

Project Final Report

Implementation of a Safety Framework in a Rehabilitation Hospital

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1. Key Messages

- ❖ Safety literature specific to rehabilitation is extremely sparse. To implement a safety culture in our rehabilitation hospital, we had to develop new knowledge and adapt evidence garnered from other sectors to our environment.
- ❖ Some key activities conducted in the rehabilitation sector lend themselves to adaptation from established other sectors (e.g. drug distribution, infection control). We found some activities so specific to our sector as to require development of new knowledge (e.g. necessary risk taking). As an offshoot of this project, we are now in a position to provide research based Patient Safety recommendations to other community rehabilitation providers.
- ❖ Despite the lack of published evidence, involving patients and families in safety issues has high face validity, and was pursued as part of the project. Others have arrived at similar conclusions and have already included patient and family participation in safety evaluation tools (e.g. Accreditation Canada, Ontario's Hospital Report)
- ❖ Success involves a significant organizational culture change and requires a multi-stage change management plan. As a multi-site organization born of a merger, we had to deal with several discrete cultural elements and saw this diversity as an opportunity to leverage the different factors motivating our staff in their quest for safety.
- ❖ To illustrate the preceding point, our front-line leaders expressed a strong preference for using "Safety Culture" as a term that incorporates Patient Safety, Staff Safety and Just Culture elements. In this context, the safety initiative was seen as not only an attempt to reduce errors, but also as trying to improve outcomes of service and staff satisfaction. This nomenclature may prove confusing externally, but its adoption was an important piece of the internal change management plan.
- ❖ Examples from high reliability industries (e.g. airlines) can be a powerful tool in initiating a reflective process on safety issues and on attainable benchmarks.
- ❖ Changing culture is by definition a slow process. However, quick wins and a clear governance of accountability and reporting structures are requisite catalysts. The importance of executive sponsors in creating the vision and advocating for safety practices was and continues to be paramount.
- ❖ The resources required to implement this type of change are not negligible. Direct infrastructure costs may appear small, but the time and effort expended by middle and senior managers is significant and can present a real barrier to success.
- ❖ Success is dependant long term view on change in attitude towards safety – "Changing culture is by definition a slow process. Safety is about systems, but safety is really about relationships"
Leape quoting Reason at a seminar held at the University of Toronto
- ❖ A list of Key Lessons and Practical Tips is provided at the conclusion of the report

Notice: Appendices listed in this report are of significant size, even in electronic format. Appendices A to M are attached as a separate document and best viewed electronically.

2. Executive Summary

The project was initiated in 2006 at the Toronto Rehabilitation Institute (Toronto Rehab), an organization born in 1998 from a four hospital merger. The hospital, a fully affiliated hospital of the University of Toronto, has an annual budget of \$150 million, operates in-patient and out-patient facilities on five sites and employs approximately 1800 people. Its strategic plan calls for *"ensuring that programs and support services meet or exceed defined standards related to safety and quality and, working with stakeholders to define such standards where they do not currently exist"*.

Senior leaders in the organization became concerned about safety, particularly in relation to organizational culture and reporting mechanisms. Reported incidents only seemed to capture a small portion of what a hospital of this size should have encountered, and results of research conducted in our organization revealed that although many factors were contributory, a fear of retribution was a significant factor in the lack of reporting. There also appeared to be a lack of integration between portfolios in respect to safety issues. This led to an impetus to develop a new corporate wide safety initiative.

As safety was emerging as a priority, a decision was made for the author to enter in the EXTRA program with a safety focused project. The context, problem statement and objectives of the project evolved in an iterative fashion throughout its first year. The original EXTRA project concept was to use a perceived gap in the organizational infrastructure as a lever to implement a Patient Safety structure with a strong focus on continuously improving safety and quality of care. The objectives were subsequently deemed too lofty and focus was placed solely on the Patient Safety infrastructure.

Safety literature specific to rehabilitation is extremely sparse. Nonetheless, organizations in the rehabilitation sector are expected to adhere to sound safety principles. Implementation of a safety culture in the rehabilitation sector must therefore adapt evidence from other sectors to our environment or develop new knowledge. Our stated goals with this project were to:

- Identify key goals for patient and staff safety including rehabilitation specific patient safety issues.
- Bring together key stakeholders to address identified safety issues
- Support optimal reporting of incidents, near misses and unsafe situations in a just culture environment
- Identify key metrics, collect data and share findings in a timely and efficient manner
- Implement a safety conscious continuous quality improvement approach to the delivery of services
- Empower staff to resolve safety issues at the point of service
- Ensure sustainability of achieved improvements through appropriate outcome measures monitoring and program adjustments.

The literature review yielded several references on safety culture, incident management and accountability models. Few had a true qualitative research design and even less had quantitative outcome measures. Although the available evidence was generally lacking in rigor, many overarching principles could be extracted and had excellent face validity in the context of sound management principles. These principles included 1) a "Just Culture" approach is effective in optimizing safety in a healthcare organization, 2) the key role of executive sponsors in creating the vision and advocating for safety practices and 3) clear governance of accountability and reporting structures including sound evaluation of these structures on an on-going basis is essential.

Following initial discussions between key hospital executives, an expert consultant from Queen's University Industrial Relations Centre was retained to facilitate a multi-stage change management plan. A working group was formed that included the three executive sponsors, the Director of Organizational Effectiveness and Risk Management, as well as key leaders from clinical and human resources areas.

The purpose of the Working Group was to engage the leaders and employees of Toronto Rehab in defining and implementing our "ideal" safety culture. Specific duties included: defining the roadmap for the change, conducting a stakeholder analysis, defining an accountability model, communicating the case for change, tracking progress and removing barriers.

A Research Team was mandated to do the "discovery work" with external groups and internal stakeholders to provide valuable input for designing the safety culture model. This discovery work involved identifying the key components required to support a safety culture, testing this model with findings from the academic literature and best in class organizations and identifying the who, what, when, where and how of each key component.

The Working Group facilitated a large group session with all stakeholders identified as leaders and influencers of the safety process. The 10 hour session held over 2 days engaged leaders in critical conversations on the *why, what & how* of safety culture and sought input on developing Toronto Rehab's Safety Blueprint as well as its implementation. The main themes that arose from the workshop were:

- Safety is our first priority, it is the responsibility of all staff and is a "way of being"
- Safety is about openness, honesty and trust
- We must include prevention, responsiveness, accountability and continuing learning in our model
- We must lead by action, involve staff, patients and families
- Safety must be a standing item on any unit meeting
- Everyone should talk about safety
- Senior leaders must be visible and engaged in the process

Collectively, key future implementation issues were identified. These activities include:

- Immediately develop a list of the top 10 safety related issues and act upon them
- Create a working definition of safety culture that resonates with our leaders, staff, patients and families
- Develop the safety infrastructure including incident reporting, analysis and follow-up process
- Integrate safety into existing programs, initiatives and policies
- Obtain input from patients and families
- Plan a follow-up leadership retreat
- Develop a communication strategy and launch the initiative with all staff
- Initiate and evaluate leadership safety walkabouts
- Determine and apply outcome measures and benchmarks
- Embed the change and dismantle the working group
- Evaluate culture change

The actions items outlined above became the focus of the Steering Group but we knew they would not be sufficient to increase our staff engagement. Not surprisingly, managers and staff alike were clamouring for real change that directly impacted their day to day work – a living proof that their leaders were truly engaged in the process of point of care patient and staff safety as well as culture change. The “top 10” irritants had to be fixed and fixed fast. These irritants ranged from supplies, maintenance and purchasing issues to staff training and timely availability of diagnostic tests.

Upon reviewing the evidence on infrastructure, the Senior Management Team decided to create a new position of Patient Safety Officer, to maintain the current position of Risk Manager, and to refocus the position of Director of Organizational Effectiveness & Risk Management to take a greater role in Patient Safety – to become the de facto “Chief of Patient Safety” reporting directly to the President and CEO rather than through a Vice-President. This would ensure a higher profile for Patient Safety, bring a new front-line resource and allow the Risk Manager to focus on the analysis of incidents and near-misses.

We found that the structure we had created, while appropriate in the early stages of development of the Patient Safety agenda, eventually created barriers to integration. After much debate, we decided to re-attach accountability for Patient Safety to the Best Practice portfolio, under the VPs of Patient Care, rather than having it reside with Quality and Risk Management. We are envisioning an increased role in Patient Safety for our Advanced Practice Leaders who are already well integrated into our clinical programs.

Future activities will focus on the true integration of safety into existing programs, initiatives and policies; seeking feedback from staff, patients and families, and evaluating the effectiveness of our intervention and the extent of the culture change. Dissemination of our key learnings has and continues to occur at local, regional and national levels. Based on our ongoing experience, we have also adjusted our organizational relationships as the culture evolved and made a conscious effort to re-establish a strong connection between Patient Safety and the Patient Care portfolio.

Key lessons learned include:

- 1- The importance of visible, credible and sustained executive sponsorship that includes clearly communicated follow-up on reported safety issues
- 2- The establishment of a strong governance structure that can deal with parallel processes and competing priorities across organizational portfolios
- 3- The development of simple actionable reports adapted to the needs of busy front-line managers and clinicians and
- 4- The importance of sequential measurement using consistent tools as translating results between tools may not be possible.

3. Project Report

3.1.1 Organizational Context

There has been an increased recognition of the importance of accountability with respect to safety in the health care system. Most of the attention has been on developing standards for acute care hospitals, an environment of generally large institutions, short stays, acute illnesses, invasive interventions and frequent changes in applied therapeutic modalities. At the other end of the spectrum, long term care standards are also being developed, primarily focusing on input measures (e.g. number of medications, use of restraints). We do not know if these standards can be appropriately applied whole or in a modified manner in a medium sized rehabilitation and complex continuing care hospital that falls between these two sectors in terms of acuity and intensity of intervention. Nonetheless, organizations in the rehabilitation sector are expected to adhere to sound safety principles.

The project was initiated at the Toronto Rehabilitation Institute (Toronto Rehab), an organization born in 1998 from a four hospital merger. The hospital, a fully affiliated hospital of the University of Toronto, has an annual budget of \$150 million, operates in-patient and out-patient facilities on five sites and employs approximately 1800 people. Its strategic plan calls for *"ensuring that programs and support services meet or exceed defined standards related to safety and quality and, working with stakeholders to define such standards where they do not currently exist"*.

It is important to note that the academic role was a new phenomenon for much of the staff. The merging institutions had limited academic roles. Within a few years, Toronto Rehab grew to become the second largest rehabilitation centre in North America with budgets in excess of \$12M. This is a particular example of an extremely rapid change superimposed on a mosaic of merging cultures.

As safety was emerging as a priority, a decision was made for the author to enter in the EXTRA program with a safety focused project. The context, problem statement and objectives of the project evolved in an iterative fashion throughout its first year. The original EXTRA project concept was to use a perceived gap in the organizational infrastructure as a lever to implement a Patient Safety structure with a strong focus on continuously improving safety and quality of care. In late 2005, in the midst of some significant changes in the Patient Care portfolio, the objectives were then deemed too lofty and focus was placed solely on the Patient Safety infrastructure.

At the same time, senior leaders in the organization became concerned about other aspects of Patient Safety, particularly in relation to organizational culture. Reported incidents only seemed to capture a small portion of what a hospital of our size should have encountered, and results of research conducted in our organization revealed that although many factors were contributory, a fear of retribution was a significant factor in the lack of reporting. This led to an impetus to develop a "Just Culture" initiative related to Patient Safety issues.

The response from managers was extremely enthusiastic and their feedback invaluable. It became evident that there was enough momentum for change, and that such change would necessarily include issues of quality, culture and structure. We also determined that a focus on safety at Toronto Rehab should also include staff safety and not be solely limited to patients. It is under these assumptions that we moved forward as a senior management team.

This final iteration far exceeded one person's capability and required direct involvement of several senior hospital leaders, an external consultant as well as countless managers and staff members. Their names can be found in appendices. Special recognition and thanks for their leadership in the project go to Elaine Aimone, Director of Quality, Safety and Risk Management, Carol Boettcher, Vice-President, Human Resources and Organizational Effectiveness, Karima Velji, Vice-President Patient Care and Chief Nursing Executive, and Brenda Barker-Scott from Queen's University Industrial Relations Centre.

3.1.2 Problem Statement

While Toronto Rehab has many excellent people and processes concerned with minimizing risk and optimizing quality of patient care, the integration of these efforts has been weak. The integration effort is not only complicated by multiple portfolios, but also by the hospital's history of rapid successive mergers with legacy processes and multiple cultures. These rapid changes in leadership and reporting relationships have had an unsettling effect on many staff members. The patient populations served has also evolved rapidly, both in complexity and acuity. In some program areas, entirely new patient populations are being treated. Without better integration of administrative and clinical practices, significant safety issues could arise.

3.1.3 Objectives

Toronto Rehab will have in place the right organizational structure and processes to minimize risks to patients and staff. Such a framework will have the ability to:

- Identify key goals for patient and staff safety on an on-going basis
- Bring together key stakeholders to address identified safety issues
- Support optimal reporting of incidents, near-misses, and unsafe situations in a "just culture" environment.
- Identify key metrics, collect data, and share findings in a timely and efficient manner
- Empower staff to resolve safety issues at the point of service without resorting to escalation to their manager
- Ensure sustainability of achieved improvements through appropriate outcome measures monitoring, benchmarking, and reporting to senior management and the Board of Trustees
- Implement a safety conscious continuous quality improvement approach to the delivery of services

3.1.4 Evidence Review

The evidence review took place in three phases. The initial phase consisted of reviewing evidence to develop a project proposal related to organizational infrastructure, links to quality of care, and administrative supports. The second phase occurred when the project definition and the team expanded. A research associate conducted a review that also included a focus on culture change and the "Just Culture" concept (appendix A). A further expansion of the search occurred in preparation for a successful grant request to the Canadian Patient Safety Institute (CPSI) [*Gaétan Tardif & Ross Baker co-PI's*] dealing with patient and family participation in safety related decisions.

Given the scope of the project, systematic reviews were sought but rarely found.

As forecasted, rehabilitation specific literature was extremely limited. As a typical example, searching PubMed for “safety management AND rehabilitation centres” (both terms accurately reflecting MeSH headings) yielded no references. Multiple sources were searched using relevant combinations of key words (e.g. hospitals, rehabilitation, rehabilitation centres, quality, quality management, safety, patient safety). Typical databases (e.g. PubMed) as well as grey literature sources (e.g. OAIster, Thesis Canada, and relevant websites) were searched. Structured interviews were conducted with Canadian and US hospitals deemed to be leaders in the field of patient safety. Seminars by leading academic summarizing the current evidence on patient safety issues were also attended (e.g. Lucien Leape). Finally, an aviation safety expert was consulted to draw parallels between their safety efforts and those of hospitals.

Key questions that were kept in mind during the research process were:

- What are the major contributors to the delivery of quality patient care and minimization of risk at the front lines?
- Are there risk issues specific to rehabilitation?
- Which administrative structures best facilitate knowledge sharing, discussion, evaluation and integration of safety related activities?
- How can hospital leadership best support implementation of a safety framework?
- What are key considerations in implementing an accountability model based on a “Just Culture” paradigm?

Most references were anecdotal in nature and alluded to single clinical interventions related to risk and quality of care. A more robust body of knowledge was found regarding incident reporting, electronic patient records and medication management.

Management literature review did yield several good references on safety culture, incident management and accountability models but also relied heavily on case reports. Few had a true qualitative research design and even less had quantitative outcome measures. Although the available evidence was generally lacking in rigor, many overarching principles could be extracted and had excellent face validity in the context of sound management principles. These principles included:

- A “Just Culture” approach is effective in optimizing safety in a healthcare organization [note: Just Culture is defined by James Reason as “An atmosphere of trust in which people are encouraged (even rewarded) for providing essential safety related information, but in which they are also clear about where the line must be drawn between acceptable and unacceptable behaviour”].
- The importance of executive sponsors – administrative and clinical - in creating the vision and advocating for safety practices using explicit methods such as executive walkabouts focused on safety (*see Key Lessons and Practical Tips*).
- The need for clear governance of accountability and reporting structures including sound evaluation of these structures on an on-going basis.
- A long term view on change in attitude towards safety – “changing culture is by definition a slow process”
[Leape quoting Reason at a seminar held at the University of Toronto: “Safety is about systems, but safety is really about relationships”]

3.1.5 Developing Rehabilitation Specific Evidence – What Have We Learned?

Rehabilitation specific literature was generally not available to inform the development of the project. A health services research team at Toronto Rehab and the University of Toronto has now developed an interest in developing such evidence. The early findings from this research team continued to inform the project as it evolved. The first research project put forward by the team explored staff perceptions of Patient Safety within our organization. It helped not only define what our front line staff thought were pressing safety issues, but also gave initial insight into specific safety issues in a rehabilitation environment. Staff members were able to enunciate that (*Fancott 2006*):

- Safety should not only aim to reduce errors, but also try to improve all outcomes
- Safety should refer to the whole person (to include spiritual and psychosocial)
- We should be concerned about the safety of patients returning to their life in the community
- There is significantly more family involvement in rehabilitation than in most other sectors

A second research project dealt with effective communication between professionals in support Patient Safety. A third research project proposal dealing with patient involvement in safety, funded by the Canadian Patient Safety Institute (*G. Tardif & R. Baker Co-PIs*) was recently completed and several presentations of the results have occurred or are scheduled for the near future.

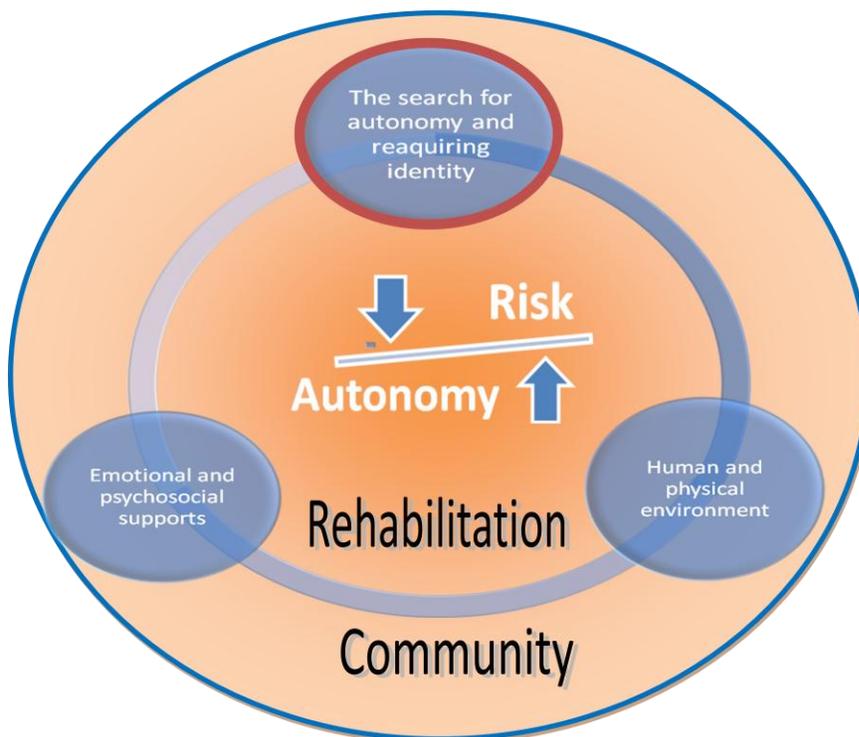
Our early investigations have yielded interesting data about some of the major difference in focus between our sector and the more studied acute care sector (see table below). These differences will not come as a surprise to anyone who has worked in both sectors. Neither sector is homogeneous nor devoid of overlaps in approaches. For instance, transition between providers and teams presents a challenge for all health care providers. We have demonstrated clearly that the SBAR communication tool, well proven in acute care, is equally applicable to a rehabilitation in-patient unit.

	Acute Care (Adapted from Frankel, 2008)	Rehab/Complex Continuing Care
Environment	High reliability (ICU, ER) High technology & diagnostics Urgent safety issues	Complexities of living with chronic disability Limited use of technology & diagnostics Non-urgent safety issues
Length of Stay	Shorter, with emphasis on life and death	Longer, with emphasis on function and wellness
Unique education opportunities	Direct observation and simulation	Interprofessional collaboration
Complexity of human factors	Individual experts Perceived hierarchy	Larger teams Flatter hierarchy

We were much more surprised by what we found when we asked our patients to describe their main concerns with respect to Patient Safety (see figure below). What they described to us is a clear priority shift from life & death issues to a focus on function and wellness where fear, vulnerability and isolation often trump physical issues. In terms of safety, balancing risk and autonomy takes centre stage.

Our next challenge is to develop measures that will allow us to monitor and prevent adverse events without impeding return to as full and autonomous a life as possible. For instance every spinal cord injured person knows that learning how to fall is part of a successful rehabilitation program. However, we continue to count all falls as being a negative outcome.

As Albert Einstein put it, “Not everything that can be counted counts, and not everything that counts can be counted”. This applies to our difficulty in accurately measuring successful community re-integration and quality of life. Whilst we continue to faithfully report major medication incidents, we have not had one medication incident resulting in patient harm in years. What we don’t know is whether our interventions to promote safety have led to less autonomy in the community or inappropriately prolonged hospital stay.



3.2 Intervention design and strategies

A) Multi-Stage Change Management Plan

Following initial discussion between key hospital executives, an expert consultant from Queen's University Industrial Relations Centre (Brenda Barker-Scott) was retained to facilitate the process following a model developed at the Centre (appendix C).

The initial step was to identify executive sponsors and ensure that they were in agreement with a multi-stage approach that would draw heavily from the hospital's leadership community to define the needs as well as create and implement solutions.

B) Dealing with Parallel Processes

This initial step proved vital to fully engage the executive sponsors who naturally came with their own priorities and also had to deal with day to day issues related to safety within their portfolios. Issues that were discussed early and were top of mind for the executive sponsors included:

- Fear that the model would be too limiting and not deal adequately with specific rehabilitation issues
- Desire to focus on culture first
- Desire to focus on reporting systems first
- Desire to focus on corrective action first

Many of these conflicting priorities arose from external pressures such as Ontario's Quality of Care Protection Act, surveys on safety (e.g. Ontario Hospital Association), the inclusion of new safety standards by Accreditation Canada (synopsis of the standards in place at the time can be found in appendix D. Several new Required Organizational Practices have since been added.)

C) Safety Culture Steering Team

The Safety Culture Steering Team comprised of the 3 executive sponsors, provided guidance, support, and direction for the change initiative.

Specific duties of the Steering Team included:

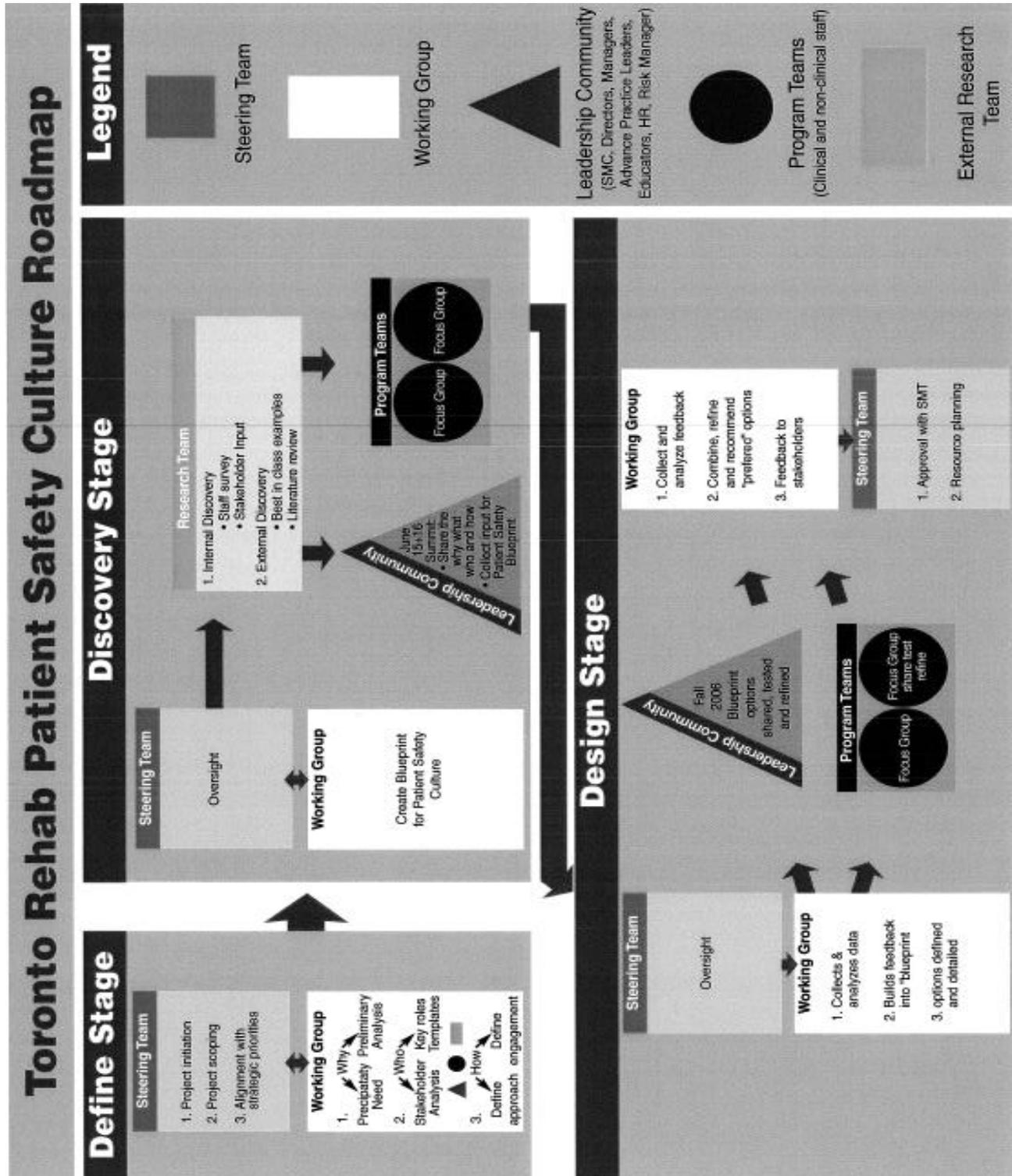
- Providing the overall leadership for the project including the overall scope and focus as well as the expected outcomes (key deliverables and boundaries)
- Approving the project plan and resources
- Approving recommendations for action
- Aligning the change initiative with the hospital strategic direction and priorities
- Coordinating major activities with other change initiatives
- Liaising with the Senior Management Team to keep members fully informed and supportive

Membership: Members of this steering team were carefully selected to foster both a clinical and people related approach to safety.

- Carol Boettcher – Vice President HR and Organizational Effectiveness
- Gaétan Tardif – Vice President, Patient Care & Chief Medical Officer
- Karima Velji - Vice President, Patient Care & Chief Nursing Executive

D) Roadmap

A high level roadmap (see below and in appendix E for more detail) was developed for the project.



3.3 Intervention implementation

A) Safety Working Group

The purpose of the Safety Working Group was to engage the leaders and employees of Toronto Rehab in a process to define and implement our “ideal” safety culture. Specific duties included:

- Defining the change process or roadmap for the change, with an appropriate involvement strategy
- Conducting a stakeholder analysis and readiness for change assessment
- Defining an accountability model for how to enable a safety culture
- Communicating the case for change, the vision, first steps, and next steps
- Enabling and tracking progress, capturing learnings and removing barriers
- Embedding the new culture into the way we do things around here.

Membership: Members of this team were carefully selected to represent the views, interests and expertise necessary to bring a whole systems view to this challenge.

- Carol Boettcher - VP HR and Organizational Effectiveness (sponsor)
- Dr. Gaétan Tardif - VP Patient Care and Chief Medical Officer (sponsor & EXTRA project lead)
- Karima Velji – VP Patient Care and Chief Nursing Executive (sponsor)
- Elaine Aimone - Director Quality, Safety and Risk Management (internal project lead)
- Vern Belos - Organizational Development Consultant
- Carol Fancott – Research Coordinator
- Carol Holmes - Program Services Manager Geriatric Rehab
- Hyacinth James - Director Employee Services and Labour Relations
- Kim Lenahan - Executive Director Programs
- Rhoda Lordly - Risk Manager and Patient Relations
- Mandy McGlynn – Advanced Practice Leader, MSK Program
- Greta Mighty - Program Services Manager Complex Continuing Care program
- Dr. Ken Uffen - Medical Director Complex Continuing Care program
- Brenda Barker Scott – Consultant

The Working Group met on three different occasions for several hours each time to further refine the plan and played a key role in the managers & leaders kickoff event.

B) Defining Best Practice

The purpose of the Research Team was to do the “discovery work” with external groups and internal stakeholders to provide valuable input for designing the safety culture model. This discovery work involved the following:

- Identifying the key components required to support a safety culture at Toronto Rehab
- Testing this model with findings from the academic literature and best in class organizations
- Identifying organizations who have successfully implemented one or several of these key components
- Identify the who, what, when, where and how of each key component
- Forwarding results to the Working Group and Steering Team for their consideration

The Research Team, lead by Research Coordinator Carol Fancott, was comprised of members from the Working Group as follows:

- Carol Fancott – Research Leader
- Elaine Aimone – Director, Quality, Safety and Risk Management
- Vern Belos – Organizational Effectiveness Consultant
- Carol Boettcher – Vice President, Human Resources and Organizational Effectiveness
- Hyacinth James – Director, Employee Services and Labour Relations
- Rhoda Lordly – Risk Manager and Patient Relations
- Mandy McGlynn – Advanced Practice Leader, MSK Program
- Dr. Gaétan Tardif – Vice President, Patient Care and Chief Medical Officer
- Brenda Barker Scott – Consultant

Members of the group conducted literature searches and interviews – to provide insight into each element of our working model as follows:

- Defining Just/Safety Culture
- Leaders as role models
- Governance and Incident Reporting
- Knowledge Management (Reporting and Management of Incidents)
- Stakeholder Support and Education
- Evaluation and Measurement

The complete research guide is attached as appendix F.

C) Internal Discovery and Engagement of Front Line Leaders/Influencers

The Working Group facilitated a large group session with all stakeholders identified as leaders and influencers of the safety process. The group (over 80 people) was comprised of:

- Senior Management team
- All Directors and Managers
- Advanced Practice Leaders & Educators
- Human Resources Consultants
- Risk Management staff

The 10 hour session held over 2 days engaged leaders in critical conversations on the *why, what & how* of safety culture and sought input on Toronto Rehab's Safety Blueprint and its implementation. The Full agenda and facilitator guide is available as appendix G, the slides used for the session are available as appendix H and the participants' workbook as appendix I.

Participants were first asked to reflect on why safety is important to them. The organization's CEO then provided contextual information and gave assurance that safety was a top priority to the entire Senior Management Team. He called all leaders and influencers to action on safety issues.

The following session was given by an aviation safety expert who had previously helped the working group and research team. The intent was to present a successful model from a different environment and to initiate learning without resorting immediately to health care examples. Finally, the research team reported on their findings.

Through a series of small group discussions followed by plenary sessions, participants examined their own assumptions, shared their experiences, refined the blueprint and started charting a course of action for Patient Safety at Toronto Rehab. A full summary of the themes is available as appendix J. The main themes were:

- Safety is our first priority; it's the responsibility of all staff and is a "way of being".
- Safety is about openness, honesty and trust
- We must include prevention, responsiveness, accountability and continuing learning in our model
- We must lead by action and involve staff, patients and families
- Safety must be a standing item on any unit meeting
- Everyone should talk about safety
- Senior leaders must be visible and engaged in the process

In terms of barriers, the consensus was that early accomplishments – "removing long-standing irritants" – would be of utmost importance is initiating a culture change. At the end of the meeting, the senior team committed to the following:

- Senior Operations Committee to develop a list of the top 10 safety related irritants/issues that need to be resolved and get back to those in attendance with an action plan.
- Leadership safety walkabouts to begin in a few months rather than immediately given the concerns expressed with the potential to undermine the role of managers and the credibility of commitments to resolve issues if systems are not in place for follow through.
- CEO to lead the development of a Patient Safety support structure and report to the participants.
- Safety blueprint to be developed and brought back to the leaders & influencers group for final input.

A full list of action items can be found as appendix K. Shortly following the meeting, a communication strategy was developed (appendix L) and key messages were provided to all leaders (appendix M). The "top 10" list was developed and communicated. The Senior Operations Committee established aggressive timelines and initially reviewed reports on corrective action every two weeks.

4. Implementation of Change

The key action items identified can be summarized as follows:

- Create a working definition of safety culture that resonates with our leaders, staff, patients and families
- Develop the safety infrastructure including incident reporting, analysis and follow-up process
- Integrate safety into existing programs, initiatives and policies

- Obtain input from patients and families
- Plan a follow-up leadership retreat
- Plan communication & launch with all staff
- Initiate and evaluate leadership safety walkabouts
- Determine and apply outcome measures and benchmarks
- Embedding the change and dismantling the working group
- Evaluating culture change

Many were addressed in the first year while others were implemented more recently (e.g. evaluation of leadership walkabouts) and will continue over years (e.g. evaluation of culture change).

A) The “Top 10 list”

The actions items outlined above became the focus of the Steering Group but we knew they would not be sufficient to increase our staff engagement. Not surprisingly, managers and staff alike were clamouring for real change that directly impacted their day to day work – a living proof that their leaders were truly engaged in the process of point of care patient and staff safety as well as culture change. The “top 10” irritants had to be fixed and fixed fast. These irritants ranged from supplies, maintenance and purchasing issues to staff training and timely availability of diagnostic tests.

<i>The Top 10 List</i>	
-	Supplies and Purchasing
○	Tracking & turn-around time
-	Preventative Maintenance
○	Gaps in system
-	Photocopiers and Scanners
○	Nurses must leave unit to process transfer documents
-	Policies & Procedures
○	Many outdated
-	Availability of hand sanitizers
-	Ongoing training for non-violent crisis intervention
-	Incident reporting system
○	Ease of use
○	Phone alternative to the electronic system
-	Housekeeping gaps
-	Availability of an ADL assessment suite
-	Radiology
○	Availability and turnaround time

Managers were assigned responsibility for each item and the list was reviewed regularly by the Senior Operations Committee. Some items were quickly addressed yet some were still pending resolution six months later. The main reasons for the inability to deliver rapidly on these action items fell under the following categories:

- Resource needs: the best long term solution required significant resources not in budget
- Technology changes: better and cheaper technology being introduced by vendors whereby a better long term solution was to wait a few months and replace all items with new simpler to use technology
- Human factors: the same managers who had created the lapse were asked to provide the solution

B) Creating the Infrastructure

Upon reviewing the evidence gathered by the Research Team, our Senior Management Team decided to create a new position of Patient Safety Officer for the organization (job description in Appendix N), maintain the current position of Risk Manager, and refocus the position of Director of Organizational Effectiveness & Risk Management to take a greater role in Patient Safety – to become the de facto “Chief of Patient Safety” (not a job title) reporting directly to the President and CEO rather than through a Vice-President (see *Key Lessons and Practical Tips*).

We saw this approach providing the organization with:

- A higher profile for Patient Safety through direct reporting to the CEO
- A dedicated front line resource in the new Patient Safety Officer
- A better focus on analysis of incidents and near-misses by the Risk Manager

Some of these changes had a domino effect which was beneficial to Patient Safety. For instance, the Director of Organizational Effectiveness & Risk Management’s role used to include oversight of Infection Control. In reassigning Infection Control, the Senior Management Team looked for synergies and created a new Position of Director of Clinical Services to oversee all corporate services cutting across program areas. This new Director’s areas of responsibility include Pharmacy, Labs & Diagnostics and Infection Control – all areas of high risk with respect to safety. The magnitude of the resources required within a tight budget envelope meant that the Senior Management Team had to place a definite priority on Patient Safety and reassign resources to this area.

We had initially proposed that regular review of incidents, near-misses and proposed actions occur through a newly formed Patient Safety Committee but upon further consultation assigned this responsibility to the Senior Operations Committee. The Senior Operations Committee’s core membership included the Vice-Presidents responsible for Patient Care, Finance & Support Services, and Human Resources & Organizational Effectiveness as well as the four executive directors reporting to them. Other members of the Senior Management team, including the CEO, participated as needed based on the agenda for any particular meeting. Since the committee met every second week, it could be much more responsive to issues than a specially constituted committee which would only meet a few times a year.

We believed this would contribute to a more effective integration and sustainability of the project objectives into day to day operations of the organization (*see Key Lessons and Practical Tips*).

The membership of the Quality of Care Committee, constituted under the *Quality of Care Protection Information Act*, was also reviewed and as a result increased representation from clinical leaders was added.

C) Communication & Engagement

Communication on safety took several forms:

- E-mail to all staff from the President and CEO re-iterating the organizational commitment to safety
- Inclusion of a “Focus on Safety” section in “LINK”, the staff bi-weekly newsletter
- Development of a “Safety Column” on the hospital Intranet
- Continued education on incident and near-miss reporting
- Discussion at “Management Forum”, a meeting of all management staff taking place the day following the Hospital Board meetings.

Within a few months, we re-convened the large group of organizational leaders and influencers with the main goals of:

- Reorientation to the framework for safety culture
- Validation from the group on the steps taken since the initial meeting (top 10, principles of safety, incident reports)
- Input from the group on how well we reflected their feedback in the initial meeting and on the plans in development for fostering a safety culture
- Commitment from the leadership group to take action on first steps in preparation for a safety launch in 2007. These first steps included discussions with their staff about the principles of a safety culture
- An understanding of our draft Safety Blueprint for safety culture that includes goals in each of the 6 essential elements and plan to achieve our goals

D) Official Staff Kick-Off

The official kick-off took place in March 2007 with further communications to managers and staff and the initiation of Leadership safety walkabouts. The launch reached every member of our staff directly – an exponential jump from 80 managers/leaders to 1800 staff. Key elements of the kick-off were:

- A celebration of the safety related accomplishments of the last year
- Sharing a working definition of safety culture
- The inception of leadership safety walkabouts
- The announcement of the infrastructure, the new and refocused staff, in support of safety

In preparation for the launch, two “warm-up” events took place. Firstly, results from a safety culture survey (see section 5) were announced to staff through video-conference rounds. This was communicated in the context of the research project through which the survey took place, and emphasized the need to change current perception and practice about safety issues and concerns. Secondly, an update showing the resolution to the top 10 list was posted on our intranet to demonstrate strong management support for safety initiatives at the point of care.

Our managers were also provided with training, including a short guide (Appendix O) on the purpose and logistics aspects of the leadership safety walkabouts.

E) Other Patient Safety Enhancements

Prior to the inception of this Safety project, hospital initiatives in support of Patient Safety were already in place. Some established initiatives benefited from the project such as our electronic incident reporting system which was changed to a much easier interface and a stronger data analysis capability. Feedback received through our managers and leaders meetings were invaluable in improving its interface and usage. A telephone hot line was also implemented. The implementation of a PACS system for Radiology was accelerated as a result of the “Top 10” list.

Some other initiatives were implemented as planned – a new pharmacy computer system, unit-dose distribution and improved night-cupboard integrating state of the art hardware and software. Real time “dashboard” type interface for key outcomes also became available to all managers within the organization.

Other initiatives such as the full implementation of an electronic health record are still in progress due to the scope of the project. Appropriate resources have been assigned in support of implementation.

5. Evaluation and Continuing Improvement

As part of our initial research project, we administered a validated culture survey [Agency for Healthcare Research & Quality] (appendix B). The survey was sent to all hospital staff and has provided us with a baseline measure that can be followed over time, as well as compared to other organizations. Our response rate (27%) was similar to the 20 US benchmark hospitals used by AHRQ (29%) at that time. Our initial results were very much “average” with only two major domains receiving slightly lower scores than the benchmark hospitals: 1- “we are actively doing things to improve Patient Safety” and 2- “staff feel free to question the decisions or actions of those with more authority”. We also became aware that Accreditation Canada was planning to introduce a similar survey as part of the accreditation cycle and participated in an exercise to translate the results of one survey to the other (see *Key Lessons and Practical Tips as well as Appendix Q*).

We repeated the survey in the spring of 2007 with slight improvement noted, but overall very similar results pointing to a stable baseline. The survey was once again repeated in the spring of 2008 and again in 2009 (see table of results below). We had been somewhat worried about our success in engaging our staff in the survey process. After an initial survey response rate of 27% in 2006, our rate had dipped to 22% in 2007. We were gratified to note our best response rate to date in 2008 and 2009 at 33% of our eligible staff.

AHRQ Safety Culture Survey Summary

Safety Culture Dimension	2006	2007	2008	2009	2009 AHRQ average
1. Overall Perceptions of Safety	55%	56%	60%	62%	64%
2. Frequency of Events Reported	52%	51%	53%	55%	60%
3. Manager Expectations	68%	71%	75%	76%	75%
4. Org. Learning/Continuous Improvement	66%	70%	72%	78%	71%
5. Teamwork Within Units	74%	76%	78%	81%	79%
6. Communication Openness	52%	53%	57%	56%	62%
7. Feedback About Error	52%	52%	62%	64%	63%
8. Non-punitive Response to Error	40%	43%	46%	48%	44%
9. Staffing	49%	52%	51%	53%	55%
10. Management Support of Safety	65%	71%	75%	80%	70%
11. Teamwork Across Units	55%	57%	65%	69%	57%
12. Handoffs and Transitions	43%	43%	46%	52%	44%

In our initial 2007 leadership safety walkabouts, 154 issues were raised by the staff, half of which were deemed medium or high priority items. Risks of falls and infection control issues were most often cited. Within three months, over a hundred of these issues were satisfactorily resolved. We are continuing to address issues raised and anticipate continued dialogue with staff regarding their safety concerns.

We have no doubt that continued emphasis on safety will be important to sustain the journey towards culture change. Our goal is to match or exceed the AHRQ hospital database average in all dimensions of safety culture. Our survey results show that we have made significant strides towards this goal. In less than three years, we have gone from lagging behind the average in most categories to matching or surpassing the average in 8 of 12 global measures. An overwhelming majority of the respondents supported statements such as *“The actions of hospital management show that patient safety is a top priority [85%]”* and *“Hospital management provides a work climate that promotes patient safety [89%]”*.

However, we are still more than 5% below average in Frequency of Reporting and in Communication Openness. In addition to appropriate modelling through leadership safety walkabouts and frequent discussions on safety at our monthly Management Forum meetings, we have specifically targeted an increase in the number of incident and near misses reported and have been exceeding our target of a 25% increase in the past year. In fact, our number of reported incidents and near misses more than doubled in 2008! The latter is a rather unusual twist on setting target for scorecards, and one we have had to explain carefully to our Board of Directors. Whereas we have kept targets for severe incidents very low, and have met our objectives, we strongly believe that a large number of less severe incidents and near misses still go unreported.

The question we will have to ask ourselves soon is “What is the right target”? The literature is not very helpful in this respect, and we worry about setting a hard ceiling until such time that we feel reporting of incidents and near misses has become second nature to most of our staff. Setting an artificially low target can send incidents “underground” where learnings cannot take place or be shared.

We now present a Safety Scorecard to our Board of Directors on a quarterly basis. Major categories reported include Incidents (falls, medication errors, aggressive incidents, equipment failures), Infections (MRSA, VRE, C-Diff, hand washing), Preventative Maintenance, Flu Vaccination and Culture Survey. For each item, an appropriate benchmark was determined, preferably a validated external indicator. We also review with the Board all Accreditation Canada Safety ROPs (Required Organizational Practices). We met or exceeded all such practices in our 2007 accreditation and received no recommendation in respect to safety. According to the Accreditation Canada, in 2006 almost 80% of organizations participating in accreditation received an *accreditation with condition* decision regarding the new Patient Safety required organizational practices (ROPs). Some of the phrases used to describe our Patient Safety initiatives included: “*above average*”, “*substantial documentation*”, “*exceeds guidelines*”, perform “*with excellence, at a superior level*” and “*has created a culture of safety*”.

Since that time, Accreditation Canada has issued much stricter Patient Safety Standards in the form of Required Organizational Practices (ROPs) with specific tests of compliance. As we prepare for our upcoming accreditation survey, these ROPs proved to be an excellent and challenging test of our capabilities in traditional measures of patient safety. We are confident that we will be once again found in compliance with all Patient Safety standards when we are visited in May 2010.

We managed to develop a new research program that has demonstrated success in obtaining external grants to develop new knowledge on Patient Safety in the Rehabilitation and Complex Continuing Care. This type of development activity using our organization as a living laboratory is core to our organizational vision and mission. We were successful in obtaining grants from the Canadian Patient Safety Institute three years running. Supports were put in place to further the training of promising young researchers in this domain. Two trained physiotherapists are now enrolled in thesis graduate programs, one at the Master’s and one at the PhD level. They have both been busy not only with their studies, but also with the dissemination of our learnings to date.

We identified up front the challenge we faced in defining Patient Safety in a Rehabilitation and Complex Continuing Care environment. Our research will no doubt bring us closer to the answer. To date, we have identified many similarities with other health care sectors, but we have also found fundamental differences. As we share our experience with our colleagues in health care, we will also gain useful insight from their reactions. Are they surprised by the items in our “Top 10” list? Would the issues raised in our leadership safety walkabouts be similar or different in their organizations? Will our research on “safe risk taking” resonate with them? Our prediction is that there will always be significant overlaps between sectors with different areas of primary focus.

6. Where Do We Go From Here? Challenges Ahead.

We continue to pursue several longer term goals. One is to longitudinally evaluate culture change. This will be made somewhat more complex by the introduction of a new survey tool by Accreditation Canada. We are working diligently to make sure we can compare our current results with future surveys. We may well very well have to resort to two survey in an accreditation year to maintain the integrity of our measurements.

A second goal is to get better input from patients and families as to what they really want from the Patient Safety agenda. We were fortunate to obtain external funding to proceed with formal research and have started disseminating results.

A third is to truly integrate safety into existing programs, initiatives and policies and to create empowerment at the point of service. We found that the structure we had created, while appropriate in the early stages of development of the Patient Safety agenda, created barriers to this integration. After much debate, we have decided to re-attach accountability for Patient Safety to within the Best Practice portfolio, under the VPs of Patient Care, rather than having it reside with Quality and Risk Management. We are envisioning an increased role in Patient Safety for our Advanced Practice Leaders who are already well integrated into our clinical programs (*see Key Lessons and Practical Tips*).

Our final and most challenging goal is to develop and apply evidence based outcome measures and benchmarks in respect to safety. At this stage, meaningful comparison with like-organizations remains exceedingly difficult. We have adopted provincial benchmarks where available, probably representing only a quarter of our safety measures. Otherwise we have had to rely on our own experience over time to gauge success.

This is a journey that will truly never end and will require constant attention and shepherding. Our results to date have been very gratifying and it is our intention to continue contributing new knowledge to the field.

7. Is the Model Transferable?

Although we have not studied the model across outside health care organizations, our own organization is composed of legacy hospitals with significant differences in organizational culture, patient population, and size and the project was successfully implemented without significant differences in results between these legacy components.

Our change management approach required some reasonable investment of new Patient Safety resources, but no proprietary or sector specific tools. The most important factor remains executive sponsorship and organizational alignment towards a shared goal of improving Patient Safety.

Some organizations may at the outset already have internal expertise they can tap in terms of change management and knowledge of high reliability industries. For those without such expertise, bringing external resources for a short period of time to provide momentum would be advised.

8. Key Lessons and Practical Tips

8.1 The Importance of Executive Sponsorship

It cannot be emphasized enough that successful implementation of culture change in respect to safety is highly dependent on visible, credible and sustained executive sponsorship. There is no doubt the organization's CEO needs to be involved, but few CEOs can dedicate enough time to effectively lead such an initiative over a period of years. Our organization has tried different approaches and is still discovering what might work best for us. Many large acute care organizations have placed the accountability on a clinical Vice-President. Based on our observations, this may very well be a smart, if not yet evidence based, choice.

Leadership safety walkabouts have proven to be effective in creating visibility, and ensuring responsiveness. These activities cannot be improvised and require much preparation, and even more follow up. In a few instances, we repeated a walkabout without having addressed the issues raised on the first visit. This proved to be very costly in terms of executive credibility and should clearly be avoided.

On some occasions, we fell into a trap due to poor communication rather than poor remedial work. One should never assume that unit staff knows that corrective action has occurred and the organization should err on the side of over-communicating.

8.2 Dealing with Parallel Processes

Of equal importance to effective executive sponsorship is the development of a clear and accountable governance structure to deal with the inevitable tensions that will occur between different parts of the organization. Safety is so complex that no part of the organization will be untouched, and each will have priorities that sometime coalesce, but often clearly compete.

Here again evidence abounds that clear accountability at the senior executive level must exist for a successful Patient Safety program to flourish. There is no clear governance structure likely to apply to all organizations, but clearly articulated accountability is a requisite common element.

One early mistake was the assignment of accountability and monitoring to a senior operational committee. This was deemed both practical and indeed most committee members had significant responsibilities with respect to safety, and already met regularly. However, this committee's mandate was already clearly established, and safety was merely added to an already long list. Combined with the existence of another legislatively mandated Quality & Safety Committee, lines of accountability and focus became blurred over time and effectiveness in spearheading culture change deteriorated.

We are currently reviewing the governance model to reflect the evolution of our organization and provide the necessary supports for continuing success of our Patient Safety project.

8.3 Actionable Reports

There are numerous areas of activity that can be measured in a busy hospital. We measured many parameters and created detailed reports containing a wealth of data...if only one had time to decipher spreadsheets with thousand of cells. Front line managers, a key position in effecting Patient Safety, do not have the necessary time or support staff to analyse such complex reports. In becoming data rich, but information poor, an organization can disconnect the input – incidents and near misses reported by the staff, from corrective action.

We are currently paying more attention to more compact actionable reports. Unfortunately, these reports are in great part generated by home grown rather than commercially available turn-key applications. As such, some resourcing must be dedicated to analytical capability and quality improvement support to support these front line managers.

8.4 Culture Measurement Tools Are Not Equal

Measuring success is essential, but challenging, particularly in a smaller organizations with few major adverse events. In addition to monitoring such events, we started using the AHRQ safety culture survey on a yearly basis. Our baseline was very close to the average US database with some areas of strength and a few areas of weakness. Over 4 successive surveys, we observed constant improvement which can hopefully be attributed to our continuing efforts in improving safety. Most year to year changes were in the order of 2-5%. Where changes occurred, they had face validity based on our known strengths and weaknesses as well as our targeted foci.

Within weeks of administering our 4th AHRQ survey, we also administered the Accreditation Canada safety culture tool in preparation to our upcoming accreditation. We had hoped that a close correlation would exist but unfortunately, we saw large difference in results. On identical questions we saw differences of up to 15% in the score.

Until this is studied further, one might take the position that the intra-survey validity is good, but that further work needs to be done to compare surveys. Any one organization should use the same tool over time.

9. Bibliography

- Amalberti, R., Auroy, Y., Berwick, D.M. & Barach, P. (2005) Five System Barriers to Achieving Ultrasafe Health Care. *Ann Intern Med.* 142:756-764.
- Ashmos, D. P., Duchon, D., & McDaniel, R. R. (2000). Physicians and decisions: A simple rule for increasing connections in hospitals. *Health Care Management Review*, 25(1), 109-115.
- Baker, G. R., & Norton, P. G. (2004). Next steps for patient safety in Canadian healthcare. *Healthc.Pap.*, 5(3), 75-80; discussion 82-4.
- Baker, G. R., Norton, P. G., Flintoft, V., Blais, R., Brown, A., & Cox, J. et al. (2004). The Canadian adverse events study: The incidence of adverse events among hospital patients in Canada. *CMAJ : Canadian Medical Association Journal - Journal De l'Association Medicale Canadienne*, 170(11), 1678-1686.
- Balas, M.C., Scott, L.D., & Rogers, A.E. (2004) The prevalence and nature of errors and near errors reported by hospital staff nurses. *Applied Nursing Research*, 17(4); 224-30
- Barach, P., Small, S.D., (2000) Reporting and preventing medical mishaps: lessons from non-medical near miss reporting systems. *British Medical Journal*. 320(7237); 759-63.
- Bird, D. (2005) Patient safety: Improving Incident Reporting. *Nursing Standard*. 20(14-16); 43-6.
- Blejwas, L., & Marshall, W. (1999). A supervisory level self-directed work team in health care. *The Health Care Supervisor*, 17(4), 14-21.
- Brodsky, H., Frument, J., & Grillo, J. (1991). Spotlight on rehabilitation. *Hospital Materiel Management Quarterly*, 13(2), 1-5.
- Budrevics, G., & O'Neill, C. (2005). Changing a culture with patient safety walkarounds. *Healthc.Q.*, 8 Spec No, 20-25.
- Council of Academic Hospitals of Ontario. Patient Safety in Ontario Part II: Critical Incident Review. February 2007.
- Consumers Advancing Patient Safety. www.patientsafety.org. (Accessed July 10, 2006).
- DeLisa, J. A. (2004). Physiatry: Medical errors, patient safety, patient injury, and quality of care. *American Journal of Physical Medicine & Rehabilitation.*, 83(8), 575-583.
- Doerge, J. B. (2000). Creating an outcomes framework. *Outcomes Management for Nursing Practice*, 4(1), 28-33.
- Donahue, K. T., & vanOstenberg, P. (2000). Joint commission international accreditation: Relationship to four models of evaluation. *International Journal for Quality in Health Care : Journal of the International Society for Quality in Health Care / ISQua*, 12(3), 243-246.

- Dravecky, E. T., & LaBorde, A. (1992). Improving the quality of work and productivity through the self-designing team concept: The case of sunset-kaiser's drug and alcohol dependency program. *Journal of Health and Human Resources Administration*, 15(2), 153-182.
- Edgman-Levitan, S. (2004). Involving the patient in safety efforts. Achieving safe and reliable healthcare. M. Leonard, A. Frankel and T. Simmonds, Chicago, IL. Health Administration Press: 81-92.
- Entwistle, V.A., Mello, M.M. & Brennan, T. A. (2005). Advising patients about patient safety: Current initiatives risk shifting responsibility. *Joint Commission Journal on Quality and Patient Safety*, 31, 483-494.
- Etchells, E., Lester, R., Morgan, B., & Johnson, B. (2005). Striking a balance: Who is accountable for patient safety? *Healthc.Q.*, 8 Spec No, 146-150.
- Fancott, C., Velji, K., Aimone, E. & Sincliar, L. (2006). Exploration of Patient Safety Phenomena in Rehabilitation and Complex Continuing Care. *Healthcare Quarterly 9:Special Issue – October 2006*, 135-140.
- Flemons, W., Eagle, C. and Davis, J (2005) Developing a Comprehensive Patient Safety Strategy for an Integrated Canadian Health Care Region. *Health Care Quarterly*. 8 Spec No;122-7.
- Foxan, S., (2006) Error Messages: Sharing the Lessons of Mistakes. College of Physicians & Surgeons of Ontario – *Dialogue*. Mar/Apr 2006, 15-21.
- Frankel, A., Gandhi, T., and Bates, D. (2003) Improving patient safety across a large integrated health care delivery system. *International Journal for Quality in Health Care*. 15 Suppl 1; 131-40.
- Frankel, A., Graydon-Baker, E., Neppl, C., Simmonds, T., Gustafson, M., & Gandhi, T. K. (2003). Patient safety leadership WalkRounds. *Jt.Comm.J.Qual.Saf.*, 29(1), 16-26.
- Frankel, A. Pratt-Grillo, S., Graydon-Baker, E., Neppl, C., Abookire, A., et al. (2005). Patient safety leadership WalkRounds at Partners HealthCare: Learning from Implementation. *Jt.Comm.J.Qual.Saf.*, 31(8), 423-437.
- Gallagher T.H., Waterman A.D., Ebers, A.G., Fraser V.J. & Levinson, W. (2003). Patients' and Physicians' Attitudes Regarding the Disclosure of Medical Errors. *Journal of the American Medical Association*, 289 (8):1001-1007.
- Gandhi, T. K., Graydon-Baker, E., Barnes, J. N., Neppl, C., Stapinski, C., & Silverman, J. et al. (2003). Creating an integrated patient safety team. *Jt.Comm.J.Qual.Saf.*, 29(8), 383-390.
- Gaucher, E., & Kratochwill, E. W. (1993). The leader's role in implementing total quality management. *Quality Management in Health Care*, 1(3), 10-18.
- Goodman, G.(2003) A Fragmented Patient Safety Concept: The Structure and Culture of Safety Management in Healthcare. *Hospital Topics*: 80(2) 22-9.

Harty-Golder, B. (2001). How should a lab design a fail-safe system for point-of-care testing? *MLO: Medical Laboratory Observer.*, 33(12), 22-23.

Henry, L.L. (2005). Disclosure of medical errors: Ethical considerations for the development of a facility policy and organizational culture change. *Policy, Politics and Nursing Practice*, 6(2): 127-34.

Institute for Healthcare Improvement (2005) *Leadership Guide to Patient Safety – Resources and Tools for Establishing and Maintaining Patient Safety*. Institute for Healthcare Improvement, Cambridge, MA.

Institute of Medicine. (1999) *To Err is human: building a safety health system*. National Academy Press. Washington, D.C.

Joshi, M.S. & Hines, S.C. (2006). Getting the Board on Board : Engaging Hospital Boards in Patient Safety. *Jt Comm J Qual Saf* 32:179-187.

Kerfoot, K. (2003). On leadership organizational intelligence/organizational stupidity: The leader's challenge. *Nursing Economics*, 21(2), 91-93.

Kohn L.T., Corrigan, J.M., Donaldson, M.S. (eds). (1999). *To err is human: Building a safer health system*. Washington, DC: National Academy Press.

King, C., & Koliner, A. (1999). Understanding the impact of power in organizations. *Seminars for Nurse Managers*, 7(1), 39-46.

Kuzl, A.J., Woolf, S.H., Gilchrist, V.J., Engel, J.D., LaVeist, T.A., Vincent, C. & Frankel, R.M. (2004). Patient reports of preventable problems and harms in primary health care. *Annals of Family Medicine*, 2(4):333-340.

Larrison, R. G., Jr. (2003). Development of an inpatient rehab facility in an urban safety-net hospital. *Journal of Healthcare Management / American College of Healthcare Executives*, 48(3), 202-209.

Lawton, R. and Parker, D (2002) Barriers to incident reporting in a healthcare system. *Quality and Safety in Health Care*. 11(1); 15-8.

Leape, L.L. (1994) Error in medicine. *JAMA*, 27(23) 1851-1857.

Leape, L.L. and Berwick, D.M. (2005). Five Years After *To Err Is Human*. *JAMA* 293(19) 2384-2390.

Macciocchi, S.N. & Stringer, A.Y. (2001). Assessing risk and harm: The convergence of ethical and empirical considerations. *Archives of Physical Medicine and Rehabilitation*. 82 (12) suppl2: 1-9.

Marshall, P., & Robson, R. (2005). Preventing and managing conflict: Vital pieces in the patient safety puzzle. *Healthc.Q.*, 8 *Spec No*, 39-44.

Maxfield, D., Grenny, J., McMillan, R., Patterson, K., & Switzler, A. (2005). *Silence kills - the seven crucial conversations for healthcare*. VitalSmarts, L.C.

McCarthy, T. C. (2004). A call for improving quality in care transitions. *Minnesota Medicine*, 87(4), 36-38.

McCarthy, T. C. (2004). A call for improving quality in care transitions. *Minnesota Medicine*, 87(4), 36-38.

Millar, J. (2001). System performance is the real problem. *Healthc.Pap.*, 2(1), 79-84, discussion 86-9.

Morath, J, and Leary, M (2004) Creating Safe Spaces in Organizations to Talk About Safety. *Nursing Economics*. 22(6); 344-51, 354.

Mohr, J., Abelson, H., and Barach, P. (2002) Creating Effective Leadership for Improving Patient Safety. *Quality Management in Health Care*. 11(1); 69-78

Mohr, J (2005) Creating a Safe Learning Organization. *Frontiers of Health Services Management*. 22(1); 41-4 disc 51-4.

Nadzam, D., Atkins, M., Waggoner, M., and Shonk, R. (2005) Cleveland Clinic Health System: A Comprehensive Framework for a Health System Patient Safety Initiative. *Quality Health Care*. 14(2); 80-90.

Nelson, A. (2004). Patient safety in rehabilitation nursing. *Rehabilitation Nursing : The Official Journal of the Association of Rehabilitation Nurses.*, 29(6), 182-182.

Noonan, D. (1995). Participative management and shared leadership: Implementing a model. *Leadership in Health Services = Leadership Dans Les Services De Sante*, 4(4), 28-30.

Ontario Hospital Association: Your Health Care - Be Involved Program Launch

http://www.oha.com/client/OHA/OHA_LP4W_LND_WebStation.nsf/page/OHA+Launches+Campaign (accessed June 30, 2006).

Ontario Hospital Association. Patient Safety Tools & Resources.

http://www.oha.com/client/oha/oha_lp4w_lnd_webstation.nsf/page/Tools+and+Resources (accessed April 18th 2007)

Patients For Patient Safety. <http://www.p4ps.org> (Accessed July 10, 2006).

Preston, A. P., Saunders, I. W., O'Sullivan, D., Garrigan, E., & Rice, J. (1995). Effective hospital leadership for quality: Theory and practice. *Australian Health Review : A Publication of the Australian Hospital Association*, 18(3), 91-110.

Pronovost, P., Holzmueller, B., Rosenstein, R., Kidwell, K, Haller, F., Feroli, J., Sexton, J., and Rubin, H. (2003) Evaluation of the Culture of Safety: Survey of Clinicians and Managers in a Academic Medical Center. *Quality and Safety in Health Care*. 12(6) 405-10.

Pronovost, P., Berenholtz, S., Needham, D.: A Framework for Health Care Organizations to develop and Evaluate a Safety Scorecard. *JAMA*, 298(7) November 7, 2007.)

Pronovost, Peter J.; Miller, Marlene R.; Wachter, Robert M.; Meyer, Gregg S. *Academic Medicine*. 84(12):1651-1656, December 2009.

Reason, J. (1997). *Managing the Risks of Organizational Accidents*. Hants, England, Ashgate

Rochon, P. A., Field, T. S., Bates, D. W., Lee, M., Gavendo, L., & Erramuspe-Mainard, J. et al. (2006). Clinical application of a computerized system for physician order entry with clinical decision support to prevent adverse drug events in long-term care. *CMAJ : Canadian Medical Association Journal = Journal De l'Association Medicale Canadienne*, 174(1), 52-54.

Ruchlin, H.S., Dubbs, N.L. (2004) The Role of Leadership in Instilling a Culture of Safety: Lessons from the Literature. *Journal of Healthcare Management*. Vol.49(1), 47-58.

Snelson, E. A. (2003). Proposed changes to the hospital-medical staff relationship to improve quality of care. *Annals of Health Law / Loyola University Chicago, School of Law, Institute for Health Law*, 12(2), 265-75, table of contents.

Stablein, D., Welebob, E., Johnson, E., Metzger, J., Burgess, R., & Classen, D. C. (2003). Understanding hospital readiness for computerized physician order entry. *Jt.Comm.J.Qual.Saf.*, 29(7), 336-344.

Sherman, J., (2006) Patient Safety: Engaging Medical Staff Toward a Common Goal. *HealthCare Executive*, MAR/APR 2006, 20-23.

Stevens. P, Matlow. A., and Laxer, R. (2005) Building from the Blueprint for Patient Safety at the Hospital for Sick Children. *Healthcare Quarterly*. 8 Spec No; 132-9.

Tardif, G., Baker, R., et al. Partnering with patients and families to address potential conflicts between patient safety and patient autonomy in rehabilitation and complex care. www.patientsafetyinstitute.ca/english/research/cpsiresearchcompetitions/2006/pages/tardif.aspx

The Risk Management & Patient Safety Institute. Just Culture Toolkit.

U, D. (2001). Medication error and patient safety. *Healthc.Pap.*, 2(1), 71-6, discussion 86-9.

Uribe, C.L., Schweikhart, S.B., Pathak, D.S., Marsh, G.B., (2002) Perceived Barriers to Medical Error Reporting: A preliminary Investigation. *Journal of Healthcare Management*, 47(4), 263-279.

VA National Center for Patient Safety [homepage] Ann Arbor (MI):US Department of Veterans Affairs. Accessed at: <http://www.patientsafety.gov/> on July 10th 2006.

van Harten, W. H., Casparie, T. F., & Fisscher, O. A. (2002). The evaluation of the introduction of a quality management system: A process-oriented case study in a large rehabilitation hospital. *Health Policy (Amsterdam, Netherlands)*, 60(1), 17-37.

Vincent, C.A. & Coulter, A. (2002). Patient Safety: what about the patient? *Quality and Safety in Health Care*, 11 (1): 76-80.

Vincent, C.A. (2006) *Patient Safety*. Elsevier 254pp ISBN 0443101205.

Weigmann, D., Zhang, H., von Thaden, T., Sharma, G., & Michell, A. (2002) A synthesis of safety culture and safety climate research. Technical Report ARL-02-3/ FAA -02-2. Prepared for the Federal Aviation Administration, contract DTFA 01-G-015. Accessed at <http://www.aviation.uiuc.edu/unitshfd/techpdf/02-3.pdf> on July 20th 2006.

Weiner, B. J., Alexander, J. A., & Shortell, S. M. (1996). Leadership for quality improvement in health care; empirical evidence on hospital boards, managers, and physicians. *Medical Care Research and Review : MCRR*, 53(4), 397-416.

West, E. (2000). Organizational sources of safety and danger: sociological contributions to the study of adverse events. *Quality in Health Care*, 9(2):120-6.

Winokur, S., and Beauregard, K. Patient Safety: Mindful, Meaningful and Fulfilling. *Frontiers of Health Services Management*. 22(1); 17-32.

Wolosin, R.J., Verlcer, L. & Matthews, J.L. (2006). Am I safe here? Improving patient safety perceptions of safety in hospitals. *Journal of Nursing Care Quality*. 21(1):30-38.

World Health Organization World Alliance for Patient Safety.
www.who.int/patientsafety/challenge/en/ (Accessed July 10, 2006).

Young, J. M., Ang, R., & Findlay, T. (1997). Interdisciplinary professional practice leadership within a program model: BC rehab's experience. *Healthcare Management Forum / Canadian College of Health Service Executives = Forum Gestion Des Soins De Sante / College Canadien Des Directeurs De Services De Sante*, 10(4), 48-50.

Zablocki, E. (1996). Effect of system restructuring on quality leadership, part 2. *The Quality Letter for Healthcare Leaders*, 8(6), 2-11.

Zipperer, L.A. and S.Cushman. (2001) *Lessons in Patient Safety*. National Patient Safety Foundation. Chicago, Illinois.

Appendix N

POSITION: Patient Safety Officer 1.0 FTE

REPORTS TO: Director Organizational Effectiveness and Risk Management

MAIN FUNCTION:

Reporting to the Director of Organizational Effectiveness & Risk Management with the Patient Care leadership team and in collaboration with the Patient Safety Officer facilitates the development, implementation and maintenance of an integrated patient safety strategy at Toronto Rehab. Key responsibilities include promoting patient safety and a culture of safety and learning, developing and supporting the delivery of education programs related to safety, working with the risk manager in supporting all managers in handling incident reports and critical incident reviews, developing appropriate indicators and auditing safety processes and outcomes.

ACTIVITIES:

- Provides leadership and support for safety related initiatives, in particular translating the lessons learned from the review of incident and near-misses to programs and departments throughout the organization.
- Reviews, analyzes and interprets clinical data in relation to patient safety.
- Ensures that a reliable and user friendly incident and near miss reporting system is in place.
- Works with the Risk Manager to ensure that critical incident reviews take place in a timely manner using appropriate tools (e.g. Root Cause Analysis and Failure Mode and Effects Analysis).
- Analyses trends in incident and risk data and develops timely response strategies.
- Monitors external safety alerts related to patient safety (e.g. MOHLTC, OHA, ISMP) and ensures appropriate measures are in place to mitigate associated risk.
- Suggests and supports policy and procedural changes to improve patient safety in a cost-effective manner.
- Evaluates the timeliness of implementation and effectiveness of safety related practice changes and reports continuing safety issues to senior management.
- Develops and delivers innovative educational material on patient safety in rehabilitation and CCC.
- Participates in ongoing training of staff involved in critical incident reviews
- Plans agendas, provides support, and ensure timely follow-up for the Executive WalkRounds.
- Plans agendas, provides support, and ensure timely follow-up for the Quality of Care (QCIPA) committee
- Actively supports research on patient safety initiatives at Toronto Rehab.

QUALIFICATIONS:

- Healthcare professional eligible for registration in the Province of Ontario
- Graduate degree in healthcare or related discipline
- Certification in patient safety and/or risk management a definite asset

EXPERIENCE/ SKILLS/ ATTRIBUTES

- Minimum 3 years experience in working in a large healthcare organization required
- Demonstrated analytical skills, problem solving abilities, communication skills, judgment and interpersonal skills.
- Demonstrated ability to build and maintain effective relationships and to facilitate, negotiate, and persuade others at all levels of the organization.
- Demonstrated ability to establish courses of action for self and others that are results oriented.

Appendix O



Patient Safety Leadership Walks MANAGER'S GUIDE

DATE AND TIME OF VISIT: [insert date and time]

LEADERSHIP WALK TEAM: [insert names]

The following information has been developed to support you in preparations for the Patient Safety Leadership Walk to your unit/department. The walk will consist of an initial 10-minute tour/overview of your unit/department followed by a 20-minute dialogue session with staff.

Purpose of Leadership Walk

The Patient Safety Leadership Walks provide leadership and staff with an opportunity to dialogue about patient safety at Toronto Rehab, to celebrate successes in patient safety at a unit/department level and to help identify and resolve existing patient safety issues in a timely and responsive fashion.

The Walks are intended to start a healthy dialogue about patient safety that initiates daily thought and discussion on this important topic until it becomes woven into the fabric of our daily culture at Toronto Rehab. These walks are about building a culture of openness, trust and disclosure that ultimately leads to enhanced incident reporting, greater learning opportunities and the generation of proactive measures to prevent safety hazards before they happen.

Prior to Leadership Walk

1. Book a room for the discussion between the Patient Safety Leadership Walk Team and your staff.
2. Confirm the date and time of the leadership walk with your staff and clarify what role the walks play in patient safety (i.e. encouraging people to start talking and thinking about patient safety and solutions to patient safety issues). Encourage as many clinical and non-clinical staff as possible to attend.
3. Confirm with staff who on the senior leadership team will be attending and provide overview of their role at Toronto Rehab (using provided bios).
4. Ask staff to think about patient safety successes from their unit/department they can share with the Leadership Walk Team.
5. Ask staff to think about the top 2-3 patient safety issues they believe are facing their unit/department.
6. Share and discuss baseline results of Hospital Safety Culture Survey with team (if you have not already done so). Focus staff attention/thinking on areas identified in survey as needing improvement and how that applies to their particular unit/department.
 - Shift changes (patient information lost, problematic for patients)
 - Cross-unit coordination
 - Communication openness (staff don't feel free to question decisions or actions of those with more authority, staff are afraid to ask questions when something does not seem right)
 - Organizational learning (better job of learning from past errors, evaluating effectiveness of changes to improve patient safety)

7. Assign one staff member to conduct a 10 minute tour/overview of your unit/department prior to the dialogue session.

Unit

- What patient population do you serve?
- What is the average length of stay for patients on your unit?
- What are 2-3 key highlights of the services you provide in addressing patient needs?

Department

- What service(s) does your department provide?
- How do the services you provide support our patients?

During Dialogue Session

1. When Patient Safety Leadership Team arrives on unit, introduce staff member who will be conducting 10-minute tour or providing overview of unit/department.
2. Accompany Patient Safety Leadership Walk Team on tour.
3. Introduce Patient Safety Leadership Walk Team to staff at beginning of dialogue session.
4. Facilitate dialogue between Leadership Walk Team and staff:
 - Keep staff focused on topics being addressed (i.e. patient safety)
 - Ensure all attending staff has an equal opportunity to share their thoughts (i.e. don't let any one individual monopolize the dialogue).
 - Track 20-minute time slot for dialogue, and indicate when session has only 2 minutes left so that Team can wrap up the session.

Following Leadership Walk

Following the Leadership Walk you will be sent a copy of a Leadership Walk Tracking Form that captures the feedback shared on your unit/in your department including:

- Patient safety initiatives currently underway on unit/department
 - Patient safety successes identified by staff
 - Patient safety issues identified by staff
 - Most responsible person for ensuring follow-up on patient safety issues
 - Timeline for resolving patient safety issues identified during walk
1. Please share the information contained in the tracking form with your staff as an overview of the visit.
 2. Use the tracking form to track progress being made on patient safety issues on your unit/in your department.
 3. Keep your staff up-to-date with the progress being made on patient safety issues addressed during the Leadership Walk.
 4. Keep E.Aimone/Patient Safety Officer abreast of progress being made on patient safety issues identified on tracking form.

Appendix P



2007 RehabNet Conference

Achieving Patient Safety, Respecting Patients' Choices

June 14-15, 2007

The 2007 RehabNet Conference 'Achieving Patient Safety, Respecting Patients' Choices', is a two-day event, recognizing the unique challenges around patient safety and the ethical dimensions of balancing safety and necessary risk taking in rehabilitation.

Clinicians, administrators, academics and policy-makers from across North America are invited to submit podium, workshop or poster abstracts in areas related to:

<ul style="list-style-type: none">• Patient safety• Ethics• Risk taking• Inter-professional research• Future directions of rehabilitation	<ul style="list-style-type: none">• Leadership• Rehabilitation science• Clinical best practices• Outcome Medicine• Scientific evaluation
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Deadline for submission – Feb. 05, 2007

Confirmation sent – Mar. 05, 2007

Abstract submissions must be made online through
www.torontorehab.com/education/rehabnet.

Confirmed Speakers

- **Ross Baker**, PhD, Professor, Department of Health Policy, Faculty of Medicine, University of Toronto
- **Gaétan Tardif**, MD, Vice-President, Patient Care & Chief Medical Officer, Toronto Rehabilitation Institute
- **Kristi L. Kirschner**, MD, Coleman Foundation Chair in Rehabilitation Medicine, Director, Donnelley Family Disability Ethics Program, Rehabilitation Institute of Chicago

Contact Us

For more information visit www.torontorehab.com/education/rehabnet or contact Conference Services by email at conferences@torontorehab.on.ca or by phone at 416-597-3422, ext. 3693.

RehabNet is a network of rehabilitation executives and medical leaders who saw the need for nationwide information sharing in regards to the delivery of rehabilitation services. An offshoot of the Canadian network of free-standing rehabilitation centers and of the Canadian Association of Physical Medicine and Rehabilitation, it has grown to welcome all institutional providers of rehabilitation services.

Join us next summer in Toronto ! Submit an abstract today

Appendix Q

Comparison of AHRQ & Accreditation Canada Safety Culture Survey

AHRQ Survey on Patient Safety Culture:

- The item level results are compared to US benchmark data which is an average of 622 US hospitals and 196,462 respondents (4% from rehabilitation)
- This survey is used in the USA accreditation process
- Dimension level results compare 2008, 2009 Toronto Rehab results against 2009 US benchmark results
- 12 patient safety dimension levels
- Trending comparisons compare 2006- 2009 results
- Results are provided at the unit, program and corporate level

Accreditation Patient Safety Culture Survey:

- The Accreditation Canada instrument is modified from the Stanford instrument "Patient Safety Climate in Healthcare Organizations". The 46 item survey tool measures several dimensions related to safety culture that have been extensively validated in Canada based on research conducted at York University.
- 8 patient safety dimension levels
- Based on the survey and Accreditation Canada Standards criteria, flags are generated that are rolled into the Effective Organization team's Quality Performance Roadmap
- Site level response breakdown
- There is no benchmark comparator