

Evolution of an innovative role: the clinical nurse leader

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Aims This study describes the evolution of the clinical nurse leader (CNL[®]) role and its utility in a tertiary care and community hospital.

Background In the US, quality and safety metrics are being publically reported and healthcare organizations are just beginning to experience pay-for-performance and its impact. The American Association of the Colleges of Nursing (AACN) developed the role of the CNL to address the complexities and challenges of providing high-quality care in the current environment.

Evaluation Since 2007, a cohort of CNLs in practice has evaluated the effectiveness of the role with measures of clinical outcomes, financial savings and case studies.

Key issues Having CNLs with a strategic perspective acting as facilitators and integrators of care has proven invaluable. Leadership support has been critical and commitment to maintaining the integrity of the role has ensured its success and sustainability.

Conclusions This role has established its value in risk assessment, strategic quality improvement, interdisciplinary collaboration and the implementation of evidence-based solutions.

Implications for nursing management The flexibility and broad scope of this role allows for its use across practice settings and represents an exciting opportunity for nursing to drive quality of care to new levels while managing costs.

Keywords: changing roles, clinical nurse leader, evidence-based practice, interdisciplinary team leadership, outcomes

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Introduction

The costs of healthcare continue to rise and the United States (US) is one of the highest spenders in healthcare when compared with other countries around the world (Kaiser Family Foundation 2011). It has been

shown that escalating the cost of healthcare does not equal higher quality care (World Health Organization 2011) and to the contrary, the expectation is that patients deserve higher quality care at a lower cost. The Centers for Medicare and Medicaid Services have created strict guidelines as to what they will pay for

an inpatient stay. And, with their new Pay-for-Performance model, they will pay hospitals less or no payment for poor quality outcomes (Centers for Medicare & Medicaid Services 2007). In today's economic times, patient care is under ever closer scrutiny with many metrics being publicly reported. Hospitals are challenged to maintain or increase quality of care with diminishing resources, driving the need for fundamental and strategic changes. Nurses have the potential to meet the immediate needs and influence the future state of healthcare delivery.

In 2004, the American Association of Colleges of Nursing (AACN) proactively developed the innovative clinical nurse leader (CNL[®]) role to facilitate the many changes in culture and care delivery and to prepare for the future. 'The CNL is a master's prepared advanced generalist nurse who assumes accountability for health care outcomes of a specific group of clients' (Tornabeni & Miller 2008, p. 610) and represents an opportunity for a new innovative role in nursing across all health care settings (Stanley *et al.* 2008). The CNL role is multifaceted and encompasses many responsibilities: advocate, member of a profession, team manager, information manager, systems analyst/risk anticipator, clinician, outcomes manager and educator (American Association of Colleges of Nursing 2007). One of the core concepts introduced into the education programme was cultivating leadership skills in clinical nurses at the bedside. Currently, over 1700 certified CNLs (American Association of Colleges of Nursing 2011) have graduated from 96 schools and 231 practice partners in the US (American Association of Colleges of Nursing 2010); and as of 2010 there were over 1800 students enrolled in CNL programmes (T. Lofty, pers. comm., 2011).

The creation of the CNL role by the AACN has been pivotal with regards to the current health care environment. Clinical nurses function at a staccato pace (Wiggins 2006), trying to transition patients through a complex and fragmented system. With growing numbers of high acuity patients and technology that pulls them away from the bedside, nurses struggle to achieve the best possible outcomes for their patients and families. Prior to the integration of the CNL in practice, nurses often worked in silos, without the advantage of a global perspective and limited ability to advocate fully for their patients. Since the integration of the CNL into practice, patients have a nurse that can follow them through their entire care episode and ensure continuity across the continuum of care. Additionally, because CNLs are educated with a strategic view of the organization, they also simultaneously act as advocates for the clinicians as well as the institution.

This commentary demonstrates the many ways in which the CNLs have made contributions to improving the quality of care. Through innovative and creative processes, they have achieved this while reducing costs. Given that CNLs in other practice settings have demonstrated the utility of the role with empirical outcomes (for example, Hartranft *et al.* 2007, Hix *et al.* 2009), the impact of the role on the future state of healthcare deserves further study and consideration.

Background

Our hospital is a 637-bed tertiary care facility and community hospital located in the Northeastern United States with approximately 1600 registered nurses. In the past, nurses in the organization identified partnership as a key concept for their practice (Wiggins 2006, 2008). They envisioned care delivery that focused on an interdisciplinary team approach which values and engages the patient and family as important members of the team. Given the unique ability of the CNL to reach across disciplines and to follow the patient over the entire course of their stay, the hospital's chief nursing officer (CNO) was an early and strong advocate for developing the role and integrating it into the practice setting. The CNO created a leadership team, partnered with a local college of nursing in 2004 and supported the education of the first cohort of CNLs in 2007.

Having an initial cohort of CNLs enter the practice setting at one time was advantageous for many reasons (Poulin-Tabor *et al.* 2008). They were highly visible within the organization and were given leadership roles in many hospital initiatives. All had been experienced clinicians with established credibility for critical thinking and problem solving, and quickly became a resource staff actively sought out.

Our inpatient care units are functionally divided into 15 areas with an average daily census of 426, employing eight practicing CNLs. They are primarily unit based and provide support as needed to those units without CNLs. They have been and continue to be budget neutral as the CNL positions were created from existing nursing unit hours.

Since 2007, our CNLs have embedded the role into the organizational culture and established themselves as valuable members of the healthcare team. They are leaders in patient care, risk assessment, strategic quality improvement, interdisciplinary collaboration and the implementation of evidence-based solutions at the bedside. They have participated in multiple research projects as primary and co-investigators and

have broadly disseminated the outcomes of their work. Both individually and collectively, they have mentored other organizations seeking to implement the role and maintained their relationship with academia by precepting CNL students.

Evolution of the role

While maintaining the integrity of the role, as articulated by the AACN, our CNLs have continued to find dynamic and innovative approaches to their practice. As they have become embedded in the organizational culture, there is an ever-increasing demand for their expertise. This has led to the CNLs integration into the organizational decision-making groups responsible for strategic and tactical planning.

Within just a few years, the CNLs have established a network of partners who once may have acted in isolation. They have increased collaboration among disciplines in both clinical and non-clinical settings. Additionally, they have developed partnerships with patients, families and the community. This has led to proactive and preemptive engagement that has resulted in a better patient care experience.

As a natural extension of their role, CNLs provided leadership in initiatives employing various methods. Their objectives have included engaging front-line staff in problem solving, creating a dialogue which values different perspectives and optimizing the contribution of each staff member. Most often, the CNLs have partnered with physicians as co-leaders of interdisciplinary teams, and the experience of shared decision-making, goals and ownership created a paradigm shift in our culture. Every opinion has value and the relationships among physicians and staff are greatly strengthened.

Clinical nurse leader interventions

Early on, several of our CNLs initiated dedicated hospital wide rounds on long-term ventilated patients with an interdisciplinary team in order to align care, delegate tasks and responsibilities and share best practices. The success of that initiative led to the creation of many other rounding teams such as those for tracheotomy and stroke patients. Even in the cases where the organization developed teams, such as increasing vaccination rates and decreasing central line infections, it was the individual CNLs who became the recognized authority and point of contact. Based on evidence, testing and surveying end users, tools and algorithms were developed that facilitated

interdisciplinary partnership in practice. One CNL collaborated with infection control, information technology and other disciplines to develop a new order set and a decision tree that has resulted in a decrease in variability in practice and an associated decrease in *Clostridium difficile* ('C. diff') infection rates. A similar model is currently being used by another CNL to decrease central line infections. Another example is one of collaboration among three of our CNLs for the care of our long-term vented patients. By initiating weekly interdisciplinary rounding on the patients and partnering with respiratory therapists they were able to ensure the earliest possible extubation.

By working at the patient's bedside with clinical staff, our CNLs were able to identify inefficiencies, redundancies and temporary solutions to systems failures. Because they understand the structures and processes within the organization, they can facilitate problem-solving that addresses the root cause. Often, through standardizing and consolidating resources and practices, they are able to affect changes that lead to permanent solutions with positive outcomes. In cases that have been complex, this has led to revision of policies and development of new protocols. In all cases, communication and education are critically important and our CNLs share in the responsibility of disseminating new information with staff, patients, families and community partners.

Evaluation

As our hospital was one of the first to integrate a cohort of CNLs in the practice setting, it was important to evaluate the effectiveness of the role with measures of clinical outcomes, financial savings, process improvements and case studies. As a Magnet hospital, we define outcomes as quantitative and qualitative evidence related to the impact of structure and processes on the patient, nursing workforce, organization and consumer (American Nurses Credentialing Center 2008). Outcomes are dynamic and measurable and may be reported at the individual, unit, department, population and organizational level. The CNLs themselves identified opportunities for improvements that were feasible and relevant to practice for example the C. diff rate decreased by 274%. In the example of vented patients, they realized a 28% decrease in ventilator days over a 4-year period; decreased time from adult spontaneous breathing assessment to liberation from the mechanical ventilator by 57.2%; and eliminated returns to the intensive care unit from the assisted ventilator unit over a 3-year period. They

used metrics that could be compared with national databases, baseline data, targets or benchmarks.

Among the most notable quantitative outcomes are reduced lengths of stay (LOS), decreased readmission rates and improved patient outcomes related to nursing care, as demonstrated in Table 1. These outcomes span the continuum from patients admitted for a specific procedure to entire populations. The benefits extend beyond the outcomes measured directly. Decreased LOS, for example, improves patient flow and can increase organizational capacity. Eliminating time-consuming procedures that are not best practice reclaims time for nurses to spend with their patients attending to their individual needs.

Significant financial savings from CNL-led initiatives have been achieved and are shown in Table 2. Documented cost savings in excess of 2.5 million dollars demonstrate our CNLs attention to fiscal stewardship. We are also estimating over \$110 000 dollars saved in 1 year on an oncology unit owing to the prevention of catheter-associated blood stream infections, \$183 000 dollars saved on decreasing pressure ulcers on select units and nearly \$500 000

saved by avoiding the need for higher level of care in paediatric patients.

Our CNLs are often consulted for patients who have complex needs. As experienced clinical nurses, they understand that bedside clinicians can struggle to balance the individual patient's preferences, autonomy and needs, while focusing on the outcomes that are meaningful to the patient. With their global perspective, the CNLs can engage all appropriate disciplines and obtain resources that facilitate an integrative and thoughtfully considered plan of care. They can advocate for the patients and families and provide the continuity of care that is often lacking within our current healthcare system. As there are CNLs working in many different settings, they can begin to work together to plan and coordinate a patient's care, even before admission. We present three case studies which demonstrate some of the qualitative outcomes associated with improving individual patients' quality of life as well as supporting the direct care clinicians in their work. These examples are classic CNL cases and showcase the commonality and essence of the role (Boxes 1–3).

Table 1

Clinical outcomes attributable to clinical nurse leaders (CNLs) in our institution

<i>Intervention</i>	<i>Outcome measure</i>	<i>Interval (months)*</i>	<i>Improvement %[†] (N)[‡]</i>
Adult inpatient medicine care transitions plan	Decrease the readmission rate in one physician practice	13	11.3 (674)
Bedside paediatric early warning system	Decrease in Code Blue Events	10	88 (9)
	Decrease in deterioration events	10	73 (19)
	Increase in Rapid Response Team use	10	133 (10)
Central line bundle	Decrease in blood stream infections	12	52 (6606)
Post-operative craniotomy pathway	Decrease in the use of intermediate care bed post-operatively	9	50 (100)
	Decrease in overall LOS	9	39 (100)
Post-procedure myelogram pathway	Decrease in post-procedure LOS	12	67 (312)
Revision of the vaccine screening tool; standardization and education	Increase in vaccination for pneumonia patients	60	138 (3086)
	Increase in influenza vaccine given hospital wide	36	66.5 (1926)
	Increase in pneumococcal vaccine given hospital wide	36	53 (1441)
Skin rounds and education	Decrease in pressure ulcers in intensive care unit	24	50 (550)
	Decrease in pressure ulcers on a medical unit	12	81.8 (338)
Standardization of the bedside report tool	Decrease time from patient booked to patient arrival onto unit	32	59 (1637)
Stroke rounds and education	Increase in patient education given	12	29.4 (109)
Total knee replacement: implementation of femoral block	Decrease in pain on a 10-point scale	12	56 (800)
	Decrease length of recovery unit stay	12	42 (800)

LOS, length of stay.

*Interval months are post intervention. Although not listed, duration of pre-intervention data collection ranged from 6 months to 2 years.

[†]Percentages are the relative difference between pre- and post-intervention quality metrics.

[‡]*n* = the number of cases included in data collection post-intervention.

Table 2

Financial outcomes attributable to clinical nurse leadership (CNL) led initiatives in our institution

<i>Intervention</i>	<i>Outcome measure</i>	<i>Interval (months)</i>	<i>Savings in US dollars</i>
Elimination of auto-transfusion in total knee patients	Costs related to a decrease in equipment and staff time	12	150 000
Long-term vent rounds	Costs related to decreased ventilator days	60	1 000 000
Post-operative craniotomy pathway	Costs related to decreased LOS	9	170 000
Post-procedure myelogram pathway	Costs related to decreased in post-procedure LOS	12	139 000
Total knee replacement: implementation of femoral block	Costs related to decreased recovery room and hospital LOS	12	1 200 000
		Total	\$2 659 000

Box 1**CNL benefiting the bedside nurse and other members of the interdisciplinary team**

Among all the other difficulties nurses deal with in their day-to-day work, violence against staff is becoming an increasing concern. One patient posed significant challenges through verbal and physical abuse, manipulation, and sexually explicit and self-harming behaviours. The CNL became involved in this case very early on and coordinated team meetings that included nurses, physicians, consultants, ethicists, patient advocates, security officers and management at all levels. Nurses, hospitalists and residents rotated so that no one would be alone in bearing the burden of this patient's care. It was imperative for all care givers to: be consistent in their communication with this patient; maintain expectations of acceptable behaviour; and follow a care plan that was not detrimental to him. In addition to engaging staff to work as a team, the CNL also provided hands on help with the patient and support for nurses caring for him. The nurses felt that this collaborative approach to care of this patient minimized the trauma that could be associated with violent abusive behaviour. One nurse stated that 'we could never have done it without the CNL'.

Box 2**CNLs take on the challenge of a complex patient**

A 65-year-old female presented to the orthopaedic surgeon's office to discuss bilateral hip replacement surgery. In addition to degenerative joint disease, the patient had environmental allergies and sensitivities to light, sounds and smells. She would require a low-fat, low-carbohydrate, organic diet using only sea salt. Having worked for several years to overcome her fear of traditional medicine, she also wanted to test all products before surgery. With these complex needs, she had been unable to find a hospital willing to partner with her. After meeting with an orthopaedic surgeon here at our institution and discussing her intricate needs, the orthopaedic surgeon then relayed the information to the joint replacement programme manager and the CNLs. Within hours of receiving this information, we began brain storming as to how we could make this work for the patient. The CNLs from the peri-operative and orthopaedic units engaged a multidisciplinary team from infection control, environmental services, linen, dietary, operating room (OR), nursing, risk management and pharmacy who drafted a plan of care for this patient. The CNLs then invited the patient to visit our hospital so that she could see the accommodations they proposed for her. She decided to proceed with the surgery, hopeful that her needs would be met and that she would regain her quality of life. Her stay went very well, and with a second surgery a few weeks later, she was free of pain. She was enjoying far greater mobility, and in her words, 'she had regained her life back!' She maintains her relationship with the CNLs and emails photos of her new found active life.

Discussion

Working in an organization with a dedication to innovation has been critical to the integration of our CNLs into practice. Our leadership team at the hospital has been willing to broaden their view to understand the importance of changing processes at the front line in order to meet the demands of a changing health care system. Without commitment to maintaining the purity and integrity of this role as envisioned by its practice and academic developers, we believe we would have realized fewer positive benefits of utilizing the role in our practice setting.

There is variability within CNL practice and the role does not lend itself easily to standardization. The flexibility of the role allows the CNL to adjust to the unique needs of both patients and staff. In our institution this

has meant that our CNLs are in very high demand for their expertise as clinicians, systems analysts, risk anticipators, information and outcomes managers. For that reason, it can be difficult to set parameters for the role. One challenge the CNLs consistently face is balancing the demands on their time and opportunities they self-identify where they could make additional contributions to the patient, the profession, the institution and the community.

Through networking we have learned that we are unique in having multiple CNLs functioning in the role in this hospital compared with other practice

Box 3

Partnerships that support high-risk, low-volume patients

A 79-year-old male with a history of quadriplegia and ventilator dependency was lovingly cared for at home by his wife since an accident 6 years ago. He had been admitted to this hospital several times a year for scheduled surgical procedures and these admissions had been complicated but uneventful. With the progression of his illness, admissions became more frequent and several members of the health care team identified him as a patient at high risk for a sentinel event. They engaged the CNLs in the peri-operative area, the intermediate care ventilator unit and the special care unit to develop a process that would ensure his safety as well as the highest possible quality of care. The CNLs brought together an interdisciplinary team that included a wound nurse, respiratory therapist, pulmonologist, primary care physician, surgeon, OR staff and anaesthesiologist. The team constructed a plan of care such that they were alerted prior to admission, apprised of his needs and able to determine his placement. The group empowered his wife to be an active participant and enabled her to actively communicate with the team. The wife expressed appreciation for this and the continuity of her husband's care as he transitioned among units in the hospital. She stated: 'All patients who are admitted frequently into the hospital setting should have a CNL as their advocate'.

settings. As each CNL is highly connected within the organization, they are able to utilize their established networks to advance collaboration among hospital staff and nursing units. Communication has greatly improved and, with a higher standard of collaboration in practice, we have created a better work and patient care environment.

The partnership between academia and practice has evolved. Through ongoing reflection and thoughtful discussion, the CNLs have provided valuable insight into the changing needs of the role and suggestions for revisions to the curriculum. They act as mentors and role models for CNL students and for those who aspire to the role for their future career development. This relationship has been crucial to meeting the needs of the practice setting as healthcare is undergoing rapid and dynamic changes.

Conclusions

After 6 years of role development, our CNLs have successfully integrated the clinical nurse leader into the culture of our institution. By driving quality initiatives and being at the bedside, they are assets that are engaged for their expertise by all levels of staff. Having multiple CNLs throughout the hospital lends itself to a high level of interdisciplinary collaboration and fluidity with care transitions. At a time when

healthcare is facing a population of ageing baby boomers with increasing complexity and acuity, our CNLs offer critically important support and guidance to the patients, their families and the bedside clinicians.

As we have described and shown through both empirical and qualitative outcomes, implications for nursing practice are invaluable. As our CNLs have matured in their role, they have taken on increasing responsibilities for strategic quality improvement. They have many processes by which to anticipate, assess and mitigate risks. Because they have a strategic view, they are able to address system issues, engage stakeholders, and realize appreciable and sustainable changes. These are meaningful and relevant changes to the bedside clinicians because the CNLs address the daily challenges and struggles that they do not have the time to address themselves. Often the CNLs employ evidence-based knowledge and best practices while exploring solutions with the healthcare team. Their innovative approaches support the delivery of the best possible care.

Implications for nurse managers

Our CNLs have been able to build partnerships with patients in an era of growing technology and task orientation. CNLs act as lateral integrators and advocates for those patients who are most vulnerable and whose outcomes are dependent on the continuity, consistency and expertise provided by an advanced generalist. Because the bedside nurses have the CNLs as a resource, they have begun to view their practices differently and challenge the status quo. While continuing to provide direct patient care, these nurses now have an exciting opportunity to drive positive changes in our healthcare system.

With the current situation in healthcare within the United States, it is uncertain what the future holds. The CNL is a resource that can be utilized for new initiatives, systems analysis, project management and problem solving. Given the flexibility of the CNL role to both advocate for the patient and the organization, there is opportunity to expand and refine the role. As a member of the unit leadership team, the CNL works closely with management to set priorities among unit-based initiatives and the organizational implementation plan. This has enhanced the role's utility within our organization by improving quality outcomes and decreasing healthcare costs. Over time, cost avoidance

has been demonstrated that justifies the salaries of the CNLs. We have established a solid business case, shown by our measurements, for implementing and expanding the CNL role in our organization.

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