

## VIEWPOINT

# The Graying of US Physicians

## Implications for Quality and the Future Supply of Physicians

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**When should a physician retire?** This question is being asked more frequently as the number of physicians in the United States older than 60 years continues to increase. In 2012, it was estimated that 26% or nearly 241 000 of all actively licensed physicians in the United States were older than 60 years.<sup>1</sup> Patient safety advocates, consumer groups, and policy makers have questioned whether older physicians maintain the necessary cognitive and motor skills to continue to provide safe and competent care. In response, the American Medical Association has announced plans to identify organizations that should participate in the development of guidelines for the testing of competency of aging and late-career physicians that may include periodic evaluation of physical and mental health, neurocognitive testing, and review of clinical care.<sup>2</sup>

This initiative comes in the broader context of debates surrounding how best to evaluate physician competency and the board recertification process. The question is not whether formal assessment of physician competency is necessary or desirable but whether (1) aging and late-career physicians require a distinct set of regulations and recertification guidelines

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that determine their fitness for duty; (2) neurocognitive testing of aging physicians is the best screening tool; and (3) adequate assessment of physician competency can occur in a vacuum that overlooks the structural and organizational elements of the clinical working environment.

Concerns about the competency of aging physicians are not new. Numerous reports have suggested a link between poor clinical performance and physician age. Analysis of data from state medical boards suggests an association between years in practice and risk of disciplinary action.<sup>3</sup> A systematic review published in 2005 found an inverse relationship between years in practice and several measures of quality, suggesting that older physicians might be at risk of providing lower-quality care.<sup>4</sup> Plausible explanations for these findings are the reluctance of physicians to shift from patterns of care established during training or the effect of biological aging on cognitive

function. Underlying cognitive dysfunction is prevalent in older physicians referred for competency evaluations and may be related to the success of remediation programs.<sup>5</sup>

However, studies linking physician age, cognitive function, and clinical performance have been limited by small sample size and use of historical case-control groups, were conducted among physicians selected because of poor clinical performance, and lacked a well-defined normative group. As a result, cognitive screening may not be applicable to all groups of aging physicians. In addition, because cognitive aging does not invariably lead to neurodegenerative dementia and an absolute restricted ability to carry out higher levels of executive function, it is unclear how neurocognitive screening will be used. Physicians with lower cognitive performance scores but who are nonetheless clinically competent could be at risk of removal from the marketplace. This could exacerbate physician shortages at a time when health care reform will significantly increase demand for services.

Although there are considerable published data on how physician characteristics are related to knowledge and actual clinical practice, the findings are variable and influenced by how quality is measured. In a 2005 study by Choudhry et al,<sup>4</sup> the relationship between age and academic knowledge was consistently inverse but significantly more variable when quality was measured by adherence to guidelines, treatment standards, or mortality. Furthermore, any correlation between physician characteristics such as age and clinical performance is complex and influenced by patient factors and comorbidities. More than 90% of the variance in physician adherence to guideline recommendations may be explained by differences in patient characteristics and the need to individualize care.<sup>6</sup> In addition, a review of Massachusetts claims data showed no clinically meaningful correlation between physician characteristics and adherence to process-based measures of quality.<sup>7</sup> The relationship between surgeon age and surgical outcomes such as mortality are variable and dependent on the type of surgery, surgical volumes, and surgical subspecialty and whether risk adjustment for patient characteristics was included in the analysis.<sup>8</sup> Overall, the research in this area is inconclusive, and physician age may have less influence on clinical performance than previously thought. Taking physician age as the sole criterion for assess-

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ment could well limit how significantly competency assessment programs can improve patient safety and quality.

To be sure, a national standard for assessing physician competency should be developed. But adding new layers of regulations and administrative requirements that apply solely to aging physicians is unlikely to meet with physician acceptance or enhance patient safety. Instead, the American Board of Medical Specialties and physician groups could consider developing a single, integrated national standard that builds on existing programs like ongoing and focused professional practice evaluations and addresses the challenges of recertification and maintenance of certification. For example, ongoing and focused professional practice evaluations could be standardized, be incorporated in biannual clinical review, and count toward maintenance of certification and recertification. Assessment programs need to be patient centered and define relevant and achievable outcomes that take into account costs, patients' desires, and types of practice including demographics and staffing levels. Physicians (regardless of age) who perform poorly in these areas could then be evaluated by other means to determine the likelihood of effective remediation.

Current physician assessment programs are focused on individual physician performance and overlook the effect of the organizational and structural elements on health care. Therein lies a critical limitation. Hours worked, number of patients seen per week, availability of specialists, and the functionality of the electronic health record (EHR) all increase physician stress and influence clinical performance.<sup>9</sup> Such organizational and structural elements will become more important as health care corporations continue to evolve and expand: large organizations tend to adopt

standardized models of staffing, productivity, and documentation regardless of physician specialty or local factors like physician-population ratios, demographics, and access to specialty care. Organizational pressures to enhance productivity by increasing working hours necessarily undermine physician well-being and patient safety.

The goals of any competency assessment program are to improve patient safety, reduce costs, and enhance the health of the population. Meaningful reform in this area will necessitate reevaluating current models of health care delivery, in particular the functionality of the EHR and clinical workloads on physician performance. The growth of health care informatics and requirements for meaningful use have given the EHR a central role in daily practice. At the same time, however, the widespread availability of the EHR coupled with remote access means that physicians are expected to answer patient emails, review laboratory results, and respond to other clinical demands, even when off duty. Without addressing the endless workday and reducing the stress of using poorly designed EHRs, meaningful advances in quality and safety will prove elusive.

All individuals age, but the rate of change in executive function, wisdom, memory, and other components of cognition are not linear, can fluctuate over time, and can be influenced by a variety of factors independent of age. Older physicians bring valuable skills, clinical expertise, and life experiences that can be gained only by years of practice. Younger physicians bring vitality and innovation. Rather than isolating aging physicians, acceptable standards should be developed that can be applied to all physicians, regardless of age, wherever and whenever they work.

#### ARTICLE INFORMATION

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