Implementation of a Safety Framework in a Rehabilitation Hospital

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Abstract

This patient safety initiative was implemented at the Toronto Rehabilitation Institute, a fully affiliated hospital of the University of Toronto that operates in-patient and outpatient facilities on five sites. A working group was created to engage the leaders and employees in defining and implementing our "ideal" safety culture.

A subset of this group became the Research Team, mandated to do the "discovery work" with external groups and internal stakeholders to provide valuable input for designing the safety culture model. This 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.

Future activities will focus on the 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.

Safety literature specific to rehabilitation is extremely sparse. Most of the attention to date has been on developing standards for acute care hospitals, an environment of 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 to a medium-sized rehabilitation hospital that falls between these two sectors in terms of acuity and intensity of intervention. The purpose of this article is to describe an organizational patient safety change management plan within a large academic rehabilitation institution, how this plan was developed and implemented and key learnings from this initiative as we continue to move forward.

This safety initiative was undertaken at the Toronto Rehabilitation Institute, an institution born in 1998 from a four-hospital merger. The hospital, a fully affiliated hospital of the University of Toronto, operates in-patient and outpatient facilities on five sites and employs approximately 1,800 people.

The academic role is a relatively new phenomenon for much of the staff. Our exponential growth in research and education demonstrates an extremely rapid organizational change superimposed on a mosaic of merging cultures.

As the clinical and academic programs rapidly evolved, senior leaders agreed to place an emphasis on patient safety, particularly in relation to organizational culture. Our main objective was to ensure that Toronto Rehabilitation Institute had in place the right organizational structure and processes to minimize risks to patients and staff. Such a framework would have the ability to accomplish the following:

- Identify key goals for patient and staff safety on an ongoing 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
- Ensure sustainability of achieved improvements through appropriate outcome measures monitoring, benchmarking and reporting to senior management and the board of directors
- Implement a safety-conscious continuous quality improvement approach to the delivery of services

Evidence Review

As forecasted, rehabilitation-specific patient safety literature was extremely limited. To augment the literature, we conducted semi-structured interviews with Canadian and US hospitals deemed to be leaders in the field of patient safety. An aviation safety expert was also consulted to draw parallels between high-reliability industries and hospitals. Key questions were kept in mind during the knowledge-seeking process:

- 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 the implementation of a safety framework?
- What are key considerations in implementing an accountability model based on a paradigm of just culture?

A literature review of management did yield several good references on safety culture, incident management and accountability models but relied heavily on case reports. Few had a true qualitative research design, and even fewer had quantitative outcome measures. Many overarching principles were extracted that had excellent face validity in the context of sound management principles:

- That 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" [Reason 1997])
- The importance of executive sponsors in creating the vision and advocating for safety practices using explicit methods

Table 1. Results of a culture survey

Safety Culture Dimension	Percentage in 2006	Percentage in 2007	US Hospital (382 participants) Average (%)
Overall perceptions of safety	55	56	63
Frequency of events reported	52	51	59
Manager expectations	68	71	74
Organizational learning/continuous improvement	66	70	69
Teamwork within units	74	76	78
Communication openness	52	53	61
Feedback about error	52	52	62
Non-punitive response to error	40	43	43
Staffing	49	52	55
Management support of safety	65	71	69
Teamwork across units	55	57	57
Handoffs and transitions	43	43	45

Source: Culture survey from Agency for Healthcare Research and Quality 2007

such as executive walkabouts focused on safety
- The need for clear governance of accountability and reporting structures for adverse events including a rigorous review and follow-up process
- A long-term view on change in attitude toward safety – "changing culture is by definition a slow process" (Reason, cited by Leape 2006)

As part of a research project, a validated culture survey (Agency for Healthcare Research and Quality [AHRQ] 2007) was sent to all hospital staff in the spring of 2006 (Velji et al. 2008). The survey gave us a baseline measure that can be followed over time as well as compared with data from other institutions. Our results were very much "average," with four of the 12 dimensions receiving slightly lower scores than the US composite average (Table 1). We repeated the survey in the spring of 2007, with similar results, pointing to a stable baseline.

"Changing culture is by definition a slow process."

Change Management Plan

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 in defining the needs as well as creating and implementing solutions. 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, many of which arose from ongoing external pressures such as Ontario's Quality of Care Protection Act, surveys on safety (e.g., that of the Ontario Hospital Association) and the inclusion of new safety standards by the Canadian Council on Health Services Accreditation.

The three identified executive sponsors were the vice-president of patient care and chief nursing executive, the vice-president of patient care and chief medical officer and the vice-president of human resources and organizational effectiveness. Our joint role was to provide the overall leadership and define the scope, focus and expected outcomes, approve the project plan and resources, approve the recommendations for action, align the change initiative with the hospital strategic direction and priorities, coordinate major activities with other change initiatives and liaise with the senior management team to keep members fully informed and supportive. We also led a Safety Working Group whose role was to engage the leaders and employees of Toronto Rehabilitation Institute in a process to define and implement our "ideal" safety culture. Members of this team were carefully selected to represent the views, interests and expertise necessary to bring a whole systems view to this challenge. Specific duties were assigned to the working group:

- Defining the change process or road map for the change
- 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
- Tracking progress, capturing learnings, enabling progress and removing barriers
- Embedding the new culture into "the way we do things around here"

The Safety Working Group facilitated a group session with all stakeholders identified as leaders and influencers of the safety process. The group of over 80 people was composed of leaders at all levels, from senior managers to front-line managers, formal and informal leaders such as educators and advanced practice leaders, medical directors of all clinical programs and leaders in support services, human resources, occupational health and safety and finance. The 10-hour session held over two days engaged leaders in critical conversations on the why, what and how of safety culture and sought input on Toronto Rehabilitation Institute's safety blueprint and its implementation. Through a series of facilitated 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 the institute.

Table 2. Top 10 safety-related "irritants"

1. Inconsistent top up of supplies on in-patient units
2. Unreliable preventative maintenance program
3. Insufficient availability and refilling of hand sanitizers in clinical areas
4. Long turnaround time for radiology reporting
5. Complicated incident reporting system
6. Urgent training needs in non-violent crisis intervention
7. Outdated safety-related policies
8. Lack of a safe home-like environment for rehabilitation training
9. Lack of administrative tools impacting nursing direct patient care hours
10. Poor housekeeping response time to safety and infection-control issues

In terms of making "first steps," the consensus was that early accomplishments – "removing long-standing irritants" – would be of utmost importance in initiating a culture change. At the end of the leadership engagement session, the senior team committed to develop a list of the top 10 safety-related irritants that needed to be resolved and set an example of responsiveness and commitment to resolving safety issues. The top 10 list was developed by polling staff through their managers and supervisors who attended the meeting (Table 2). The executive sponsors assigned project leads, who were given responsibility for each of the 10 items on the list. Rapid progress was expected and reviewed regularly by the Senior Operations Committee.

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Implementation of Change

The key action items identified by the executive sponsors as a result of the group sessions 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, follow-up and escalation process
- Integrate safety into existing programs, initiatives and policies
- Obtain input from patients and family members
- Plan a follow-up leadership retreat
- Plan the communication and launch with all staff
- Initiate and evaluate leadership safety walkabouts
- Develop a safety scorecard of outcome measures and benchmarks
- Embed the change and dismantle the working group
- Ensure an ongoing evaluation of culture change

We decided to create a new position of patient safety officer for the organization, maintain the existing position of risk manager and refocus the position of director of organizational effectiveness and risk management to take a greater role in patient safety – to become the de facto "chief patient safety officer" (not a job title) reporting directly to the president and chief executive officer (CEO) rather than to a vice-president. We saw this approach as providing the organization with a higher profile for patient safety through direct reporting to the CEO and a dedicated front-line resource in the new patient safety officer; these changes would enable the risk manager to better focus on analyses of incidents and near misses.

In reassigning responsibilities, we 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, laboratories and diagnostics and infection control – all areas of high risk with respect to safety.

We initially proposed that a regular review of incidents, near misses and proposed actions should occur through a newly formed patient safety committee; but, upon further consultations, we assigned this responsibility to the Senior Operations Committee. The committee's core membership includes the vice-presidents responsible for patient care, finance and support services, and human resources and organizational effectiveness as well as four executive directors who report to them. Other members of the senior management team, including the CEO, participate as needed based on the agenda for any particular meeting. Since the committee meets every second week, it can be much more responsive to issues than a specially constituted committee that would only meet a few times a year. We believe this will contribute to a more effective integration and sustainability of the project objectives into day-to-day operations of the institution.

To enhance the profile of safety as a key priority within our institution, safety issues need to be communicated regularly and effectively across the organization. Throughout the project, communication on safety took several forms: e-mails to all staff from the CEO reiterating the organizational commitment to safety; the inclusion of a "Focus on Safety" section in LINK, the staff biweekly newsletter; the development of a safety column on the hospital intranet; continued education on incident and near-miss reporting; and a standing agenda item at Management Forum, a meeting of all management staff taking place the day following the hospital board meetings. As agreed, we reconvened the large group of institutional leaders to reorient them to the safety framework, obtain input on how well we reflected their feedback and obtain their commitment for the safety activities planned.

The official kickoff took place in March 2007, with further communications to managers and staff and the initiation of leadership walkarounds. The launch reached every member of our staff directly – an exponential jump from 80 managers and leaders to 1,800 staff. In preparation for the launch, two "warm-up" events took place. Firstly, results from the AHRQ patient safety culture survey were presented 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 perceptions and practices regarding 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. Our managers were also provided with

training, including a short guide on the purpose and logistical aspects of the leadership walkabouts.

Life after the Project

Prior to the inception of the intervention project, and indeed throughout its life, hospital initiatives in support of patient safety continued to take place. Some established initiatives benefited from the project, such as our electronic incident reporting system, which was changed to have a much easier interface and a stronger data analysis capability. Feedback received through our managers-and-leaders meetings was invaluable in improving its interface and usage. A telephone hotline to report incidents and near misses was also implemented. The implementation of a picture archiving and communications 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 an improved night-cupboard integrating state-of-the-art hardware and software. A real-time dashboard-type interface for key outcomes also became available to all managers within the organization, allowing them to access key information in a timely manner.

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

In our spring 2007 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 cited most often. Within three months, over 100 of these issues were satisfactorily resolved. We are continuing to address these issues as we embark on our next series of walkabouts, 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 toward culture change. In particular, we will need to address how to accomplish the following:

- Truly integrate safety into existing programs, initiatives and policies – how will we know that we have created empowerment at the point of service?
- Obtain input from patients and families; this will be done initially as part of a formal externally funded research project
- Evaluate the effectiveness of our leadership safety walkabouts
- Determine and apply outcome measures and benchmarks in respect to safety
- Evaluate culture change; we plan on repeating the AHRQ survey on a regular basis to assess our continuing progress.

We also have established a new research program that has demonstrated success in obtaining external grants to develop new knowledge on patient safety in rehabilitation and complex continuing care. This type of development activity using our institution as a living laboratory is core to our institutional vision and mission. Supports are being put in place to further the training of promising young researchers in this domain.

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. As we share our experience with our colleagues in healthcare, we will also gain useful insight from their reactions. Will they be surprised by the items in our top 10 list? Will the issues raised in the leadership walks in other institutions be similar or different to those raised in our institution? Our prediction is that there will be significant overlap between sectors, with different areas of primary focus required to ensure the safety of staff and patients. HQ

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