4. Provide training on management and counselling of patients with malignancy or chronic illness.
5. Enhance training on use of suicidal risk assessment tools.

Medication Error

There were 11 SUE cases reported in this quarter, and all of them were medication errors. They involved giving known drug allergens (KDA) to patients (3), use of anticoagulants (2), dangerous drugs (1), a general anaesthetic (1), a chemotherapy drug (1), and others (3).

Of the 3 KDA, 2 developed mild symptoms which subsided after treatment. The other one had no allergic reaction.

3 cases of KDA in Q2 2015



Known Allergy	Allergen Prescribed
Amoxicillin	Augmentin
Penicillin	Augmentin
NSAID	Indomethacin

As of Q2 2015, there was a significant drop in number of SUE related to KDA.

Augmentin (amoxicillin and clavulanic acid) is a Penicillin.
Do NOT prescribe Augmentin to patient with known Penicillin allergy.

Case highlight (1):
Inadvertent use of general anaesthetic

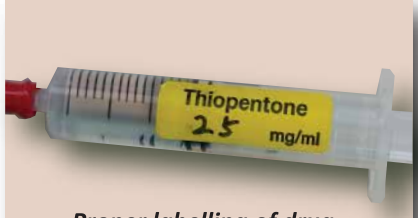
- An anaesthetist prepared intravenous (IV) cefazolin, an antibiotic, for an elective caesarean section (CS) under spinal anaesthesia in the operation theatre.
- While waiting for the arrival of the patient, the anaesthetist prepared IV thiopentone, a general anaesthetic, for the next case.
- Thiopentone, which was not labelled, was administered to the pregnant lady who then became unconscious.
- The anaesthetist realised the mistake and changed the delivery under general anaesthesia.
- The delivery was uneventful.

Cefazolin

Thiopentone

Contributing factor:
Non-compliance with the HA Guidelines on Medication Management.

Recommendations:
1. Reinforce strict compliance with the HA Guidelines on Medication Management.
2. Conduct audits on proper labelling of drugs.
3. Reinforce the practice of preparing medications for one patient at a time.



Proper labelling of drug

Case highlight (2):
KDA

- Patient A with known history of amoxicillin allergy was admitted for urinary tract infection.
- IV Augmentin (amoxicillin and clavulanic acid) was prescribed by case doctor.
- The drug was administered to patient.
- Patient developed lip redness and swelling which subsided after medical treatment.

Contributing factors:

1. Failure to comply with HA Guidelines on Medication Management.
2. Use of ward stock.
3. Knowledge gap: Augmentin consists of amoxicillin and clavulanic acid.

Recommendations:

1. Reinforce compliance with HA Guidelines on Medication Management.
2. Reinforce the good practice of sending the Medication Administration Record (MAR) for pharmacy vetting before drug administration.
3. Educate staff to increase alertness on drug allergy.

Case highlight (3):
KDA

- A patient had known allergy to non-steroidal anti-inflammatory drug (NSAID) and it was listed in the Clinical Management System (CMS) alert as free text.
- The patient attended out-patient clinic for gouty attack.
- Doctor was not aware of the history of drug allergy and prescribed indomethacin.
- Dispenser also did not notice the history of drug allergy from the Pharmacy Management System (PMS), and dispensed the drug to the patient.
- Patient developed allergic reaction after taking indomethacin.
- The symptoms subsided after receiving medical treatment in the emergency department.

Contributing factors:

1. Lack of system support for allergy checking at PMS.
2. Computer system was unable to perform automatic check on drug allergy not entered as structured field.

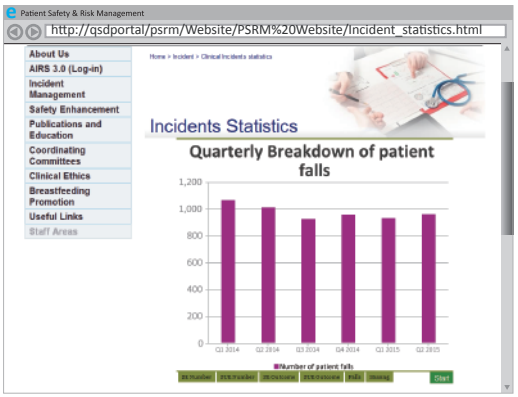
Recommendations:

1. Create automatic prompt on allergy history in PMS.
2. Alert dispensers, pharmacists and doctors on drug allergy checking.
3. Encourage doctors to enter allergy history as structured field instead of free text.

Statistic on AIRS incidents

The number of falls and missing patients can be accessed at our website:

http://qsdportal/psrm/Website/PSRM%20Website/Incident_statistics.html

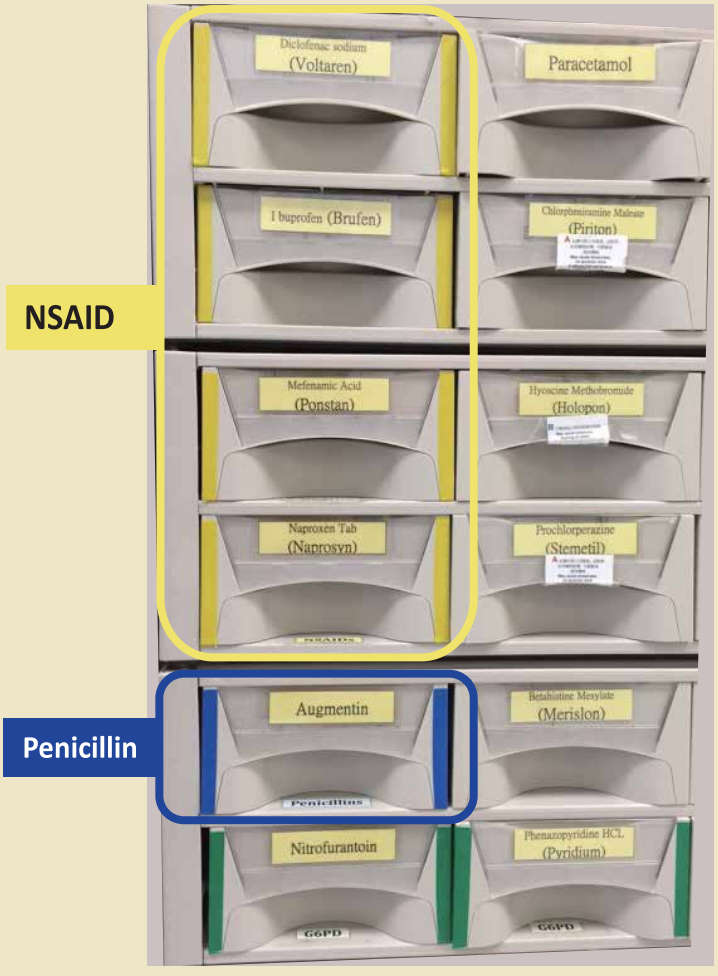


How does Accident & Emergency Department of Ruttonjee Hospital prevent the use of known drug allergens?

Drug families at a glance

Drawers for drugs of the same family are grouped together in the drug trolley.

The edges of these drawers are highlighted with the same colour for quick visual identification.



NSAIDs 非類固醇消炎藥	
Aspirin	阿司匹林
Brufen®	百痛適
Cataflam®	
Clinoril®	奇諾力
Diclofenac Potassium	雙氯芬酸鉀
Diclofenac Sodium	雙氯芬酸鈉
Fastum®	快療痛 / 法斯通
Feldene®	
Ibuprofen	布洛芬
Indocid®	恩道式
Indomethacin	吲哚美辛
Ketoprofen	酮洛芬
Ketorolac Tromethamine	酮咯酸氨丁三醇
Mefenamic acid	甲芬那酸
Naprosyn®	
Naproxen	萘普生
Orudis®	
Piroxicam	吡羅昔康
Ponstan®	
Sulindac	舒林酸
Toradol®	
Voltaren®	服他靈/扶他林

PENICILLINS 青霉素類	
Amoxil®	
Amoxycillin	阿莫西林
Amoxycillin+Clavulanic acid	阿莫西林+克拉維酸
Ampicillin	氨苄西林
Ampicillin+Sulbactam	氨苄西林+舒巴坦
Augmentin®	力百汀
Benzathine Penicillin	苄星青霉素
Benzylpenicillin	青霉素G
Cloxacillin	氯唑西林
Crystapen®	
Flucloxacillin	氟氯西林
Orbenin®	
Penicillin G	青霉素G
Penicillin V	青霉素V
Phenoxymethylpenicillin	青霉素V
Piperacillin	哌拉西林
Piperacillin+Tazobactam	哌拉西林+他唑巴坦
Pipracil®	
Procaine Penicillin	普魯卡因青霉素
Tazocin®	特治星
Ticarcillin+Clavulanic acid	替卡西林+克拉維酸
Timentin®	特美汀
Unasyn®	優立新

Cross-sensitivity information at the right place

An information sheet indicating cross-sensitivity is placed on top of the drawer containing the drug: prompting staff to double check cross-sensitivity information right before collecting the drugs.