

Toward More Meaningful Accountability to the Public

Assessing Lifelong Competence of Physicians

Mark E. Rosenberg

Clin J Am Soc Nephrol 13: ●●●-●●●, 2018. doi: <https://doi.org/10.2215/CJN.07570717>

Introduction

The amount of new knowledge in medicine is exploding. Physicians and other health care providers need to develop effective strategies to incorporate the latest information into patient care decisions. In addition to knowledge application skills, a 21st century physician requires additional competencies to render great patient care. Jointly defined by the American Board of Medical Specialties (ABMS) and the Accreditation Council for Graduate Medical Education (ACGME), these competencies are practice-based learning and improvement, patient care and procedural skills, systems-based practice, medical knowledge, interpersonal and communication skills, and professionalism. A competent physician needs to engage in a career-long continuous improvement process to ensure the best patient outcomes, including the experience of care, the health of patients, and the value of the care delivered.

Medicine as a self-regulating profession must have a mechanism to assure the public and other stakeholders of physician competence. The ABMS, working in collaboration with its 24 specialty member boards, has assumed this public accountability by setting the standards for initial board certification and through its program for Maintenance of Certification (MOC), for certifying ongoing competence of its physician diplomates over time. Unfortunately, MOC in its current form is not adequately assessing physician competence and therefore, is falling short at its job of public accountability.

The purpose of this editorial is to define a framework for a more effective MOC system to assess lifelong competence of physicians. An effective MOC program should be evidence based, follow the principles of competency-based medical education (CBME), and foster lifelong learning and practice improvement.

MOC Should Be Evidence Based

Evidence exists that physician knowledge and performance decline over time, but this assertion has not been a universal finding (1,2). There are also studies showing that physicians have difficulty self-assessing their gaps in knowledge (3). In the light of this evidence and to be accountable to the public, it has been argued that there needs to be periodic assessment of physicians to reassure stakeholders that every physician has the knowledge and skills to continue to deliver high-quality care.

A key question is whether evidence exists to support the ability of the current required MOC framework to accurately assess physician competencies (4). Evidence for MOC is discussed in relation to the current requirements of the American Board of Internal Medicine (ABIM), which is responsible for recertifying diplomates in internal medicine and the medical specialties, including nephrology.

Part I MOC, professionalism and professional standing, assesses the competency of professionalism but only requires maintaining a valid unrestricted medical license. Other aspects of professionalism are not addressed.

Part II MOC (lifelong learning and self-assessment) has the potential to address all six competencies. Its effectiveness depends on the continuing education choices of individual physicians and the quality of feedback on the self-assessment component. Many medical societies produce Part II tools, such as the American College of Physicians' Medical Knowledge Self-Assessment Program or the American Society of Nephrology's Nephrology Self-Assessment Program. These tools are popular, well used, and by all accounts, highly valued.

Part III MOC (assessment of knowledge, judgment, and skills) is assessed by the 10-year high-stakes examination. This is a controversial aspect of MOC, because failing this examination has significant implications for licensure, credentialing, and payment of physicians. The multiple choice examination has been designed to be psychometrically sound and to reliably test the competency domain of medical knowledge but not to measure performance in a clinical setting. Although evidence exists linking initial certification examination performance with patient care and health outcomes, similar evidence supporting the value of the MOC examination is minimal (4).

Part IV MOC (improvement in medical practice) was designed to affect patient outcomes and assess the competencies of systems-based practice, practice-based learning and improvement, and patient care. However, there were problems in its design and implementation, prompting the ABIM to suspend Part IV MOC at least until 2019. If reinstated, Part IV must be designed to measure patient outcomes, must be voluntary, and must not be redundant with other forms of practice improvement that are increasingly part of a physician's daily work, such as the Quality Assessment

Division of Renal Diseases and Hypertension, University of Minnesota Medical School, Minneapolis, Minnesota

Correspondence:

Dr. Mark E. Rosenberg, Division of Renal Diseases and Hypertension, University of Minnesota Medical School, 420 Delaware Street SE, MMC 293, Minneapolis, MN 55455. Email: rosen001@umn.edu

and Performance Improvement program occurring in dialysis units or the Merit-Based Incentive Payment System that is now a component of the Medicare Access and CHIP Reauthorization Act.

An expert task force convened by the ABIM produced the report “Assessment 2020 Task Force: A Vision for Certification in Internal Medicine in 2020” that was released in September of 2015. The report recommended replacing the 10-year MOC examination with more frequent, less burdensome assessments (5). Recognizing the difficulty in measuring actual patient outcomes, the task force recommended focusing instead on defining the physician skills associated with better patient outcomes. Work to develop this evidence is needed to more effectively connect MOC to physician performance. Complicating matters further is the fact that care and outcomes are increasingly team based and inter-professional, making attribution of outcomes to only physicians problematic.

MOC Should Follow the Principles of CBME

There is a growing trend across the continuum of medical education to move to a CBME framework. A major driver for this movement was the implementation of the ABMS/ACGME core competencies that became the program requirements for graduate medical education and the impetus for the original design of MOC.

In CBME, the health needs of the population determine the educational outcomes that, in turn, define both the curriculum and assessment strategies (6). This approach contrasts with a more traditional approach, in which the curriculum determines the educational objectives and the assessment methods. The most compelling feature of CBME is its focus on outcomes rather than process or time. CBME is gaining momentum in undergraduate medical education and should be the framework for continuing medical education and MOC. It makes sense to have a seamless educational framework throughout medical education training and practice.

A cornerstone of CBME is direct observation and workplace-based assessment. Strategies are needed to decentralize assessment from the 24 ABMS Boards to the workplace “to align what we measure with what we do” (6). In addition, a need exists to move from norm-referenced assessment to the more meaningful criterion-referenced assessment that measures performance against a fixed set of predetermined criteria. Criterion-referenced assessment could be applied in the workplace to assess whether the necessary skills required for physicians to achieve optimal patient outcomes are being maintained.

An interesting approach to assessing lifelong competence was developed by gastroenterology and is termed Gastroenterologist: Accountable Professionalism in Practice (7). The program is on the basis of CBME principles, such as entrustable professional activities (EPAs), and embraces differences in individual physician practices. A key feature is the use of EPAs, which are the core units of work that a gastroenterologist is expected to achieve, such as management of common functional gastrointestinal disorders or management of pancreatic diseases. These EPAs provide a framework for workplace-based assessment of competency and are a potential tool to use for MOC.

EPAs have been developed for pediatric nephrology that are a combination of pediatric nephrology-specific EPAs, general pediatric EPAs, and EPAs that are applicable to all pediatric specialty programs (www.abp.org/subspecialty-epas). A similar approach should be used to develop EPAs for adult nephrology. These EPAs need to be developed through a consensus process by relevant stakeholders and should build on the foundation of the general internal medicine EPAs.

MOC Should Foster Lifelong Learning and Practice Improvement

The challenge for physicians is to assimilate knowledge and apply it to the care of patients at a time when care delivery has become increasingly demanding. For physicians to be successful, learning must be efficient and relevant. The need for knowledge development, improvement, and application was clearly articulated in the Institute of Medicine 2013 report *Best Care at Lower Cost: The Path to Continuously Learning Health Care in America* (8). All aspects of the health care system need to be continuously learning and improving. This improvement depends ultimately on the competence of individual health care providers, the teams that they form, and the systems in which they work.

Growing evidence about the science of learning has shown strategies to make learning more efficient and durable (9). Assessment for learning becomes an important tool to allow learners to identify gaps in knowledge and develop strategies to obtain the needed information. Also, a combination of studying and testing enhances learning and slows the rate of forgetting. In this regard, a short answer test is more effective than a multiple choice test.

Learning is also improved when a learner is internally motivated and self-directed, when life experiences and knowledge can be integrated into the learning experience, and when content is relevant and can be applied to problems encountered in the daily life of the learner. It is distracting and frustrating for practicing physicians to be spending their valuable and limited learning time on meeting the requirements of MOC when the content may not be relevant to their current scope of practice. Learning is best accomplished when it can be individualized and tailored to the needs of the learner. An effective MOC process should support and integrate with these strategies for lifelong learning.

The way that the different 24 ABMS member boards implement MOC differs. Many of the boards have launched pilot programs to replace the high-stakes examination (10). The majority of these pilots use longitudinal self-assessment strategies that more continuously assess knowledge. Questions are delivered to the physician, and immediate feedback is provided to facilitate learning. The ABIM is planning to launch a lower-stakes 2-year knowledge check-in examination. This examination will have an open book component, but many of the details are not yet released, making full evaluation of this newer Part III assessment difficult to predict.

Despite the original design and intent of MOC to assess the six competencies defining a high-performing physician, a disconnection exists between the current MOC process and the determination of lifelong physician competence. This lack of relevance has generated significant controversy and distress among practicing physicians. The medical

profession needs to develop better ways of assessing lifelong competence of physicians. An effective MOC program should be evidence based, follow the principles of CBME, and foster lifelong learning and practice improvement. As a profession, we have the responsibility to self-regulate and assure the public that physicians are staying competent throughout their careers. There are opportunities to approach this challenging problem innovatively and in collaboration with all stakeholders.

Acknowledgments

Thanks to Bob Englander for his helpful comments and discussion during the preparation of this article.

The content of this article does not reflect the views or opinions of The American Society of Nephrology (ASN) for which M.E.R. serves as a member of the ASN Council nor the *Clinical Journal of the American Society of Nephrology*. Responsibility for the information and views expressed therein lies entirely with the author.

Disclosures

None.

References

1. Choudhry NK, Fletcher RH, Soumerai SB: Systematic review: The relationship between clinical experience and quality of health care. *Ann Intern Med* 142: 260–273, 2005
2. Epstein AJ, Srinivas SK, Nicholson S, Herrin J, Asch DA: Association between physicians' experience after training and maternal obstetrical outcomes: Cohort study. *BMJ* 346: f1596, 2013
3. Davis DA, Mazmanian PE, Fordis M, Van Harrison R, Thorpe KE, Perrier L: Accuracy of physician self-assessment compared with observed measures of competence: A systematic review. *JAMA* 296: 1094–1102, 2006
4. Hawkins RE, Lipner RS, Ham HP, Wagner R, Holmboe ES: American board of medical specialties maintenance of certification: Theory and evidence regarding the current framework. *J Contin Educ Health Prof* 33[Suppl 1]: S7–S19, 2013
5. American Board of Internal Medicine: Assessment 2020 Task Force: A Vision for Certification in Internal Medicine in 2020, 2015. Available at: <http://transforming.abim.org/assessment-2020-report>. Accessed July 13, 2017
6. Carraccio CL, Englander R: From Flexner to competencies: Reflections on a decade and the journey ahead. *Acad Med* 88: 1067–1073, 2013
7. Rose S, Shah BJ, Onken J, DeCross AJ, Davis MH, Jain R, Kim LS, Persley K, Pfeil SA, Marks LN: Introducing the Gastroenterologist-Accountable Professionalism in Practice (G-APP) pathway: Bridging the G-APP-replacing MOC with a model for lifelong learning and accountability. *Gastroenterology* 149: 1609–1626, 2015
8. Smith M, Saunders R, Stuckhardt L, McGinnis JM: *Best Care at Lower Cost: The Path to Continuously Learning Health Care in America*, Washington, DC, National Academies Press, 2013
9. Rohrer D, Pashler H: Recent research on human learning challenges conventional instructional strategies. *Educ Res* 39: 406–412, 2010
10. Hawkins RE, Irons MB, Welcher CM, Pouwels MV, Holmboe ES, Reisdorff EJ, Cohen JM, Dentzer S, Nichols DG, Lien CA, Horn TD, Noone RB, Lipner RS, Eva KW, Norcini JJ, Nora LM, Gold JP: The ABMS MOC part III examination: Value, concerns, and alternative formats. *Acad Med* 91: 1509–1515, 2016

Published online ahead of print. Publication date available at www.cjasn.org.