Quality Improvement Partnership Between Nursing and the Medical Staff

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Unit-based interventions to improve quality have been key to efforts addressing various clinical quality indicators at our 500-bed tertiary medical center, located in the southeastern region of the United States. Others have examined the effect of a unit-based approach to quality programs for hospitalized medical patients and have found that only about one-third or fewer hospitals had unit co-leadership with nursing and medical staff; they recommended exploring this collaborative management model further [1]. The hallmarks of such a nursing-physician dyad leadership model are (1) a structural attribute framework, (2) promotion of quality and patient safety, and (3) performance improvement through joint projects. Aligning projects with the American Nurses Credentialing Center (ANCC) Magnet designation model creates a framework for safety and improved outcomes while creating a learning environment for clinical teams in a co-led nursing and medical model.

42.1 Structural Attribute Framework Promoting Quality and Performance Improvement

Hospital unit directors face competing priority overload. Admitting physicians may feel disconnected from hospital priorities, potentially misaligning expectations for patient care. More organizations embrace a dyad leadership model where healthcare clinical leaders and administrators collaborate toward a shared vision [2]. Dyad

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physician and nursing unit leaders can bridge this gap with collaborative problem-solving and process management, which also powerfully build trust [3, 4]. While the dyad model has been described before, little had been known about its effect on sustained quality and safety outcomes. The authors (DF, AS) have recently illustrated the development of a unit-based leadership model focused on prioritizing organization goals in an academic medical center [5].

Key Concept
A well-constructed dyad physician and nursing unit leadership model can bridge the engagement gap caused by siloed nursing and medical staff priorities. Focus on collaborative problem-solving, process management, cross-unit learning, and mutual accountability can powerfully build the trust needed to advance patient safety and care quality.

The structure, rhythm of contact with executive leadership, and accountability mechanisms were designed to enhance dyad leader engagement. Activities emphasizing coaching, building trust, and valuing transparency were created to commit these leaders to priority goals and drive performance.

At Ochsner's main academic medical center, the dyad leader model has now spread campus wide. The model consists of a partnership between the unit medical director and the unit nursing director who work together closely to address the pertinent quality issues that are specific to and addressable on their units. Their work is tightly aligned with the health system's and hospital's overall strategic plans to win for quality and patient safety. The unit nursing director (UD) reports to the chief nursing officer (CNO), while the unit-based medical director (UBMD) has a matrix reporting relationship with the vice president of medical affairs (VPMA). Both the VPMA and the CNO have a dyad relationship with the primary focus of leading the organization's quality initiatives. The individual units consist of varying bed sizes from 28 patients to 45 patients. Each unit provides care in the following five categories: (1) intensive care units, (2) medical-surgical units, (3) stepdown or intermediate care, (4) progressive care, and (5) specialty care.

The UBMD and UD undergo an extensive interview process to attain their position and role designation. While the organization may first hire the physician or the nurse, interviews for the role of UBMD and UD are conducted collaboratively by the hospital's nursing and medical leadership. This process is designed to screen for organizational values such as team orientation, patient centeredness, and commitment to a journey of excellence. It allows for mutual input and collaboration in identifying the best overall fit for the dyad role. Hospital unit dyad partners are trained in basic performance improvement concepts such as Institute for Healthcare Improvement (IHI) tools to include an aim statement [6], driver diagrams, and process charts. The IHI Model for Improvement represents the basis for teaching. For example, they learn to use the aim statement to respond to the first question in the IHI Model for Improvement, i.e., outlining what is to be accomplished (Fig. 42.1).

Fig. 42.1 Unit-defined AIM statement example. CLABSI central line-associated bloodstream infection, SICU surgical intensive care unit. (© Ochsner Health)

The dyad model leverages physician engagement through role formalization and shared decision-making. The dyad partners work together to lead the clinical team to improve the process metrics and clinical indicators on their unit. They identify and improve many complex processes to boost outcomes for a quaternary-level care patient population. Using a unit-specific quality dashboard that is updated continuously (at least weekly for many metrics), they assess the overall unit performance. Analyzing unit dashboard performance for process metrics and clinical indicators periodically, they determine which project or projects the unit will take on. This is done as a team, with the necessary stakeholders included to improve the outcome of the chosen indicator(s). The team thoroughly examines potential drivers of the quality outcome desired and identifies where process changes should be applied. Process and outcomes goals are established; plans for process change are developed and set down in aim statements that outline actions, timelines, and targeted outcomes. Preintervention and postintervention data are tracked and displayed on the unit using run charts. Examples include process metrics associated with prevention of hospital-acquired conditions (HACs) such as falls, hospital-acquired traumatic injury, and pressure ulcers. Other process metrics are related to hospital-acquired infections (HAIs) such as catheter-associated urinary tract infections (CAUTIs), methicillin-resistant *Staphylococcus aureus* bloodstream infections, *Clostridioides difficile* (*C. diff*) infections, and central line-associated bloodstream infections (CLABSIs). Their work may also include *never event* management, such as process improvement for avoidance of wrong side/wrong site surgeries, retained foreign objects, and medication errors with serious harm. Other examples include process improvement to reduce hospital-acquired pressure injuries and to decrease risk-adjusted mortality through actions relating to early recognition of clinical deterioration from conditions such as sepsis.

Unit-based improvement projects are monitored in a peer atmosphere at a regularly scheduled twice monthly council. Here, the nursing and medical staff dyad partners together present their units' projects, goals, and progress. Questions may be posed; actions may be challenged, explored, and adopted by various dyad partners and other council invitees. Each unit is a microsystem where processes are tested, examined, and changed. Sharing the choice of projects and insights gained results in organizational learning, as dyad teams are highly encouraged to share ideas and learn from each other's experiences to drive improvement in patient care more quickly across the organization. Sharing is valued independently of the outcome of the project. Partners feel that great value accrues when learning not only what works but also what may require alternative approaches. In the following section, we highlight examples of such process changes that our dyad teams have implemented in the past year.

42.2 Promoting Quality, Patient Safety, and Performance Improvement Through Joint Projects

Our unit dyad leader teams have undertaken many projects to improve quality, patient safety, patient experience, and safety culture. They work in tandem with their clinically based team on each unit to promote improvement. Each year, more than 20 dyad leader teams collaborate on 2–4 IHI Model for Improvement projects and share results that may funnel across units, which is our organization's expectation.

Improvement in Clinical Deterioration Awareness on a Cardiovascular Stepdown Unit Unit-based leader teams track and trend actions relating to the drivers of a particular quality outcome using a driver diagram (Fig. 42.2). For example, our cardiac stepdown unit concentrated on the reduction of codes (cardiopulmonary resuscitations) outside the intensive care unit. Through the use of innovative technology [7], the patient is monitored continuously. This is in marked contrast to the traditional practice of taking vital signs every shift or even every 4 hours. With continuous noninvasive vital signs monitoring, key physiological indicators, such as blood pressure, temperature, and pulse, are displayed and set off an alarm if values move outside preset safety parameters. The nursing teams monitor these alarms for early recognition of potential clinical deterioration and the need to initiate rescue protocols. Drivers of floor codes that were identified by our teams included Visi™ utilization (use of mobile continuous vital signs monitoring technology), percentage of i-Rounds™ (an innovative rounding tool primarily designed to improve patient experience), and bedside handoff adherence [8].

This unit-based project realized an increase in the Visi™ utilization over the 3 months (Fig. 42.3). At the same time, code blue resuscitation events decreased month over month (Fig. 42.4).

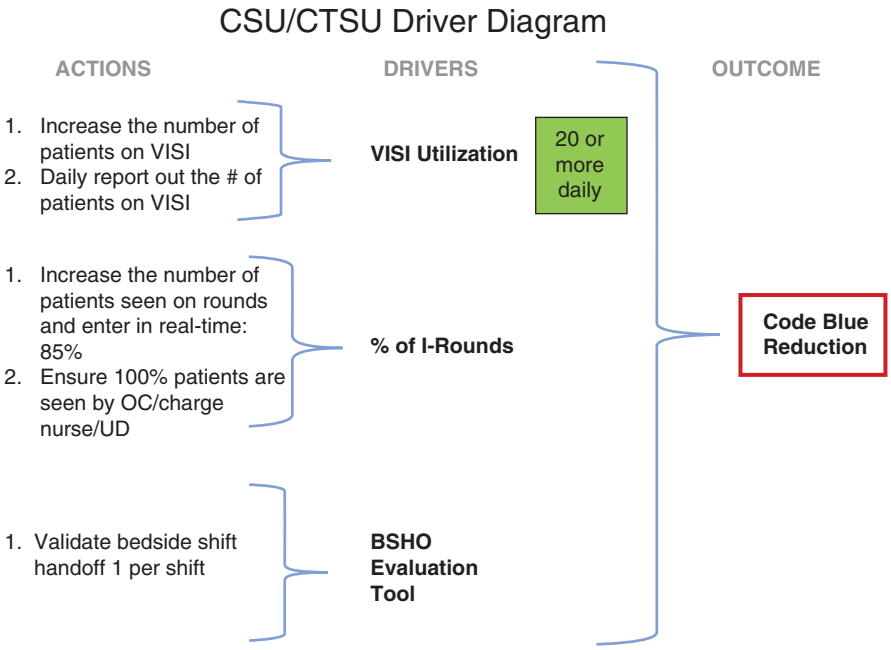

Fig. 42.2 Driver diagram example – one unit's view of drivers of code blue events. VISI continuous vital signs monitoring system, BSHO bedside handoff. (© Ochsner Health)

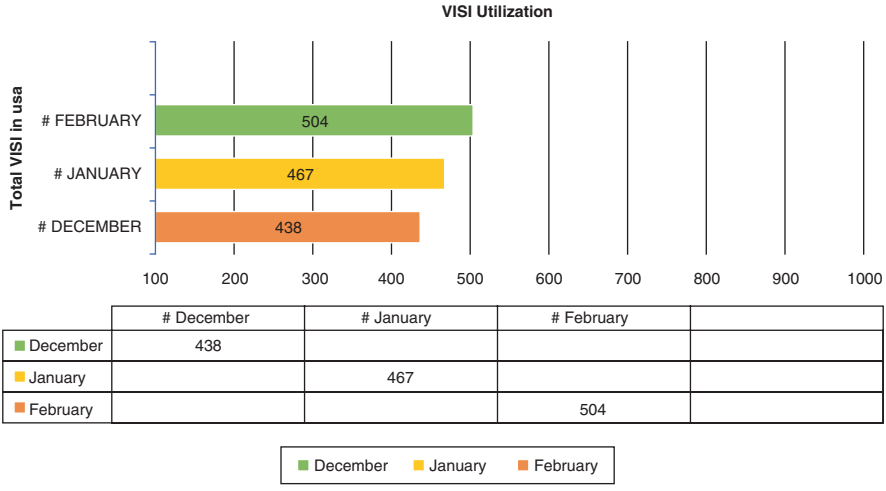

Fig. 42.3 VISI utilization on the CSU/CTSU . CSU cardiovascular stepdown unit, CTSU cardiothoracic stepdown unit. (© Ochsner Health)

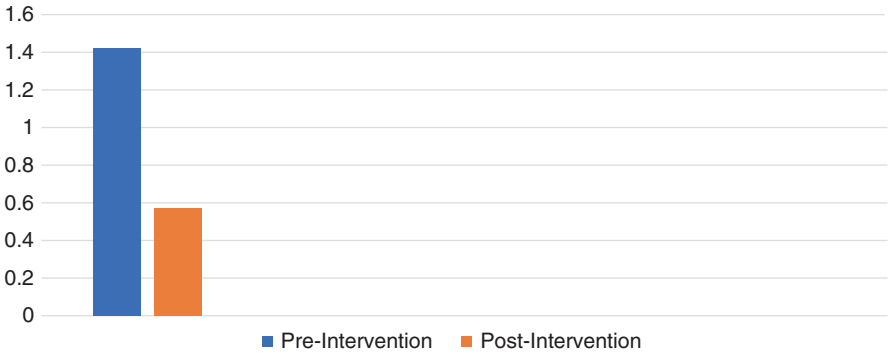

Fig. 42.4 CSU/CTSU floor code blue outcomes pre- and postintervention. (© Ochsner Health)

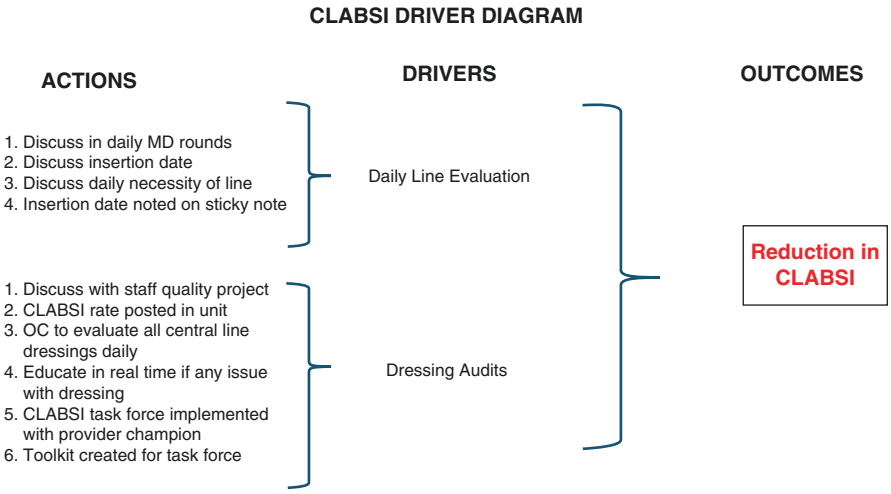

Fig. 42.5 Unit-based CLABSI reduction driver diagram. CLABSI central line-associated bloodstream infection, MD physician. (© Ochsner Health)

Improvement in CLABSI on a Surgical Intensive Care Unit The dyad leaders of our 34-bed surgical intensive care unit recognized that an opportunity existed to decrease CLABSI. They developed the AIM statement shown in Fig. 42.1. The team reviewed and updated its actions via a driver diagram that depicts the actions and drivers to achieve the outcomes. The key drivers were daily line evaluation and dressing audits. The audits included noting insertion date, dates of dressing changes, and appearance of the dressing. The teams conducted rounding weekly to discuss the process and answer any questions of the team members (Fig. 42.5).

The dyad leader partners communicated to the nursing teams and providers regularly. These communications included updates on findings and data, reminders to attend to key processes, celebrating early wins for encouragement, providing feedback on performance, and welcoming questions from the team regarding the

Table 42.1 Examples of unit-based quality improvement projects undertaken in a recent 12-month period

Unit	Project
MTSU	Improved early recognition of sepsis
CSU	Reduction of code blue resuscitation outside of the ICU
IMTA	Improvement in patient experience
Oncology/ BMT	C-diff improvement
SICU	Reduction of CLABSI
OBS unit	Decreased length of stay
TSU	Reduction of line days
PICU	Maintaining quality and safety initiatives during pandemic times
NSCCU	Maintaining quality in NSCCU during COVID
SICU	C-diff improvement
GISSU	Improvements in pressure injury
PICU/CVICU	Use of Children's hospitals' solutions for patient safety for quality improvement
NPU	Reduction in falls
TSU	CLABSI reduction plan

OBS observation, *TSU* transplant stepdown unit, *PICI* pediatric intensive care unit, *CVICU* cardiovascular intensive care unit, *GISSU* gastrointestinal surgical stepdown unit, *SICU* surgical intensive care unit, *NSCCU* neuroscience critical care unit, *MTSU* medical telemetry stepdown unit, *IMTA* internal medicine telemetry area, *BMT* bone marrow transplant, *NPU* neuroscience progression unit

process. The outcome has been a continuous decline in CLABSI occurrences. The team achieved zero CLABSI occurrences during the first quarter of 2021 compared to the three events during the same period the year before.

While these examples focus on just two dimensions of unit performance, our records show that more than 100 such projects have been undertaken and presented during the past 5 years. A listing of such projects that unit teams took on even during pandemic conditions gives testimony to the sustainability of our unit-based dyad leadership and improvement model (Table 42.1). Consistent use of the performance improvement tools in the context of a unit dyad partnership management model has been a key success factor in organizational quality improvement while also engaging the entire team and cementing interpersonal relationships.

42.3 Quality Synergies with the American Nurses Credentialing Center Magnet Designation Model for Safety

The dyad model embodies quality synergies with the ANCC Magnet designation, the highest and most prestigious credential a healthcare organization can achieve for nursing excellence and quality patient care. Its hallmarks are improved patient outcomes, nurse satisfaction and retention, and reduced costs [9]. As a four-time recipient of the Magnet designation, our organization uses the dyad physician-nurse model to promote quality synergies with respect to performance improvement.

Although physician perceptions of Magnet-accredited nurses and organizations have not been studied extensively, Vila (2016) demonstrated that physicians perceive Magnet nurses as knowledgeable, confident, change agents who carry the ability to tackle challenging issues [10]. This qualitative evidence demonstrates the strong link between Magnet accreditation and the importance of a dyadic approach to organizational leadership.

The Forces of Magnetism identified more than 30 years ago have remained steadfast, while the program has evolved in response to changes in the healthcare environment. In 2007, the Commission on Magnet collapsed the former 14 Forces of Magnetism into 4 domains. The focus shifted to achieving superior performance as evidenced by outcomes. The domains for sources of evidence are structural empowerment, transformational leadership, exemplary professional practice, and new knowledge, innovations, and improvements. Components may be demonstrated and are supported and embedded in the dyad model. Excellence is determined through the evaluation of examples demonstrating the infrastructure for excellence. The examples provided in the dyad partnership model demonstrate the structure and process used to achieve improved outcomes.

42.4 Organizational Learning for Quality Improvement

While occurring at the unit-based level, the dyad partnership allows for continued learning across the organization. The dyad partners come together twice monthly at the Unit Director/Unit-Based Medical Director Council. In addition to sharing project experience, unit leaders review overall and unit-level organizational performance on quality measures with members of the hospital executive team. The council is jointly hosted by the VPMA and CNO. Organizational action planning is supplemented by unit-based improvement projects. Although organizational action planning is discussed in these forums, unit-based projects are always given priority on the agenda to respect the teams' work. Organizational learning is facilitated through a collaborative learning environment for all unit dyad leader members. Dyad teams present their projects, and all are invited to offer suggestions for improvement and encouraged to bring back the successes to their units to address clinical indicators they may have an opportunity to improve. In this way, learning is continuous and purposeful. Leader safety rounding is conducted monthly on each unit by the VPMA. These rounds with the unit dyad leaders and other key stakeholders lend themselves to insight at the bedside with the frontline nurses and providers. Much is learned about the way actions are being operationalized in the patient care setting. Patients and families are included to verify their understanding of care plans and our goals for an optimal care experience.

In summary, the Ochsner academic medical center's dyad leadership model has created a framework for organizational success in quality, patient safety, and leader communication. Through the unit-level physician and nurse leader partnership, meaningful collaboration toward a shared vision has enhanced communication and collaboration effectively. Additionally, in the context of being a Magnet-accredited

institution, it is recognized that the enhanced competencies and confidence of the nursing teams helped launch the model more expeditiously with the end goal to create excellence as an ongoing journey.

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