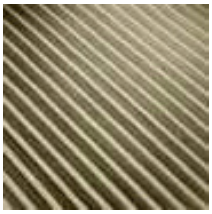

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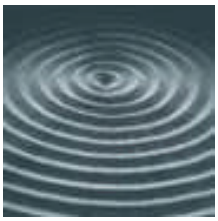

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Screen for errors: the risk assessment and planned management tool no healthcare organization should be without

Charlotte Burkhardt

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Introduction

This past year provided the people who live and work in our healthcare facilities with several examples of how attentive and critical Canadians are, of what we do. The purpose of this paper and presentation is to provide a foundation for such organizations, to develop a process for assessing their risks and then doing something about them. Although brief mention is made of the components of a Risk Management (RM) program, the focus is on beginning with Risk Analysis and Risk Control and finally some opportunities to be proactive if a misadventure or near miss does occur.

Components

The components of a Risk Management program are well known. They include risk identification, analysis, control and financing.

Risk Identification

Risk identification is a system that allows an organization to recognize and track risks such as near misses, adverse events and potential losses[i]. These processes have been established in varying levels of complexity and comprehensiveness across Canada. Examples include incident reporting systems, occurrence screening and some type of sentinel event analysis process.

Risk Analysis

Risk analysis is the process of critically assessing what poses risk to an organization, how frequent this would happen and how severe the consequence of the event would be. The focus of this paper and presentation is on a process for risk analysis and control.

Risk Control

Risk or loss control is the process of putting in place policies and procedures that enable an organization to avoid, prevent, reduce or segregate their risks/losses. The focus of this paper and presentation is on a process for risk analysis and control. Much of the control element is what is thought of as the Risk Management program, although it is dependent on the risk analysis and identification components.

Risk Financing

Risk financing is the final safety net for a Risk Management program. Complete avoidance of adverse events is impossible, so a method to cover the costs of loss must be in place. In Canada, most organizations transfer their financial risks to insurance systems of one kind or another. As liabilities and claims paid increase, insurance coverage is becoming less reliable as the full funding mechanism. Some aspects of financing risk at the organizational level - risk retention, may become a reality in Canada, as is already the case for many organizations in the United States.

Where to Begin

Risk Analysis

Profile

In order to begin analysing risk, the organization must be clear about its profile and scope of service. The type of agency dictates the risks that will be assumed during its operations. The risks associated with an ambulatory care centre will be much different from a tertiary care hospital or a long-term care centre. A review of the organizational mission and vision is in order here, so the Risk Management program is consistent with the organizational goals and objectives.

Philosophy of Care

Different agencies will espouse different philosophies of care. These philosophies, which get expressed in treatment models and methods, will also have an impact on the risks assumed by the organization. The focus of a teaching facility is usually very different from that of a community hospital or local health service agency. If the organization has not purposely reflected on its philosophy of care, a dangerous situation where assumptions reign may be reflected in conflicting treatment programs and strategies and expressed by staff being confused or unaware of what is expected of them. Shared values is a common phrase, a shared philosophy of care is a critical element of a healthcare facility and a direct driver of the Risk Management program.

Target Clients

The organizational profile and philosophy determines who the target clients will be. The programs and services for this target group are the foundation for the Risk Management program and the assessment can begin.

Comprehensive Analysis

Risk is everywhere. Clinical programs are not the only source of risk. The assessment of risk must be comprehensive. Each facility has different structures and needs. Configure the analysis to align with the facility. Hospitals may find the Canadian Council for Health Services Accreditation (CCHSA) sections convenient – Leadership & Governance, Environmental Management, Information Management, Human Resources, and Clinical Programs. This segmentation includes all areas of the hospital and can build risk management planning into the accreditation process.

Start with a broad-based overview and drill down to the program level. Identify areas of concern using existing teams or experts in the process. The analysis will be as good as the breadth of expertise allowed input. A facilitator can assist in ensuring that all aspects of the organization are explored and neutralize any power, political or vocal inequities.

Loss Frequency & Severity

There are several methods to rate loss frequency and severity. Each organization should determine its own potential for risks, including how often they will be exposed to the risk and the seriousness the loss will be if the adverse event occurs. Experience is a valuable asset in this phase as well. Figure 1 is an example of how the data collected during the comprehensive analysis phase can be organized.

Figure 1

RISK What is (are) the risk(s) associated with		FREQUENCY	SEVERITY	ORGANIZATIONAL POLICY/PROCEDURE
1. Fire Disaster				Code Red Smoking Electrical Safety Hazardous Substance Control
2. Vandalism	Hospital Property (a)			Parking Security Issues Code of Conduct
	Patient/Visitor Property (b)			
	Staff/Volunteer Property (c)			
3. Theft	From Hospital (a)			Parking Valuables-Personal Security Issues Code of Conduct
	Patient/Visitor Property (b)			
	Staff/Volunteer Property (c)			

Mapping

Once all risks have been listed and a scoring mechanism applied, the risks can be plotted graphically so as to enable analysis at a glance. This process is known as mapping[ii]. There is a range in risk mapping, from the very simple to quite complex. Figure 2 illustrates the most simple type of risk map. The shaded corner at the top right represents the areas of highest risk, both in terms of frequency and severity. It is these risks that should be the focus of improvement projects that will improve the safety of the organization and the quality of services provided

Figure 2

Frequency	1	2	3	4	5
10					
9					
8					
7					
6					
5					
4					
3					
2					
1					
	1	2	3	4	5
	Severity				

Risk Control

The assessment is complete; there are target projects. But the Risk Management program is not complete without control measures. For each element in the assessment document, such as at Figure 1, there should be some statement of policy or procedure that addresses the method of controlling the risk. Control measures include avoidance, prevention, reduction and segregation. Depending on the risk, the control measure will be different. There may be several measures in place. A conscious review of these measures should be taken and documented. Where there are no measures, consider what is (or is not) necessary to adequately control the risk, consistent with the organizational profile and philosophy. Most facilities have several of these measures in place. The missing link is a comprehensive and thorough review that brings all the elements of the organization's services within the purview of a risk assessment and plan.

Risk Avoidance

Risk avoidance is primarily addressed in the organization's determination of its profile or scope of service. Avoidance measures are intended to reduce the possibility of loss to zero. The most effective way of doing so is to avoid or not provide a specific service, such as obstetrical services. There is then no potential for liability related to adverse events of childbirth.

Risk Prevention

Risk prevention reduces the likelihood of an event, it's frequency. Training can assist in preventing adverse events. The philosophy of care also influences the measures the organization will take to prevent adverse events. Building safeguards into the physical plant as well as into processes can help prevent adverse events. Automatically closing and locking medication rooms is a physical safeguard, safety training and best practices are process safeguards. Preventative medicine is called so for this very reason.

Risk Reduction

Risk reduction limits the consequences of the adverse event. Familiar examples include emergency code responses, fire drills, computer system firewalls, etc. Another that may have been used, but may not have been recognized as such is safety equipment, such a helmets or elbow pads for a patient who is known to fall, but because of the philosophy of care that embraces quality of life and freedom of movement when desired, the patient is allowed up and about, despite the risk of falling.

Segregation

Segregating risk is a containment strategy, such as fire doors and locked units. The intent is to contain risk to a specific area. The most current appreciation of a segregation measure in Ontario was the negative pressure observation rooms needed during the SARS outbreak. Segregation measures can also be considered preventative and serve as a dual purpose. Regardless, separating utility rooms, closing fire doors, etc assist in controlling risks.

Policies and procedures that address any one or more of these control measures are necessary in any Risk Management program.

The Risk Management Program

The Risk Management program should reflect a complete understanding of the facility's profile and the application of a thorough analysis. There should be a risk philosophy that directs the focus of the program. The organization may choose to focus on avoidance, prevention, or transfer in varying degrees of priority. The goals and objectives of the program should be directed at controlling the highest risk areas, either by reduction, prevention, or segregation. The CCHSA also suggests safety and competence as major components of risk. Both of these elements must be built into the Risk Management program.

The program directs the policies and procedures that address risk identification, analysis, control and financing, consistent with the risk philosophy. A structured process for developing the program will ensure that all aspects of the organization have been addressed including evaluation mechanisms, in the form of risk indicators that can be measured and monitored to gauge desired improvements. Despite the best made plans, adverse events occur. When they do, seize the opportunity to learn and improve from them.

Opportunities

Clinical Review

Clinical reviews are completed both prospectively and retrospectively. They are not the focus of this paper/presentation.

Root Cause Analysis

Root cause analysis(RCA) is a process applied to investigate the causes of an adverse event, until the ultimate or root cause of the problem can be identified. It is usually a reactive measure, however it can be applied in a proactive fashion when applied in

conjunction with risk indicators that reflect negative trends or in relation to investigation of near miss incidents. Regardless of the application, the process must be vigilant.

RCA Process

The process of a root cause analysis begins with plotting the sequence of events and activities immediately prior or leading up to the adverse event. Because memories are short, a RCA should be started as soon as possible after the event. Sequencing the events may require interviewing several people. Drawing a team together can be very useful. Include people familiar with the process that experienced the adverse event, but not directly involved. Those directly involved must be interviewed. All interviews should be held individually and independent of anyone else. Confidentiality of the interview is paramount in order to gain trust and ensure honest answers to questions posed.

Once all of the data has been collected, sequence the events chronologically, terminating with the adverse event. Categorize or sort the data. Some elements are activities, some are environmental or conditions of events. Identify the causal factors. Causal factors are elements of the process that, if absent or corrected, would have prevented or significantly minimized the impact of the incident[iii]. Once these problems have been identified, explore them until the root cause(s) can be identified. There are several mechanisms for exploring the root causes of adverse events. The simplest is that of asking why something exists or happens until all avenues have been exhausted. This method is limited and may not provoke investigation beyond the experience of the investigators.

Finally, action must be taken on identified root causes. The support of senior management and the commitment to improve is essential in addressing and resolving root causes because they are often systemic in nature and should always go beyond assignment of blame.

Root Cause Analysis is an opportunity to identify systemic root cause and make improvements for the future.

Failure Mode Effect Analysis

Healthcare Failure Mode Effect Analysis (HFMEA) is a prospective assessment to identify and improve steps in a process to help ensure a safe and desirable result[iv]. The Joint Commission for Accreditation of Healthcare Facilities (JCAHO) in the United States requires that healthcare organizations conduct a HFMEA on at least one high-risk process each year. It is very similar to root cause analysis, where the sequence of events is actually the intended process flow. Once the process has been described, the steps in the process are analysed to identify hazards. This is basically a brainstorming exercise of listing everything that could go wrong, the probability of it going wrong and finally the severity of the result if it did go wrong. Obviously the input of those most involved and experienced with the process is essential.

The final step is to plan actions that include, putting safeguards in place and measuring their effectiveness. This is the most detailed process of a Risk Management program and most appropriately left to those executing the programs and services.

Summary

Developing a Risk Management program involves a comprehensive approach. This paper/presentation reviewed the components of a Risk Management program, with the main focus on risk analysis and risk control. Within the context of the organization's profile, philosophy of care and risk philosophy, a comprehensive Risk Management program can be developed. It includes a thorough listing of potential risks, their expected frequency and severity and a plan to control them. Financing risk is a transfer technique used to cover the costs of adverse events that occur in spite of the Risk Management program.

Investigating adverse events and analysing high-risk processes provide opportunities to learn and improve within the risk management context.

Next Steps –

Organizations are encouraged to review their mission and vision to determine how these can assist in developing a Risk Management program and plan. Critically reflect on the philosophy of care. Is it shared? Is it known? Are there mechanisms in place to monitor the expression of this philosophy? Do policies and procedures support the mission, vision and philosophy and contribute to controlling the organization's exposure to risk? This paper/presentation has provided a few suggestions for where to begin with this daunting, yet critical aspect of providing healthcare in Canada.

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[i] Carroll, Roberta, editor, Risk Management Handbook for Healthcare Organizations, Americal Society for Healthcare Risk Management, Jossey-Bass, 2001, pg 171

[ii] ibid, Ch. 21

[iii] Paradies, Mark, Unger, L, Taproot: The System for Root Cause Analysis, Problem Investigation and Proactive Improvement, 2000, pg 139

[iv] Joint Commission on Accreditation of Healthcare Organizations, Standard LD.5.2

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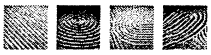
SCREENING FOR ERRORS:

The Risk Assessment and Planned Management Tool No Healthcare Organization Should Be Without



Charlotte Burkhardt
February 10, 2004

Screening for Errors

- Intro
- The components of risk management
- Where to begin with a Risk Management Program
- The opportunities of misadventure

Where to begin: Risk Analysis

Screening for operational errors and assessing for hidden risks

- Profile
- Philosophy
- Target clients
  - The type of clients/patients you serve
- Drive your RM program

Where to begin: Risk Analysis

Screening for operational errors and assessing for hidden risks (Cont'd)

- Loss frequency
  - How likely is it that a loss will happen?
  - What are the risks associated with the activities your agency performs?
- Loss severity
  - How serious will the loss be?

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Where to begin: Risk Analysis

Screening for operational errors and assessing for hidden risks (Cont'd)

Comprehensive analysis

- Ask the critical questions about the services you provide
- Begin with an overview
- Drill down to program level
- Identify areas of concern

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Where to begin: Risk Analysis

Screening for operational errors and assessing for hidden risks (Cont'd)

RISK What is (are) the risk(s) associated with		FREQUENCY	SEVERITY	ORGANIZATIONAL POLICY/PROCEDURE
1. Fire Disaster				Code Red Smoking Electrical Safety Hazardous Substance Control
2. Vandalism	Hospital Property (a) Patient/Visitor Property (b) Staff/Volunteer Property (c)			Parking Security Issues Code of Conduct
3. Theft	From Hospital (a) Patient/Visitor Property (b) Staff/Volunteer Property (c)			Parking Valuables-Personal Security Issues Code of Conduct

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Where to begin: Risk Analysis

Screening for operational errors and assessing for hidden risks (Cont'd)

- Map your results
- Identify your high risk areas
- Prepare a plan to address them

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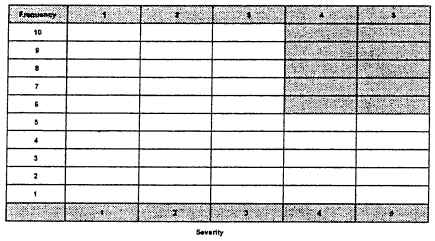
Where to begin: Risk Analysis

Screening for operational errors and assessing for hidden risks (Cont'd)



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Where to begin: Risk Control

Evaluating your organization's current risk response plans

- Policies or procedures to address risk
  - Risk avoidance
  - Loss prevention
  - Loss reduction
  - Segregation

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Where to begin: Risk Control

Evaluating your organization's current risk response plans (Cont'd)

- Avoidance
  - Profile - scope of service
- Prevention
  - Philosophy of care

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Where to begin: Risk Control

Evaluating your organization's current risk response plans (Cont'd)

- Reduction
- Segregation

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Where to begin: Risk Control

Evaluating your organization's current risk response plans (Cont'd)

- Develop your RM Program
  - Within the context of your facility profile/program
  - Your Risk philosophy
    - Major functions of the RM program
  - Goals & objectives
    - From your analysis process
  - Risk indicators

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Opportunities

What to do when your response plans do not address newly discovered problems?

- Clinical Review
- Root Cause Analysis
- Failure Mode Analysis

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Opportunities

What to do when your response plans do not address newly discovered problems?
(Cont'd)

Root Cause Analysis

- Start immediately - time is of the essence
- Methodically plot the sequence of events
- Identify causal factors
- Explore the causal factors to determine the root cause(s)
- Plan appropriate action

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Opportunities

What to do when your response plans do not address newly discovered problems?
(Cont'd)

Failure Mode Effect Analysis

- Identify the process
- Describe the process
- Analyse the process
  - Identify hazards
    - Failure modes, severity and probability
- Plan action & outcome measures
  - Safeguards & their effectiveness

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Summary

Components

- Risk Identification
- Risk Analysis - frequency and severity, assessment and mapping
- Risk Control - policies or procedures to address risk
- Financing

Where to begin

- Risk Analysis and Risk Control

Opportunities

- Root Cause Analysis and Failure Mode Effect Analysis

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