Navigating the Evolving Landscape of the Dermatologic Workforce

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RESIDENT **PEARL**

- Because dermatology residents are immersed in high-volume clinical practice, they offer a unique perspective on current patient needs and daily workflow challenges that can guide the development of health care policies and care models.

As dermatologists endeavor to meet growing patient demand, novel care models are transforming how the field is practiced. Physician extenders—which include physicians not board certified in dermatology, physician assistants, and nurse practitioners—can play a pivotal role in bridging health care disparities and reducing health care expenditures. Nevertheless, while the dermatologic workforce is adapting to evolving public needs, patient safety must remain the key priority when negotiating changes in scope of practice. Given that the current literature highlights concerning differences in diagnostic accuracy and procedural safety between different providers, further evidence is needed to help guide health care policies and care models.

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As of 2018, the mean dermatologist to population ratio in the United States was 1.10 per 100,000 people, highlighting a shortage of dermatologists that is only predicted to increase in coming years.[1-4] This undersupply is fueled by both an increasing burden of dermatologic disease and population growth.[4] Without readily available access to dermatologic care, many patients are left waiting for weeks to see a dermatologist, depending on geographic region.[5-7] It is not simply patients who perceive wait times to be prolonged; approximately half of dermatologists surveyed by the American Academy of Dermatology (AAD) reported an undersupply of dermatologists in their communities, a finding that strongly correlated with patient wait times.[2] Ensuring the dermatologic workforce is sufficient to fulfill patient needs requires innovation of current practice models. To address this unmet demand, many practices have begun incorporating *physician extenders*, a term that encompasses physicians not board certified in dermatology, physician assistants, and nurse practitioners.[7] The evolving landscape of the dermatologic workforce raises questions about future practice models and patient outcomes.

Scope of Practice for Physician Extenders

In practice, the role of physician extenders is highly variable. Legislation involving the scope of practice for physician extenders constantly is changing and varies by state. As of November 2021, 24 states and the District of Columbia permit nurse practitioners "full practice" authority to triage patients, interpret diagnostic tests, and prescribe treatments without physician oversight, including controlled substances.[8,9] Even in states with "reduced practice" and "restricted practice" paradigms, which necessitate physician oversight, there remains ambiguity. Across the country, state regulatory bodies differ in statues governing licensing requirements, accessibility of the supervising physician, and ultimately culpability in the case of patient harm. Lack of consensus guidelines that clearly define roles and responsibilities has kindled controversy regarding extent of autonomy and liability for adverse outcomes.[10,11]

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With respect to procedures, the AAD has explicitly recommended that "only active and properly licensed doctors of medicine and osteopathy shall engage in the practice of medicine" but that "under appropriate circumstances, a physician may delegate certain procedures and services to appropriately trained nonphysician office personnel."[12] This statement does not refer to or explicitly list the procedures that are appropriate for delegation to nonphysician personnel, and there is wide variability in how this recommendation is applied in daily practice. As it was originally intended, the AAD's "Ethics in Medical Practice" position statement indicated that dermatologists must directly oversee physician extenders, a responsibility that is defined as being "present on-site, immediately available and able to respond promptly" to issues arising during the provision of health care services.[12]

Adverse Events From Cosmetic Procedures

The American Society for Dermatologic Surgery has documented a steady growth in the demand for cosmetic, medical, and surgical services,[13] a trend that has heralded an increase in the number of procedures performed by physician extenders.[14,15] One study contrasted the risk for adverse events following minimally invasive cosmetic procedures performed by physicians or nonphysicians. Of 2116 patients surveyed, 50 adverse events were documented.[14] The cohort treated by nonphysicians experienced a higher incidence of laser burns and dyspigmentation, and the use of improper technique was the most frequently implicated cause of developing an adverse event. Approximately 24.6% of American Society for Dermatologic Surgery members reported treating 10 or more complications of cosmetic procedures performed by nonphysicians.[14] Beyond laser burns and dyspigmentation, this wide range of complications included inappropriately placed filler product, facial drooping, and scarring. These studies highlight the need for further investigation into the outcomes of procedures performed by physician extenders.

Training of Physician Extenders

Even with medical management, emphasis on proper training of personnel is key and remains a legitimate concern. The training of physician extenders in dermatology differs greatly by location; while some physician extenders operate under meticulous guidance and thus can expand their skill set, other physician extenders shadow dermatologists for an arbitrary amount of time before being thrust into practice.[10] It would be a disservice to both patients and nonphysician providers alike to conflate the latter regimen with the 4 years of medical school, 1 year of internship, and 3 years of rigorous specialized dermatologic training that physicians undergo.

This stark discrepancy between the training of physicians and physician extenders raises difficult questions about the patient's right to make an informed decision regarding how they receive health care. Indeed, the casually regulated autonomous practice of some nonphysician providers has ignited public shock and ire.[11]

Reducing Health Care Expenditures

As legislatures deliberate over expanding scope of practice, policies should be based on evidence that prioritizes patient safety. In the appropriate setting, physician extenders can be instrumental to mitigating health care disparities; the use of physician extenders can diminish wait times for patients with routine visits for stable dermatologic disease.[16] Moreover, reducing health care expenditures often is cited as a major benefit of increased utilization of physician extenders.[14] It stands to reason that compensation of nonphysician providers is less expensive for a practice compared with physicians. Physician extenders participating in the management of stable chronic conditions or mild acute conditions may be cost-efficient in these circumstances; however, evidence suggests that physician extenders may incur greater costs than physicians with respect to the utilization of diagnostic tests or prescribing medications. For example, several studies have documented a substantial difference in the number of biopsies needed per malignant neoplasm by physicians compared to physician extenders.[17-19] Particularly in patients younger than 65 years and in patients without history of skin cancer, physician extenders had to perform a greater number of biopsies to diagnose malignant neoplasms vs physicians.[18] In addition to increased utilization of diagnostic tests, nonphysician providers more frequently prescribe medications of varying classes.[20-22] Whether in outpatient offices, emergency departments, or hospital clinics, physician extenders more frequently prescribe antibiotics, which has concerning implications for antibiotic stewardship.[20,21] In states with independent prescription authority, physician extenders are more than 20 times more likely to overprescribe opioids compared to physician extenders in states requiring physician supervision.[23] These findings warrant additional investigation into how prescription patterns vary by provider type and how these differences impact patient outcomes.

Final Thoughts

Improving patient care is inherently a team endeavor, and the contributions of all members of the health care team are critical to success. Engaging physician extenders may help mitigate disparities in dermatologic care, with respect to surveillance of stable chronic conditions or the diagnosis of mild acute diseases. However, the exact scope of practice of physician extenders remains ambiguous, and their training regimens can vary drastically. Therefore, in the interest of patient safety, new patients or medically complex patients (ie, cutaneous lymphomas, nonstable autoimmune connective tissue disease) should be examined and managed by physicians. In either scenario, the patient should be informed of which providers are available and should be integrated into the

decision-making process for their care. Through mutual respect, close collaboration, and candid assessments of patient complexity, different parties within the medical team can unite behind the mission to improve patient outcomes and champion equitable access to health care.

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