Case Study of Physician Leaders in Quality and Patient Safety, and the Development of a Physician Leadership Network

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Abstract

There is increasing recognition of the need for physician leadership in quality and patient safety, and emerging evidence that physician leadership contributes to improved care. Hospitals are beginning to establish physician leader positions; however, there is little guidance on how to define these roles and the strategies physician leaders can use toward improving care. This case study examines the roles of four physician leaders, describes their contribution to the design and implementation of hospital quality and patient safety agendas and discusses the creation of a physician network to support these activities.

The positions were established between July 2006 and April 2009. All are corporate roles with varying reporting and accountability structures. The physician leads are involved in strategic planning, identifying and leading quality and safety initiatives, physician engagement and culture change. All have significantly contributed to the implementation of hospital improvement activities and are seen as influential among their peers as resources and mentors for local project success. Despite their accomplishments, these physician leads have been challenged by ambiguous role descriptions and difficulty identifying effective improvement strategies. As such, an expanding physician network was created with the goal of sharing approaches and tools and creating new strategies.

Physician leaders are an important factor in the improve-ment of safety and quality within hospitals. This case study provides a template for the creation of such positions and highlights the importance of networking as an effective strategy for improving local care and advancing professional development of physician leaders in quality and patient safety.

There is increasing recognition of the need for physician leadership in quality and patient safety, and emerging evidence that high-performing organizations benefit from physician leadership in improving care (Baker et al. 2008; Pronovost et al. 2009; Reinertsen 1998). Whether it is referred to as *physician engagement* or by another term, it is generally accepted that the involvement of physicians in quality improvement projects is critical to the projects' success (Reinertsen et al. 2008). While experts acknowledge the importance of physician participation in quality improvement, the actual level of such participation continues to present challenges for quality and safety advocates. For example, one study revealed that most physicians did not routinely take part in clinical redesign initiatives, with only 34% of respondents participating in quality improvement efforts (Audet et al. 2005). Some cited reasons for this perceived lack of participation included the traditional consultant-based relationship between physicians and hospitals, strong physician autonomy and insufficient formalized training in quality improvement (Pronovost et al. 2009; Reinertsen et al. 2007). As a result, many healthcare institutions

have developed formal physician leadership positions in quality and patient safety in an effort to address the above challenges and thus increase physician uptake of quality and safety efforts.

A recently published case report, based on the experience in the United States, has demonstrated the effectiveness of such formal physician positions in advancing and promoting quality improvement, among not only the medical staff but also the broader organization's healthcare professionals (Walsh et al. 2009). However, reports of similar experiences in Canada are lacking in the literature and, given the significant differences in the healthcare systems of the two countries, it is unclear if such experiences from the United States can be extrapolated to a Canadian context. This case study examines the roles of four physician leaders from hospitals in Ontario and describes their contribution to the design and implementation of hospital quality and patient safety agendas.

Physician Leader in Quality and Patient Safety: Role Descriptions

Physician A

Physician A is an intensivist practising at a large urban university-affiliated hospital. Stemming from an academic interest in patient safety, this physician was appointed as director of patient safety for critical care in 2005. Physician A received patient safety training from the Institute for Healthcare Improvement and then, in alignment with the hospital's strategic vision, was appointed as medical director of quality and patient safety. In this role, physician A reported to the senior executive team under the supervision of the chief nursing officer. Initially, physician A was responsible for the implementation of patient safety initiatives including the Safer Healthcare Now! bundles and appointed as a member of the hospital's Quality of Care Committee and the Quality Committee of the board. As the role grew, physician A became more involved in strategic planning and increasing organizational capacity toward quality and patient safety. Physician A is a member of the Medical Advisory Council/Committee (MAC) and in this role works to raise physician awareness of and participation in safety and quality initiatives.

Physician B

Physician B is a general internist with a hospital-based practice in a large community hospital known for its mature quality infrastructure and patient safety culture. Since entering independent practice in 2005, physician B participated in many front-line projects and committees and became chair of the Medical Quality of Care Committee in September 2008. Within that role, physician B supported critical incident reviews and was accountable to the MAC for physician-related system issues. Collaboration at the MAC advanced several physician-specific quality and safety domains. Physician B informally expanded the role description to act as a physician resource

for many quality and safety projects. Broad inter-professional partnerships throughout the organization were required in this capacity. Quality and patient safety education for physicians, hospital staff and patients was also undertaken. The senior leadership team sanctioned formal training in patient safety and subsequently grew the role to include support of strategic planning for quality and safety, as well as regular engagement with the board. In the summer of 2010, the role was formally defined as Patient Safety and Medical Quality Officer. Physician B reports to the vice-president of patient services and quality, chief nursing officer and vice-president of medical and academic affairs, and remains an active member of the MAC.

Physician C

Physician C is a hospitalist at a large community hospital network and joined the organization in 2007, shortly after finishing his residency training. In 2008, the position of physician lead – quality was created as part of a renewed emphasis on quality and safety and a concomitant change in senior leadership. The physician lead in quality is a member of the MAC, with a direct reporting structure to both the MAC and the chief of staff. The roles and responsibilities of the physician lead include assisting the organization in its development of a culture of safety, helping physicians identify appropriate clinical quality indicators and develop initiatives, and providing regular progress reports to the MAC and the medical staff on the success of these efforts. In the first year, the physician lead performed various activities that were aimed at engaging the medical staff and building a capacity for an enhanced culture of safety and quality improvement among physicians. Physician C also participated in a clinical quality improvement initiative. In the second year of this position, the role has evolved to include participation in various committees and improvement activities in different capacities (resource, advisor or leader); as a result, the physician lead has been allocated 0.2 full-time equivalent (FTE) for quality improvement efforts.

Physician D

Physician D is trained in both internal medicine and community medicine (public health). The position of physician lead – patient safety was formally created in April of 2009 to support the development of patient safety initiatives, promote leading practices and continue working toward a culture that is open to disclosure and committed to making changes that will ultimately improve patient care. This role works in collaboration with the senior vice-president for patient services, the vice-president of quality and professional practice, the chief of staff, all administrative program directors, medical directors and department chiefs. The leader is accountable and responsible for strategic leadership, program development, patient care and quality/risk management. Key areas of responsibility include

Table 1. Physician leaders in quality, safety and leadership network

Physician	Year Created	Position Title	Time Commitment	Reporting	Selected Committees	Selected Projects
A	2006	Medical director, quality and patient safety	Started as 0.2 FTE Now 0.3 FTE and 0.1 FTE for CPOE	Executive VP, chief nurse 2006–2010 Now executive VP, chief medical officer	MAC Quality of Care Committee Quality Committee of the Board CPOE Advisory Committee Patient Care Council	VTE prophylaxis improvement HSMR reduction Quality liaison to all SHN bundle teams CPOE MAC BSC initiative SafetyNET (hospital-wide education and communication program for patient safety) Unit-based communication and teamwork training and safety project Strategic planning Stakeholder in corporate reorganization for safety Safety Week organization Lead for CLI team Director of CCRT Several QI/PS research projects
B	2008	Patient Safety and Medical Quality Officer	1 FTE clinical 0.3 FTE quality and patient safety	VP, patient services, quality; chief nursing officer; VP, medical and academic affairs MAC	MAC Medical Quality of Care Committee Quality and Patient Safety Committee (proposed) Board Quality Monitoring Committee Board Committee Clinical Operations Committee Order Set Committee	Board "big dot" indicators MAC quality scorecard IHI Global Trigger Tool Policy development (read-backs, physician consultations, disclosure, critical incident reviews) HSMR reduction CAUTI reduction Morbidity and mortality rounds "Do not use" abbreviations Patient safety education for patients, staff and physicians Emergency Department Process Improvement Program E-documentation
C	2008	Physician lead, quality	0.8 FTE clinical 0.2 FTE quality/ administrative	Chief of staff	MAC Management Quality Committee Project-specific committees (VTE, HSMR, BOOST)	VTE prophylaxis improvement HSMR reduction Mortality and morbidity rounds Sepsis BOOST Organizer of annual regional quality improvement conference
D	2009	Physician lead, patient safety	0.5 FTE safety 0.5 FTE clinical Ability to increase FTE contribution to safety initiatives as required	Chief of Staff; senior VP, patient services; chief nursing executive; VP, quality and professional practice	Pharmacy and Therapeutics Committee Corporate Clinical Quality of Care Committee Corporate IM/IT Steering Committee Best Practice Committee Cardiovascular Health System Redesign Safe Medication Practices Subcommittee Corporate Pandemic Planning Steering Committee Surge Surveillance Subcommittee Quality Information Network Patient Safety Committee (proposed)	SHN SSI SSC AMI Document management Physician reporting and results distribution Medication reconciliation (3-year project) Infant security on postpartum ward Review of reported adverse events

AMI = acute myocardial infarction; BOOST = Better Outcomes for Older Patients through Safer Transitions; CAUTI = catheter-associated urinary tract infection; CCRT = Critical Care Response Team; CLI = central line infection; CPOE = computerized physician order entry; CPSI = Canadian Patient Safety Institute; FTE = full-time equivalent; HSMR = hospital standardized mortality ratios; IHI = Institute for Healthcare Improvement; IM/IT = information management/information technology; MAC = Medical Advisory Council/Committee; MAC BSC = MAC Balanced Scorecard; QI/PS = quality improvement/patient safety; SHN = Safer Healthcare Now!; SSC = surgical safety checklist; SSI = surgical site infection; VAP = ventilator-associated pneumonia; VP = vice-president; VTE = venous thromboembolism.

the following: facilitate physician participation in patient safety activities; educate physicians about their roles and responsibilities regarding patient safety; advocate for evidenced-based and leading practices to be the basis for clinical improvements; analyze patient safety indicators and make recommendations for improvements; promote a positive and non-punitive safety culture; and model and encourage open and honest communication between physicians and other members of the healthcare team. The physician leader serves as a resource to all departments on issues of patient safety.

Analysis of the Roles and Responsibilities

The physician quality leader roles described in this article are summarized in Table 1. They began in 2006 with the latest physician appointed in 2009. All the physicians are relatively early in their clinical careers, having completed postgraduate education between 2003 and 2006, and have participated in quality improvement or patient safety initiatives, research or educational activities prior to assuming their quality lead roles. They completed training in quality improvement or patient safety and regularly participate in related national and international conferences. In all cases, the positions were created from an alignment with hospital strategic plans and an identified interest in quality and patient safety among the physician quality leaders. The reporting structures among the physician quality roles vary, with some reporting to the chief of staff or through the MAC, while others report corporately to the executive team, usually to the chief nursing officer. Interestingly, all the physicians were trained as general internists or are practising as hospitalists.

There is much similarity in the activities and responsibilities of the described physician quality leaders. All are active members of several hospital-based committees such as pharmacy and therapeutics, quality of care and infection control and surveillance committees, and those aimed at implementing evidence-based best practices. All the physicians are members of the MAC, with the responsibility of raising awareness to and participation in hospital quality activities. Participating in quality improvement initiatives is a common responsibility of all the physician quality leaders, either as members of established initiatives or as leaders of both self- or hospital-initiated projects. For instance, most physicians were active participants in the Safer Healthcare Now! safety bundle implementation and also initiated and led projects such as early removal of urinary catheters, pandemic planning and improving venous thromboembolism (VTE) prophylaxis. Two of the physician quality leaders sit on hospital board quality committees and participate in hospital strategic quality planning and organizational redesign for quality. There appears to be a time-based trend in that the physician quality leaders have migrated from participants to leaders of initiatives and then to corporate objective planning activities as their positions evolve.

Successes

Within the above-described roles and activities, all the physician quality leaders felt that they had significant impact on advancing the hospital quality agenda by providing unique input and opportunities that were key to the success of quality and patient safety projects. These successes were appreciated (1) through initiatives led by the physicians, (2) through attitude and culture changes among hospital staff and peer physicians and (3) through altered corporate approaches or thinking around quality.

Examples of successful initiatives led by the physician quality leaders included efforts to improve hospital-wide VTE prophylaxis, spearheaded by two of the physicians. In one of these cases, the physician quality leader convinced the MAC to identify VTE prophylaxis as its own quality improvement initiative and be accountable for improved VTE care. One physician introduced and co-led an initiative to reduce catheter-associated urinary tract infections, which resulted in a 67% sustained reduction in the use of unnecessary catheters over one year. Successful attitudinal and culture change examples included a strategy developed by one physician to improve the delivery of evidence-based best care in a structured way through physician engagement. Two of the physician leads were also instrumental in changing the attitudes toward and process of conducting morbidity and mortality rounds, which has led to system improvement. At a corporate and strategic level, direct participation of the physician quality leaders is leading to the development of Balanced Scorecards for MAC, with quality indicators identified as important by hospital physician leadership. Additionally, the physicians have been successful at influencing the hospital boards on the importance and understanding of clinical indicators such as pressure ulcer prevalence and the importance of developing a pandemic plan in the event of widespread influenza.

The physician quality leaders felt that there were several factors key to the above successes. These included the ability to give clinical input into corporate initiatives by providing feedback regarding the clinical impact, feasibility and perceptions of front-line clinicians. This input led to modifications in implementation plans that resulted in greater improvement. The group felt that their participation in safety and quality initiatives gave greater credibility in the eyes of all health disciplines, leading to more accepted practice change among staff and physicians. Since all the roles are mostly consultative in nature with limited reporting accountabilities, the physicians believe they have an easier ability to influence across department structures and hierarchies. For instance, the physicians felt that they could suggest an improvement initiative to front-line clinicians, gain their input and then present it to senior management outside of traditional committees and meetings, thus speeding up improvement efforts.

Furthermore, the physician quality leaders were successful at increasing the involvement of their fellow physicians in the hospital quality agendas. For example, one physician quality

leader was successful in recruiting physician champions for each of the Safer Healthcare Now! bundles. Another is developing a physician-based quality and safety committee composed of eight hospitalists, each motivated to lead individual quality and safety projects. Another was instrumental in recruiting physician champions into three large-scale projects including safer transitions of care, medication reconciliation and improved care in congestive heart failure. Strategies to achieve these successes included providing a constant dialogue aimed at aligning physicians' interests with corporate quality and safety objectives; delivering physician educational rounds on quality and patient safety topics; and engaging in individual conversations with front-line physicians and physician leaders to identify potential change agents. In each of the four organizations, these efforts led to improved physician participation in local quality and safety projects.

Challenges

Despite these early successes in advancing hospital quality and patient safety agendas, the physician quality leaders believe there are significant challenges that may limit the magnitude or chance of continued improvement. Although the positions came with much responsibility, there was often limited corporate positioning to make decisions and limited time, resources and support to translate ideas into sustained action. As compared with other physician leadership positions such as program and department medical directors, the physician quality leaders worked by influencing others as they had no direct reports, staff or budget to implement change. The physician quality leaders found it challenging to find reliable or available local data to demonstrate the need for change, particularly to other physicians. Where data were needed, they had difficulty obtaining appropriate resources for data collection.

The physician quality leaders face ongoing challenges in balancing their clinical work and corporate quality and safety portfolios, as they all generally put in more time than is allotted or remunerated by their corporate job descriptions. Furthermore, much of this time has been spent attending committee meetings, which has led to less direct project involvement or engagement in activities. In fact, as the physician quality leaders' roles evolved to include higher-level planning and project oversight, the group has become concerned that they are at risk of losing some credibility at the front lines over time.

The physician leaders also believe that additional professional development opportunities would be helpful yet are limited in availability, expensive and not offered through traditional continuing medical education channels. Finally, as each organization had only one formal physician quality leader, the physicians felt there was a lack of peer support internally, thereby restricting the ability to share ideas and develop successful improvement strategies.

Physician Quality Network

To address some of the challenges outlined above, the group has formed an external quality network of local physician quality leaders and other physicians interested in quality improvement and patient safety. At present, the network is growing and there are 20 members from various disciplines, representing academic and community organizations across Southern Ontario. The network meets both in person and online to discuss role descriptions and common challenges, and they share tools, resources and implementation strategies that have contributed to local successes. The initial meetings were mostly informal; however, more recently the group has added an educational component and invited external speakers. Members of the group are collaborating across organizations on quality improvement initiatives. Some examples include the generation of MAC quality scorecards and strategies to address the safety of hypotonic intravenous solutions. As the network grows, the members are discussing long-term goals such as carrying out larger-scale regional initiatives and bringing physician quality leader perspectives to the broader provincial quality agenda.

Discussion

Although the physician quality leaders described in this article have been in their positions for a relatively short period of time, they have each contributed to the local design, implementation and success of hospital-based safety and quality initiatives. Yet despite these positions being established independently, there are many commonalities in the roles and responsibilities, success factors and challenges. This group's collective experience is similar to that of a multi-site centre in the United States that created a new model of physician quality leadership (Walsh et al. 2009). In this US model, the centre moved from informal engagement of physicians in quality to the creation of formal titles with a joint reporting structure; physicians were involved in key corporate initiatives, set personal objectives and were given protected time and remuneration. Their success was seen through the increased participation in and completion of quality improvement initiatives and increased communication between practising clinicians and hospital administration (Walsh et al. 2009). Where this model differs from the Canadian experience described in this article, is that the US centre created and funded seven positions spanning multiple clinical areas within one organization. This clearly created more capacity for quality improvement by physicians in the organization and the opportunity for internal networking.

The physician quality leaders described in this article believe that their membership in the quality network has contributed to their enhanced knowledge of successful strategies, better peer support and improved leadership ability in quality and patient safety. This growing network has the potential to spread healthcare delivery improvement throughout the local region.

Using a network strategy to disseminate quality improvement through physicians has been described before. The Hospitalists as Emerging Leaders in Patient Safety (HELPS) consortium was a two-year program that brought together hospitalist leaders from nine healthcare organizations with the goal of sharing best practices in the implementation of quality and patient safety initiatives (Flanders et al. 2009). The consortium provided primer education to all participants, and at regular meetings focused on key patient safety and quality improvement topics. The barriers, success factors and quality improvement initiatives that they discussed were very similar to those experienced by the physicians in the Canadian experience outlined above (Flanders et al. 2009).

Conclusion

The four physician quality leaders discussed in this article feel that they have had a positive impact on local quality and patient safety agendas. Hospitals should consider creating physician quality leader roles to assist in physician engagement, quality improvement project success and strategic planning for quality and patient safety. This article may serve as a template for organizations advancing their quality and safety agenda through the creation of physician quality leaders. However, it is important to recognize the challenges such physicians may face and the need for greater emphasis placed on corporate decision-making, resource allocation and support. Membership in the Physician Quality Network has further enabled these physicians to contribute to local change and potentially widespread improvement. Although the creation of the network has addressed many of the challenges that the physicians have faced in their roles, more widespread education and support are needed if physicians are to continue to play a major role in the improvement of healthcare delivery. HQ

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