Two Sides of the Same Coin – ERM and Clinical Quality Innovation

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Singapore Healthcare Enterprise Risk Management 2018
What is Clinical Risk Management?

The Clinical Risk Management Framework

Clinical Risks and Innovation

Summary and Conclusion
RISK

A probability or threat of damage, injury, liability, loss, or any other negative occurrence that is caused by external or internal vulnerabilities, and that may be avoided through preemptive action.

http://www.businessdictionary.com/definition/risk.html
Identification, evaluation, and prioritisation of risks, followed by **co-ordinated** and **economical** application of resources to **minimise, monitor and control** the probability or impact of unfortunate events or to maximise the realisation of opportunities.

Systematic application of management policies, procedures and practices to the tasks of analyzing, evaluating, controlling and monitoring risk. [ISO 14971]
Healthcare Risk Management

- Important component of hospital administration in the US following the malpractice insurance crisis of the 1970s

- Protecting the financial security and reputation of the hospital was the number one goal
It’s no secret that physicians are at great risk of being sued by a patient sometime during their career.

The lifetime risk of a primary care physician getting sued is 75%, according to a recent study by researchers from the University of Southern California, Harvard University and the RAND Corp.

The good news is, doctors can take steps to reduce the risk of lawsuits and improve the odds of a favorable outcome if they are sued.

Liz Seegert,
Medical Economics Blog, 2016
Healthcare is hazardous

 Hazards Comparison

<table>
<thead>
<tr>
<th>Hazardous (1/1000)</th>
<th>Regulated</th>
<th>Ultra-safe (&lt;1/100K)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Care</td>
<td>Driving</td>
<td>Scheduled Airlines</td>
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<tr>
<td>Mountain Climbing</td>
<td>Chartered Flights</td>
<td>European Railroads</td>
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<tr>
<td>Bungee Jumping</td>
<td>Chemical Manufacturing</td>
<td>Nuclear Power</td>
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Total lives lost per year

Number of encounters for each fatality

Preventability of medical injury
Lucian Leape (Harvard Sch of Public Health)

Frequency of preventable errors
- Technical error: 44%
- Error or delay in diagnosis: 17%
- Error in use of drug: 10%
- Failure to prevent injury: 12%
- Delay in treatment: 5%
- Inadequate monitoring: 5%
- Others: 7%

Frequency of preventable errors
As many as 44,000 to 98,000 people die in any given year from medical errors that occur in hospitals.

Attributed to:
- Human Factors eg diverse patients, unfamiliar settings, time pressures
- Medical complexities eg complicated technologies
- System failures eg poor communication

The problem is not bad people in health care - it is that good people are working in bad systems that need to be made safer.
In February 2001, 18-month-old Josie King, who was undergoing treatment for burn injuries at Johns Hopkins Children’s Center in Baltimore, died of dehydration and a wrongly administered narcotic.

An analysis of the event revealed a lack of communication between teams caring for her.
<table>
<thead>
<tr>
<th>Then</th>
<th>New</th>
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</thead>
<tbody>
<tr>
<td>• Number one goal: to protect the hospital's financial resources and reputation</td>
<td>• Number one goal: to improve patient safety; minimize risk of harm to patient through better understanding of systemic factors that inhibit caregiver's ability to provide safe care</td>
</tr>
<tr>
<td>• Paper occurrence form required</td>
<td></td>
</tr>
<tr>
<td>• Blame and train</td>
<td></td>
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<tr>
<td>• Talk to the patient/patient’s family only if necessary and be vague about findings</td>
<td>• Advise physician to speak directly with the patient/family and talk with them about any unexpected outcome and error; keep them apprised of steps taken to make environment safe for next patient</td>
</tr>
<tr>
<td>• Work with department involved to develop corrective action</td>
<td>• Work with the team to develop a patient safety improvement plan</td>
</tr>
<tr>
<td>• Assume that action is taken to correct the problem that occurred, notice only when it happens again that no action is taken</td>
<td>• Monitor the patient safety improvement plan to determine that changes have been initiated and that the changes have made a difference</td>
</tr>
<tr>
<td>• Keep patients in the dark about risk management and occurrence reporting</td>
<td>• Establish ongoing patient safety education, publish patient safety bulletins that address specific patient safety issues and the organization’s approach to managing them. Provide opportunity for patients to identify methods of improving patient safety and to share them with administration</td>
</tr>
</tbody>
</table>
Patient Safety

The freedom from accidental injury due to medical care or from medical error.

*Institute of Medicine, 2000*
<table>
<thead>
<tr>
<th><strong>Factor types</strong></th>
<th><strong>Influencing contributory factors</strong></th>
<th><strong>Examples</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional context</td>
<td>Economic and regulatory context; national health service executive; clinical negligence scheme for trusts</td>
<td>Inconsistent policies, funding problems</td>
</tr>
<tr>
<td>Organisational and management</td>
<td>Financial resources and constraints; organisational structure; policy standards and goals; safety culture and priorities</td>
<td>Lacking senior management procedure for risk reduction</td>
</tr>
<tr>
<td>factors</td>
<td>Work environment factors: Staffing levels and skills mix; workload and shift patterns; design, availability, and maintenance of equipment; administrative and managerial support</td>
<td>High workload, inadequate staffing, or limited access to essential equipment</td>
</tr>
<tr>
<td>Team factors</td>
<td>Verbal communication; written communication; supervision and seeking help; team structure (consistency, leadership, etc)</td>
<td>Poor communication between staff</td>
</tr>
<tr>
<td>Individual (staff) factors</td>
<td>Knowledge and skills; competence; physical and mental health</td>
<td>Lack of knowledge or experience of specific staff</td>
</tr>
<tr>
<td>Task factors</td>
<td>Task design and clarity of structure; availability and use of protocols; availability and accuracy of test results</td>
<td>Non-availability of test results or protocols</td>
</tr>
<tr>
<td>Patient factors</td>
<td>Condition (complexity and seriousness); language and communication; personality and social factors</td>
<td>Distressed patient or language problem</td>
</tr>
</tbody>
</table>
An Adverse Event (AE) is

‘an unintended injury or complication which results in temporary or permanent disability or death, including increased length of stay, which is caused by healthcare management rather than the disease process’.

THE SWISS CHEESE MODEL

Patient harmed

DEFENCES

Procedures

Physical barriers

Information

Decisions

THE HOLES

Poor protocols

Faulty equipment

Missing information

Inadequate supervision

Adapted from Professor James Reason
Clinical Risk Management

Concerned with improving the quality and safety of healthcare services by identifying the circumstances and opportunities that put patients at risk of harm and then acting to prevent or control those risks.

http://www.who.int/patientsafety
It is not usually possible to eliminate all risks but healthcare staff have a duty to protect patients as far as ‘reasonably practicable’.
Five steps to easy risk assessment

Step 1: Identify the hazards (what can go wrong?)

Step 2: Decide who might be harmed and how (what can go wrong? who is exposed to the hazard?)

Step 3: Evaluate the risks (how bad? how often?) and decide on the precautions (is there a need for further action?)

Step 4: Record your findings, proposed action and identify who will lead on what action. Record the date of implementation.

Step 5: Review your assessment and update if necessary.
One can never achieve zero risk, since there will always be the potential for error.

Through detection and prevention, risk can be reduced to a clinically acceptable level.
Clinical Risk Management Framework

**CLINICAL GOVERNANCE**

**Building a Safety Culture**
- Licensing and Standards
- Policies and procedures
- Patient safety briefings/ walkrounds
- Patient Safety Culture Surveys
- Patient Safety Officers

**Incident Detection, Analysis and Reporting**
- Hospital Incident Reporting Systems
- Mortality and Morbidity Reviews
- Clinical Indicators
- Feedback Management
- Regular reporting to Institutional Boards
- Mandatory reporting to Ministry of Health

**Quality Improvement**
- Patient safety and risk management training
- Institutional Quality Improvement initiatives
- National Quality Improvement Collaboratives
- International Collaboratives

CLINICAL GOVERNANCE
REPORTING

Serious Reportable Event / Sentinel Event

Patient Safety Event that reaches a patient and results in death, permanent harm, severe temporary harm and intervention required to sustain life

• Need for immediate investigation and response
• Mandatory reporting to Ministry of Health
• Review by SRE committees using Root Cause Analysis methodology
5-10% of hospitalized patients experience a Healthcare-Associated infection (HAI), resulting in significant morbidity and mortality (U.S. Department of Health & Human Services. April 2013)

Healthcare employs many types of invasive devices and procedures to treat patients eg catheters, ventilators - infections can be associated with the devices used

HAIs include central line-associated bloodstream infections, catheter-associated urinary tract infections, and ventilator-associated pneumonia
Rise of the Superbug

Superbugs, including CRE bacteria, Clostridium difficile and MRSA, are now one of the biggest health concerns of the 21st century. At least two million Americans suffer infections from antibiotic-resistant bacteria every year, and 23,000 die.

As a result of our increased use of antibacterials and antibiotics, strains of bacteria have evolved. And gotten stronger. Today, we call them superbugs – bacteria that are resistant to common antibiotics and are very hard to treat.
How to Handwash?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

Duration of the entire procedure: 40-60 seconds

1. Apply enough soap to cover all hand surfaces;
2. Rub hands palm to palm;
3. Right palm over left dorsum with interlaced fingers and vice versa;
4. Palm to palm with fingers interlaced;
5. Backs of fingers to opposing palms with fingers interlocked;
6. Rotational rubbing of left thumb clasped in right palm and vice versa;
7. Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;
8. Rinse hands with water;
9. Dry hands thoroughly with a single use towel;
10. Use towel to turn off faucet;
11. Your hands are now safe.

The concept of the Five Moments _does not_ change

Your 5 Moments for Hand Hygiene

1. Before touching a patient
2. After touching a patient
3. After performing a clean/sterile procedure
4. Before eating or drinking
5. After touching patient surroundings

Hand hygiene audits
How it works...

1. Sensor on the door detects when employee enters washroom

2. Sensors on soap dispensers measure how many people wash their hands

3. Real-time data on % of people washing their hands is displayed on hygiene compliance monitor outside washroom

4. Seeing this data makes other users more likely to wash their hands

http://www.dailymail.co.uk
A medication error is any preventable event that may cause or lead to inappropriate medication use or patient harm, while the medication is in the control of the health care professional, patient or consumer.

Ref: http://www.nccmerp.org
Where Errors Originate in the Medication Use System

- **Prescribing**: 39%
- **Transcribing**: 12%
- **Dispensing**: 11%
- **Administering**: 38%

When it comes to medication errors, one decimal point could mean the difference between life and death. Entering in a wrong dose could result in a patient receiving ten times the recommended amount of a drug. Equally dangerous, an unrecorded medication allergy could result in a deadly drug reaction. Roughly one in 20 hospital patients has experienced an adverse drug event (ADE). An ADE refers to any injury occurring at the time a drug is used, whether or not it is identified as a cause of the injury. These events are often preventable or caused by errors in the ordering process. Adverse drug events can result in a longer hospital stay and increased costs averaging $3,000 per patient.

Computerized Physician Order Entry (CPOE) systems are remarkably effective at reducing the rate of serious medication errors. A study led by David Bates, M.D., Chief of General Medicine at Boston’s Brigham and Women’s Hospital, demonstrated that CPOE reduced error rates by 55% — from 10.7 to 4.9 per 1000 patient days.
Wrong-site surgery involves all surgical procedures performed on the wrong patient, wrong body part, wrong side of the body, or wrong level of a correctly identified anatomic site.

Accounts for approximately 1 per 113,000 operations between 1985 and 2004 (AHRQ)


**Surgical Safety Checklist (First Edition)**

**Sign In**
- Patient has confirmed
  - Identity
  - Site
  - Procedure
  - Consent
- Site marked/not applicable
- Anaesthesia safety check completed
- Pulse oximeter on patient and functioning
- Does patient have a:
  - Known allergy?
    - No
    - Yes
  - Difficult airway/aspiration risk?
    - No
    - Yes, and equipment/assistance available
  - Risk of >500ml blood loss (7ml/kg in children)?
    - No
    - Yes, and adequate intravenous access and fluids planned

**Time Out**
- Confirm all team members have introduced themselves by name and role
- Surgeon, anaesthesia professional and nurse verbally confirm
  - Patient
  - Site
  - Procedure
- Anticipated critical events
- Surgeon reviews: what are the critical or unexpected steps, operative duration, anticipated blood loss?
- Anaesthesia team reviews: are there any patient-specific concerns?
- Nursing team reviews: has sterility (including indicator results) been confirmed? Are there equipment issues or any concerns?
- Has antibiotic prophylaxis been given within the last 60 minutes?
  - Yes
  - Not applicable
- Is essential imaging displayed?
  - Yes
  - Not applicable

**Sign Out**
- Nurse verbally confirms with the team:
  - The name of the procedure recorded
  - That instrument, sponge and needle counts are correct (or not applicable)
  - How the specimen is labelled (including patient name)
  - Whether there are any equipment problems to be addressed
- Surgeon, anaesthesia professional and nurse review the key concerns for recovery and management of this patient

*This checklist is not intended to be comprehensive. Additions and modifications to fit local practice are encouraged.*
Falls prevention and falls detection measures
Patient Safety

- Culture
- Communication
- Patient Engagement

Patient Safety
Just Culture

The single greatest impediment to error prevention in the medical industry is that we punish people for making mistakes.”

Dr. Lucian Leape
Professor, Harvard School of Public Health Testimony before Congress on Health Care Quality Improvement
Root Causes of Sentinel Events
(All categories; 1995-2003)

- Communication
- Orientation/training
- Patient assessment
- Staffing levels
- Availability of info
- Competency/credentialing
- Procedural compliance
- Physical environment
- Continuum of care
- Organization culture
- Alarm systems

Percent of events
“The risk of error is increased significantly when clinicians don’t communicate effectively. This is borne out in the fact that communication failure is the root cause of 65% of the 2,840 sentinel events reported to the Joint Commission to date. 74% of these sentinel events resulted in patient death.”

SBAR is a structured communication model for providing patient information. It ensures complete information transfer, and provides the receiver a structure for remembering the details that they heard.

**SITUATION**
What is the situation?

**BACKGROUND**
What is the clinical background?

**ASSESSMENT**
What is the problem?

**REQUEST/RECOMMENDATION**
What do I recommend/request to be done?

**Help Prevent Communication Errors!**
Doctors’ orders and test results can be easily misunderstood, especially when given over the telephone. Anyone taking doctors’ orders or test results by telephone should write them down and read them back to the caller.

**Help Prevent Communication**
- Listen closely to the order or test results
- Write down the message so that it is clearly legible
- Read back your message to the caller

I am CONCERNED!
I am UNCOMFORTABLE!
This is a SAFETY ISSUE!

“Stop the Line”
However This IS What Patients Want

Patients want their provider to use technology that improves access and communication to give them more involvement in their own care.

76% of patients say technology has the potential to improve their health.

Communication
- 62% of patients want to communicate with providers by e-mail.
- 69% of patients feel it’s important for providers to follow up.

Access
- 64% of patients would schedule online.
- 61% of patients say digital services important when choosing a physician.

Involvement
- 9/10 want shared decision making with their provider.
- 2/3 of patients would switch providers for access to medical records online.

Ref: Health Technology Forum
CONCLUSION

• Patient safety is paramount

• Clinical risk management is integral to healthcare organisations

• While one can never achieve zero risk, healthcare organisations must play a proactive role in identifying key clinical risks and developing risk management plans to reduce clinical risks to a clinically acceptable level

• Building a safety culture, communication and patient engagement are pivotal