

## THE PENETRATING POINT

## Unit-Based Interprofessional Leadership Models in Six US Hospitals

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The landscape of hospital-based care has shifted to place greater emphasis on improving quality and delivering value. In response, hospitals and healthcare organizations must reassess their strategies to improve care delivery in their facilities and beyond. Although these institutional goals may be defined at the executive level, implementation takes place at local sites of care. To lead these efforts, hospitals need to appoint effective leaders at the frontlines. Hospitalists are well poised to take on the role of the local clinical care improvement leader based on their experiences as

direct frontline caregivers and their integral roles in hospital-wide quality and safety initiatives. A unit-based leadership model consisting of a medical director paired with a nurse manager has been implemented in several hospitals to function as an effector arm in response to the changing landscape of inpatient care. We provide an overview of this new model of leadership and describe the experiences of 6 hospitals that have implemented it. *Journal of Hospital Medicine* 2014;9:545–550. © 2014 Society of Hospital Medicine

Hospital-based care has become more complex over time. Patients are sicker, with more chronic comorbid conditions requiring greater collaboration to provide coordinated patient care.<sup>1,2</sup> Care coordination requires an interdisciplinary approach during hospitalization and especially during transitions of care.<sup>3,4</sup> In addition, hospitals are tasked with managing and improving clinical workflow efficiencies, and implementing electronic health records (EHR)<sup>5</sup> that require healthcare professionals to learn new systems of care and technology. Payment models have also started to shift toward an incentive and penalty-based structure in the form of value-based purchasing, readmission penalties, hospital-acquired conditions, and meaningful use.<sup>4,6</sup>

In response to these pressures, hospitals are searching for ways to reliably deliver quality care that is safe, effective, patient centered, timely, efficient, and equitable.<sup>7</sup> Previous efforts to improve quality in the general medical inpatient setting have included redesign of the clinical work environment and new workflows through the use of checklists and “whiteboards” to enhance communication, patient-centered bedside rounds, standardized protocols and handovers, and integrated clinical decision support using health information technology.<sup>8–13</sup> Although each of these care

coordination activities has potential value, integrating them at the unit level often remains a challenge. Some hospitals have addressed this challenge by establishing and supporting a unit-based leadership model, where a medical director and nurse manager work together to assess and improve the quality, safety, efficiency, and patient experience-based mission of the organization.<sup>14,15</sup> However, there are few descriptions of this leadership model in the current literature. Herein, we present the unit-based leadership model that has been developed and implemented at 6 hospitals.

### MODELS OF UNIT-BASED LEADERSHIP

The unit-based leadership model is grounded on the idea that culture and clinical care are products of frontline structure, process, and relationships, and that leaders at the site of care can have the greatest influence on the local work environment.<sup>16,17</sup> The objective is to influence care and culture at the bedside and the unit, where care is delivered and where alignment with organizational vision and mission must occur. The concept of the inpatient unit medical director is not new, and hospitals in the past have recruited physician leaders to become clinical champions for quality improvement and help establish a collaborative work environment for physicians and unit-based staff.<sup>18–22</sup> These studies report on the challenges and benefits of incorporating a medical director to inpatient psychiatry or general care units, but do not provide specific details about the recruitment and responsibilities for unit-based dyad partnerships, which are critical factors for success on multidisciplinary inpatient care units.

There are several logistical matters to consider when instituting a unit-based leadership model. These include the composition of the leadership team,

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selection process of the leaders, the presence of trainees and permanent faculty, and whether the units are able to geographically cohort patients. Other considerations include a clear role description with established shared goals and expectations, and a compensation model that includes effort and incentives. In addition, there should be a clearly established reporting structure to senior leadership, and the unit leaders should be given opportunities for professional growth and development. Table 1 provides a summary overview of 6 hospitals' experiences to date.

## DISCUSSION

In reviewing our 6 organization's collective experiences, we identified several common themes and some notable differences across sites. The core of the leadership team was primarily composed of the medical director and nurse manager on the unit. Across all 6 organizations, medical directors had a portion of their effort supported for their leadership work on the unit. Leadership development training was provided at all of our sites, with particular emphasis on quality improvement (QI) methods such as Six-Sigma, Lean, or Plan, Do, Study, Act (PDSA). Additional leadership development sessions were provided through the organization's human resources or affiliated university. Common outcome measures of interest include patient satisfaction, interdisciplinary practice, and collaboration on the unit, and some hospital-acquired condition measures. Last, there is a direct reporting relationship to a chief or senior nurse or physician leader within each organization. These commonalities and variances are further detailed below.

### Establishing the Unit-Based Leadership Model

The composition of the unit-based leadership model in our 6 organizations is predominantly a dyad partnership of medical directors and nurse managers. Although informal physician-nurse collaborative practices have likely been in existence at many hospitals, formalizing this dyad partnership is an important step to fostering collaborative efforts to improve quality of care. It is also essential for hospital leadership to clearly articulate the need for this unit-based leadership model. Whether the motivation for change is from a previously untenable practice environment, or part of an ongoing improvement program, the model should be presented in a manner that supports the organization's commitment to improve collaborative practices for better patient care. One of our 6 hospitals initiated this leadership model based on troubling relationships between nurses and physicians on some of their inpatient care units, which threatened to stall the organization's Magnet application. Implementation of the leadership model at the unit level yielded improvements in nurse-physician interactions, patient satisfaction, and staff turnover.<sup>15,23</sup> Another of the hospitals first evaluated why a previous attempt at

this model did not deliver the intended outcomes, and redesigned the model based on its analysis.<sup>14</sup>

Across all of the organizations featured here, a common driver behind the adoption of the unit-based leadership model was to bridge the divide between physician services and nursing and other allied health providers. We found that many of the physicians routinely had patients on multiple units, limiting the quantity and quality of collaborative practices between unit-based staff and physician teams. The unit-based dyad leaders are ideally positioned to build and foster a culture of collaboration, and our organizations have been inclusive to ensure the participation of a multidisciplinary group of providers, including representatives from pharmacy, environmental services, physical therapy, respiratory therapy, social work, case management, and nutrition at leadership meetings or in daily patient-care discussions. In addition, 2 of the organizations have added quality improvement specialist/project managers to their teams to support the physician-nurse manager leaders on the unit.

### Selection Process and Professional Development

The traditional approach to hiring a physician leader or a nurse manager has been an isolated process of drafting a job description for each position and hiring within their respective departments. For the dyad partnership to be successful, there should be established goals and expectations that require shared responsibilities between the 2 partners, which should guide the selection of these leaders. Other leadership attributes and essential character traits that should be modeled by the unit-based leaders include good communication skills, respect among coworkers, and a collaborative approach to decision making and action. In addition, both physician leaders and nurse managers in these roles should have the ability to take a system's view, recognizing that within the complex network of healthcare providers and processes on their unit, these elements interact with each other, which lead to the outcomes achieved on their units.<sup>24,25</sup> Table 2 lists some general shared responsibilities, highlighting specific activities that can be used to achieve the established outcomes. As the unit's dyad leadership works together to address these shared responsibilities, they should keep their sights focused on the overall strategic goals of the healthcare organization. Bohmer has defined 4 habits of the high-value healthcare organization that in turn can be reflected through the inpatient unit leadership model to capture these activities at the local level: (1) planning care for specific patient populations, (2) microsystem design, (3) measurement and oversight, and (4) self-study.<sup>26</sup> In determining specific shared responsibilities for each dyad partner, it is important for these leaders to understand the clinical microsystem of their unit such as their patient population, interdisciplinary

**TABLE 1. Comparison of Unit-Based Interprofessional Leadership Models in Six US Hospitals**

Structure	Hospital of the University of Pennsylvania	Northwestern Memorial Hospital	Emory University Hospital	University of Michigan Health System	Christiana Care Health System	St. Joseph Mercy Health System/ Integrated Health Associates
Description of hospital(s)	Academic medical center, 784 beds, 40,000 annual admissions	Academic medical center, 897 beds, 53,000 annual admissions	Academic medical center, 579 beds, 24,000 annual admissions	Academic medical center, 839 beds, 45,000 annual admissions	Independent academic medical center, 1,100 beds, 53,000 annual admissions	Tertiary community hospital that is part of a larger health care system (Trinity Health), 579 beds, 33,000 annual admissions
Unit leadership model	Triad of medical director, nurse manager, and quality improvement specialist/project manager	Dyad of medical director and nurse manager	Dyad of medical director and nurse manager	Dyad of medical director and nurse manager	Dyad of medical director and nurse manager	Dyad of medical director and nurse manager
Percent effort time supported for unit medical director	10%	17%	10%	20%	20%	10%
Incentives built into unit leaders' performance in outcomes metrics	No	Yes	No	No	No	Yes
Professional development/leadership training	Quality improvement method: PDSA, Six Sigma, Lean Healthcare Additional leadership development through Penn Medicine Leadership Academy and Wharton Executive Education	Quality improvement method: Six Sigma Additional leadership development through Northwestern's professional development center and simulation training	Situational leadership training with 1:1 mentoring Conflict resolution skill development Personality profile with coaching	Quality improvement method: Lean Healthcare, service excellence program Attend patient and Family Centered Care conference Additional leadership development through University of Michigan Health System's human resources group	Quality improvement method: Six Sigma, Lean Healthcare Additional leadership development through Christiana Care Learning Institute	Quality improvement method: Six Sigma Attend educational course on Crucial Conversations
Outcomes metrics monitored	Patient satisfaction Efficiency of multidisciplinary rounds RN-ND work environment surveys Hospital-acquired conditions (CAUTI, CLABS, VAP, DVT, pressure ulcers) Readmission rates Core measures, patient safety indicators Mortality (observed to expected, transfer, inpatient) Medication reconciliation Home care, hospice, post-acute care referral rates	Patient satisfaction Teamwork climate (survey) Adverse events Hospital-acquired conditions (fall rates, pressure ulcers) Readmission rates Core measures Hand hygiene	Patient satisfaction Teamwork and implementation of structured interdisciplinary bedside rounds Hospital-acquired conditions (CAUTI, CLABS, fall rates, pressure ulcers) Mortality Length of stay Glycemic control	Patient satisfaction Multidisciplinary rounds Unit-based patient safety culture survey Hospital-acquired conditions (CAUTI) Readmission rates DVT prophylaxis Meeting attendance	Patient satisfaction Interdisciplinary rounds Patient-centered, bedside rounds Hospital-acquired conditions (fall rates, pressure ulcers) Readmission rates Hand hygiene Length of stay Restraint use	Patient satisfaction Participation in interdisciplinary rounds Readmission rates Core measures Medication reconciliation Discharge by 11 AM Use of patient teach-back Communication with PCPs
Organizational leadership structure support for clinical unit partnership program	CMO, CNO, vice president of quality/patient safety, directors of medical and surgical nursing	Associate chair of medicine, director of medicine nursing; all medical directors are members of the department of medicine quality management committee	CMO, CNO, CEO, COO	CMO, CNO	All teams report to and are supported by 3 overarching, system-wide committees: (1) safety first, (2) think of yourself as a patient, (3) clinical excellence. Those committees, in turn, report up to the senior management quality/safety coordinating council.	Director of hospitalist program (reports to CMO); nursing director of acute care (reports to CNO)

NOTE: Abbreviations: CAUTI, catheter-associated urinary tract infection; CEO, chief executive officer; CLABS, central line-associated bloodstream infection; CMO, chief medical officer; COO, chief nursing officer; CNO, chief nursing officer; CCO, chief quality officer; DVT, deep venous thrombosis; MD, medical doctor; PCP, primary care provider; PDSA, Plan, Do, Study, Act; RN, registered nurse; SCIP, surgical care improvement project; VAP, ventilator-associated pneumonia.

**TABLE 2.** General Shared Responsibilities With Examples of Specific Activities Between the Unit Dyad Leadership

General Shared Responsibilities of Physician and Nurse Unit Directors	Examples of Specific Activities
Serve as management partners to enhance culture of the unit	Co-craft and deliver consistent leadership message Co-establish and enforce unit processes and protocols Co-lead recruitment and retention efforts Co-orient trainees and faculty rotating through unit Co-educate on the management of common medical and surgical conditions Facilitate interstaff conflict resolution sessions Regular leadership meetings
Actively manage unit processes and outcomes	Quality: improve core quality measure performance Safety: improve culture of patient safety within the unit as measured by surveys and incident reporting systems Efficiency: reduce unnecessary length of stay and variability in resource use Patient experience: focus on improving patient-family experience with targeted outcomes in patient experience metrics (eg, HCAHPS) Education: develop trainee and staff clinical and teamwork competencies
Continuous process improvement initiatives (eg, PDSA cycles)	Improve the discharge transitions process, tailoring the process to each individual patient's identified risk factors Focus improvement efforts on reduction in specific hospital acquired conditions such as CAUTI, VTE, CLABSI, pressure ulcers, falls Measure, analyze, reassess, and improve in all described areas of shared responsibilities Perform unit level chart reviews to evaluate readmissions and LOS and identify improvement opportunities

NOTE: Abbreviations: CAUTI, catheter-associated urinary tract infection; CLABSI, central line-associated blood stream infection; HCAHPS, Hospital Consumer Assessment of Healthcare Providers and Systems; LOS, length of stay; PDSA, Plan, Do, Study, Act; VTE, venous thromboembolism.

care team, approach to process improvement, and performance patterns over time.<sup>27</sup>

In our collective experience, the dyad leaders bring passion and commitment to improving care; however, many (the medical directors in particular) have minimal prior formal training in leadership, quality improvement, or hospital management. Recognizing that unit leaders require specialized knowledge and skills, each of our organizations has enrolled unit medical directors and nurse managers in leadership development courses or educational programs. Many healthcare organizations have become more grounded in a QI methodology including Six-Sigma, Lean Healthcare, PDSA, and other scientifically based methods, and the unit-based leaders should receive advanced training in the preferred methods of their institution. Additional training in quality improvement, patient safety, and physician leadership can also be obtained through supplemental coursework specifically designed to train hospital leaders, with some programs leading to a certification or additional credentials.<sup>28</sup>

Beyond such formal educational opportunities, hospitals should not overlook the opportunity to learn from and share experiences with the other dyad leadership units within the hospital. One of the organizations described here holds monthly meetings with all of the unit dyad leaders, and 2 other organizations conduct quarterly meetings to share experiences and best practices related to specific improvement initiatives in a learning network model. Those units with more experience in specific initiatives are asked to share their lessons learned with others, as well as support each other in their efforts to collectively meet the strategic goals of the hospital.

### Time and Organizational Support

In addition to leadership development, hospitals and the clinical department leadership need to support the medical directors with dedicated time away from their usual clinical duties. Some organizations in this report are providing up to 20% effort for the medical director's unit-based leadership work; however, there is some variation in practice with regard to physician effort across sites. The University of Pennsylvania has a smaller effort support at 10%; however, some of that effort differential may be offset through the allocation of the quality improvement specialist/project manager assigned to work with the medical director and nurse manager dyad. St. Joseph Mercy Hospital also has a lower allocation, as there is additional financial compensation for the role that is at risk and not included in this 10% allocation.

It is also important to assure that the medical directors have institutional support to carry out their work in partnership with their nursing leadership. The 6 health systems described here report that although most of the physicians have appointments within a physician group or clinical department, there is hospital leadership oversight from a chief medical, nursing, or operating officer. This organizational structure may be an important aspect of the model as the unit-based leaders seek to align their efforts with that of the hospital. Further, this form of organizational oversight can ensure that the unit leaders will receive timely and essential unit- and hospital-based performance measures to manage local improvement efforts. These measures may include some components of patient experiences as reported in the Hospital Consumer Assessment of Healthcare Providers and Systems survey, readmission rates, hospital-acquired condition rates, length of stay, observed to expected mortality rates, and results of staff satisfaction and safety culture surveys. As highlighted by several studies and commentaries, our collective experiences also identified interdisciplinary teamwork, collaboration, and communication as desirable outcome measures through the unit-based leadership structure.<sup>21,22,24,29,30</sup> The medical director and nurse manager dyads can prioritize their

improvement efforts based on the data provided to them, and mobilize the appropriate group of multidisciplinary practitioners and support staff on the unit.

## OTHER CONSIDERATIONS

Other infrastructure variables that may increase the effectiveness of the unit leadership dyad include unit-based clinical services (geographic localization), engaging the frontline team members in the design and implementation of change innovations, a commitment to patient and family centered practices on the unit, and enhancing clinical workflow through the support of EHR functions such as concurrent documentation and provider order entry. Geographic localization, placing the fewest possible clinical service providers on the unit to work alongside unit-based staff, allows for a cohesive interdisciplinary unit-based team to develop under the dyad leadership, and has been shown to improve communication practices.<sup>9,31</sup> Beyond geographic localization of patients, it is critical to ensure team members are committed to the changes in workflow by directly involving them through the design and implementation of new models of care taking place on the unit. This commitment starts from the top senior nurse and physician leaders in the organization, and extends to the unit-based dyad partners, and down to each individual interdisciplinary team member on the unit.<sup>1</sup> Thus, it is critical to clarify roles and responsibilities and how team members on the unit will interact with each other. For some situations, conflict management training will be helpful to the unit-based leaders to resolve issues. To appreciate potential barriers to successful rollout of this unit leadership model, a phased implementation of pilot units, followed by successive waves, should be considered. Many of the units that instituted unit-based interdisciplinary team rounds solicited and implemented direct feedback from frontline team members in efforts to improve communication and be more patient centered. Conversely, there are also likely to be situations where the unit-based leaders will be confronted with hindrances to their unit-based collaborative improvement efforts. To help prepare the dyad leaders, many of our unit-based leaders have received specific training on how to coach and conduct difficult conversations with individuals who have performance gaps or are perceived to be hindering the progress of the unit's work. These crucial negotiation skills are not innate among most managers and should be explicitly provided to new leaders across organizations.

The goals and merits of patient- and family-centered care (PFCC) have been well described.<sup>32–34</sup> Organizational support to teach and disseminate PFCC practices throughout all settings of care may help the leadership dyads implement rounding strategies that engage all staff, patients, and family

members throughout the hospital course and during the transitions out of the hospital.

Clinical workflow has become heavily dependent on the EHR systems. For those organizations that have yet to adopt a particular EHR system, the leadership dyads should be involved throughout the EHR design process to help ensure that the technological solutions will be built to assist the clinical workflow, and once the system has been built, the leadership dyad should monitor and enhance the interface between workflow and EHR system so that it can support the creation and advancement of interdisciplinary plans of care on the unit.

## CONCLUSION

The care of the hospitalized patient has become more complex over time. Interdisciplinary teamwork needs to be improved at the unit level to achieve the strategic goals of the hospital. Although quality improvement is an organizational goal, change takes place locally. Physician leaders, in partnership with nurse managers, are needed now more than ever to take on this task to improve the hospital-care experience for patients by functioning as the primary effector arms for changing the landscape of hospital-based care. We have described characteristics of unit-based leadership programs adopted across 6 organizations. Hospitalists with clinical experience as the principal providers of inpatient-based care and quality improvement experience and training, have been key participants in the development and implementation of the local leadership models in each of these hospital systems. We hope the comparison of the various models featured in this article serves as a valuable reference to hospitals and healthcare organizations who are contemplating the incorporation of this model into their strategic plan.

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