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Implementing the Clinical Nurse Leader Role Using the Virginia Mason Production System

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More than 90 members of the American Association of Colleges of Nursing and 190 practice sites have partnered to develop the clinical nurse leader (CNL) role. The partnership has created synergy between education and practice and nurtured innovation and diffusion of learning on a national basis. In this ongoing department, the editor, Jolene Tornabeni, MA, RN, FAAN, FACHE, showcases a variety of nurse leaders who discuss their new patient care delivery models in preparation for the CNL role and CNLs who highlight partnerships with their clinical colleagues to improve patient care. In this article, the authors discuss the needs for changes in the nursing care delivery model, the implementation of the role of the CNL using the tools of the Virginia Mason Production System, as well as early outcomes and future opportunities for the expansion of the CNL role.

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Providing continuity of care to a complex aging patient population poses challenges across the continuum of a patients' healthcare experience. Breakdowns in these care processes result in fragmentation of care, medical errors associated with poor handoffs, as well as confusion and frustration for patients, families, and staff. The role of the clinical nurse leader (CNL) has been implemented to address this gap at Virginia Mason Medical Center (VMMC), an integrated care delivery system consisting of a 336-bed hospital located in downtown Seattle, Washington.

Indication of Need

The turbulent years of the 1990s had left VMMC with a nursing model that lacked continuity of care, advanced educational levels, and necessary leadership at the bedside. The model consisted of an all registered nurse (RN) staff assisted by patient care technicians, trained as certified nursing assistants. The RN worked in collaboration with a number of other patient care professionals, such as social workers, respiratory therapists, physical and occupational therapists, pharmacists, and registered dietitians. Nurses worked a mix of 8- and 12-hour shifts, with 95% of staff working in a part-time status, leading to fragmented and uncoordinated nursing care for patients. Nurses with varying levels of experience and educational preparation were managing increasingly complex patients. In addition, juggling the numerous shifting demands of frequent interruptions and nonpatient care activities and tasks made it increasingly difficult to spend concentrated periods of time focused on complex care needs.

In December of 2004, VMMC began the transition to a new nursing care delivery model. The desire was to create a model that would improve patient care outcomes and satisfaction, enhance the effectiveness of the frontline staff nurse by unburdening their

work, and align nursing care responsibilities with the most appropriate level of education and experience of the RN. Early in the process, focus groups of diverse teams of nurses were conducted to discern the workflow and responsibilities of the frontline RN, identifying those tasks and responsibilities that were best done by the direct care giving RN and those that could be done by other clinical or nonclinical staff. At that time, there was reluctance to introduce another layer of nursing into our patient care model; however, the role of the CNL, as presented in the American Association of Colleges of Nursing's Working Paper on the Role of the Clinical Nurse Leader,[1] was seen as vital in transitioning the nursing care delivery model.

The extended length of stay (ELOS) patient population at VMMC, defined as those patients with length of stays greater than 6 days, were especially cognizant of the fragmented, uncoordinated care resulting from a part-time workforce. These ELOS patients and their families had complex care coordination needs that frontline nursing staff did not have time to address as they went on providing daily care. The role of the CNL was identified as one that could be developed and implemented with the vision of being the "red thread" that followed these patients, providing needed care coordination and consistency throughout their hospital experience. The vision was to have a highly skilled nurse who could partner with the entire care team to assist in coordinating, planning, and directing complex patients' plans of care, provide additional resources and expertise to the staff, and ensure safe handoffs between all providers. An awareness of the risks associated with the introduction of the CNL role, including added expenses and possible alienation of other care team members, was understood. Drawing from the definition of the CNL as outlined by the American Association of Colleges of Nursing[1] and understanding the needs of our patients and staff at VMMC, the tools of the Virginia Mason Production System (VMPS) were applied and nursing moved forward with developing and implementing the role of the CNL.

The Virginia Mason Production System

The VMPS is modeled after the Toyota Production System (TPS), a management methodology that is well known in the manufacturing world.[2] The TPS was created by Taichi Ohno at the Toyota Motor Company in Japan during the early 1950s and drew upon several pioneers who focused on quality in the manufacturing sector, such as W. Edwards Deming, founder of the concept of Total Quality Management.[3] Drawing upon the Deming Cycle, the TPS has consistently demonstrated remarkable effectiveness in reducing costs and improving both quality and financial performances in a variety of manufacturing settings. Applications of the concepts of the TPS have recently been used in the healthcare arena with marked results.[4] Borrowing from the TPS, VMMC created the VMPS and adopted it as their management methodology in 2001.

The VMPS[5] is a management strategy that is based on improving processes in systems, ridding them of waste and inefficiencies with emphasis on safety and quality through the process of "kaizen" or continuous improvement. The primary methodology for improving a process using the VMPS is the Rapid Process Improvement Workshop (RPIW). The RPIW is a workshop in which a team comprising both leaders and frontline staff come together for a weeklong intensive workshop focused on a particular system or process. They then identify wastes within the process, determine what is value added or nonvalue added for the customer, and improve the process by creating standard work, using a set of standardized metrics to guide the work.

CNL Implementation Using the Tools of VMPS

The implementation of the CNL role has evolved from a series of 3 RPIWs that focused on the ELOS patient population during the past 18 months. The first RPIW focused on the "sorting" of patients that would benefit from the expertise of the CNL. Throughout the course of the RPIW week, a screening system was developed that enabled the CNL to use the electronic medical record to aide in sorting patients based on specific questions asked during the nursing admission process. Further work developed visual controls in the form of identification stickers to be placed on the patient locator boards and charts to visually alert staff that a CNL was involved in coordinating the patient's care. Standard work was created by creating electronic templates that the CNLs use for documentation purposes.

The second RPIW enhanced the previous work, further refining the sorting process, streamlining and standardizing the documentation process, creating a visual tool

at the patient's bedside that identifies benchmarks to achieve toward their discharge progression, and focusing on bedside multidisciplinary rounds facilitated by the CNL. A third RPIW focused on nursing's ability to impact length of stay by progressing mobility and nutrition within nursing's scope of care. The CNL role is integral in implementing the progressive mobility plan as well as assessing and monitoring nutrition needs and advancements, stemming from the standard work created during the RPIW.

Early Outcomes

In the first 6 months after the implementation of the CNL role, the organization has seen a 7% drop in overall length of stay. Although not all of this can be credited solely to the involvement of the CNL, it is believed that the CNLs have influenced the overall length of stay with their focus on our ELOS patients and assistance in coordinating their care needs, mobilizing ancillary services, and facilitating multidisciplinary rounds.

Perhaps the most successful outcome is in the patients' care experience. Numerous letters have been received from patients and families extolling the virtues of this new addition to the nursing care model. Included have been comments such as "Your CNL has been instrumental in organizing the medical team and care plan…she talked directly to my husband and included him in decision making. His situation is complex and breaking it down into goals and steps was important. She helped to get all the physicians on the same page around the issues that cross their specializations."

Several challenges have risen during this implementation phase. One of the more significant challenges has been on assuring that all patients who could benefit from the involvement of the CNL have access to their services. There are 4 CNLs who are geographically based on units that have a greater number of ELOS patients. They provide consistency and continuity to patients, families, and staff by working 4 to 5 days a week but are often consulted to see patients on other units resulting in some feelings of disruption and fragmentation. There is also a need to further refine the sorting process in order to decrease the amount of time the CNLs spend sifting through patient information and increase the number of patients they follow. Another area of opportunity exists around synchronization and sequencing of the multidisciplinary rounds with all members of the healthcare team, including our graduate medical house staff.

Future Vision

Looking at the future role of the CNL at VMMC, the vision is to locate a CNL on each inpatient unit, focusing on the coordination of care for all patients. Embedding them within units will allow for increased opportunity to form cohesive interdisciplinary care teams with nursing, physician, and ancillary staff, improve their efficiency by easing the burden of surveillance and sorting, and allow them to follow more patients on a daily basis. The CNL is the driver of patients' progression of care through their hospital experience, aiding in their transformation from an uninvolved to involved state, moving them from uniformed to informed, and ultimately assisting them from a dependent to independent status. An additional goal is to extend the CNL role upstream into the clinic setting to manage patients with chronic illness through the continuum of their healthcare experience and avert repeat admissions.

The CNL role at VMMC currently addresses the increased complex care coordination needs of our ELOS patients. The vision is to have a CNL be involved with all patients who could benefit from their services, spanning the needs of the patient across their healthcare experience. The implementation of the CNL role has successfully addressed the gap that existed in assuring that patients with complex care needs receive the consistency and continuity of care from a nurse educated at the graduate level who can articulate the plan of care across shifts and disciplines, improve patient outcomes and satisfaction, and provide resources and expertise to both patients and staff.

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