

Nonphysician Providers in the Hospitalist Model: A Prescription for Change and a Warning About Unintended Side Effects

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The current state of our profession is that the US population is aging rapidly, requiring ever more healthcare, and there is a stagnant number of physicians to care for them. The question of who will care for our aging population has been raised over and over in the past decade but the question is worth repeating. As our country continues to deliver state-of-the-art medical care, it is slow to embrace the notion that in order for it to continue, it will need to incorporate the professions of advanced practice nurses and physician assistants. Without these nonphysician providers our medical community will not be able to reach the patients we have sworn to treat.

The percent of the US population age >65 years is projected to increase from 12.4% in 2000 to 19.6% in 2030. The number of persons age >65 years is expected to increase from approximately 35 million in 2000 to an estimated 71 million in 2030, and the number of persons age >80 years is expected to increase from 9.3 million in 2000 to 19.5 million in 2030.¹ Our aging America is also coupled with a growing physician shortage. In its report entitled "Physician Workforce Policy Guidelines for the United States, 2000-2020," the Council on Graduate Medical Education recommended increasing the number of medical school graduates by 3000 per year by the year 2015 to meet the increasing need.² Given the current trend of decreasing physician reimbursement coupled with the average medical school debt of \$139,517,³ it is doubtful that the extra 3000 physicians needed to graduate in 2015 will actually ever do so. Despite this possible additional physician workforce, there still stands to be enormous need for the nonphysician provider with our rapidly expanding senior population.

Our nation's hospitals are by no means spared from our aging population or physician shortage. In fact, they are likely to be the hardest hit. Hospitalists are already feeling the pressure of an overstressed workforce coupled with increasing patient volume.⁴ There is a growing body of evidence supporting the successful collaboration between hospitalists and nurse practitioners (NPs)/physician assistants (PAs) (collectively, nonphysician providers [NPPs]). No longer are NPPs only working in outpatient practices or in the operating room, but they are actively involved with inpa-

tient medical units improving our Hospital Medicine (HM) specialty. According to Myers et al.,⁵ the hospitalist NP model improved program finances and increased physician and resident satisfaction. In order for Hospital Medicine to create increasing value for its parent hospital or to the community it serves, NPPs will need increased integration into our care model for improved overall efficiency. We focus herein on the advantages and potential benefits of NPPs relating to their varied roles within HM.

Scope of Practice

The scope of practice of NPPs is regulated by each individual state board of registration. However, differences from state to state are usually minor and general statements on the practice scope of PAs and NPs can be made.

PAs

PAs practice under the supervision of a physician. PAs are trained in programs affiliated with medical schools and according to the medical model of care that emphasizes diagnosis and treatment. Most PAs graduate with a masters of science degree. According to the American Association of Physician Assistants (AAPA), the scope of practice is guided by state law, facility policy, and delegatory decisions made by the supervising physician.⁶ Prior experience and training should be the framework for scope of practice decisions. All 50 states allow PAs to prescribe with some oversight and restriction of schedule 2 controlled substances or by using a state formulary. The AAPA embraces the concept of the physician as "the captain of the healthcare team" and sees the PA role as "entirely complementary to the care provided by physicians."⁷ This means that PAs, under an individual supervision agreement, can prescribe medicines, order and interpret tests, diagnose, and treat patients just as a physician would.

Advanced Practice Nurses

Advanced practice nurses (APNs) are trained under the nursing model and generally have some years of nursing experience before they pursue an entry-level masters of science degree to become an APN. APNs can be divided into two categories: Clinical nurse specialists, who generally

focus on patient and institutional education and are considered “experts” in nursing practice, and NPs, who have a focus on diagnosis and treatment of medical conditions. A clinical nurse specialist does not have prescriptive training or authority. NP training can be general (adult or family) or specific (eg, acute care, geriatric, pediatric, psychiatric). The American Association of Colleges of Nursing (AACN) has recommended that the entry level of all new NPs should be a clinical doctorate of nursing practice. Although controversial, many colleges have embraced this recommendation and are opening clinical doctorate-level programs.⁸ Although some states allow NPs to practice independently, most NPs have a practice agreement with a collaborating physician that delineates the degree of supervision. Generally, the NP’s scope of practice is identical to PAs and includes the above-mentioned activities as proscribed by state regulations and facility bylaws. As with PAs, their prior experience and training should be the most important determinant of their scope of practice in a new position.

Potential Benefits of NPPs

Continuity

If a nonacademic hospitalist program has high yearly turnover due to use of recent medical graduates who are planning to do fellowships, NPPs can provide much needed stability and facilitate orientation of new physicians to the hospital. NPPs who work in academic settings can also provide increased continuity for patients and hospital staff. Residents, fellows, and attendings have certain rotational cycles on each medical service. NPPs generally do not rotate and can be the anchor of a medical team for patients and ancillary staff. Utilizing NPPs as “liaisons” between the hospitalist team and other members of the care team (eg, nurses, case managers, therapists, and administration) provides continuity for these groups and a central person who can help to facilitate change.

Quality Measures

NPPs can play an important role in hospital compliance with internal hospital or insurance provider quality initiatives. Surveillance of patients and charts for compliance with core measures, infection control, and prevention of complications are within the scope of practice of NPPs and can be incorporated into job descriptions. NPs and PAs will have the added responsibility of not only leading these surveillance teams but also in the correction of outliers given their prescriptive abilities. This will become an increasingly important task as reimbursement for preventable complications is curtailed. Additionally, the development and implementation of clinical pathways can be a focus of the NPP role to standardize and enhance quality of care.

Multidisciplinary Team Approach

Multidisciplinary teams that consist of NPPs, physicians, nurses, and therapists have been shown to increase commu-

nication and collaboration between participants.⁹ Mary Naylor, a Professor of Nursing at the University of Pennsylvania, has authored multiple articles and studies which examine the benefit of a multidisciplinary team that includes APNs with hospitalized patients. She has found that involving APNs in patient care, discharges, and routine follow-up after discharge led to longer time to readmissions and decreased healthcare costs.^{10–12} Furthermore, a nonteaching group consisting of NPPs, fellows, and attendings at the Mayo Clinic found increased physician satisfaction, shorter length of stay (LOS), and increased efficiency for their patients.¹³ A study done at JFK Medical Center in Florida noted that a collaborative practice which included unit-based NPs serving in the dual role of NP and clinical nurse specialist increased patient satisfaction and improved patient outcomes.¹⁴

Financial Advantages

Efficiency and quality care are the cornerstones of HM. The partnership of NPPs within the specialty is creating even better performance. Models incorporating NPPs in the Hospitalist team approach are continuing to drive efficiency. Cowan et al.¹⁵ demonstrated that a multidisciplinary team, including nurse practitioners, decreased LOS from 6.01 to 5.0 and a reduced cost by \$1,591 per patient. It is this team approach that will lift our specialty to be the model of care for all future hospital practice.

Another factor in determining the fiscal advantage of NPPs is salary and medical liability comparison. According to the 2007 Society of Hospital Medicine (SHM) Survey, the average hospitalist salary is approaching \$190,000, compared to an average NP earning \$87,000 and PA earning \$84,500.⁴ Furthermore, the average internal medicine malpractice payment for physicians ranges from \$14,237 to \$68,867.¹⁶ In comparison, the average malpractice insurance premium for NPPs varies from state to state but is approximately \$800 to \$2000 per year.^{17,18} With increasing fiscal scrutiny from hospitals, HM groups (HMGs) will need to include NPPs to be fiscally stable.

Models of Care

There are many models for NPP roles in hospital medicine groups. Some groups use NPPs in the same role as physicians. They perform admissions, rounding, and discharges with varying degrees of oversight by physicians. Other groups use NPPs for a more limited role, such as exclusively performing histories and physicals in the emergency department or handling discharges on the wards. It is important to take into account the preferences and expectations of NPPs when designing job descriptions. While some NPPs may like the fast pace and quick turnover of admissions and discharges, others may prefer to follow patients throughout their hospital stay. The quality of handoffs is crucial if the former model is used, just as it is with physicians in this more truncated role. An NPP who works in a

nonacademic model will likely have more autonomy and control over patient care decisions. An NPP role in the teaching service of an academic hospital is likely to be more collaborative and focus more on quality initiatives, patient teaching, and communication. It is crucial to design an NPP model that is sustainable with very strong support of management once the NPP is hired and orientated.

Registered Nurses And Hospital Medicine

Patient handoffs and communication are one of the most challenging aspects of an HMG. There is an increasing movement, throughout the country, to incorporate registered nurses (RNs) into daily workflow. The RN on the HM team can serve to augment the communication and workflow process. A highly motivated and organized registered nurse can help to improve overall provider's workflow efficiency. Communication to primary care physician and collecting ancillary medical information can allow the provider to treat more patients in a given shift and decrease the liability risk from lack of information. As HM organizations and hospitals become more financially bound, HMGs will need to become more efficient at time management and a dedicated RN can help smooth that process.

Potential Unintended Side Effects

Obviously, integration of NPPs can be a disaster for an HMG if not handled properly. Most hospitalists have heard of an integration of NPP into a group that was an unqualified failure. NPPs can feel unsupported, poorly oriented to the job, or thrown into a situation that is over their heads. Before an NPP is hired into an HMG, there needs to be a thorough examination of the rationale behind the decision and assessment of the hospital culture that will be the host of the new NPP. What does the HMG need for support? Are they looking for a short-term fix for increased volume or a long-term strategy to build a multidisciplinary team? Does the hospital culture see NPPs as poorly qualified to act as hospitalists or uniquely qualified to address shortcomings of the program? A clear job description should be the first step in determining what the NPP is expected to do. This can then be shared with the hospital leadership in advance to promote buy-in. The second step is finding an NPP that fits the goals of the program. A new NPP, by virtue of the fact that they have less clinical hours in training than a physician hospitalist, will need more support and a longer orientation. NPPs who have experience in hospital medicine will have a much shorter orientation. A stepwise approach to orientation can be helpful in assessing skill level of new hires. These NPPs can be initially paired with an enthusiastic physician to provide support and assessment of existing skills. A gradual increase in independence can provide assurance that the NPP is qualified to provide care and gives many opportuni-

ties for reevaluation of the NPP. Clear expectations and constructive feedback should ultimately lead to a degree of comfort within the HMG, hospital, and the NPPs themselves.

Conclusions

It is clear that our healthcare system will need a very different approach to the economic problems it is facing. Standardization of care, integrated medical records, and expanded and universal resource utilization will drive the next generation of healthcare providers. The model of a private physician working alone under the direction of only his or her own medical knowledge is a thing of the past. Just as the HM specialty has grown from 300 in 1996 to more than 20,000 in 2008, so shall the integration of NPPs grow into our healthcare fabric.

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