Clinical Nurse Leaders: Fulfilling the Promise of the Role

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Although health care in the United States is the most costly in the world, outcomes have not kept pace with those of other developed countries (Commonwealth Fund, 2014). The Institute of Medicine (IOM, 1999) described fragmentation of care as a major contributor to 44,000-98,000 deaths each year from medical errors. Ten years later, only modest improvements in error reporting and an increase in quality initiatives were noted by Wachter (2010). However, the author saw the focus on nursing through public reporting of nurse-sensitive measures as a hopeful sign. The IOM (2010) also identified nursing as the discipline best able to effect significant change in health care in the United States if certain conditions were met, including advancement of nursing education. With more than 3 million members, nursing constitutes the largest segment of the health-care provider workforce in the United States (U.S. Department of Health and Human Services Administration, 2014), and has the size to influence care delivery.

An American Association of Colleges of Nursing (AACN) white paper in 2007 proposed a new role in nursing: Clinical Nurse LeaderSM (CNLSM). In addition to concern over healthcare outcomes in the United States, the AACN maintained attention needed to be given to needs of an aging population and to the nursing profession.

Some organizations became early adopters of the CNL role (e.g., the Veterans Administration) (Ott et al., 2009), and several universities partnered with hospitals and health systems to prepare CNLS for deployment in varied roles from navigators of high-risk patient populations (Becze, 2013) to point-of-care coaches and mentors (Reid & Dennison, 2011). However, data on outcomes related to the role continue to be sparse, perhaps because the CNL is the first nursing role to be developed in over 30 years and its long-term impact is yet to be evaluated. Nurse leaders at the program site believe this role holds a great deal of promise in a variety of care environments, and hope the addition of this facility’s experience to the body of literature on the CNL will help promote its continued adoption (Bender, 2014; Bender, Connelly, Glaser, & Brown, 2012; Moore & Leahy, 2012; Wilson et al., 2013).

The Program

A partnership to prepare CNLS was forged in 2008 between the chief nurse executive (CNE) of a Level 1 trauma center and a MagnetSM-designated academic hospital in the southern United States. The CNE’s goal was to improve quality and safety outcomes on medical-surgical units. These units had historically high RN turnover and a large percentage of new graduate nurses. With a matching grant from the Duke Endowment Foundation, the hospital committed to hiring 36 CNLS over 4 years into clinical leadership positions. Substantial preparation was completed with nurse managers, assistant vice presidents (AVPs), nursing staff, physicians, and support teams (e.g., case management, pharmacy, occupational and physical therapy, nutrition services). Information was shared widely on differences between the CNL and the clinical nurse specialist (CNS), case manager, or clinical supervisor, and multiple opportunities provided for addressing questions.

Nurse candidates for CNL program participation were selected carefully. Candidates had to be baccalaureate-prepared, high performers, and lifelong learners who were respected by peers and physicians. Minimum nursing experience was set at 2 years. CNL graduates were expected to have oversight of care for 12-18 patients in a designated unit, perform daily rounds with interprofessional teams, serve as resources to clinical nurses, review

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Nurses have the capacity to improve patient care quality, cost, and safety. The role of Clinical Nurse LeaderSM in improving care and reducing costs in a MagnetSM-designated Level 1 trauma center in the southern United States is described.
The facility now has 35 CNLs and 2 PCls. Several incumbents have been identified as candidates for the role in future academic years. The role is well respected by physicians and nursing staff, and requests have been received to expand the program to pediatrics and other service lines. Facility leaders support the role by investing in an RN Graduate Loan Forgiveness Program, which awards loans of up to $15,000 to selected CNL applicants. Loans are associated with a 5-year work commitment agreement. Administrators and nurse managers recognize the value of this role because CNLs have facilitated achievement of specific outcome measures and the program was designed to be neutral to each unit’s budget.

Results

From 2010 to 2015, CNLs led substantial reductions on medical-surgical units to which they were deployed. Improvement in the incidence of patient falls, catheter-associated urinary tract infection, central line-associated blood stream infection, and hospital-acquired pressure ulcers ranged from 30% to 82% (see Figure 1).

In addition to these improvements in nurse-sensitive indicators, quality and cost metrics on specific medical-surgical units are being impacted through improved management of high-risk, high-cost patient groups. Involved patients rarely have a single disease, and their complexity exacerbates the inherent fragmentation of health care. While CNSs are focused on particular disease states, the generalist preparation of the CNL appears to be suited better to successful integration of care across multiple settings. Interprofessional coordination is evidenced by outcomes in the following examples.

Renal Transplant

In fall 2012, a CNL and perioperative CNS led a process to change the care location of patients immediately following renal transplant surgery from the Surgical Intensive Care Unit (ICU) to a general medical-surgical unit. Eight acuity-adaptable beds were created and the first patients were seen in March 2013. Because ICU cost was eliminated, direct variable nursing cost per patient day was reduced 50.9% (from $727.03 to $356.67). In addition, 23% reduction in total variable cost per case was achieved in 2015, compared to costs from 2012 (see Figure 2). In addition, positive gains were seen in average length of stay (ALOS) as well as mortality and readmission rates.

Trauma

A small segment (3%) of trauma patients at the program site accounts for 13% of overall cost of care. Patients requiring tracheostomies were outliers in 2012 as performance was evaluated against best-practice benchmarks. Their care was being delivered in the Emergency Department (ED), operating room, surgical trauma ICU (STICU), and the trauma stepdown medical-surgical unit. Variation was identified in trauma surgeon as well

FIGURE 1.
Reduction in Adverse Events 2010-2015 with Implementation of CNL Role

<table>
<thead>
<tr>
<th>Event</th>
<th>Reduction (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falls</td>
<td>30%</td>
</tr>
<tr>
<td>CAUTI</td>
<td>82%</td>
</tr>
<tr>
<td>CLABSI</td>
<td>35%</td>
</tr>
<tr>
<td>HAPU</td>
<td>42%</td>
</tr>
</tbody>
</table>

CAUTI = catheter-associated urinary tract infection, CLABSI = central line-associated blood stream infection, HAPU = hospital-acquired pressure ulcers
as nursing and respiratory therapy practice.

The CNL from the trauma stepdown unit began working in November 2013 with the trauma team and nurses from the STICU to develop a tool to identify patients likely to need a tracheostomy. Pathway integration with a focus on decreasing time-to-tracheostomy was initiated and the CNL served as the clinical navigator across various microsystems involved in each patient’s care. The team began measuring outcomes using observed-to-expected length of stay for these patients because their initial assumption was all patients would fall into diagnostic-related groups 3 and 4. However, manual records review found consistent efforts to ensure aggressive intubation, early tracheostomy, ventilator weaning, and early rehabilitation often led to a change in discharge diagnoses, making electronic data retrieval challenging. The team now has created a patient registry and performance is calculated patient-by-patient using raw ALOS data. ALOS in 2014 for all patients was 33 days; as of mid-October 2016, ALOS was 18 days. This represents 506 saved days with cost decrease of $1,558,480.

**Home Ventilator Patients**

Similar to many large centers that provide complex tertiary and quaternary care, the project site operates at a 95%-98% occupancy (A. Conley, personal communication, October 11, 2016). Patients in ICU are transferred to a 19-bed progressive unit when they are considered too unstable for a medical-surgical unit. However, the progressive unit usually has 100% room usage, causing delayed transfers from the ICU. In 2014, three CNLs in one of the general medical units developed a phased plan to move a subset of progressive unit patients on home ventilators to their unit. Phase 1 would move patients already in the progressive unit and phase 2 would move patients from the medical ICU bypassing the progressive unit. In phase 3, appropriate patients would be moved from the ED, bypassing the ICU and the progressive unit. During phase 4, the unit would accept directly admitted patients. The facility currently is in phase 2 and early results are promising for cost, clinical outcomes, and ALOS related to phase 1. Since January 2015, 24% reduction in total direct variable nursing cost per patient day has been realized (from $648.60 to $492.72) and total ALOS for patients with home ventila-tors has dropped from 35.5 days to 23.5 days. Of 15 patients who have been transferred from progressive care, only two returned to the ICU. The unit continues in phase 2 and is being evaluated for its ability to manage other types of patients from the stepdown ICU.

**High-Risk Obstetrics**

The high-risk antepartum unit is the medical-surgical unit for pregnant women with complex medical conditions potentially dangerous to mother and baby (eg, gestational diabetes, obesity, hypertension). Two CNLs in the maternity program have intervened to improve care by linking their efforts from outpatient to inpatient. One focuses on support in the outpatient arena by establishing a trusting relationship with patients and families; educating patients; encouraging adherence to prenatal classes, prescribed medication, diet, and exercise; and making regular patient progress calls. The inpatient CNL assumes responsibility when a patient is admitted for delivery or medical management. The CNLs also led the 2014 development of cross-continuum clinical pathways for hypertension and diabetes in pregnancy to achieve normal to near-normal blood glucose and blood pressure to improve perinatal outcomes. Patients are followed from the prenatal visit in the obstetric clinic to 6 weeks postpartum.

Case studies to date show promise. For example, a patient with type 1 diabetes and osteogenesis imperfecta had nine admissions to manage blood glucose with a prior pregnancy; she also experienced recurrent urinary tract infection and hydronephrosis requiring a nephrostomy tube. She spent 82 days in the hospital and her baby had to remain in the neonatal intensive care nursery (NICN) for 2 weeks. She enrolled in the CNL program for her most recent pregnancy and delivered a healthy baby with no NICN stay. While the patient’s admissions for medical management only were reduced to six, the length of stay for this birth was 15 days (82% reduction from prior pregnancy).
**Next Steps**

Facility leaders continue to identify ways CNL intervention may improve cost and quality of care. One team of CNLs is learning LEAN skills (Scoville & Little, 2014) and co-leading development of interprofessional rounds with hospitalist physicians. Another is spearheading aggregation of hepatobiliary patients to improve care outcomes. A third pair of CNLs is working with hospitalists and the site’s ED team to identify and transfer patients who meet criteria for care at one of the system’s community hospitals to decompress the main campus. The role will be extended to evening and weekend shifts, and possibly to other service lines (e.g., cardiac, pediatrics). The CNL curriculum is updated regularly with academic partners so information and practice remain current. In addition, the CNE and program coordinator meet quarterly with the dean of the partner college and professors teaching the CNL courses to apprise them of facility goals and ongoing potential changes.

**Lessons Learned**

Nurse leaders in the clinical setting must have a vision for CNL function and how to measure the impact. Workload must be manageable and deliberate steps taken to clarify for all stakeholders what the CNL role is and is not. Candidates for the role must be selected very carefully with examination of each nurse’s motivation for wanting to become a CNL. Two failures from the program were related to deficits in critical thinking and test-taking ability, reinforcing that desire to be a CNL is only one quality for candidate consideration. High intelligence and the ability to work with others through influence and under stress are also essential. Additional work needs to be done to determine which opportunities to improve patient care may benefit most from CNL attention.

**Conclusion**

The AACN (2007) emphasized the CNL role addresses the call for changes that are necessary for the country to address challenges faced in health care. Authors have found this to be true at the project site. The generalist training of the CNL positions the nurse well for clinical leadership at the microsystem and mesosystem levels.

**REFERENCES**


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