Evidence demonstrates that the American health-care system is failing to meet quality, safety, and efficiency mandates. In response to the need to raise core standards, education and practice leaders have come together to create a new master’s-degree nursing role—the clinical nurse leader (CNL®). These CNL academic and clinical partnerships are producing measurable and sustainable practice outcomes that are positively affecting the quality, safety, and cost of care. The CNL initiative demonstrates the power of collaboration and the need to re-envision traditional nursing roles to meet the constantly emerging challenges of health care.

Regulatory requirements, advances in technology and scientific knowledge, workforce demographics, and consumer expectations cause constant change in health-care delivery and nursing practice. A decade of evidence demonstrates that the American health-care system is failing to deliver safe, efficient, and timely patient-centered care (American Hospital Association, 2002; Institute of Medicine, 1999, 2003; Vest & Gamm, 2009). To transform the health-care environment and re-envision roles and systems, we need visionary leadership. Besides fostering fresh thinking, leaders must balance innovation with risk management, facilitate and communicate change, and engage interprofessional stakeholders in processes that result in efficient, quality, safe, and sustainable care delivery (Porter-O’Grady & Malloch, 2009).

The role of regulation is to ensure patient safety, but this role must be balanced with the needs for innovation and organizational change. Dr. Peter Buerhaus from the Center for Interdisciplinary Health Workforce Studies at the Institute for Medicine and Public Health at Vanderbilt University Medical Center has accused oversight bodies of overregulating the health-care system and has asserted that the market can more effectively correct problems that plague the system (Saver, 2010).

As organizations implement innovative activities to address health-care reform initiatives and mandated regulations and to incentivize systems as novel sustainable enterprises, an opportunity exists for organizations and academic institutions to align their efforts. Clinical and academic partnerships create transformational avenues that result in patient-centered, forward-thinking, outcomes-driven work. Regulators have an opportunity to support or join these partnerships and recognize the importance of innovation and the growing role nurses must play in a changing health-care system.

The clinical nurse leader (CNL®), a new master’s-degree nursing role and national initiative spearheaded by the American Association of Colleges of Nursing (AACN), emerged from a national dialogue with regulatory, academic, and practice leaders on how to address the many challenges facing the health-care system (American Association of Colleges of Nursing [AACN], 2007). These conversations lead to academic-practice partnerships that are collectively reporting positive, measurable outcomes affecting the quality, safety, and cost of care. Though many of the outcomes are organization-specific because of the relative newness of the initiative, opportunities for multisystem and longitudinal inquiry exist.

This article provides an overview of CNL education, practice, and credentialing; issues related to nursing regulation; and examples of practice-academic partnerships that address quality, safety, and efficiency reform mandates.
cal environments create opportunities to compound available resources, experiences, knowledge, and skills when making decisions about clinical education, curriculum, and innovations in practice (McDaniel & Driebe, 2001). These collaborative partnerships are strengthened by mutual goals—including common purposes, values, and beliefs—that encourage and engage diverse stakeholders (Reinertsen, Gosfield, Rupp, & Whittington, 2007). Success requires a continuous assessment of resources, strengths, and weaknesses. The CNL initiative is an example of innovation and partnership that addresses the volatile healthcare environment.

**Evolution of the CNL Role**

In 1999, the Institute of Medicine (IOM) released its landmark report, *To Err is Human: Building a Safer Health System*, which challenged health-care systems to reorient their efforts to reduce medical errors and improve patient safety. In 2002, the American Hospital Association and the Joint Commission released similar reports, and the Robert Wood Johnson Foundation (Kimball & O’Neil, 2002) called for developing new practice models and enhancing collaboration between education and practice. Then, in 2003, the IOM released its five core competencies all clinicians must have to meet patients’ needs in the 21st century healthcare system.

Several studies have demonstrated that nurses with baccalaureate or higher-level degrees produce better patient-care outcomes. Specifically, these nurses reduce mortality and failure-to-rescue rates (Aiken, Clarke, Cheung, Sloane, & Silber, 2003; Aiken, Clarke, Sloane, Lake, & Cheney, 2008, Estabrooks, Midodzi, Cummings, Ricker, & Giovanetti, 2005, Freise, Lake, Aiken, Silber, & Sochalski, 2008; Tourangeau et al., 2007). Thus, healthcare needs not only more nurses but also skilled, competent graduates who can effectively lead the care of patients with more complex and critical needs.

To address the calls to rethink the provision of nursing care and nursing education, the AACN, with leaders from the education, practice, and regulatory arenas, developed the CNL, the first new master’s-prepared nursing role in more than 35 years. Since the publication of the original description of the CNL, the numbers of CNL education programs, enrollees, and graduates have increased steadily. (See Figure 1.)

**CNL and APRN**

Early in the development of the CNL, the AACN asked leaders in nursing and clinical nurse specialist (CNS) practice and education to develop a statement comparing the CNL and CNS roles (Spross et al., 2004). This statement describes the similarities, differences, and complementarities of the two roles. As with all nursing roles, some knowledge and skills overlap. However, the CNS is an advanced practice registered nurse (APRN) and a specialist with advanced knowledge and expertise in a specialty area of practice, such as gerontology, women’s health, oncology, or cardiovascular health. The CNL is prepared with a focus on care coordination, quality, and safety without an area of specialty practice. The CNL is not an APRN nor an administrative or managerial role. The CNL practices primarily at the microsystem level of care in any type of health-care setting; the CNS primarily functions at the mesosystem and macrosystem levels.

The CNL can identify situations requiring the expertise of the CNS. For example, the CNL may ask the CNS to provide consultation when a specialty area of concern arises, such as when a cardiovascular patient does not respond to nursing care as expected. The CNL focuses on issues across the system and supports the CNL’s role in overseeing patient care and identifying gaps in staff expertise at the unit level.

**Implementation of the CNL Role Through Partnerships**

In February 2004, the AACN invited schools and practice organizations to join the national initiative to establish partnerships. In response, 79 schools and 136 practice organizations accepted the invitation. Today, more than 100 academic-practice partnerships, including 116 schools of nursing and well over 200 practice settings, exist. The practice sites are largely acute-care settings but also include state health departments, school-based...
TABLE 1

CNL Employment Settings (N = 1,255)

This table shows where the currently certified clinical nurse specialists (CNLs) work.

<table>
<thead>
<tr>
<th>Employment Setting</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute-care inpatient</td>
<td>654</td>
</tr>
<tr>
<td>Community health, public health</td>
<td>39</td>
</tr>
<tr>
<td>Home health</td>
<td>17</td>
</tr>
<tr>
<td>School health, university health</td>
<td>69</td>
</tr>
<tr>
<td>Nursing home, long-term care, sub-acute care</td>
<td>13</td>
</tr>
<tr>
<td>Hospice</td>
<td>2</td>
</tr>
<tr>
<td>Hospital outpatient</td>
<td>26</td>
</tr>
<tr>
<td>Outpatient</td>
<td>37</td>
</tr>
<tr>
<td>Physician practice</td>
<td>3</td>
</tr>
<tr>
<td>Nurse-managed practice</td>
<td>5</td>
</tr>
<tr>
<td>School of nursing</td>
<td>237</td>
</tr>
<tr>
<td>Other</td>
<td>153</td>
</tr>
</tbody>
</table>

Source: Commission on Nurse Certification database, September 2010.

health clinics, home care, long-term care, emergency departments, outpatient clinics, and rehabilitation facilities. The partnerships exist in 38 states and Puerto Rico.

In the partnerships, academia with input from practice settings provides a curriculum to prepare students for the CNL role, and practice settings with input from academia redesign care delivery, maximizing the CNL role. The success of CNL partnerships hinges on academia and practice working together. Through these partnerships, stereotypes of and assumptions about each other have diminished, and the common goal of a new nursing role in the health-care system has advanced. The energy, enthusiasm, and innovation going on across the country have created a sense of excitement for nursing. The engagement of nurses at all levels—from the staff nurse to the chief nursing officer—has been critical to the success of the CNL initiative.

CNL Practice

As the CNL gains experience, his or her practice may include more advanced skills and knowledge. However, initial CNL preparation builds on entry-level nursing knowledge and skills and encompasses eight broad areas:

- Clinician
- Outcomes manager
- Client advocate
- Educator
- Information manager
- Systems analyst/risk anticipator
- Team manager
- Member of a profession/lifelong learner (AACN, 2007)

The CNL is a clinical leader-manager serving as the “air-traffic controller” on a unit or at the point of care in a health-care delivery system. CNL preparation focuses on quality improvement, interprofessional communication, care coordination, and cost-effective resource utilization. CNL practice varies depending on the setting, but the CNL’s knowledge and skills are applicable and beneficial in all settings that deliver health care. Table 1 shows the practice settings of the currently certified CNLs.

The defining aspects of CNL practice include the following:

- Leadership in the care of patients and families in and across all settings
- Implementation of evidence-based practice
- Lateral integration of care for a specified group or cohort of patients
- Clinical decision making
- Oversight of the design and implementation of care plans
- Risk anticipation, specifically evaluating anticipated risks to patient safety with the aim of quality improvement and prevention of medical errors
- Participation in identifying and monitoring care outcomes
- Accountability for evaluation and improvement of point-of-care outcomes
- Client and community advocacy
- Education for individuals, families, groups, and other health-care providers
- Information management, including using information systems and technology at the point of care, to improve health-care outcomes
- Delegation and oversight of care delivery and outcomes
- Team leadership and collaboration with other health professional team members
- Interprofessional communication
- Leverage of human, environmental, and material resources
- Design and provision of health-promotion and risk-reduction services for diverse populations

The AACN 2007 White Paper on the Education and Role of the Clinical Nurse Leader provides in-depth descriptions of these aspects of CNL practice.

CNL Education: Preparation for Today’s Health-Care Environment

Stakeholders engaged in extensive dialogue about the appropriate educational level to prepare CNLs. Crosswalking the essential competencies for entry-level professional nurses with those identified for the CNL showed that the additional knowledge, skills, and experiences needed for this new role could not be obtained in a 4-year baccalaureate nursing program. Based on this evaluation and input from multiple stakeholders, the AACN board decided the educational preparation must be at the graduate level in a master’s- or post-master’s-degree program.

The CNL curriculum must prepare the graduate with core outcome competencies expected of all master’s nursing programs.
TABLE 2

CNL Curriculum Models

<table>
<thead>
<tr>
<th>Clinical Nurse Leader (CNL) Curriculum Model</th>
<th>Description</th>
<th>Number of Programs*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model A</td>
<td>Program is designed for BSN graduates.</td>
<td>75</td>
</tr>
<tr>
<td>Model B</td>
<td>Program is designed for BSN graduates, and it includes a post-BSN residency that awards master's-degree credit towards the CNL master's degree.</td>
<td>14</td>
</tr>
<tr>
<td>Model C</td>
<td>Also known as a second-degree or generic master's-degree program, this program is designed for those with a baccalaureate degree in another discipline.</td>
<td>30</td>
</tr>
<tr>
<td>Model D</td>
<td>Also known as an RN-MSN program, this program is designed for associate-degree graduates.</td>
<td>15</td>
</tr>
<tr>
<td>Model E</td>
<td>Program is for post-master's-degree certification.</td>
<td>8</td>
</tr>
</tbody>
</table>


as well as the additional competencies described in the AACN white paper (AACN, 2007). The white paper also lays out the framework and recommended elements of the curriculum and delineates the clinical experiences required to attain the end-of-program competencies. The CNL student must complete 400 to 500 clinical hours as part of the formal education program. The student must spend at least 300 to 400 of these hours in an immersion experience, practicing in the CNL role with a designated preceptor and a faculty partner. The immersion provides the student with the opportunity to gain an overview of the care-delivery system or organization, practice in the CNL role, and integrate the new learning into his or her practice. The recommended length of immersion is 10 to 15 weeks.

CNL Master's-Degree Curricular Models

Five curricular models for graduate CNL education programs have emerged. Table 2 describes the models and provides the number of programs in each.

Second-Degree or Generic Master's-Degree Program

Thirty generic master's-degree CNL programs have been developed around the country (AACN, 2010). One question about these programs frequently comes up: Can graduates function in the CNL role without previous work experience as a nurse? Similar questions were raised during the early development of the nurse practitioner (NP) role. Yet, experience shows that nurses entering an NP program immediately or soon after earning a baccalaureate degree in nursing do as well as or better than nurses who have been out of school for any length of time. Moreover, generic master's-degree programs teaching entry-level competencies and competencies for APRNs and NPs successfully prepare graduates for NP practice (Rich, 2005). The same may be expected of the generic master's-degree CNL program.

Graduates of the generic master's-degree program are prepared with the entry-level baccalaureate-degree nursing competencies and the master's-degree CNL competencies. On graduation, they must take the NCLEX® and provide proof of registered nurse (RN) licensure to be certified as a CNL. Graduates may take the CNL certification exam at the end of the academic program, but they will not be granted the credential until documentation regarding RN licensure is received.

Several curricular designs for the generic master's-degree programs have emerged. Some prepare the student with the entry-level competencies initially and then add the master's-degree CNL competencies. Generally, with this curricular design, the student practices as a staff nurse while completing the master's-degree program. Other designs integrate course work and experiences throughout the program but culminate with the CNL clinical immersion.

Several transition models are being developed nationally and locally to help graduates of these programs transition into practice. One model allows the graduate to practice in a traditional staff nurse role several days a week and practice in the CNL role the rest of the week. This approach allows the CNL graduate to gain experience and confidence as a professional nurse and to integrate the CNL role into practice, model the CNL role for other nurses and staff, and build relationships and expectations for the role in the system. This approach also allows the employer to gradually integrate the CNL into the care-delivery system and more quickly reap the benefits of improved quality, safety, and cost outcomes, which are the primary focus of the CNL's education. This transition period must be individualized for the CNL; however, early experience shows that CNL graduates fully transition into the role in 12 to 16 months.

As the U.S. Department of Veterans Affairs works to implement the CNL in every facility by 2016, it is developing a residency model for CNL graduates, both the traditional post-BSN master's-degree graduates and the generic master's-degree graduates. The residency will be outcomes-based, and the length and type of experiences will be individualized. The Department
of Veterans Affairs anticipates piloting it at several sites in the near future.

Post–master's-degree CNL Certificate Program

The post–master’s-degree CNL certificate program is designed for those who hold a master’s degree in nursing that prepared them for a specific area of practice or an advanced nursing specialty. Demand for this program comes from nurses who are working in settings where the CNL is being implemented and who want to become CNLs. Demand also comes from employers eager to implement the CNL, using master's-degree nurses currently practicing in the setting.

Post–master's-degree candidates must successfully complete the graduate didactic and clinical requirements of a master’s-degree CNL program through a certificate program. Candidates are expected to achieve the same outcome competencies as master's-degree CNL students. The content identified as critical to CNL role preparation and post–master's-degree certificate programs can be found on the AACN website at http://www.aacn.nche.edu/cnl/pdf/PostMastersStmt.pdf.

CNL Regulation: Licensure and Certification

The CNL is educated and licensed as a professional RN. If not already licensed, a CNL graduate must obtain and maintain licensure.

To use the title "clinical nurse leader" or the credential CNL, a graduate of a CNL master's-degree or CNL post–master’s-degree certificate program must be certified by the Commission on Nurse Certification (CNC), an autonomous arm of AACN. In contrast to licensure, which validates a clinician's minimum level of competence, certification indicates that one has achieved a higher level of competence in a more focused area of practice. To be eligible for CNL certification, an RN must graduate from a CNL master’s-degree or post–master’s-degree certificate program that is accredited by a nursing accrediting agency recognized by the U.S. Department of Education and that prepares individuals with the competencies delineated in the AACN white paper.

Twelve schools piloted the CNL Certification Examination® from November 2006 to January 2007. The first regular administration of the exam occurred in April and May 2007. Since then, over 1,200 CNLs have been certified. An elected CNC Board of Commissioners oversees all certification activities and policies. Employers and others recognize that nurses holding the CNL credential have met national education requirements and have successfully completed a rigorous examination that tests requisite knowledge and experiences. To protect the integrity of the CNL designation, the AACN has trademarked the CNL title and the CNL Certification Examination.

CNL Value, Impact, and Sustainability

As the CNL role continues to evolve and be adopted by healthcare organizations, the impact of CNLs will be many, measurable outcomes. The CNL's value must be assessed by knowing stakeholder's interest and establishing CNL outcome measures appropriate to the setting (Fitzgerald, 2004; Morris, 2010). Porter-O'Grady, Clark, and Wiggins (2010) stated that the means formerly used by nurses to value their work are now only partially meaningful. Obtaining value requires a convergence of principle, evidence, and efforts; the connection between the resources and the outcomes must be evident.

Morris (2010) identified an iterative process in which value can be determined using a series of questions. The questions can guide organizations considering the adoption of the CNL role by helping determine the overall value for the organization, the department, and the customer; the financial impact; and the risk of not adopting and using the role outlined in the Aacen white paper. Answers to the questions may provide support for role sustainment for years.

As patients needs continue to change and the health-care system evolves, the CNL is in a pivotal position to introduce evidence-based interventions that produce intended effects. These effects can be aligned with activities that meet core measures, national patient safety goals, and best available practices. Popper (1945) and Campbell and Russo (1999) advocated the introduction of small interventions that deal directly with specific issues, can be practically tested and measured, and are fundamentally the same in all disciplines.

Few care settings have nurses to focus primarily on clinical care coordination that culminates in meeting intended goals. CNLs are educated to analyze meaningful data and trends and drive improvement initiatives. They serve as coaches and mentors to other staff members and facilitate communication among staff members and patients. This focus is timely as organizations adopt the medical home model and other patient-aligned frameworks.

CNLs actions shift the nonaligned and siloed practice of the past to a convergence of networking and synchronized care. Examples of how CNL activities are leading improvements at public and private facilities are provided in Table 3. Sustaining these actions requires continuous alignment of activities by educators and clinicians, using the best available evidence. However, several factors can contribute to poor sustainability, such as inadequate time for educating others about practice changes, limited resources and leadership support, and absence of an evidence-based culture (Hagedorn et al., 2006; Steetler, 2003; Wallin, Profetto-McGrath, & Levers, 2005). Argoe (1999) and Huber (1991) encourage care settings to learn from the basic tenets of organizational learning theory (acquisition, interpretation, storage, data retrieval, and use of knowledge) to sustain interventions and introduce a new practice role.
TABLE 3

CNL Activities and Outcomes

To discover and sustain effective solutions to gaps in care delivery, clinical nurse leaders (CNLs) document clinical activities and outcomes over time. Early adopters of the CNL role are credited with the significant outcomes below.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bedside shift reports</td>
<td>1. Time to describe patient and five factors, such as pain and positioning, during bedside shift report reduced from 90 to 30 minutes</td>
</tr>
<tr>
<td>2. Pressure-ulcer reduction</td>
<td>2. Reduced from 2% to 1% for pressure ulcers below stage II</td>
</tr>
<tr>
<td>4. Development and use of educational materials on medication, diagnosis, and crisis management with patients admitted to an inpatient mental health unit</td>
<td>4. Increased medication education from 0% to 83%, diagnosis education from 5% to 88%, and crisis management from 5% to 57%</td>
</tr>
<tr>
<td>5. Admission assessment completion</td>
<td>5. Increased from 81% to 91%</td>
</tr>
<tr>
<td>6. Education on recognizing respiratory decompensation of patients assigned to medical units</td>
<td>6. Decreased codes and readmissions to critical-care units, increased patient and provider satisfaction, and fewer intubations</td>
</tr>
<tr>
<td>7. Handoff communication during disaster relief</td>
<td>7. Improved communication during end-of-shift team huddles regarding individuals receiving medical care at shelters</td>
</tr>
<tr>
<td>8. Nursing hours per patient day</td>
<td>8. Increased from 6.09 to 6.74 and 3.76 to 4.07 nursing hours per patient day (Ranges are for one medical and one surgical unit.)</td>
</tr>
<tr>
<td>9. Elective surgery cancellations</td>
<td>9. Reduced by 55%</td>
</tr>
<tr>
<td>10. GI procedure cancellations</td>
<td>10. Reduced from 30% to 14%</td>
</tr>
<tr>
<td>11. Sitter hours assigned to medical/surgical unit per month</td>
<td>11. Reduced from 676 to 24 hours per month (over 1 year)</td>
</tr>
<tr>
<td>12. Ventilator-associated pneumonia</td>
<td>12. Reduced from 21.7% to 8.7%</td>
</tr>
</tbody>
</table>


Conclusions

Today's quality, safety, and efficiency mandates are challenging the American health-care system. The creation and implementation of the CNL role is one response to the challenges. In collaboration with interprofessional teams, CNLs can initiate activities that morph into standardized practices to protect and promote the health of citizens and communities. Regulators, educators, and practice leaders must work together to champion innovations such as the CNL and other evidence-based solutions to bridging gaps in the current health-care system.

References


