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PERSPECTIVES IN HOSPITAL MEDICINE

Developing and sustaining advanced practice provider services: A decade of lessons learned

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INTRODUCTION

In 1996, the article "The Emerging Role of 'Hospitalists' in the American Health Care System" in the *New England Journal of Medicine* gave name to an emerging cohort of physicians: hospitalists.[1] It began with a statement: "The explosive growth of managed care has led to an increased role for general internists and other primary care physicians in the American Healthcare System,"[1] necessitating specialists in inpatient medicine. This growth has since expanded to include advanced practice nurses (APNs) and physician assistants (PAs).

As of 2020, 10% of APNs and 41.5% of PAs identify the hospital as their principal clinical setting with 83.3% of all hospital medicine (HM) groups reporting APN/PA utilization.[2–4] This has led to an expansion of their clinical roles, the scope of practice, and independence within these roles. While inpatient APN/PA care models vary, successful integration into a hospital's broader clinical operations has the potential to improve the quality and efficiency of care, promote the development of cohesive interprofessional teams, and reinforce a positive reputation of APN/PAs.[5–9] Conversely, a poorly integrated or failed APN/PA service can have detrimental effects on the reputation of APN/PAs and their future use at an institution. APN/PAs continue to be cited as an important resource to combat physician shortages and are increasingly being deployed in acute care inpatient settings in roles that go beyond the traditional extender model and broaden APN/PA autonomy.[2,3,10]

During the COVID-19 pandemic, numerous healthcare systems deployed APN/PAs to meet institutional needs; one study reported that 78.6% of 119 surveyed organizations had redeployed or planned to redeploy APN/PAs to front-line specialties.[11] Additional publications have detailed recommendations to evaluate care models, review scope of practice limitations, and utilize APN/PAs in response to the economic healthcare crises posed by COVID-19.[12–14] As APN/PA advocates at our institution, we share lessons learned and successful institution-specific examples based on our experience developing, sustaining, and expanding inpatient medical and surgical APN/PA care models with a goal to provide general considerations when establishing and/or evaluating an inpatient APN/PA care model.

The University of Chicago Medicine (UCM) embraces the use of APN/PAs in acute care settings across a variety of care models, including those with APN/PAs working autonomously and to the limits of their scope of practice. UCM has a Director of Advanced Practice Providers and over 400 APN/PAs with approximately 25% inpatient providers and the remainder working exclusively outpatient or in hybrid inpatient/outpatient roles. We focus primarily on APN/PAs on HM services or the short stay unit (SSU). Additionally, over the course of eight years, three APN/PA coauthors have worked clinically within acute care settings and collectively helped to create, train, and/or sustain 10 APN/PA medical and surgical groups. In this work, they have served on hospital-level committees interfacing with senior-level executives and other APN/PA leaders and stakeholders. HM is a combined physician-APN/PA group, while SSU is entirely APNs, practicing independently with an on-call collaborative physician.

Our key points, with examples, are outlined in Table 1, with additional discussion for each key point below.

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TABLE 1 Ten key points from a decade of lessons learned

Key points	Benefits/Importance	Challenges	Institutional example
Institutional support	Support from high-level leaders is vital for the conceptualization and implementation of an APN/PA group including clinical service-line development and financial support for leadership roles and professional development opportunities	Key stakeholders with limited knowledge of or experience with APN/PAs may hesitate to invest in and develop an APN/PA workforce	Support from both CNO and CMO for integration of APN/PAs into clinical care models Clearly established leadership structure of APN/PA directors (with FTE support), service line managers, and medical directors allows for a bidirectional flow of information, extending from providers to higher-level clinical and administrative leaders Dedicated physician FTE support for medical directors who work directly with APN/PAs
Developing a leadership structure	A strong leadership structure creates stability and accountability, promotes provider confidence, increases job satisfaction, and allows for APN/PA development and mentorship Bidirectional leadership between APN/PA and physician leaders fosters collaboration and advances an APN/PA culture	Limited leadership opportunities and/or unclear leadership structure for APN/PAs restrict individual professional development and institutional visibility Creating a robust APN/PA group with the proper balance of professional leadership and clinical support requires the right team of individuals who have the experience, skills, and desire to foster APN/PA career development Clinical leaders who are disconnected from their providers in terms of presence, communication, and supervision	Intentional development of varied APN/PA leadership roles (e.g., Director, Lead, Manager, committee leads) with FTE support and expectations based on the needs of clinical units and service lines Hiring and developing clinically active APN/PA leaders who demonstrate excellence with interprofessional collaboration Designated collaborative physicians who are involved in day-to-day supervision of and communication with providers
Institutional need	APN/PAs are established providers with institutional and medical knowledge/clinical expertise, providing the potential for lateral mobility during times of crisis (e.g., COVID-19 pandemic, workforce disruptions), and can be leveraged to address emerging healthcare needs/policies	Identifying specific populations where skills and expertise align with institutional needs/requirements to avoid both underutilization and overextension of scope of practice	Specific service lines were created to enhance throughput and decrease discharge delays by allowing APN/PAs to round independently SSU cares for postprocedure and lower acuity patients with expected short lengths of stay, optimizing capacity and educational opportunities on resident services During pandemic surges, APN/PA services increased patient capacity/worked with hospital-level leadership to redeploy providers to understaffed clinical areas
Service structure	Clearly outlined expectations, clinical roles, and leadership structures provide for training tailored to specific conditions and clinical situations, creating opportunities for APN/PAs to become experts in defined patient populations	Navigating utilization pitfalls, such as poorly defined clinical and supervision expectations, varied or changing job descriptions, schedules, and census caps	Created an Administrative Employee Policy Manual outlining shifts, required weekends/holidays, and call expectations Multiple services have clearly identified a collaborative physician with scheduled on-call availability

(Continued)

TABLE 1 (Continued)

Key points	Benefits/Importance	Challenges	Institutional example
			HM APN/PAs manage their own panel of patients with an available collaborative physician on comanaged services, with an expectation to present in multidisciplinary rounds
Scope of practice	Allowing APN/PAs to practice to the extent of their license and scope of practice maximizes clinical potential and professional development while increasing access to patient care	Effective utilization of APN/PAs can be impacted by varied and conflicting state and institutional regulations/policies magnified by nuanced differences between APN/PAs	Clearly outlined SSU expectations about the autonomous practice including the role of MD supervision and communication to assist with questions and concerns
		Limited understanding of regulations/policies and APN/PA training and capabilities by clinical leaders restricts potential	Inpatient APN/PAs are capable of full-spectrum inpatient care (i.e., admitting, daily care, and discharging)
Onboarding and continuous training and education	Institutional investment is demonstrated through having an established onboarding process that sets expectations, reduces attrition, and allows for provider growth through a formal review	Due to the varied backgrounds, training, and experience levels of new hires, significant resources are required for a successful onboarding program, which includes a process for assessment and/or remediation	Developed a hospital-level onboarding committee that created a 30-page document based on a provider needs assessment, focusing on institutional best practices
			Created a mandatory 12-week structured onboarding process, including an orientation signoff, competency checklist, and required quality improvement project with the capability to tailor a timeline for specific needs based on prior clinical experience
	Establishing structured learning opportunities (i.e., lecture series, APN/PA grand rounds) recognizes the importance of ongoing education, provides teaching opportunities, and enhances institutional visibility	Lack of consistent, dedicated time and funds for formal ongoing education for APN/PA acts as a deterrent to full participation in structured learning opportunities	Created SSU lecture series with participation from specialist consultants on commonly seen conditions, designed to build relationships with frequently utilized consultants and align care plans with institutional practices
Right provider—Right patient	Clear role expectations with directed training, defined patient populations, and specific service structure allow providers to practice autonomously and to the extent of their licensure leading to improved patient outcomes, clinical efficiency, and provider satisfaction	Poorly defined clinical roles and expectations may negatively impact patient care, damage APN/PA reputation, lead to provider dissatisfaction or contribute to skepticism regarding APN/PA utilization	Specific APN/PA service lines, individually trained to provide inpatient management of certain conditions/therapies/specialties (e.g., heart failure)
			SSU has a list of defined conditions suitable for the service, many of which have institutional best-practice care pathways and clinical care protocols for postprocedure patients
			Leadership and admitting providers coordinate with triage personnel to place appropriate patients on APN/PA services and protocol in place for transferring a patient off service if needed

(Continued)

TABLE 1 (Continued)

Key points	Benefits/Importance	Challenges	Institutional example
Financial considerations	APN/PA's ability to bill can increase financial flexibility leading to additional revenue generation	Dynamic and competitive market forces cause difficulties navigating salary differences between APN/PA and MDs and academic and nonacademic positions	SSU and HM APN/PAs bill independently and complete annual billing training
	Supporting compensation for leadership and promotional pathways leads to further impact of APN/PA leadership and academic footprint		As opposed to increased salary, offer bought out time to APN/PA leaders to assist with the balance of clinical and administrative responsibilities; resulting in streamlined services and a return on investment through reduced attrition, enhanced professional development, and academic advancement of APN/PA workforce
		Budgeting considerations often narrowly focus on salaries and revenue generation limiting the financial investment in physician supervision and APN/PA leadership and pathways for professional development	UCM supports physician champions of SSU through FTE salary support for collaborative physician medical directors
Outreach	Early and sustained outreach to clinical leaders and providers of specialty service lines establishes and broadens networks while allowing for ongoing assessment, improvement, and education	Clinical leaders and providers may be resistant to APN/PAs due to institutional politics, individual skepticism, and interest in maintaining or protecting clinical "turf"	SSU medical and APN leaders met regularly with clinical leaders of services (Interventional Radiology/ Pulmonology/Gastroenterology) whose patients are cared for by the service, followed by periodic check-ins to discuss concerns or issues
			HM incorporates an annual 360-degree interdisciplinary review process of the APN/PAs based on the AAPA Physician Assistant Core Competencies
Building a culture	Identifying APN/PA groups, with established roles, institutional activities, and leadership positions establishes institutional presence, improves provider satisfaction, and enhances the reputation of APN/PAs	Time-consuming process that requires sustained effort, and buy-in from physicians and institutional partners, can suffer from the loss of key champions if not broadly implemented	Creation of SSU as APN/PA pilot model with subsequent expansion based on its successes
			Mirroring expansion of APN/PA services and institutional leadership roles and committee involvement
			Equal consideration for APN/PA/MD applicants for professional development opportunities (e.g., conferences, fellowships, leadership roles)

Abbreviations: APNs, advanced practice nurses; CMO, chief medical officer; CNO, chief nursing officer; FTE, full time equivalent; HM, hospital medicine; PA, physician assistants; SSU, short stay unit; UCM, University of Chicago Medicine.

BUILDING AN APN/PA CULTURE

When investing in an APN/PA workforce, building an interprofessional foundation is critical, including garnering support from senior leadership and physician colleagues working clinically alongside APN/PAs. To accomplish this, we suggest Optimal Team Practice (OTP), an American Academy of Physician Assistant (AAPA) practice philosophy.[15] According to AAPA, OTP occurs when PAs, physicians, and other healthcare professionals partner to provide quality team-based care without burdensome administrative constraints. Teams determine the level of autonomy at the practice level within the limits of state regulations; this approach fosters collaborative and efficient PA-physician care models.[15] We believe OTP can be applied to care models incorporating APNs. Developing a culture grounded in the philosophy of OTP incorporates many of the tenets described in Table 1.

In our experience, we had success in building a supportive APN/PA culture by focusing on three main components: investment in a strong leadership structure, intentional onboarding, and cohesive physician-APN/PA relationships.

First, we have developed APN/PA leadership positions embedded within the core clinical team to include the APN/PA voice in operational planning and help mitigate APN/PA utilization pitfalls. We built upon the success of the SSU APN/PA pilot to launch eight additional APN/PA-led services. As these teams were built and launched, our SSU APN/PA leaders served as content and institutional experts for billing and compensation, remote physician oversight, and provided education as needed about APN/PA background and training to key stakeholders.

Second, a standardized onboarding process that is focused on new hire knowledge and skills and tailored to their specific needs and clinical contexts helps create a supportive APN/PA culture.[16–19] UCM has created a hospital-level onboarding committee. Within HM, this includes a required quality improvement project which exposes new hires to the importance of professional development and systems-based practice.

Third, we support a strong foundation of respect and collaboration among APN/PA-physician teams. Both HM and SSU have advocated for our APN/PAs to work at their highest scope of practice, equitable general medicine patient censuses, bidirectional physician-APN/PA mentorship relationships, and robust professional development. For example, many APN/PAs contribute to quality improvement and educational projects on local and national levels. With time, a positive culture leads to reputational gains, which can promote the use of APN/PAs within an institution. UCM saw total APN/PAs grow from approximately 200 in 2019 to over 400 in 2022.

SCOPE OF PRACTICE: REGULATORY AND INDIVIDUAL PROVIDER CONSIDERATIONS

Allowing APN/PAs to practice to the extent of their license and scope of practice promotes improved clinical and professional development and can also increase access to healthcare for patients. Therefore, it is imperative to define the parameters of autonomy, supervision, and clinical expectations of the APN/PA workforce. UCM has multiple service lines that were successfully implemented with a leadership structure including APN/PA managers with specific clinical experience in that field. Most managers complete 10% of their time on the service, allowing them to provide expertise for clinical care and daily operations. These leaders educate key stakeholders on the scope of practice and ensure alignment between practice regulations and institutional policies to successfully operationalize APN/PA care models.

For instance, the limits of an APN/PA's clinical practice in a particular work environment are defined by institutional policies yet bound by state regulations. In some states, APNs can work as independent providers whereas PAs historically have been dependent providers, linked by licensure to a collaborating physician. Though these distinctions should be known, this should not limit practice settings from utilizing APNs/PAs in an autonomous fashion if supported by state law. Additionally, it is important to note APN/PA legislation continually evolves, For example, H.B. 1175 in North Dakota recently removed the requirement that a PA have a written agreement with a physician if they practice at licensed facilities such as hospitals with a credentialing and privileging process.[20] To reduce variability across different hospitals, we advocate that institutional APN/PA leadership adjust their policies to align with state standards as the scope of practice expands nationally. Both professions have national organizations that provide resources for the scope of practice and legislation.[21–23] This further supports investing in APN/PA leadership structure as they are often experts on profession-specific questions and trends.

RIGHT PATIENT-RIGHT PROVIDER: MATCHING CLINICAL SKILLS WITH PATIENT CARE NEEDS

As institutions increase APN/PA utilization, defining the patient population for a care model is important to manage clinical expectations by aligning individual training with the service scope of practice. For this reason, we believe it is vital for clinical leaders to familiarize themselves with their individual team member's unique skills, training, and years of experience as an APN/PA to best leverage the collective expertise of each individual and identify areas to foster skill development to promote lifelong learning. At UCM, we have found value in focusing on the philosophy of the "right patient-right provider relationship," which takes into consideration the variability of APN/PA training and experience, as well as patient acuity and complexity.

Unlike physicians whose training is relatively uniform, APN/PAs have varied training models, which raises concerns such as their lack of standardized exposure to hospital settings during their clinical rotations and that hospitalized patients are too medically complex. While these critiques are not without merit, they fail to address the value of an institution's onboarding processes, clinical supervision, institutional support, and the individual integrity of each APN/PA. Multiple studies demonstrate the benefits of APN/PAs.[6–9] One provided a literature review of ICU and acute care trained APN/PAs from 2008 to 2018.[8] The authors found the studies identified the value of APN/PAs in patient care management, continuity of care, improved quality and safety metrics, and patient and staff satisfaction.[8] These studies demonstrate that by focusing on the right patient-right provider relationship APN/PAs can provide high-quality care. Based on this principle, UCM has developed specific APN/PA service lines with specialized training to manage distinct diseases or therapies, such as chronic obstructive pulmonary disease and bone marrow transplants.

CONCLUSION

APN/PAs are an undeniable part of the changing landscape of the American healthcare system. In the inpatient setting, APN/PAs are increasingly taking on clinical roles that broaden autonomy and encourage practicing to the limits of one's scope of practice,

training, and licensure. Investments in these much-needed services are vital to ensure effectiveness and adaptability not only at a single institution but more broadly as a means for meeting growing demands within the healthcare system. For APN/PAs to thrive in these roles, careful consideration needs to be given to key aspects of the care model, its implementation, and the identification of institutional advocates and critics. Based on extensive experience, we have outlined key factors to consider when designing, implementing, and sustaining inpatient APN/PA care models to ensure success.

CONFLICT OF INTEREST

The author Bridget A. McGrath has received a project grant and clinical buy-down from the Section of hospital medicine for a project entitled "L.E.A.D from Where You Are: A Framework to Advance the Academic Footprint of Hospitalist Physicians and NP/PAs" effective July 1, 2022. This manuscript counts toward the observed outcomes of the project. The topic of the manuscript did not require formal IRB or ethics approval as was not patient-facing, did not require data collection, and did not study human or animal subjects. The remaining authors declare no conflict of interest.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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