

Patient Safety Culture and Leadership within Canada's Academic Health Science Centres: Towards the Development of a Collaborative Position Paper

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Abstract

Currently, the Academy of Canadian Executive Nurses (ACEN) is working with the Association of Canadian Academic Healthcare Organizations (ACAHO) to develop a joint position paper on patient safety cultures and leadership within Academic Health Science Centres (AHSCs). Pressures to improve patient safety within our healthcare system are gaining momentum daily. Because AHSCs in Canada are the key organizations that are positioned regionally and nationally, where service delivery is the platform for the education of future healthcare providers, and where the development of new knowledge and innovation through research occurs, leadership for patient safety logically must emanate from them. As a primer, ACEN provides an overview of current patient safety initiatives in AHSCs to date. In addition, the following six key areas for action are identified to ensure that AHSCs continue to be leaders in delivering quality, safe healthcare in Canada. These include: (1) strategic orientation to safety culture and quality improvement, (2) open and transparent disclosure policies, (3) health human resources integral to ensuring patient safety practices, (4) effective linkages between AHSCs and academic institutions, (5) national patient safety accountability initiatives and (6) collaborative team practice.

Currently, the Academy of Canadian Executive Nurses (ACEN) is working with the Association of Canadian Academic Healthcare Organizations

(ACAHO) to develop a joint position paper on patient safety cultures and leadership within Academic Health Science Centres (AHSCs). As a primer, ACEN puts forward the following analysis of existing and future considerations to ensure that AHSCs continue to be leaders in delivering quality, safe healthcare in Canada. The intent of this paper is to invite dialogue and recommendations from readers as we proceed toward articulating the joint position paper. It is imperative that nurses across all domains (clinicians, educators, researchers, managers, policy-makers) contribute to the dialogue on shaping core values, interventions and future directions related to enhancing patient safety. This dialogue includes workplace factors that directly or indirectly influence patient safety.

Background

Pressures to improve patient safety within our healthcare system are gaining momentum daily. Concerns of both consumers and providers are fuelled by the release of reports from the Institute of Medicine, such as *To Err is Human* (Kohn et al. 2000), *Crossing the Quality Chasm: A New Health System for the 21st Century* (Institute of Medicine 2001) and *Keeping Patients Safe: Transforming the Work Environment of Nurses* (Institute of Medicine 2003), as well as by media attention to several high-profile cases across the country.¹ These reports and events describe and exemplify the risks associated with errors in

1. Halifax – vincristine pediatric death; Manitoba – cardiac surgical deaths; Toronto – pediatric deaths; and Vancouver – vincristine pediatric death.

the healthcare delivery system and the consequent suffering these errors and adverse events have imposed on healthcare consumers (patients, clients, family members and significant others), healthcare professionals and the healthcare system. Recent American research indicates that the risks of experiencing adverse events and errors are a significant issue within the healthcare system in general (Kohn et al. 2000; Brennan et al. 1991) and are particularly prevalent among Academic Health Sciences Centres (AHSCs). Receiving or delivering care in highly complex environments is known to increase the potential of near-miss situations and adverse events (Ebright and Rapala 2003; National Steering Committee on Patient Safety 2002). Results from a Canadian study on adverse events, led by Baker and Norton, will be released in Spring 2004 and are expected to demonstrate that similar risks exist within the Canadian healthcare system.

AHSCs have a longstanding track record in providing quality healthcare and, as such, are well positioned to champion patient safety initiatives by advising key stakeholders (government, professional associations and others) with regard to patient safety in academic healthcare settings and within our national healthcare system. AHSCs are where care is provided for the most acutely ill and ethnically diverse patient populations; they are the facilities within which most health professionals are educated and where the majority of healthcare research is coordinated and conducted. Because of these multiple mandates, AHSCs are highly complex

environments and, as such, are potentially more vulnerable to errors and adverse events. In addition, many AHSCs have undergone significant restructuring in the recent past, often including mergers of several healthcare facilities, which has added to the complexity.

Learning that occurs in AHSC environments commonly becomes the foundation for the establishment of new standards for the delivery of safe, quality healthcare throughout the country. In learning how to manage the increased risk factors inherent in these environments, AHSCs have an important role to play in identifying risk situations, developing strategies to reduce these risks and creating environments that improve patient safety practices. Logically, then, the production of knowledge related to quality of care, risk and risk reduction is also in keeping with the mandate of AHSCs.

What We Know about Patient Safety

1. Adverse events/near-miss situations

While there has been considerable focus on the issue of patient safety as evidenced by the last decade of research, in Canada an accelerated focus began to take hold in 1999 with the release of the Institute of Medicine reports from the United States (Kohn et al. 2000; Institute of Medicine 2001, 2003). With these reports, the lexicon of healthcare providers, insurers and governments has suddenly broadened to incorporate new terms such as *adverse events* (AEs), *near misses* and *disclosure*. Studies indicate that between 5 and 20% of patients

admitted to hospital experience AEs; that roughly 50% of these AEs are preventable; and that AEs cost healthcare systems billions of dollars in additional hospital stays (Schiøler et al. 2001; Vincent et al. 2001; Kohn et al. 2000; Reason 1997; Wilson et al. 1995; Brennan et al. 1991). Drug-related errors account for more than half of preventable injuries. Near-miss events have been estimated to be three to 300 times more frequent than actual events (Barach and Small 2000). Leape et al. (1991) maintain that more than two-thirds of adverse events are preventable. Evidence to date suggests that errors are primarily the result of the complicated interface between providers and technology, providers and the system and the complex interaction among the many different healthcare providers (Turnball 2001). In other words, errors are rarely the result of simple failures of healthcare professionals, but occur because of breakdown or fault in the complex delivery system that characterizes current healthcare. Of interest, however, is that recent literature and research point to the varying perceptions of both healthcare professionals and consumers of the magnitude of the problem (Vincent 2003; Blendon et al. 2002; Nicklin and McVeety 2002).

2. Reporting and disclosure

Traditional approaches to dealing with errors have focussed on assigning responsibility to individuals. This



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“culture of blame” persists and continues to operate in most organizations today, particularly during investigations of adverse events (Affonso et al. 2003; Canadian Nurses Association 2003). Because of this environment, current disclosure discussions and quality improvement processes may not encourage open dialogue or the sharing of questions and concerns among healthcare professionals (National Steering Committee on Patient Safety 2002; Turnball 2001). Moreover, according to Liang (2002), at present the disclosure of errors is generally haphazard or ad hoc. An uncertain legal environment, varying approaches to assessing root causes and, in particular, vague standards by accreditors are factors that

lead to underreporting and, ultimately, a failure to identify or correct systems problems that cause or contribute to errors (White and McGillis Hall 2003). Currently in Canada, a number of jurisdictions have made legislative changes that will facilitate disclosure.

3. Safety culture

The patient safety literature emphasizes the importance of creating a culture of safety in healthcare (Affonso et al. 2003; Nicklin 2003; National Steering Committee on Patient Safety 2002; Affonso and Doran 2002; Baker and Norton 2001; Kohn et al. 2000). Culture (professional, organizational and national) influences patient safety by influencing people's readiness to challenge authority, question co-worker actions and openly discuss one's own mistakes (Helmreich and Merritt 1998). In a safety culture, healthcare professionals, staff and consumers (patients and families) are all partners in addressing this problem.

4. Patient safety accountability measures and mechanisms

Over the last five years, there has been a movement in several countries to develop indicators and accountability mechanisms related to patient safety. Of particular note, the Joint Commission of Accreditation of Healthcare Organizations (JCAHO) formulates national patient safety goals on an annual basis and incorporates them into its accreditation process of healthcare organizations in the United States. Table 1 lists JCAHO's 2004 national patient safety goals.

Table 1. JCAHO's 2004 ambulatory care national patient safety goals

1. Improve the accuracy of patient identification
2. Improve the effectiveness of communication among caregivers
3. Improve the safety of using high-alert medications
4. Eliminate wrong-site, wrong-patient, wrong-procedure surgery
5. Improve the safety of using infusion pumps
6. Improve the effectiveness of clinical alarm systems
7. Reduce the risk of healthcare-acquired infection

In Canada, the Canadian Council on Health Services Accreditation (CCHSA) has incorporated patient safety as a focus in its accreditation review of healthcare organizations. Specifically, patient safety is embedded in the following five standards of CCHSA accreditation: (1) leadership and partnerships, (2) environment, (3) human resources, (4) information management and (5) client service standards (CCHSA 2003b). In the 2002 National Health Accreditation Report, seven main themes were identified as key areas for recommendations, including (1) risk management, (2) disaster and emergency preparedness, (3) documentation, (4) infection control, (5) use of equipment, (6) medication and (7) diagnostic testing (CCHSA 2003b). Continued efforts are underway by CCHSA in setting up a national database to track the current indicators and expand on patient safety indicators and accountability mechanisms. ACEN commends CCHSA for this work and further urges it and the new national patient safety institute to move towards mandatory

reporting on specific patient safety indicators by all healthcare organizations.

5. National healthcare patient safety accountability initiatives

Health council. On December 9, 2003, the federal/provincial/territorial ministers of health announced the creation of a national health council (HC). The establishment of the HC was a key commitment of the February 2003 First Ministers' Accord on Healthcare Renewal as part of their efforts to improve accountability within the healthcare system, including a focus on patient safety. The mandate of the HC is to monitor and make public reports on the implementation of the Accord.

National patient safety institute. On December 10, 2003, the federal/provincial/territorial ministers of health announced the establishment of the Canadian Patient Safety Institute (CPSI). The creation of a national patient safety institute was one of the main recommendations outlined by the National Steering Committee on Patient Safety (2002). The CPSI will provide leadership and coordination in building a culture of patient safety and quality improvement throughout the Canadian healthcare system.

Work to Date: Patient Safety Initiatives in AHSCs

To gain a better understanding of patient safety within AHSCs, several initiatives are currently underway or have taken place. These are exemplars of the leadership that AHSCs have demonstrated in the creation of a safety

culture. Many of these initiatives have developed under the guidance of the nursing leaders within the AHSCs (ACEN members) through the support of ACEN in the safety culture arena.

1. ACEN focus group study

In a series of focus groups held in AHSCs across Canada, Canadian nurses unanimously reported that the healthcare environment in which they provide care presents increasing risks to their patients. Nurses stated that workload /pace of work, human resources (support/ancillary workers), nursing shortages leading to reduced staffing, restructuring/bed closures and increased complexity in patient care are key factors contributing to the escalating risk within the care environment (Nicklin and McVeety 2002).

2. ACEN Safety Culture and Leadership Survey

A survey of ACEN members conducted in 2003 suggests three key areas in which a focus on patient safety is being incorporated into daily operations: (1) organizational structures, (2) education and (3) planning for change. Organizational structures include committees, policies and staff positions that have been implemented with the express purpose of supporting patient safety activities. Education activities range from corporate sessions on the topic of patient safety to specific safety programs, such as safe medication administration and prevention of falls and skin breakdown. Planning includes such activities as incorporation of patient safety as a strategic priority and research in specific

areas of safety. Examples of activities are listed in Table 2.

3. ACEN Safe Practices Inventory

In 2002, work was initiated in creating a resource guide containing an inventory of tools and resources. Data collected to date indicate that considerable work has been done within many AHSCs to create a culture of safety. It is anticipated that this work will be completed and available to members on the ACEN website by late Spring 2004. This guide builds on the patient safety organizational framework that was developed by Affonso and Doran (2002). The purpose in creating this inventory is to showcase the work that has already been done

within AHSCs in Canada and to provide a reference to nursing leaders and others in these organizations who are engaged in building a safety culture. It is intended to serve as a resource and promote the sharing of ideas and strategies to enhance the development of a safe healthcare system. Information in the inventory is organized under three headings:

- Technological tools and system changes that create safer use of drugs and devices intended to improve outcomes, including systems to support safe medication administration and projects and programs focussed on education or support for safe care delivery

Structures	Education	Planning Committees
<ul style="list-style-type: none"> • Developing a medication safety committee • Creating a patient safety council • Developing a regional council on quality and safety 	Safe medication educational programs	Developing a vision for safe care
	Presentations to board and senior management on patient safety	Seeking a NIH grant to develop tools to create safer drug administration
	Patient safety symposium	Making patient safety a part of every new proposal, program, policy ensuring that goals and objectives of every department/program identify patient safety as a focus
Policies: Developing policies on <ul style="list-style-type: none"> • disclosure • benchmarks 	Conferences	Conducting a district-wide medication safety survey
Discussion at staff meetings		Developing a strategic direction that incorporates patient safety
Positions: Creating dedicated positions, such as <ul style="list-style-type: none"> • 0.5 risk analyst • Designated senior VP responsible for patient safety 		

- Processes for the implementation of safe care and for the receipt, review and management of concerns and issues, including policies and systematic review processes
- Strategies for reforming organizational cultures to formalize responsibility and accountability for safe care within management structures and clinical processes

4. Research

University of Toronto patient safety research cluster.

In April 2002, a multidisciplinary research cluster drawing on expertise from nursing, medicine, pharmacology, hospital administration, engineering and humanities at the University of Toronto (UT), led by the Faculty of Nursing, received initial funding from UT's Connaught Seed Funding for Research Clusters. Additional funding from selected hospitals of the Toronto Academic Health Science Centres (TAHSC), and most recently the government of Ontario, has been provided. This initiative involves several ACEN members as part of TAHSCs and is generating foundational knowledge related to patient safety care practices. Current pilot projects include the exploration of processes of care and factors influencing safer practices, including team approaches to patient care, exploration of the phenomenon of near misses, examination of near-miss reporting systems and nursing interruptions in the healthcare system.

University of Alberta and Capital Health Authority Safer Systems Research Program. The Safer Systems

Research Program is presently co-sponsored by the Faculty of Nursing, University of Alberta and the Capital Health Authority, Edmonton, Alberta. Building on the principal investigator's doctoral work to draw on work in nursing, ecological restoration and healthcare ethics, an ecological approach to the design, conduct and dissemination of research on organizational ethics and patient safety is underway. Interdisciplinary research teams of faculty researchers and practitioners in nursing, medicine and pharmacy are involved to date. The central goal of the research program is to use research to develop and sustain best-practice environments (March 2003).

Six Key Areas Where ACEN Can Provide Leadership in Developing a Stronger Safety Culture

While there is a solid foundation in Canadian healthcare to ensure patient safety, continued strong, resolute leadership by senior management, department heads, health professionals, discipline leaders, chiefs and boards of AHSCs is required if the healthcare system is to be made as safe as it can be (Reeder 2001). In this context, ACEN has targeted six key areas for intervention where leadership by its members and other nurse leaders across the country is now required.

1. Strategic orientation to safety culture and quality improvement

To achieve the goal of the safest possible healthcare system, all leaders and practitioners in the AHSCs need to have a clear understanding of their individual

and collective responsibility to provide the resources (people, time, money, equipment, plans, opportunities, legitimacy, procedures, etc.) and to shape the structures and set the values by which the system operates (Carroll et al. 2002; Mohr et al. 2002; Wong et al. 2002; Fosbinder et al. 1999). AHSCs need to attend not just to the financial business case, but also to the moral one if they are to succeed in providing better patient safety (Affonso and Doran 2002; Firth-Cozens 2002).

Recommendation.

1) Nurse leaders from the bedside to the boardroom in AHSCs must lobby to ensure that patient safety and quality improvement are key foci on the health-care delivery and policy agenda, supported by vision, policies, strategies, practices and resources.

2. Open and transparent disclosure policies

An approach that moves away from a culture of blame towards one that stresses identification and correction of systems problems that lead to error is required (National Steering Committee on Patient Safety 2002). Integral to this culture is improved reporting and discussion of contributing factors within and across jurisdictions. This, in turn, requires a balance between collecting, analyzing and sharing data and protecting the information gathered in the organizational or regulatory review of an adverse event (National Steering Committee on Patient Safety 2002). As well, there is an urgent call for ethical and legal frameworks to guide disclosure

(Barach 2003). The presence of an agency disclosure policy is one strategy to guide and provide support to practitioners in this difficult communication situation (Canadian Nurses Association 2003).

A patient-focussed approach with public reporting will help build a transparent process for quality-of-care issues. Complainants should be partners in the process and participate in open communication with factual disclosure. Convening team meetings of stakeholders promptly after an adverse event facilitates discussion; in some cases, mediation supports this approach (National Steering Committee on Patient Safety 2002).

Recommendations. For nurse leaders to:

- 2a) Act as role models by demonstrating the leadership behaviours required to develop a safety culture and by freely sharing knowledge, ideas and strategies with others.
- 2b) Identify, describe and model strategies that promote a blame-free approach to addressing errors and adverse events.
- 2c) Develop and implement ethical frameworks to guide disclosure while supporting practitioners.
- 2d) Adopt a patient-focussed concern management program that makes patients partners in the process of building a transparent approach to addressing quality-of-care issues.
- 2e) Promote and collaborate in the development of changes to standards used by CCHSA, the Royal College of Physicians and Surgeons and other bodies to accredit organizations so that they, in turn, will promote the development of a culture of open disclosure in the Canadian healthcare system.

3. Health human resources integral to ensuring patient safety practices

Structuring healthcare services to promote patient safety must always be the ultimate goal of practitioners, administrators, educators, decision-makers, policy-makers and the public involved in the delivery of healthcare (White and McGillis Hall 2003). Achieving this goal requires effective management of health human resources. The Academy believes that an essential requirement for a strong and vibrant healthcare system is a stable healthcare workforce. This workforce must be made up of an appropriate mix of healthcare providers with the required competencies to meet the health needs of patients and achieve desired patient, provider and system outcomes in the context of the changing social, political, geographic, economic and technological environment.

Recommendations. For nurse leaders to:

3a) Participate in provincial and national strategies intended to predict and address the supply and demand of healthcare providers.

3b) Promote research about care processes and structures that enhance the use of scarce health human resources and implement strategies developed from the research. These include strategies to address operational workforce management issues such as controlling the pace and intensity of work, absenteeism and overtime; maximizing the scope of practice of all healthcare professionals; and promoting staff mixes to ensure safe care.

4. Effective linkages between AHSCs and academic institutions

Effective linkages between AHSCs and academic institutions are necessary in ensuring that patient safety is integral to the curriculum, clinical placements/rotations and research. Preparation for clinical placements/rotations must include sufficient education regarding the context of the work site and incorporate methods for enhancing safe care delivery by students, such as orientation, teamwork, disclosure policies and ongoing preceptor support for learners. Research into patient safety to understand better the problem, and to identify strategies to address it, and research to monitor and evaluate the strategies is receiving increasing emphasis in AHSCs.

Recommendations. For nurse leaders to:

4a) Work with academic partners (universities and colleges) to align curricula such that patient safety is a theme throughout programs (not a specific subject or course unto itself) to produce healthcare professionals of the future who are knowledgeable about patient safety practices.

4b) Create clinical placements/rotations, including sufficient education regarding the context of the work site, and incorporate methods for enhancing safe care delivery by students using such strategies as orientation and ongoing preceptor support for learners.

4c) Partner with academic institutions in research endeavours that seek to understand such factors as escalating workload, environmental complexity and changing skill mixes and their contribution to adverse patient outcomes.

5. Support national patient safety accountability initiatives

With the establishment of both the HC and CPSI (of which ACEN members Wendy Nicklin and Patricia Petryshen are founding board members) and CCHSA's move towards developing more patient safety indicators as part of its national accreditation of healthcare organizations, it is critical that ACEN members support these efforts and provide recommendations for improvements.

Recommendations. For nurse leaders to:

5a) Actively participate in knowledge transfer and translation related to patient safety and the creation of safety cultures with the HC, CPSI, CCHSA and other stakeholders (e.g., researchers). Such participation includes contributing to the development of patient safety indicators that go beyond adverse events and error reporting.

5b) The Academy and other (nurse) leaders must lobby for adequate infrastructure funds, particularly for information systems that will allow healthcare organizations to monitor performance on multiple indicators.

6. Collaborative team practices

Patient care is an interdependent process carried out by teams of individuals with advanced professional education and technical training who have varying roles and decision-making responsibilities. Patients and care providers share in the responsibility for effective communication and coordination of care. Recognition of the partnerships among those involved in care is crucial to improving communication

and teamwork and can affect important safety outcomes (Zwarenstein and Reeves 2003; Doran et al. 2002; Knaus et al. 1986; Shortell et al. 1994). AHSCs are in a key position to pilot innovative team and collaborative approaches to the delivery of healthcare.

Recommendation. For nurse leaders to:

6) Develop or strengthen initiatives designed to enhance collaboration among all members of the care delivery team. Such collaboration includes developing tools and resources designed to enhance communication, increasing interdisciplinary education (including the undergraduate level, in partnership with academic institutions), adopting strategies that will increase the effectiveness of interdisciplinary care teams and involving patients as fully engaged members of care teams.

Conclusion

Patient safety is a health system priority, and healthcare leaders must be prepared to address the systemic issues within organizations to allow individual and organizational learning, change and growth to occur. Because AHSCs in Canada are the key organizations that are positioned regionally and nationally, where service delivery is the platform for the education of future healthcare providers, and where the development of new knowledge and innovation through research occurs, leadership for patient safety logically must emanate from them. Corporate leadership from the board and executive team of the AHSCs will help promote a change in organizational culture to support

patient safety which, in turn, will initiate a cascade of accountabilities to influence team and healthcare provider behaviour.

As ACEN members, we are charged with providing this leadership within the AHSCs, with a goal to fuelling a cultural change that will ensure the adoption of safe, effective patient care delivery systems. This mandate includes the development and implementation of strategies designed to enable research into safety cultures and to educate future healthcare professionals about this critical issue. It is also the role of these leaders to lead the development of organizational vision, processes and structures that are aligned to support patient safety. These actions, together with active leadership from teams and individual healthcare providers, will help foster the necessary learning, growth and change to advocate a patient safety culture.

We encourage nurses to provide feedback and suggestions in response to this preliminary formulation of a joint position by ACEN and ACAHO.

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