RISK ALERT
ISSUE 22  JUL 2011
A Risk Management Newsletter for Hospital Authority Healthcare Professionals

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CCE’s Perspective on Risk Management

Risk management in HA has gone a long way since the Risk Management Policy was first promulgated back in 2001. Ten years is a good time for us to take stock of what have been achieved. For someone who has been involved in the process fairly early on, I believe we have built a very solid infrastructure of risk management and patient safety within the Authority.

We have appointed a full-time Director in Quality & Safety to head a strong team of risk management professionals. Our Advanced Incident Reporting System (AIRS), together with our Sentinel and Serious Untoward Events Policy have provided a framework for our staff to adopt a reporting culture. Publications like HARA certainly have been quite successful in disseminating our lessons learned, both internally and externally. The adoption of the Risk Register by our managers for risk prioritization in the annual planning process is another sign that risk management has really come of age in HA.

While we really should be quite proud of our achievements over the past 10 years, a HA wide patient safety culture survey carried out last year indicated that quite a significant percentage of our staff were still worried about voicing their concerns to their superiors. Hence, our coming challenge is for HA to build a “Just Culture” which allows each and everyone of us to report issues of concern to our supervisors or above without any fear whatsoever (HA Code of Ethics). A “Just Culture” will lead to a true “Learning Culture”. With that, HA will become an organization with a “Safety Culture” which is trusted by the community (our VMV).

Dr. Joseph LUI, KEC CCE

DISTRIBUTION OF SENTINEL (SEs) & SERIOUS UNTOWARD EVENTS (SUEs) (Q1 2011)

<table>
<thead>
<tr>
<th>Event</th>
<th>SEs</th>
<th>SUEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal death or serious morbidity</td>
<td>1</td>
<td>22</td>
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<tr>
<td>associated with labour or delivery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Death of an inpatient from suicide</td>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>(including home leave)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retained instruments or other material</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>after surgery / interventional procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgery / interventional procedure</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>involving the wrong patient or body</td>
<td></td>
<td></td>
</tr>
<tr>
<td>part</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient misidentification</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Medication error</td>
<td></td>
<td>20</td>
</tr>
</tbody>
</table>

Q1 11 | Q4 10

[Bar chart showing distribution of Sentinel Events (SEs) and Serious Untoward Events (SUEs) for Q1 2011]
Case 1: Local Anaesthetic was Injected into the Wrong Eye
- A patient was admitted for LEFT eye cataract extraction.
- The operation site was marked correctly by the surgeon and time-out procedure was performed by the surgeon and a circulating nurse.
- The surgeon obtained gloves from the other side of the operating theater (OT), returned to the RIGHT side of the patient and injected local anaesthetic to the RIGHT eye despite clear marking above the LEFT eye.
- Upon arrival at the OT, the supervising surgeon noticed the mistake when the injection needle was withdrawn by the surgeon.
- The operation was done on the patient’s LEFT eye and there was no harm to the RIGHT eye.

**Key Contributing Factor:**
The surgeon was distracted by activities between the time-out procedure and the operation.

**Recommendation:**
Reconfirm the site of procedure when there are distractions or extended time lapse between the time-out procedure and the operation/ procedure.

Case 2: Catheterization was Performed on the Wrong Patient
- Urinary catheter was removed from a patient (“patient A”) by a community nurse at the patient’s home.
- 3 hours later, another nurse (“the nurse”) went to patient A’s home to perform bladder catheterization for checking residual urine. On the way to patient A’s home, she met an elderly lady accompanied by a domestic helper near the residence of patient A.
- The nurse asked the elderly lady if she was patient A. The elderly lady responded positively, so the nurse followed the elderly lady and her domestic helper back to her home for bladder catheterization without further verification of identity.
- After the procedure, no urinary drainage bag was found in the elderly lady’s home.
- The nurse contacted a relative of patient A and checked the identity of the elderly lady. It was subsequently discovered that the elderly lady was not patient A.
- The elderly lady did not have any adverse outcome.

**Key Contributing Factor:**
Patient identification procedure was not performed before intervention.

**Recommendations:**
1. Reinforce patient identification before performing a procedure.
2. Check patient’s identity with open-end questions.
Case 1: Retained Pieces of Gauze in Iliac Crest Wound
● A patient was admitted for management of post-operative wound infection and negative pressure wound therapy (NPWT) was ordered.
● After 3 rounds of NPWT dressing by the same method (sandwiched a suction tube with a foam dressing), a nurse applied a suction tube, sandwiched by a piece of non-adherent dressing and a piece of gauze, for NPWT dressing.
● Another nurse removed the NPWT dressing for simple dressing before wound debridement.
● 2 pieces of gauzes were found deeply packed into the iliac crest wound during wound debridement.
● The gauzes were removed and the wound subsequently healed up well.

Key Contributing Factors:
1. The number and type of gauzes put into the wound cavity were not documented.
2. Inadequate communication on the number and type of gauzes used.

Recommendations:
1. Reinforce proper documentation of the number and type of gauzes packed into and removed from a wound cavity.
2. Enhance training and bedside supervision of doctors and nurses on documentation of wound management.

Case 2: Retained Segment of Radio-opaque Material in Femur
● Raytec gauze was used to prevent cement from seeping into acetabulum (pelvic surface) during a cemented hemiarthroplasty (hip replacement).
● Scrub and circulating nurses confirmed the integrity of gauze swab, including radio-opaque thread length.
● Post-operative X-ray revealed a small radio-opaque line near the right neck of femur.
● The patient and family opted for conservative management of the retention as the patient made a good recovery and showed no sign of infection.

Key Contributing Factors:
1. Inadequate awareness of the risk that Raytec gauze could stick to cement and detach during removal.
2. Insufficient communication when encountering difficulty in gauze removal.

Recommendations:
1. Explore suitable product to replace the use of Raytec gauze in preventing seepage of cement during orthopaedic operation.
2. Intensify gauze integrity verification when using gauze in the presence of cement.
Case 3: Retained Fragment of Sponge in Eye
- During a combined cataract and glaucoma operation, as with usual practice, the surgeon cut a sponge into small pieces and soaked them with medication to apply to the operation site.
- The operating team confirmed 9 pieces of soaked sponge were applied to the operation site and the same number of sponge were subsequently removed.
- The surgeon examined the patient’s eye on the following day and noted a foreign body in the patient’s eye.
- A minor operation was performed and a small (1mm x 2mm) sponge fragment was removed.
- The patient recovered without any sign of infection or wound leak.

Key Contributing Factor:
The number of soaked sponge prepared and applied to the operation site might be counted inaccurately due to difficulty in counting wet sponge.

Recommendations:
1. Use a designated container to hold sponges prepared for eye operation and count them when they are dry.
2. Count both the used and unused sponges after the operation for verification against the total number of sponges prepared for the operation.

Patient Suicide
Four inpatients / home leave patients committed suicide in the first quarter of 2011. Two patients with chronic illness or cancer committed suicide while staying in hospital. Two patients with end stage renal failure or cancer committed suicide while on home leave.

Key Contributing Factors:
1. Underlying medical conditions of patients and their mental health conditions.
2. Inadequate awareness of the psychological needs of high risk patients.
3. Presence of environmental risks (e.g. venetian blinds).

Recommendations:
1. Enhance suicidal risk assessment and staff awareness of patient suicide in hospitals.
2. Encourage appropriate referral of patients to clinical psychologists/psychiatrists for early intervention and risk mitigation.
3. Conduct environmental scanning and modify facilities and environment to reduce suicidal risks.
4. Explore appropriate community support for home leave patients.
Of the 26 cases reported in the first quarter of 2011, 22 were related to medication errors and 4 were related to patient misidentification.

**Prescription Errors (17)**

**Patient misidentification leading to Wrong Drug (3)**
- Misfiling laboratory result leading to wrong administration of PO4 & KCl;
- Selecting wrong patient from CMS;
- Selecting wrong drug due to printing of wrong drug list from ePR.

**Wrong Dosage (3)**
- DDAVP: given 0.5mg instead of 0.05mg (2 cases);
- Warfarin: given 1.5mg on alternate day instead of 1.5mg / 2mg on alternate day.

**Recommendations:**
1. Ensure the laboratory report or the ePR (on CMS or printed version) is for the correct patient before making reference to the information to prescribe medication.
2. Enhance the departmental workflow in handling critical results.
3. Design and implement a procedure to reconcile patient’s medication upon discharge.
4. Enhance communication between ward staff, patient’s relatives and caregivers on change of medication upon discharge.

**Dispensing errors (2)**
- Dispensed Sunitinib 150mg instead of 37.5mg daily;
- Dispensed Gliclazide to a non-DM patient.

**Administration Errors (7)**

**Wrong Dosage / Rate of Infusion**
- Morphine – 10mg (10ml) infused instead of 2mg (2ml);
- Fentanyl patch – 4.2mg applied instead of 2.1mg.

**Wrong Drug**
- Morphine infusion instead of Midazolam.

**Wrong Patient**
- Given Zestril, Minipress to wrong patient.

**Unordered drug (2 cases)**
- Given Morphine infusion to ventilated patients.

**Wrong preparation**
Patient with known drug allergy to syrup Paracetamol was prescribed tablet Paracetamol but was administered syrup Paracetamol.

**Known Drug Allergy (12)**

- **Ampicillin, 1**
- **Penicillin, 2**
- **Diclofenac, 2**
- **Pethidine, 1**
- **Ceftriaxone, 1**
- **Paracetamol, 2**
- **Aspirin, 1**
- **Diltiazam, 1**

**Recommendation:**
Reinforce the checking procedures on Drug Dispensing.(correct drug, dosage, patient)

**Dispersion errors (2)**
- Dispensed Sunitinib 150mg instead of 37.5mg daily;
- Dispensed Gliclazide to a non-DM patient.
Medication incident was one of the top reported categories of SUEs. To enhance medication safety, effective improvement strategies and collaborative efforts from multi-disciplinary teams are essential. The following are some good practices of managing ward stock medication from TWO hospitals:

WARD STOCK STREAMLINING EXERCISE IN GRANTHAM HOSPITAL

Enhance medication safety through reducing ward stock was one of the risk reduction strategies of HKWC in 2010-2011. Ward stock facilitates drug administration to patients whenever required after prescribing. There is almost nil turnaround time from such Individual Patient Dispensing. However, it is the convenience of using ward stock which may bypass the intended safety checking points, thereby posing a risk to medication safety. Eliminating ward stock would avoid the bypass, but would result in a significant increase in workload in the Pharmacy and longer dispensing turnaround time. This may ultimately compromise patient care. Increasing manpower may help but have implications on resources. Hence, it is important to strike a balance between safety and convenience in the Drug Distribution System.

Method
In the ward stock streamlining exercise, a medical and a nursing staff member from each clinical unit of the hospital were appointed to categorize their ward stock according to the nature of the respective clinical units. The Pharmacy was requested to classify the drug items into different risk categories according to the Medication Safety Guidelines as follows:

- a) common and emergency
- b) common and non-emergency
- c) uncommon and emergency
- d) uncommon and non-emergency

The ward stock was streamlined by removing unnecessary items.

Outcome

At Hospital level* – around 11% of total ward stock items belonging to category (d) were removed.

At Ward level** – a reduction of 44.5% nurse working time in managing ward stock was noted in one clinical unit. The ward staff have further reviewed [a] the number of ward stock locations and [b] the requisition quantity of each item to prevent storage of unnecessary items and minimize wastage.

Key
* HA Convention 2011 Poster “Wardstock Streamlining Exercise” – hospital level
** HA Convention 2011 Poster “Wardstock Medication Streamlining Program” – ward level
Before Medication Safety Program
1. Risk - keeping high risk medications e.g. oral antibiotics.
2. Inefficiency - unproductive time consumed in sorting multiple preparations.
3. Inaccuracy - unfamiliar with numerous kinds of medication packing.
   - imprecise labels on drug bottles.
4. Disorder - difficulty in locating required drugs because of excessive stock at the drug cart.

Interventions (reviewing the drug stock):
a) Standardized medication stock list in all medical wards.
b) Reduced oral medication items from 47 to 20.
c) Reduced injectable drug items from 26 to 16.
d) Removed Look-Alike Sound-Alike (LASA), low consumption and high risk medications.

After Medication Safety Program
1. Reduced risk
   - keep only essential high risk medications in wards.
   - store identical ward stock in all medical wards.
2. Efficiency
   - reduce time spent in managing drug stock.
3. Accuracy
   - prepare drug packs with individual patient label by the Pharmacy.
   - more familiar with standardized drug stock.
4. Improvement in storage
   - more spacious and neat drug storage areas.
   - easy identification of drugs with clear labeling.
5. Sustainable quality assurance
   - regular review of ward stock.
With the Medication Safety Bulletin putting more focus on promoting good practice, the medication incident statistics will no longer be published in the Bulletin. The statistics will be published in this publication in January and July.

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<th>Severity</th>
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<th>No. 1</th>
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<td>Out-patient</td>
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<td>148</td>
<td>Wrong Drug/ Wrong Strength/Dosage (17%)</td>
<td>Wrong Patient (41%)</td>
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<tr>
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<td>463</td>
<td>Wrong Drug (40%)</td>
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<tr>
<td>6</td>
<td>0</td>
<td>Extra Dose (17%)</td>
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</table>

**Global Patient Safety Alerts**

"Safe care . . . accepting no less"

An innovative information-sharing resource, Global Patient Safety Alerts (GPSA) was launched on 15 February 2011. By visiting this website, you will find more than 800 patient safety incident advisories, alerts, recommendations and evidence-based Patient Safety tools from around the world. Hong Kong is one of the 23 healthcare organizations worldwide that have contributed to GPSA.

**New eKQ website on Quality and Safety**

The eKQ layout has been re-organized to make it more user-friendly and appealing. The GPSA has also been added to the Quality and Safety page.

http://www.globalpatientsafetyalerts.com/English/Pages/default.aspx  
https://www.ekg.org.hk/

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