

# RISK ALERT



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A Risk Management Newsletter for Hospital Authority Healthcare Professionals

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## Message from Editor-in-Chief

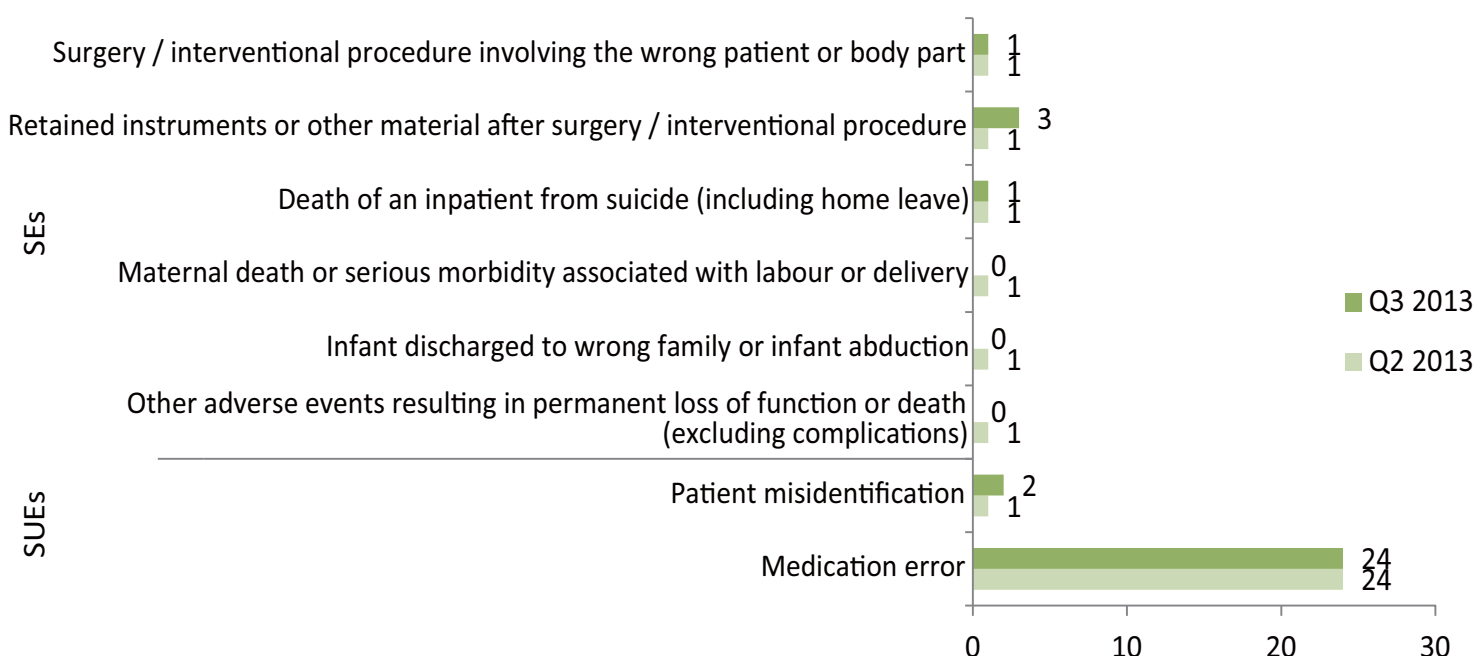
In the ISQua Conference held in Edinburg last October, Atul Gawandee delivered an opening plenary lecture entitled “The Mechanism of Improvement.” He mentioned the 4 phases of evolution: 1. primitive: X, a good practice, should be done; 2. Medieval: X must be done; 3. Modern: X is done; and 4. Future: X is done automatically.

I believe one case mentioned in this issue of HARA, a patient committed suicide in the toilet, is a good illustration of this evolution. It is well-known to the experts that a long hose attached to the shower-head should be eliminated from patient toilets, but for a long time it remained at the “X should be done” phase. Staff are “reminded” from time to time. More recently, we are moving towards phase 2. A guideline together with a list of facility-related provisions to facilitate environmental scanning to avoid such high risk features are drawn up by the Task Force on Prevention of Inpatient Suicide (soon to be renamed a subcommittee) under the Central Committee in Quality and Safety to inform staff that “X must be done”. However, if we do not move towards at least phase 3, there is still a high chance that such incidents can recur.

In Atul Gawandee’s lecture, he mentioned the surgical safety checklist as the mechanism to ensure that X is done. Here, in suicide prevention, we are looking into a system to make sure that the staffs both in clinical areas and facilities management are aware of the requirements. There are still many situations that a ward may have undergone some scanning to ensure safety. Only later a staff recognized a need to put a hook up somewhere in the toilet, and staff from facilities management just put it on. To avoid this from happening, we need to establish a failsafe mechanism, say a checklist or something more clever. That I believe relies on concerted efforts from concerned staff both in the Head Office and in the hospitals. Let’s start working together and move forward to phase 3: “X is done”!

**Dr H Y SO, Service Director (Quality & Safety), NTEC**

## Distribution of Sentinel (SEs) & Serious Untoward Events (SUEs) (Q3 2013)



## Wrong Side Chest Tapping

- Admission slip: **RIGHT** Pleural Effusion.
- The attending doctor documented "**RIGHT** Pleural Effusion" under X-ray findings while putting down "**LEFT** Pleural Effusion" as diagnosis in the medical record.
- Consent form for ultrasound-guided chest tapping : "**LEFT** Pleural Effusion".
- Both the case doctor and case nurse performed the procedure safety checklist for chest tapping against the consent form without site marking.
- Ultrasound-guided chest tapping was performed on the **LEFT** side.
- Post-procedural X-ray showed small left pneumothorax. A chest drain was inserted and the left lung was fully expanded.
- The attending doctor reviewed the post-procedural X-Ray films and discovered the error.
- The patient recovered uneventfully.

### Key Contributing Factors:

1. Lack of verification on the side of procedure and site marking.
2. Lack of standards of practice on performing ultrasound-guided chest tapping.

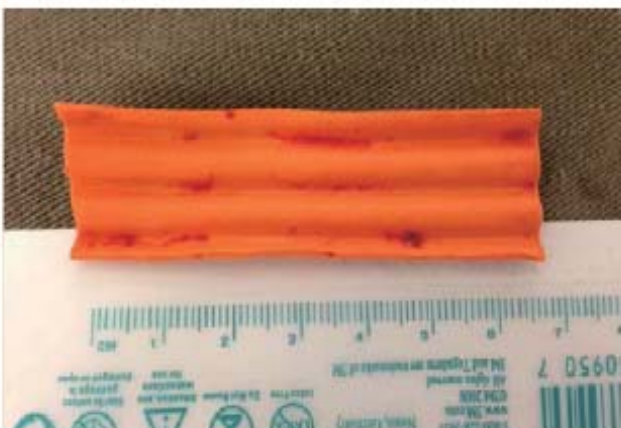
### Recommendations:

1. Verify the side of the procedure as indicated in all documents and images.
2. Review and standardize the practice of performing ultrasound-guided chest tapping.

## Retained Consumables and Instrument

### Case 1: A corrugated drain

- A woman delivered a baby by vacuum assisted delivery; a vaginal cyst ruptured during the process, forming a long tunnel below the vaginal wound.
- A 6 x 2 cm corrugated drain was inserted. It was subsequently shifted out 1 cm daily in the following 2 days.
- On day 3 post-delivery, the patient reported that the drain was missing.
- A doctor explored the wound but could not locate the drain; the patient was discharged with follow up appointments arranged.
- On day 8 post-delivery, a superficial perineal skin gapping was noted.
- On day 23 post-delivery, the patient complained of perineal pain and a firm mass was noted.
- After confirmation by ultrasound, exploration of wound under general anaesthesia was performed and a corrugated drain was removed.



### Key Contributing Factors:

1. Lack of adequate wound exploration despite the patient's report of the missing drain.
2. Insufficient communication with the patient on wound / drain management.

### Recommendations:

1. Establish standard practice on exploration of wound.
2. Enhance the care process of wound and drain management.

## Case 2: An internal stiffener stylet

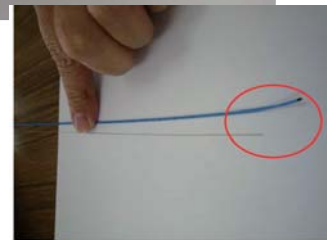
- Percutaneous insertion of central catheter was performed on a patient for prolonged intravenous antibiotic treatment.
- Due to suspected line sepsis, the catheter was removed after 12 days of insertion.
- The post-procedural chest X-ray showed the retention of an internal stiffener stylet in the vein.
- The internal stiffener stylet was removed under local anaesthesia uneventfully.

### Key Contributing Factors:

1. Unfamiliar with the procedure due to infrequent use of complex instrument.
2. The design of the instrument was complex and not user-friendly.

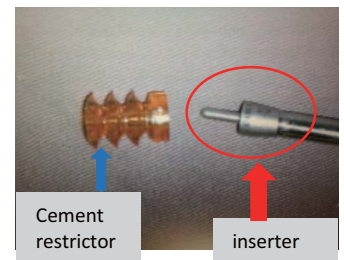
### Recommendations:

1. Familiarize staff with the design and proper use of the chosen instrument.
2. Attach a warning label on the instrument to remind staff to remove the internal stiffener stylet and check the components during "TIME OUT".



## Case 3: A cement restrictor inserter

- A patient underwent an emergency Austin Moore Arthroplasty for right hip fracture.
- Intra-operatively, the surgeon decided changing to a cemented bipolar hemiarthroplasty.
- "SIGN OUT" and debriefing were done after the operation. A few minutes later, the scrub nurse discovered that a cement restrictor inserter (the inserter) was missing.
- The post-operative X-ray revealed that the inserter was retained in the patient's femoral canal.
- Balancing the pros and cons, the clinical team decided not to remove the retained inserter.
- The patient was informed of the incident ; rehabilitation progress was satisfactory.



### Key Contributing Factors:

1. Use of different methods and instruments which caused confusion.
2. Failure to perform integrity check of instruments upon the cementation procedure.

### Recommendations:

1. Perform pre-operative planning and templating, understand thoroughly the design and use of the instrument.
2. Ensure the integrity and counting of individual parts of the instrument before and after the procedure.

## Patient Suicide



A patient with multiple medical illnesses committed suicide in the isolation ward toilet by strangulation using a plastic shower hose.

### Key Contributing Factor:

Presence of high-risk facilities inside the patient toilet.

### Recommendations:

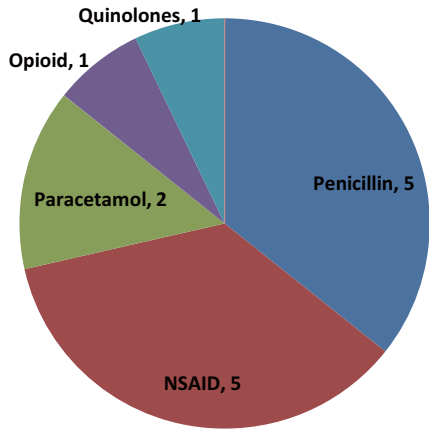
1. Redesign toilet facilities and replace high-risk facilities to control environmental risk.
2. Facilitate use of reference list of facility-related provisions for prevention of inpatient suicide in non-psychiatric ward settings from the Guidelines on Hospital Security Design Planning.

# SERIOUS UNTOWARD EVENTS Q3 2013

A total of 26 SUE cases were reported in Q3 2013 of which 24 were medication errors and 2 patient misidentifications. Medication error cases included known drug allergy (14), use of dangerous drugs (6), anticoagulants (2), chemotherapy agent (1) and Vancomycin given as bolus (1).

## Known Drug Allergy – Issues of Cross-sensitivity & Verbal Order

### Distribution of Known Drug Allergy in 3Q13



The commonest Known Drug Allergy cases involved the Penicillin group and NSAID, followed by Paracetamol. Most of these cases were related to cross-sensitivity and verbal order.

As stated in the HA Guidelines on Known Drug Allergy Checking:

- Staff should be aware of “cross-sensitivity amongst different drug groups and ingredients of brand combination products”, e.g. Dologesic and Paracetamol; Augmentin/Ceftazidime/Amoxil and Penicillin group; Ofloxacin and Levofloxacin.
- When verbal order is required, medical and nursing staff should ensure clear communication on the patient’s identity and drug allergy history. Doctors should ensure that the patient’s identity and drug allergy history are checked before drug ordering.

The HA Head Office and local hospitals have published drug allergy reference tables and cue-cards to remind doctors, nurses and pharmacy staff of the possible cross-sensitivity. Staffs are reminded to check against the reference tables when necessary.

### Reminder to staff:

**Medical staff and nurses:** Check the medications against the Drug Allergy Reference Card before prescription and administration.

**Pharmacy staff:** Clarify with doctors prescriptions with potential allergy problems.

Reference: HA Guidelines on Known Drug Allergy Checking

### Drug Allergy Reference Card

Allergy to PENICILLINS / CEPHALOSPORINS / CARBAPENEMS (青霉素類抗生素 / 頭孢菌素類抗生素 / 碳青霉烯類)	
<b>WARNING:</b> If a person is allergic to a drug in the group, he/she may have allergic reactions to drugs which belong to the same group.	
<b>PENICILLINS</b> <ul style="list-style-type: none"><li>Amoxicillin (藥水/青霉素)</li><li>Ampicillin (藥水/青霉素) (Penbritin®)</li><li>Augmentin® (安美汀®) (Amoxicillin + Clavulanic acid) (藥水/青霉素 + 克拉維酸)</li><li>Benzathine Penicillin (半量青霉素)</li><li>Benzylpenicillin, Penicillin G (青霉素 G)</li><li>Cloxacillin (藥水/青霉素) (Obenit®)</li><li>Flucloxacillin (藥水/青霉素)</li><li>Phenoxymethylpenicillin, Penicillin V (青霉素 V)</li><li>Piperacillin (藥水/青霉素) (Pipracil®)</li><li>Procaine Penicillin (醫藥中區青霉素)</li><li>Tazocin® (特治靈®) (Piperacillin Na + Tazobactam Na) (藥水/青霉素 + 他佐巴坦)</li><li>Timentin® (特美汀®) (Ticarcillin Na + Clavulanate K) (藥水/青霉素 + 克拉維酸)</li><li>Unasyn® (藥水/青霉素) (Ampicillin + Sulbactam Na) (藥水/青霉素, 蘇拉巴坦)</li></ul>	<b>CEPHALOSPORINS</b> <ul style="list-style-type: none"><li><b>First-generation</b><ul style="list-style-type: none"><li>Cefazolin (藥水/頭孢) (Cefamezin®)</li></ul></li><li><b>Second-generation</b><ul style="list-style-type: none"><li>Cefaclor (藥水/頭孢) (Ceclor®)</li><li>Cefuroxime (藥水/頭孢) (Zinacef®, Zinnat®)</li></ul></li><li><b>Third-generation</b><ul style="list-style-type: none"><li>Cefotaxime (藥水/頭孢) (Ceforan®)</li><li>Ceftazidime (藥水/頭孢) (Fortum®)</li><li>Ceftibuten (藥水/頭孢) (Cedax®)</li><li>Ceftriaxone (藥水/頭孢) (Rocephin®)</li><li>Supraxone® (藥水/頭孢)</li><li>Cefepime (藥水/頭孢) (Maxipime®)</li></ul></li><li><b>Fourth-generation</b><ul style="list-style-type: none"><li>Cefepime (藥水/頭孢) (Maxipime®)</li></ul></li></ul>
<b>CARBAPENEMS</b> <ul style="list-style-type: none"><li>Ertapenem (藥水/碳青) (Invanz®)</li><li>Meropenem (藥水/碳青) (Meropen®)</li><li>Timpanem + Cistatin (藥水/碳青, 西拉司汀)</li></ul>	
<b>ALERT:</b> Cross-sensitivity (5-10%) <ul style="list-style-type: none"><li>1. Cross-sensitivity is greater between Penicillins and 1<sup>st</sup> generation Cephalosporins (5-10%) than between Penicillins and 2<sup>nd</sup>, 3<sup>rd</sup>, or 4<sup>th</sup> generation Cephalosporins (&lt;2%).</li><li>2. Cross-sensitivity between Penicillins and Carbapenems is 1-3%.</li><li>3. He/She may have cross-sensitivity reactions to other structurally related items:<ul style="list-style-type: none"><li>• Ganciclovir (藥水/病毒) (Fulciv®)</li><li>• Penicillamine (藥水/藥)</li></ul></li></ul>	
<b>Allergy to PARACETAMOL (藥水/藥)</b> <b>WARNING:</b> If a person is allergic to Paracetamol, he/she may have allergic reactions to: <ul style="list-style-type: none"><li>• Acetaminophen, Paracetamol (藥水/藥) (Parasol®, Tylenol®)</li><li>• Dologesic® (Dextropropoxyphene + Paracetamol)</li><li>• Neozep® (Phenylephrine + Paracetamol + Salicylate + Chlorpheniramine maleate + Vitamin C)</li></ul>	

Allergy to NON-STEROIDAL ANTI-INFLAMMATORY DRUGS (NSAIDs) (非類固醇消炎止痛藥)	
<b>WARNING:</b> If a person is allergic to NSAIDs, he/she may have allergic reactions to: <ul style="list-style-type: none"><li>• Aspirin, Acetylsalicylic Acid, ASA (水/藥)</li><li>• Cortal for Adults® (成人止痛藥) [contains aspirin]</li><li>• Doloxene Co® [contains aspirin]</li><li>• Diclofenac (藥水/藥) (Voltaren®, Cataflam®)</li><li>• Ibuprofen (布洛芬) (Brufen®)</li><li>• Indomethacin (吲哚美辛) (Indocin®)</li><li>• Ketorolac (酮咯酸) (Toradol®)</li><li>• Mefenamic Acid (甲芬那酸) (Ponstan®)</li><li>• Naproxen (那普生) (Naprosyn®)</li><li>• Piroxicam (吡羅昔康) (Feldene®)</li><li>• Sulindac (舒林酸) (Cibon®)</li></ul>	
<b>ALERT:</b> He/She may also have cross-sensitivity reactions to: <ul style="list-style-type: none"><li><b>Oral Preparation:</b><ul style="list-style-type: none"><li>• Coclitane Compound®</li><li>• Neozep® [contains salicylate]</li><li>• Mesasazine (藥水/藥) (Pentasa®)</li><li>• Sulphasalazine (藥水/磺胺噻唑) (Salazopyrin®)</li></ul></li><li><b>External Preparation:</b><ul style="list-style-type: none"><li>• 2-4-2 ointment (Salicylic acid 2% + Cool Tar 4% + Sulphur 2% ointment)</li><li>• Analgesic Balm [contains methylsalicylate]</li><li>• Benzocaine Ointment (Whitfield's®)</li><li>• Bonjeal® (藥油/藥) [contains salicylates]</li><li>• Duofilm® [contains salicylic acid]</li><li>• Salicylic Acid 10% / 20% in colloid</li><li>• Thymol Gargle® [contains methylsalicylate and sodium salicylate]</li></ul></li></ul>	
<b>Allergy to SULPHONAMIDES (藥水)</b> <b>WARNING:</b> If a person is allergic to Sulphonamides, he/she may have allergic reactions to: <ul style="list-style-type: none"><li>• Co-Trimoxazole (藥水/磺胺甲噁唑) (Septrin®, Bactrim®)</li><li>• Silver Sulphadiazine cream (藥水/磺胺噻唑霜) (Flamazine cream®)</li><li>• Sulphasalazine (藥水/磺胺噻唑) (Salazopyrin®)</li></ul>	
<b>Allergy to TETRACYCLINE (四環素類抗生素)</b> <b>WARNING:</b> If a person is allergic to Tetracycline, he/she may have allergic reactions to: <ul style="list-style-type: none"><li>• Chlorotetracycline (藥水/藥) (Aurocyclin® eye ointment, Aurocyclin® ointment)</li><li>• Doxycycline (藥水/藥) (Vibramycin®)</li><li>• Minocycline (藥水/藥) (Minocin®)</li><li>• Tetracycline (藥水/藥) (Achromycin®)</li></ul>	

### Cross-allergy Reference Table

Hospital Authority Head Office		Document No.	HAHQ-COM-GL-MSC-003-01 (MSC Ref: MSC-003(v1))
HA Guideline on Known Drug Allergy Checking <td>Issue Date</td> <td>08/09/2013</td>		Issue Date	08/09/2013
		Review Date	31/07/2016 (Last revised in Aug 2013)
		Page	5 of 5

Appendix: Cross-allergy Reference Table		
<b>PENICILLINS</b> <ul style="list-style-type: none"><li>Amoxicillin (Amoxil®) (藥水/青霉素)</li><li>Amoxicillin + Clavulanic Acid (Augmentin®) (亞莫西林+克拉維酸)</li><li>Ampicillin + Sulbactam (Unasyn®) (藥水/青霉素+蘇拉巴坦)</li><li>Benzathine Penicillin (下半量青霉素)</li><li>Benzylpenicillin (Penicillin G) (青霉素 G)</li><li>Cloxacillin (Orbenin®) (藥水/青霉素)</li><li>Flucloxacillin (藥水/青霉素)</li><li>Phenoxymethylpenicillin (Penicillin V) (藥水/青霉素)</li><li>Piperacillin (Pipracil®) (藥水/青霉素)</li><li>Piperacillin + Tazobactam (Tazocin®) (藥水/青霉素+他佐巴坦)</li></ul>	<b>CEPHALOSPORINS</b> <ul style="list-style-type: none"><li>Cefaclor (Ceclor®) (藥水/頭孢)</li><li>Cefazolin (Cefamezin®) (藥水/頭孢)</li><li>Cefepime (Maxipime®) (藥水/頭孢)</li><li>Cefuroxime + Sulbactam (Superazone®) (藥水/頭孢+蘇拉巴坦)</li><li>Ceftazidime (Fortum®) (藥水/頭孢)</li><li>Ceftriaxone (Rocephin®) (藥水/頭孢)</li><li>Cefuroxime (Zinnat®/Zinacef®) (藥水/頭孢)</li><li>Cephalexin (Keflex®) (藥水/頭孢)</li></ul>	
<b>NSAIDs</b> <ul style="list-style-type: none"><li>Aspirin</li><li>Aspirin + Glycine (Calsprin®)</li><li>Cetorolac (Toradol®)</li><li>Diclofenac Potassium (Catalam®)</li><li>Diclofenac Sodium (Voltaren®)</li><li>Ibuprofen (Brufen®)</li><li>Indomethacin (Indocin®)</li><li>Ketorolac (Toradol®)</li><li>Mefenamic Acid (Ponstan®)</li><li>Naproxen (Naprosyn®)</li><li>Piroxicam (Feldene®)</li><li>Sulindac (Cibon®)</li></ul>	<b>Possible Cross Sensitivity with NSAIDs</b> <ul style="list-style-type: none"><li>Ammonia and Liquorice</li><li>Benzylamine (Difflam®)</li><li>Salicylate compound</li><li>Mesalazine</li><li>Neozep®</li><li>Salicylate / Salicylic acid</li><li>Sulphonamide</li><li>Thymol gargle compound</li></ul>	
<b>Carbapenems</b> <ul style="list-style-type: none"><li>Ertapenem (Invanz®)</li><li>Meropenem (Meropen®)</li><li>Timpanem + Cistatin (藥水/碳青, 西拉司汀)</li></ul>	<b>G6PD Deficiency (Drugs to avoid or administer with caution)</b> <ul style="list-style-type: none"><li>Aspirin (1-15 days)</li><li>Chloroquine</li><li>Dapsone</li><li>Methylene blue</li><li>Nitrofurantoin (Furadantin®)</li><li>Phenazopyridine (Pyridium®)</li><li>Primquine</li><li>Probenecid</li><li>Quinine</li><li>Quinine</li><li>Quinine</li><li>Sulphonamides (refer to below list)</li></ul>	
<b>Paracetamol</b> <ul style="list-style-type: none"><li>Acetaminophen, Paracetamol (藥水/藥) (Parasol®, Tylenol®)</li><li>Dologesic® (Dextropropoxyphene + Paracetamol)</li><li>Neozep® (Phenylephrine + Paracetamol + Salicylate + Chlorpheniramine maleate + Vitamin C)</li></ul>	<b>SULPHONAMIDES</b> <ul style="list-style-type: none"><li>Cotrimoxazole (Septrin®)</li><li>Silver Sulphadiazine</li><li>Sulphadiazine</li><li>Sulphamethoxazole</li><li>Sulphamethoxazole + Trimethoprim (Septrin®)</li><li>Sulphasalazine (Salazopyrin®)</li></ul>	
<b>Carbapenems</b> <ul style="list-style-type: none"><li>Donipenem (Donibax®) (藥水/碳青)</li><li>Ertapenem (Invanz®) (藥水/碳青)</li><li>Impipenem + Cistatin (Timpanem + Cistatin) (藥水/碳青+西拉司汀)</li><li>Meropenem (Meropen®) (藥水/碳青)</li></ul>		<b>CARBAPENEMS</b> <ul style="list-style-type: none"><li>Donipenem (Donibax®) (藥水/碳青)</li><li>Ertapenem (Invanz®) (藥水/碳青)</li><li>Impipenem + Cistatin (Timpanem + Cistatin) (藥水/碳青+西拉司汀)</li><li>Meropenem (Meropen®) (藥水/碳青)</li></ul>
<b>Drugs structurally related to penicillin</b> <ul style="list-style-type: none"><li>Ganciclovir (藥水/病毒) (Fulciv®)</li><li>Penicillamine (藥水/藥) (藥水/藥)</li></ul>		<b>ALERT:</b> * This list may not be exhaustive. Please contact your local pharmacy for additional information.

# SERIOUS UNTOWARD EVENTS Q3 2013

## CASE HIGHLIGHT - Dangerous Drugs

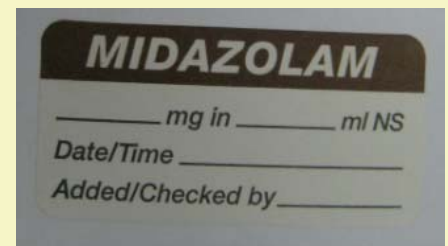
- The patient was admitted for a suspected stroke. CT scan of the brain was arranged.
- The case doctor prescribed Dormicum (Midazolam) 1mg IV STAT for sedation with subsequent 0.5mg IV STAT should the patient become unsettled.
- A nurse diluted 1mL of Dormicum (5mg/1mL) with 4mL of Normal Saline (NS) to prepare a solution of 1mg/mL. The syringe was labeled as “Dormicum”.
- After confirming the syringe contained “1mg of Dormicum”, the nurse handed over the syringe to the junior doctor.
- The junior doctor injected all 5 mL (5mg) in the “Dormicum” labeled syringe to the patient.
- The incident was discovered when the junior doctor asked for the subsequent dose (0.5mg) of IV Dormicum.
- The patient’s condition remained stable. CT scan was carried out as planned.

### Key Contributing Factors:

1. Lack of standard dilution method for dangerous drugs for sedation.
2. Incomplete information was shown on the syringe.

### Recommendations:

1. Develop standard dilution tables for IV dangerous drugs.
2. Ensure proper labeling of medications on syringes – stating the drug dosage and concentration.



## CASE HIGHLIGHT - Vancomycin Given as Bolus

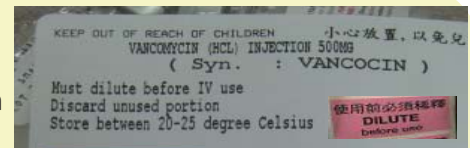
- A patient underwent an elective operation of Rickham capsule insertion. After the “TIME OUT” process, an anaesthetist diluted 1gm Vancomycin by 10mL of NS and gave 2mL of the solution intravenously as the test dose for any adverse effect.
- Without any adverse drug reaction, the anaesthetist gave the remaining 8mL of drug to the patient intravenously over 5-10 minutes.
- The patient developed transient hypotension and generalized skin redness and was suspected to have Red Man Syndrome due to rapid Vancomycin administration.
- After immediate treatment, the patient’s condition improved.
- The operation was proceeded uneventfully.

### Key Contributing Factors:

1. Non-compliance with the drug administration procedures.
2. Inadequate knowledge of Vancomycin dilution and administration methods.

### Recommendations:

1. Ensure inclusion of drug name, dosage, route, dilution methods and rate of administration in the prescription.
2. Remind staff to clarify any doubtful information before drug administration.
3. Beware of the alert label “DILUTE before use”.
4. As a good practice, make reference to the “Drug reference label” prior to drug administration.



[VANC03] VANCOMYCIN (HCL) INJECTION 500MG [SYN. Vancocin]

IVF: Add 10ml WFI. Dilute with D5 or NS to a concentration of < 5mg/ml (at least 500mg/100ml, 1g/200ml). Infuse over at least 60mins or at a rate no more than 10mg/min, whichever is longer.

Must dilute before use. Paediatrics, infants and neonates: over a period of at least 60mins.

In-use Storage Time : For single use only.

NOT compatible with beta-lactam antibiotics and other compounds due to its low pH.

Drug reference label

*“Retained instruments or other material after surgery/interventional procedure” remained the leading cause of reported SEs in recent two years and it accounted for one third of all SEs in HA. In the Joint Commission’s Sentinel Event database in the US, 722 incidents of Unintended Retention of Foreign Objects (URFO) were reported from 2005 to 2012. The recent 51th Issue of Sentinel Event Alert from the Joint Commission has provided a detailed discussion on this matter.*

URFOs refer to any item or foreign object related to any operative or invasive procedure that is left inside a patient:

- Soft goods, such as sponges and towels
- Small miscellaneous items, including: unretrieved device components or fragments (such as broken parts of instrument), stapler components, parts of laparoscopic trocars, guidewires, catheters, and pieces of drains
- Needles and other sharps
- Instruments, most commonly malleable retractors

### Risk Factors

- High patient BMI
- Emergent / Urgent operation
- Unanticipated / Unexpected change during the operation
- Abdominal surgery
- More than one operation procedures
- Multiple surgical teams / multiple staff turnovers during the procedure
- Long procedure duration



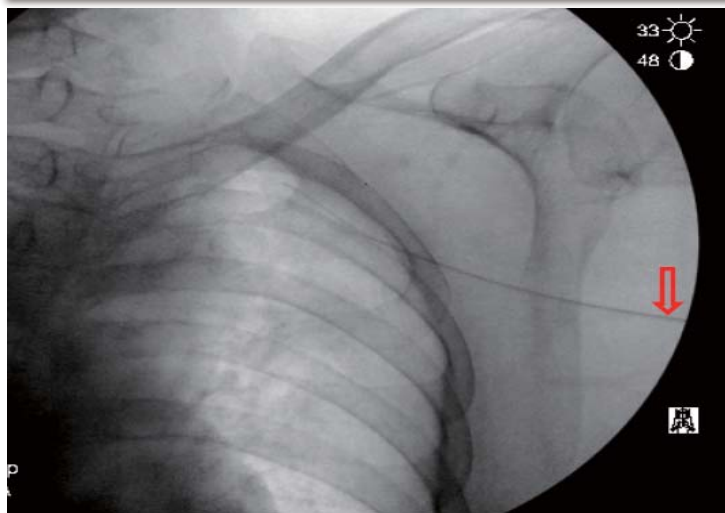
### Recommendations

- Perform counting procedure audibly & visibly
- Wound opening and closing procedures
  - inspection of instruments for signs of breakage before and after use
  - methodical wound exploration
  - initial “closing TIME OUT”
- Intra-operative radiographs, when
  - incorrect count
  - high risk cases for retained surgical items
  - consider further imaging / exploration
- Effective communication – team briefings & debriefings
- Appropriate documentation
- Safe technology – barcoding / radiofrequency identification systems

**The American College of Surgeons** statement on the prevention of retained foreign bodies after surgery recommends: **“Prevention of foreign body retention requires good communication among perioperative personnel and the consistent application of reliable and standardized processes of care.”**

### Reference:

[Sentinel Event Alert Issue 51: Preventing Unintended Retained Foreign Objects \(21th Oct 2013\);](#)  
[Statement on the prevention of retained foreign bodies after surgery - Bulletin of the American College of Surgeons Vol.90, No.10, October 2005](#)



### Additional Resources on the web:

- [Joint Commission Journal on Quality and Patient Safety: A Multidisciplinary Team Approach to Retained Foreign Objects](#)
- [Webinar on Unintended Retained Foreign Objects \(22 November 2013\)](#)




# LOCAL SHARING

## Look-alike-sound-alike (LASA) Vaccines



A local medication incident has been reported in AIRS involving patients wrongly administered with 4-in-1 vaccines (**TETAVAX®**) instead of tetanus vaccines (**TETRIXIM®**) due to mix-up.

The newly introduced preparation of **TETAVAX®** pre-filled syringe has similar packaging appearance as well as brand name compared with **TETRIXIM®** pre-filled syringe.

The comparison between the two vaccination products is summarized below.

Drug image	 		
Brand name	<b>TETAVAX®</b>		<b>TETRIXIM®</b>
Full name (Drug code)	Tetanus (Adsorbed) Vaccine 5ml/Vial (TETA03)	Tetanus Vaccine (Adsorbed) 0.5ml <b>Pre-filled syringe</b> (TETA12)	Diphtheria, Tetanus Acellular Pertussis (Adsorbed) and Poliomyelitis (Inactivated) Vaccine 0.5ml <b>Pre-filled syringe</b> (DIPH31)
Composition	Tetanus toxoid (≥40 IU/0.5ml) <b>(Single Component-Tetanus)</b>		Tetanus toxoid ≥40 IU, Diphtheria toxoid, Pertussis antigens, and Inactivated polio virus <b>(4-in-1 Vaccine)</b>
Indication	Prevention of tetanus as part of <b>wound management</b>		Part of <b>government childhood immunization programme</b>
Immunization schedule	1 <sup>st</sup> – on the day of clinic visit 2 <sup>nd</sup> – 1 to 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> – 6 to 12 months after 2 <sup>nd</sup> dose		Age 2, 4, 6, 18 months and Primary 1

Apart from the products mentioned above, there are also other vaccination products from the same manufacturer with similar packaging appearance.

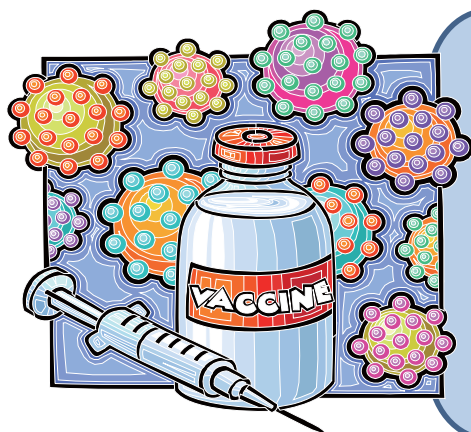
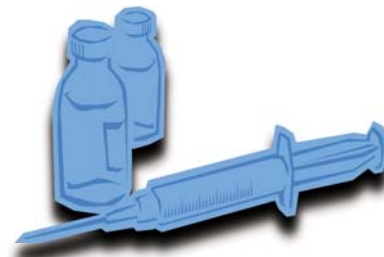
Drug image		
Brand name	<b>PNEUMO 23®</b>	
Full name (Drug code)	Pneumococcal 23-Valent Polysaccharide (Campaign) Vaccine 0.5ml <b>Pre-filled syringe</b> (PNEU07)	Influenza (2013/2014 Campaign) Vaccine 0.5ml <b>Pre-filled syringe</b> (INFL11)
Composition	Polysaccharides of <i>Streptococcus pneumoniae</i> ; 25 micrograms of each of 23 serotypes/0.5ml	Influenza virus (inactivated, split); 15 micrograms of each of 3 strains/0.5ml
Remarks	Revaccination is generally not required	Annual vaccination is recommended

# LOCAL SHARING

## Look-alike-sound-alike (LASA) Vaccines (Continued)

### Recommendations:

1. Health care professionals should **WRITE** and **READ** the **BRAND NAME** and **COMPOSITION** carefully in prescription, packaging and stock requisition.
2. Separate, if possible, the storage of vaccines with similar packages at pharmacy and in clinical areas.
3. Clear labeling (with use of warning labels or tall-man lettering) is considered to be a good practice to ensure frontline staff's vigilance when picking these items.
4. Communicate with and alert staff of the newly introduced products/dosage forms which may cause confusion in prescribing, dispensing and administration.
5. Keep the prefilled syringes in their original packaging for better differentiation.
6. Before administration, always adopt the checking principle and exercise the "FIVE Rights" as promulgated in the HA Administration Guidelines.



### DO you KNOW?

Most vaccines are thermo-labile, i.e. very sensitive to temperature change. For example, most live virus vaccines tolerate freezing temperatures, but deteriorate rapidly after they are removed from storage. Inactivated vaccines can be damaged by exposure to temperature fluctuations (e.g., extreme heat or freezing temperatures). To maintain vaccine potency, it is a good practice to use a stand-alone pharmaceutical fridge for bulk storage of such vaccines.

## Medication Incident Statistics (Jan – Jun 2013)

No. of Incidents by Severity		Top 3 Most Common Error Types						
		Rank	PRESCRIBING		DISPENSING		ADMINISTRATION	
Severity Index	Frequency		In-patient	Out-patient	In-patient	Out-patient	In-patient	Out-patient
0	194	1 <sup>st</sup>	Wrong Strength /dosage (11%)	Wrong Patient (24%)	Wrong Drug (11%)	Wrong Drug (16%)	Dose Omission (8%)	Extra Dose (16%)
1	599	2 <sup>nd</sup>	Wrong Frequency (5%)	Wrong Strength /dosage (5%)	Wrong Strength/dosage (6%)	Wrong Patient (14%)	Extra Dose (8%)	Dose Omission (13%)
2	108		Wrong Patient (4%)	Wrong Drug (5%)	Wrong Dosage Form (2%)	Wrong Strength/dosage (10%)	Wrong Dose (5%)	Wrong Dose (6%)
3	18	3 <sup>rd</sup>						
4	3							
5	0							
6	0							

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Suggestions or feedback are most welcome. Please email us through HA intranet at address: HO Patient Safety and Risk Management Department