RISK ALERT

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A Risk Management Newsletter for Hospital Authority Healthcare Professionals

IN THIS ISSUE

Medication Safety Prime for Quality Healthcare

HA first introduced the manual medication incident reporting programme in 1994, followed by the electronic Advanced Incident Reporting System (AIRS II) in 2005. Together with the establishment of the Medication Safety Committee in 2006, HA colleagues are getting increasingly aware of the importance of medication safety during the patient journey under their care.

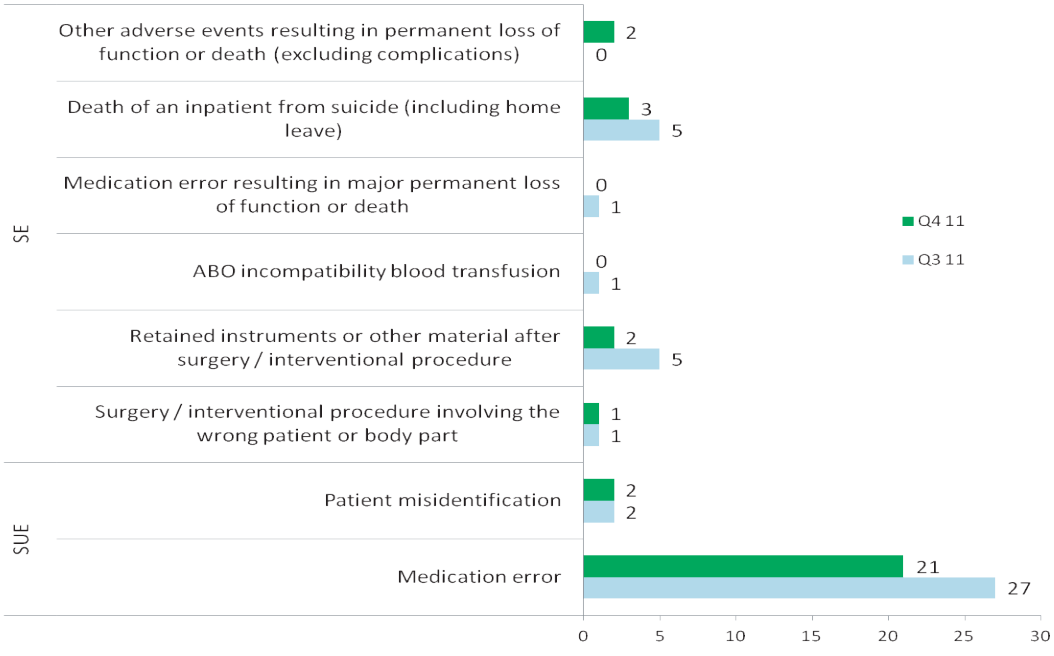
Medication safety has come a long way in a new era where evidence-based clinical practice, effective medication use, proactive risk management as well as an open and transparent safety culture are ranked top priority in safeguarding patient safety worldwide. Last November, HA hosted the first International Medication Safety Conference in Hong Kong featuring many internationally renowned speakers who shared their wisdom and insights in medication safety. The Conference was well received as all participants recognized the relevance of knowledge gained to their daily practice.

In the HA quality journey, Pharmacy Service will continuously be improved to safeguard and maintain a safe and efficient drug delivery process to meet the expectation of the public. High risk areas like aseptic dispensing will be upgraded and elective technologies with proven efficacies in enhancing medication safety will be considered and introduced as appropriate. Safety aspect will also be emphasized in the drug procurement process as practically as possible.

The significant attainments in medication safety in HA over the past years are the result of concerted efforts by all healthcare staffs and service partners. Despite past achievements, there is no room for complacency in medication safety in our ever changing daily practice environment. With your continued support, dedication and collaboration in addressing medication safety issues, I am confident that we can maintain a safe and efficient pharmaceutical service in HA in the years to come.

Ms Anna LEE, Chief Pharmacist, HA

DISTRIBUTION OF SENTINEL (SEs) & SERIOUS UNTOWARD EVENTS (SUEs) (Q4 2011)



Retained segment of equipment

Case 1 : Retained screw

The patient was admitted for removal of implant and wound debridement on left ankle. The surgery was uneventful. The surgeon subsequently realized that a screw had not been removed from the fibula. After undergoing another operation for removal of the screw, the patient was discharged uneventfully.

Contributing Factors:

1. Lack of standard protocol or checklists to guide and assure complete removal of implants and all their parts.
2. The surgeon and the assistant of the operation had failed to safeguard the complete removal of the implants by not ascertaining and confirming the nature and number of implants to be removed.

Recommendations:

1. Consider introducing standard guideline for implant removal.
2. Adjust the setting of system auto-shutdown to ensure all relevant X-ray images shown in the computer panels could be displayed throughout the operation.
3. Introduce mechanism (e.g. checklist) to ensure complete removal of implants.
4. Implement briefing / debriefing practice to raise situation awareness in reducing human errors.

Case 2 : Retained tip of internal sheath of resectoscope

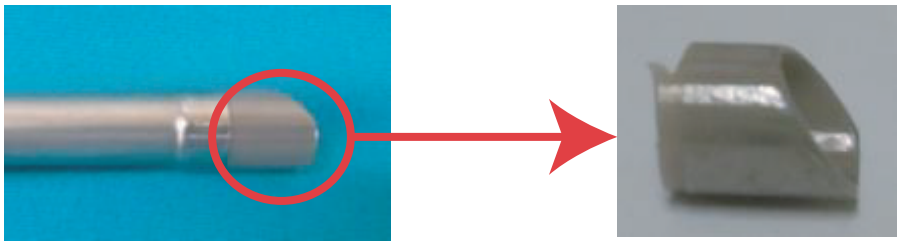
Transurethral Resection of Bladder Tumour (TURBT) was performed on a patient. No instrument defect was noted during dissembling and checking. However, staff in the Theatre Sterile Supply Unit (TSSU) subsequently noted that a tip of the resectoscope was missing. Operating theatre (OT) colleagues were informed but the message was not passed on to the surgeons. The error was only discovered 2 months later when X-ray image revealed a foreign object in the patient's pelvis. An operation was performed to remove the foreign object which was found to be the tip of the resectoscope's internal sheath. The patient recovered uneventfully.

Contributing Factors:

1. The current protocol for checking integrity of instrument immediately after use in OT does not highlight risky areas to attract user's attention.
2. The communication between TSSU and OT staff on instrument integrity is not clear.

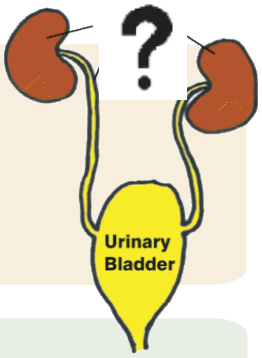
Recommendations:

1. Enhance the system in checking instrument integrity.
2. Revise and improve the communication system between TSSU and OT staff to ensure proper verification of instrument integrity.



Wrong side procedure performed

Patient A was planned for **RIGHT** ureterorenoscopy. The chief surgeon Dr. Y performed time-out, proceeded with the procedure but cannulated the **LEFT** ureter instead. He sought help from Dr. Z when difficulties were encountered. Dr. Z completed the **LEFT** ureterorenoscopy successfully. Specimen identified as "left kidney urine" was passed to the scrub nurse to be sent out. The procedure was complicated by contrast extravasation of the left kidney and a left JJ stent was inserted. The error of wrong side procedure was then identified before the patient left the theatre. Right ureterorenoscopy was immediately done and the patient was subsequently discharged uneventfully.



Contributing Factors:

1. Inadequate preparation.
2. Lack of proper handover from Dr. Y to Dr. Z.
3. Inconvenient X-ray facilities in the operating theatre.
4. Failure of the scrub nurse to speak up despite awareness of the mistake.

Recommendations:

1. Explore the possibility of 2nd time-out to be done immediately before cannulation of ureter.
2. Strengthen intra-operative handover procedures to safeguard critical information transfer.
3. Improve x-ray display facilities in operation theatre.
4. Reinforce the "speak up" culture among surgical team members.

Death of a patient with a permanent tracheostomy

A patient with a permanent tracheostomy undergoing stroke rehabilitation suddenly developed cardiac arrest and passed away. It was subsequently found that the gauze covering the permanent tracheostomy was inappropriately appended on all four edges to the patient's skin for a number of days.

Concluding remarks by the Investigation Panel:

1. There was a lack of awareness among the medical and nursing staff on the permanent nature of the patient's tracheostomy.
2. The patient's tracheostomy was managed as a temporary one. The tracheostomy stoma was inappropriately covered by gauze fixed by adhesive tape on all 4 edges.
3. There was inadequate communication among health care personnel during patient transfer between acute and rehabilitation hospitals to pass on information regarding the nature of the patient's tracheostomy.
4. The documentation was inadequate to assist the nursing team to be fully aware of the type and the condition of the patient's tracheostomy.

Recommendations:

1. Enhance staff's awareness of different types of tracheostomy and their care.
2. Improve handover communication of patients from one hospital to another.

Anti-coagulant given to patient with acute coronary syndrome (ACS) and intracranial hemorrhage (ICH)

A patient developed syncope, fell onto the ground and sustained head injury with loss of consciousness. Computerized Tomography (CT) of brain was performed and reviewed by the AED doctor, on-call physician and cardiologist. Without noting a small amount of ICH, the patient was prescribed anti-platelet and anti-coagulant therapy to treat the concomitant ACS. However, a second CT brain scan after patient's deterioration revealed massive ICH. A radiologist noted a small amount of ICH in the 1st scan retrospectively. The anti-coagulant and anti-platelet therapy might have aggravated the patient's ICH and the patient passed away subsequently despite treatment.

Concluding remarks by the Investigation Panel:

1. The sign of bleeding was subtle in the first CT brain scan film.
2. The patient's ICH was more difficult to diagnose from hard copy CT films compared with computer monitor images.
3. Both the attending physician and cardiologist who had reviewed the CT films could have been affected by previous doctor's opinion (negative finding) and failed to notice the patient's ICH. They thus proceeded to mainly focus on managing the patient's life threatening cardiac conditions accordingly.

Recommendations:

1. Develop clinical guidelines to advise staff to have prior discussion with patient and family on potential risks of using anti-coagulant for patients with history of significant head injury.
2. Explore the feasibility of not printing CT hard copy films to ensure that all CT brain scan images be viewed on computer monitor.
3. Encourage clinicians to consult radiologist for interpretation of CT brain scan images of special cases.

PATIENT SUICIDE

Three inpatients / home leave patients committed suicide in the 4th quarter of 2011. One psychiatric inpatient committed suicide by covering his head in a plastic bag. Two home leave patients with chronic illnesses committed suicide by falling from height outside hospital.

Contributing Factor:

Underlying illness of the patients, e.g. psychiatric conditions, chronic illnesses.

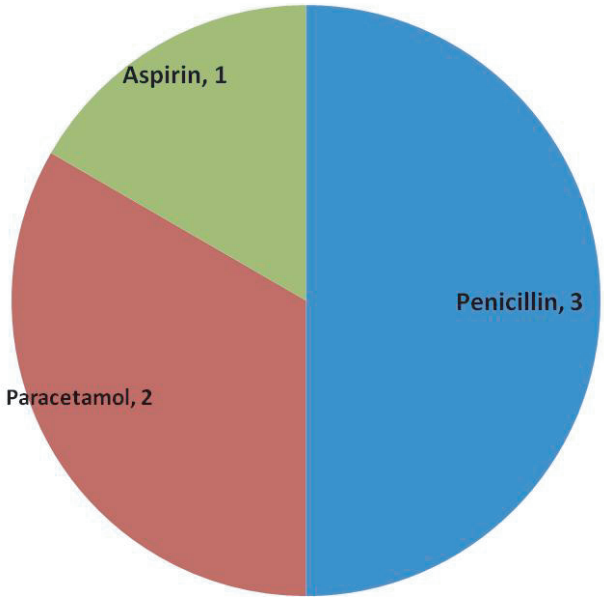
Learning Points:

1. Enhance unobtrusive observation of patients at night time.
2. Raise staff awareness of a patient's unusual belongings to reduce the risk of suicidal act.
3. Explore the possibility of enhancing Palliative Team referral system for Clinical Oncology patients.

A total of 23 SUE cases was reported in the fourth quarter of 2011, of which 21 were related to medication errors and 2 to patient misidentification. Of all the medication error cases:
- 6 were related to "Known Drug Allergy";
- 3 were errors related to the use of "Dangerous Drugs";
- 3 were errors on the use of "Anticoagulants"; and
- 9 were related to the use of other medications.

MEDICATION INCIDENTS INVOLVING KNOWN DRUG ALLERGY

Known Drug Allergy (6)



Case highlight:
A patient with penicillin-group antibiotics allergy was brought into the OT with a dose of erythromycin for surgical site infection prophylaxis. The chain of errors started when the allergy history was not handed-over to the OT nurse. The allergy history was also not subsequently 'recalled' during "time-out". Furthermore, at the time of antibiotic injection the surgeon and anesthetist, who did not countercheck the allergy history, could not locate the brought-in erythromycin. Consequentially, a dose of Cefazolin (instead of erythromycin) was ordered from the ward and administered. Fortunately the patient did not show any adverse reaction.

MEDICATION INCIDENTS INVOLVING DANGEROUS DRUGS

Three incidents of dangerous drugs errors occurred in this quarter. None of them resulted in any significant medical consequences.
- Look-alike-sound alike (LASA): One dose of Diazepam 0.7mg was given instead of Lorazepam 0.7mg for seizures control.
- Infusion pump error: Morphine 30mg in 500ml Normal Saline (NS) for pain control was infused over 12 hours instead of the intended 24 hours.
- Checking error: 0.5ml Morphine (7.5mg) IM was given instead of Pethidine (50mg) IM.

Case highlight:
A patient was prescribed intravenous morphine 30mg in 500ml NS over 24 hours and the infusion rate was set at 21ml/hr. However, the infusion was completed 12 hours earlier than the expected time. The patient had no evidence of morphine overdose.

Overall Contributing Factors:
1. Non-compliance with the "3 checks and 5 rights" principle.
2. Non-compliance with guideline on verbal order.
3. Lack of regular checking for infusion rate and infused volume.

Major Recommendations:
1. Follow the guideline on giving verbal order.
2. Enhance staff compliance with dangerous drug handling and administration of medication procedure through audit and training.
3. Provide structured training on proper use of various models of infusion pump in used in the ward.
4. Ensure staff's competency before allowing them to operate different infusion pump models.

OTHERS MEDICATION INCIDENTS

Case highlight:

Amiodarone maintenance was infused at 210ml/hr instead of 21ml/hr

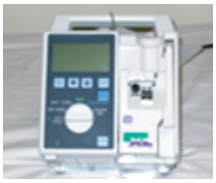
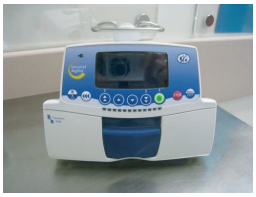
A patient who was in shock and tachycardia was given a loading dose of IV Amiodarone 150mg in 100ml D5, to be followed by a maintenance dose of 600mg in 500ml D5 over 24 hours (at 21ml/hour). However, the maintenance infusion was completed in 3 hours and it was found that the infusion rate was wrongly set at 210ml/hour instead of 21ml/hour.

Contributing Factors:

1. Mistook the presence of a decimal point before the "0" on rate display (ie. 21.0 versus 210 ml/hour).
2. Lack of independent double-checking of pump settings before commencing the infusion.
3. No regular monitoring of infused amount / volume after commencement.

Recommendations:

1. Develop departmental standard on safe practices for infusion of high risk medication highlighting adherence to the HA guidelines on safe use of infusion pump for promulgation through training and education programme.
2 Ensure staff competency in operating different models of infusion pumps used in the ward.


HIGHLIGHTS:

Please refer to the **HA Operation Guidelines on Safe Use of Infusion Pumps** effective from Feb 2009

PATIENT MISIDENTIFICATION

A ward nurse passed a note on a list of abnormal test results to the on call doctor which included the abnormally low phosphate level (0.53mmol/L) of patient Y at bed 2. However, the doctor misperceived that patient X at bed 1 suffered from hypophosphataemia instead. The doctor could not find the printout result in the record folder of patient X and did not further verify the test result in the CMS. Glycophos supplement was mistakenly prescribed and administered to patient X.

Contributing Factors:

1. Ineffective staff communication on handling of abnormal laboratory results.
2. Failure to verify laboratory results before prescribing and administering of electrolyte replacement.

Recommendations:

1. Reinforce all staff to adhere to the proper practice of drug prescription and administration.
2. Redesign the schedule and workflow of blood taking and abnormal test results management.

"Working with the suicidal person: clinical guidelines for emergency departments and mental health services"

(http://www.health.vic.gov.au/mentalhealth/suicide/suicidal-person-book2010.pdf)

Patient's suicide remains one of the most common SE reported in HA. The 3 screening questions for identifying persons with risk-to-self have been in place in HA for some time. A scanning of all the suicide cases revealed that many were assessed to be of low risks for self-harm. The ultimate judgement regarding the assessment of a person at risk of suicide must be made by the healthcare professionals based on their experience and patients' clinical presentation.

The **Victoria State Government of Australia** issued the document "*Working with the suicidal person: clinical guidelines for emergency departments and mental health services*" in 2010. It was designed to provide guidance to healthcare professionals working in Victorian emergency and mental health services on how to improve the assessment and management of people with suicidal behaviours.

It was determined that: (1) good communication is vital; (2) information gathering is crucial; and (3) thorough assessment is essential. In this issue of HARA, we would like to highlight the section on "Assessment of Suicide Risk" to better equip our colleagues with knowledge in this subject.

According to the document, suicide is almost impossible to predict with any certainty, and there is no 'test' that is both sensitive enough to identify most people who will go on to kill themselves, and so accurate that it will not falsely predict suicide for many others. At the same time, assessing the level of risk of suicide in an individual does not signify that the individual's death is inevitable; this is a dangerous view that could prevent staff from making every effort to promote an individual's safety. In the realm of suicide research and clinical practice, there has been an increasing recognition of the factors that elevate suicide risk, which can be categorised as psychiatric (e.g. major mental disorders), psychosocial (e.g. adverse life situations) and sociodemographic (e.g. male gender) risk factors.

Individual risk factors for suicide	
Mental illness	Hopelessness
Postpartum suicide risk	Previous suicide attempts
Deliberate self-harm	Stressful life events
Pain and physical illness especially in the elderly	Co-morbidity with more than 1 type of psychiatric problem
Isolation and remoteness and their associated factors such as socioeconomic decline	People recently discharged from acute psychiatric care (in the first four weeks after discharge increases to 100 to 200 times greater than normal, and the risk remains for at least five to 10 years after last discharge)

Family risk factors for suicide
Childhood physical / sexual abuse (three times more likely to become depressed or suicidal)
Family factors like high levels of conflict, parental mental illness and a family history of suicidal behaviour
Relatives and peers of people who have died by suicide (up to 5-fold)

GLOBAL RISK SCANNING

Blood Transfusion Error in Victoria State Australia

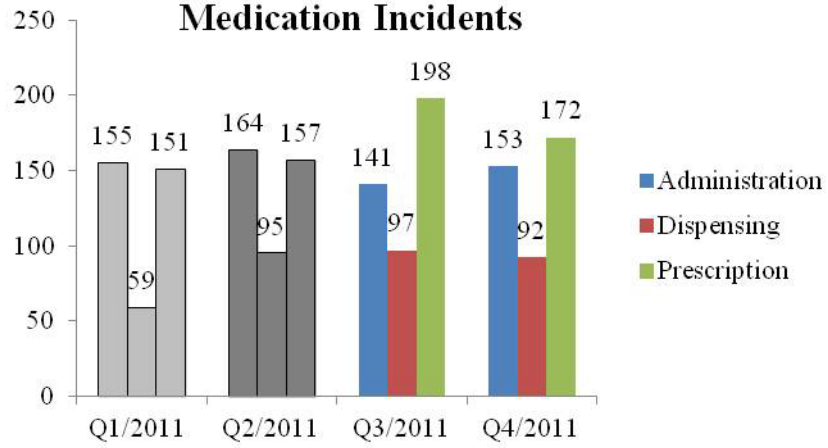
(RiskWatch Volume 9 Issue 4 Dec 2011)
http://docs.health.vic.gov.au/docs/doc/Risk-Watch-Volume-9--Issue-4

A patient undergoing an elective surgical wound debridement began to bleed, requiring urgent administration of O negative blood. A unit of O negative blood intended for another patient in the operation theatre arrived. A nurse collected the blood and thought it was for the patient undergoing the elective wound debridement. The blood was not checked prior to administration in accordance with hospital procedure and the wrong blood was administered. Fortunately, both patients required the same blood type and no adverse outcome occurred.

What were the major contributing factors in this case?
- The correct procedure for administering blood was not followed.

How did the health service address issues identified?
- formed a working group to review the process from ordering to administration of blood
- developed a one page succinct process for checking blood products
- developed an education program on blood administration for all theatre staff
- undertook a blood administration competency audit for theatre staff
- posted educational information on appropriate education board to raise awareness.

TOP REPORTED CATEGORIES OF AIRS INCIDENTS (JUL – DEC 2011)



 # Incident reporting in AIRS is voluntary
*** Medication cases include near miss incidents without affecting patients.**