Nurse involvement in quality improvement (QI) includes establishing processes for data collection, analysis, display, and dissemination. Importantly, nurses must examine QI data on a regular and close to real-time basis for improvements to be maintained and sustained. At Children’s National Health System (Children’s National), a 303-bed, pediatric, freestanding, Magnet® hospital in Washington, D.C., the Department of Nursing Research and Quality Outcomes in the Division of Nursing used Culture of Nursing Excellence (CONE) teams as a triadic approach to improve clinical outcomes. (See Figure 1.)

Here we describe how the triadic approach (nurse leader, nurse educator, and clinical nurse) was designed and implemented to address unit-specific care improvements. Structure—defined as material resources, human resources, and organizational structure—is an important attribute in the quest for quality outcomes. When determining who should comprise the CONE teams, we urged each team to include required and optional participants. The required participants included the nurse leader (nurse manager or director), nurse educator (clinical educator, clinical instructor, or professional practice specialist), and the clinical nurse chairperson or designee of each Shared Nursing Leadership Council. These teams became the drivers of QI for their unit. Optional participants included the unit-specific Magnet champion, members of a unit-level Shared Nursing Leadership Council, and interprofessional team members.

We also considered how adding the CONE teams would change our current nursing quality structure. (See Figure...
2) The Nursing Quality Committee (NQC) is a subcommittee of the system-level Shared Nursing Leadership Council’s Clinical Improvement and Nursing Research Council and was established to ensure active engagement and information sharing among all levels of clinical nurses and nursing leaders. All of the CONE team members were also members of the NQC. This integration of the NQC and CONE teams is a mechanism to ensure ongoing collaboration through shared problem solving and supports a team effort to enhance quality outcomes for our patients.

During the monthly NQC meetings, three CONE teams present their reports using Children’s National’s approach to QI: the Plan, Do, Check, Act (PDCA) cycle methodology, which addresses patient satisfaction, RN satisfaction, and clinical outcomes. This meeting provides an opportunity for the CONE teams to highlight their successes and dialog with other members about their challenges and barriers. Moreover, the CONE team reporting provides a share-all and teach-all atmosphere.

The CONE teams also work in collaboration with the Pathways to Nursing Care Excellence Fellowship Program, which was created to deliver a targeted curriculum to support nurses’ efforts to improve clinical practice and deliver higher quality and safe care. Cohorts have included 8 to 10 nurses as fellows, who select a NSI specific to their clinical area. Not every clinical area has fellows, but the CONE teams that do have a fellow in the program partner with the fellow to make improvements to the selected NSI.

The CONE teams report their monthly data analysis and action plans to their respective clinical area-based Care Delivery Forums—a team comprised of the medical unit director, nursing unit director, unit-based pharmacist, social worker, nutritionist, case manager, and clinical staff. Achieving and sustaining quality outcomes can’t be done without an interdisciplinary team that supports its respective CONE team.

Refining the quality process
Process can be defined as the steps in which healthcare is delivered. As it relates to the CONE teams, process involved the teams examining ways to stay well informed about quality indicator data, being able to explain data trends, identifying possible causes and barriers hindering the success of the process, and developing clinical area-specific action plans based on the data. When we established the CONE teams, we invited each team to a workshop to learn details about the background of the quality indicators, how indicators relate to Magnet, and the achievements needed for Magnet redesignation. The teams were required to complete a preworkshop assignment, which included analyzing their monthly graphs related to the three categories of NSIs.

This analysis by each CONE team was critical to the team’s identity and became the basis of the action plans for each clinical area.

Each inpatient CONE team completed a thorough analysis of each unit-specific NSI, including patient satisfaction, RN satisfaction, peripherally inserted I.V. catheter infiltrate, ventilator-associated pneumonia, pressure ulcers, restraint use, central line-associated bloodstream infections, and catheter-associated urinary tract infections (CAUTIs). Many of the outpatient clinical areas had the option of choosing....
an area-specific clinical indicator to focus on because a majority of the inpatient clinical indicators didn’t apply to their practice. This analysis required each clinical area to investigate what data were being collected, study trends and patterns monitored in the Magnet reporting periods, and analyze results from the graphs released on a monthly basis. The CONE teams then identified the NSIs that required an intervention and created an action plan to target those indicator(s) and improve their outcomes.

All CONE teams met as a large group about once every quarter for a 3-hour session to share and collaborate across clinical areas. Because nursing provides an essential contribution to patient, organizational, and stakeholder outcomes, the purpose of the quarterly meeting was to facilitate and foster a shared mental model to achieve stronger teams, promoting and maintaining positive outcomes for all indicators.

The first quarterly CONE Team Forum successfully commenced in August 2012, with approximately 50 nurses in attendance, representing 20 clinical areas. The metrics theme was CONE “Sharing Moments,” where each clinical area was tasked with sharing successes and challenges in improving their NSIs. This forum was also designed to be a safe environment for both nursing leadership and clinical nurses to discuss and solve any barriers related to improving their outcomes. All CONE teams left this meeting with commitments to make further improvements in their quality indicators. Specifically, each CONE team was responsible for:

- creating and sending a monthly report of their NSI data that the Department of Nursing Research and Quality Outcomes analyzed and used to create graphs on a monthly basis
- using the PDCA cycle for all indicators
- monitoring improvements in indicators for sustainability over subsequent months
- conducting immediate corrective action when there was no improvement in the results and describing these actions in their monthly reports.

The Department of Nursing Research and Quality Outcomes then spent the next 3 months meeting with each CONE team individually to discuss challenges and successes, as well as offer support and resources for improvements being developed by each team. Early in this process, we noted that only the nurse leaders of the CONE teams were in attendance. We learned from the leaders that they thought it might be a meeting to chastise rather than collaborate. We immediately clarified the purpose of these individual team meetings and the remaining hour-long meetings were spent with multiple team members examining their data, discussing potential causes or contributory factors of decline in performance, and sharing resources needed to support change or care approaches. During these meetings, we discovered that we needed to add a new component to the template of the monthly CONE reports: Managers and directors were making leadership-level changes that positively affected clinical nurses and care outcomes but weren’t being credited for their efforts. (See supplemental content on the Nursing Management app.)

The Department of Nursing Research and Quality Outcomes decided to add an administrative section to the CONE report form to highlight the leadership actions. For example, in an effort to improve RN satisfaction in one clinical area, the clinical nurses provided feedback and data to

Figure 2: Nursing quality structure

- **Department of Nursing Research and Quality Outcomes**
- **Clinical Improvement and Nursing Research Council (system-level Shared Nursing Leadership Council)**: monthly
- **Pathways to Nursing Care Excellence Fellowship**: monthly
- **Nursing Quality Committee**: monthly
- **CONE team clinical area meeting**: monthly
- **CONE Team Forum**: quarterly

Key to nursing quality structure:
- ↑ = Arrow directions indicate reporting structure
- ■ Solid outlined boxes indicate structures already in place
- • Dotted outlined boxes indicate new CONE structures
- Monthly and quarterly = Indicate the frequency of meetings
their manager/director that the busiest times in the clinical area were in the late afternoon. They recognized that their present staffing pattern didn’t accommodate the increased volume, which affected patient satisfaction and workflow. The manager/director analyzed the data and was able to stagger shift start times to accommodate the busy time of the day.

The theme of the next quarterly CONE Team Forum was “Strengthening the Connection” and focused on staff engagement. This meeting commenced in January 2013, with approximately 40 to 50 nurses, representing 18 clinical areas, openly discussing how to better collaborate on the internal and external connections in their clinical area. An icebreaker activity at the beginning of the program helped nurses from different areas get to know each other on a personal level and contribute to a camaraderie to potentially nurture partnerships between clinical areas. One of the major takeaways from this forum was how to expand the focus from treatment to prevention.

The Department of Nursing Research and Quality Outcomes again conducted follow-up meetings with the CONE teams to provide assistance and support in their quest to achieve high-quality outcomes. In addition, the Department of Nursing Research and Quality Outcomes also provided consultative services to any of the CONE teams when needed. These informal meetings strengthened the relationship between the unit CONE teams and the Department of Nursing Research and Quality Outcomes and fostered a collegial relationship to improve quality outcomes.

We also established processes to keep the CONE teams engaged and help them stay focused on the work needed to improve quality outcomes. CONE teams in each clinical area met monthly to examine their data and develop action plans. Depending on the size of the clinical area, the CONE team worked as a collective group or in smaller teams. For example, a 15-bed unit had one large CONE team that was responsible for examining and creating interventions for all NSIs. A 40+-bed unit had subteams within the CONE team, which would take responsibility for one or two indicators and report their findings at the unit’s monthly CONE meeting during which the larger team analyzed their data and developed an action plan for a particular indicator.

Sustaining the outcomes
Outcomes are the results of structures and processes. The positive quality indicators and team outcomes we observed secondary to strengthening our structures through the establishment of the CONE teams and the redefining of processes to address NSI data continue 2 years later.

Patient satisfaction
One of our small inpatient clinical areas identified that its patient satisfaction scores were below the national benchmark for four specific questions. The CONE team established a rounding process specific to their clinical area and patient population. They also created a simulation experience that mimics the unit’s activities to provide an opportunity for staff to practice patient and family interventions with peer feedback. This clinical area was able to improve its patient satisfaction scores for all four questions, and for three consecutive quarters has been above the national benchmark.

CAUTI rates
A larger ICU CONE team identified that their CAUTI rates were consistently worse than the national benchmark. The CONE team surveyed their nurses and found that there were inconsistencies in the maintenance of urinary catheters. The CONE team then created an evidence-based bundle to standardize the practice. This unit made a 54% improvement in its CAUTI rates in 15 months.

Pressure ulcer rates
Each inpatient and specialty clinical area, including the ED and Perioperative Department, has nurses who are part of our pressure ulcer program, which includes two full prevalence studies per quarter, along with an educational offering for approximately 35-unit-based clinical nurses who are clinical resources in pressure ulcer prevention and management and also members of their clinical area CONE teams. The combined effort of the unit CONE team members and the unit-based pressure ulcer resource team members focuses on the data for trends. The pressure ulcer experts bring knowledge specific to the patient population for pressure ulcer prevention and have created significant improvements in our pressure ulcer prevalence data at the aggregate level. Through prevalence studies, 13 inpatient units tracked and trended hospital-acquired pressure ulcers (HAPUs); 90% of the 10 inpatient units achieved rates better than national benchmarks during the last 2 calendar years (2012-2013). The pressure ulcer team members, in conjunction with their respective CONE teams, have significantly reduced the number of Stage 3 and above HAPUs.

Throughout the conception and operationalization of the CONE teams, close attention was paid to identifying structures and processes that could be sustained into the future. Sustainability is a concept that’s often an afterthought in change projects. Many projects fail due to poor planning and, more

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specifically, poor incorporation of structures and processes that can be easily supported over time. The ability to obtain target outcomes initially is a great success, but what’s of even greater value is the ability to sustain these successes. To date, all clinical areas have active CONE teams that we consistently engage and mentor to ensure sustainability of this structure and its processes.

**Excellence in our grasp**

The successful work of the CONE teams has been recognized at the unit level and in the Division of Nursing. Additionally, the hospital quality program has specifically requested assistance from the CONE teams for hospital-level quality initiatives. The integration of the CONE teams into hospital-level QI efforts demonstrates an important administrative contribution of the CONE team structure.

As the current healthcare environment continues to change and strives to become more efficient and cost effective, it becomes increasingly evident that it’s essential for RNs to be intimately involved in making changes to care practices. Current research speaks to this important fact; we must create a care environment that fundamentally provides better care.2,3 The CONE team is a triadic approach used by Children’s National to improve clinical outcomes. This approach can be easily adopted by another care setting or an entire healthcare organization as a means of monitoring QI indicators and identifying interventions for improvement to ultimately improve the care environment.

**REFERENCES**


At Children’s National Health Systems in Washington, D.C., Renee Roberts-Turner is the interim director of Nursing Professional Practice and the Magnet Program director; Lael Coleman is the data coordinator for the Department of Nursing Research and Quality Outcomes; Tina Kunze Humbel is the interim Performance Improvement coordinator for the Department of Nursing Research and Quality Outcomes; and Dory Walczak is the interim manager, Nursing Quality, for the Department of Nursing Research and Quality Outcomes. Gen Guanci is a consultant for Creative Health Care Management in Minneapolis, Minn.

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