

**HOD ACTION: Council on Medical Education Report 2 adopted as amended and the remainder of the report filed.**

REPORT 2 OF THE COUNCIL ON MEDICAL EDUCATION (A-15)

(Resolution 920-I-14)

Update on Maintenance of Certification and Osteopathic Continuous Certification

(Reference Committee C)

EXECUTIVE SUMMARY

To provide greater clarity to the reports and avoid ongoing confusion about the relationship between Maintenance of Certification (MOC)/Osteopathic Continuous Certification (OCC) and Maintenance of Licensure (MOL), the American Medical Association (AMA) will be addressing these issues in two separate Council on Medical Education reports, beginning with the 2015 Annual Meeting of the AMA House of Delegates (HOD).

The Council on Medical Education continues to monitor MOC implementation; it has found that physicians generally recognize the need for MOC and ongoing formative assessment and feedback. AMA policy reinforces the need for ongoing learning and practice improvement, and the MOC program is based on sound theoretical rationale. However, there have been differences of opinion about the efficacy of MOC implementation in improving physician care and patient outcomes. Continuous study of its evidence will be important in identifying improvements to the program, especially to be able to keep pace with advances in clinical practice, technology, and assessment.

AMA efforts with the American Board of Medical Specialties (ABMS) and its member boards to improve MOC are highlighted in this report. For example, the ABMS Multi-specialty MOC Portfolio Approval Program, which provides a streamlined approach for hospitals and health care organizations to support physician involvement in quality improvement (QI) initiatives, allows physicians from multiple specialties to receive credit in their programs for MOC. This report also provides examples of member boards' work to identify learning redundancies and streamline processes to reduce overall costs, and calls on the ABMS to develop fiduciary standards for the member boards in line with AMA policy.

The AMA is working with the ABMS and its member boards to explore alternatives to the MOC Part III secure, high-stakes examination. In an unprecedented meeting in June 2014, discussions focused on the value of MOC Part III as well as practice-relevant and innovative concepts that could potentially enhance or replace the current thinking around the exam requirement of MOC. The meeting's positive outcomes reflect the promise of continued future collaborative dialogue among all key stakeholders.

This report reviews how the member boards are working with medical specialty societies to develop educational curricula and provide resources to support physician professional development. The report also includes a summary of how the member boards are providing a mechanism for identifying continuing medical education and QI activities and resources that also satisfy other national, state, and private-sector QI and reporting activities.

To address concerns raised by the HOD that called for an independent entity to study the impact that MOC and MOL requirements may have on the physician workforce, physicians' practice costs, patient outcomes, patient safety, and patient access, the AMA contacted the Cecil G. Sheps Center for Health Services Research and the Robert Graham Center. The AMA was subsequently advised that data are currently not available to study the effect of MOC and MOL on the retention of physicians in the workforce. Developing a study to answer the question of whether some physicians choose retirement over maintaining certification would require a fairly complex research effort.

**HOD ACTION: Council on Medical Education Report 2 adopted as amended and the remainder of the report filed.**

REPORT OF THE COUNCIL ON MEDICAL EDUCATION

CME Report 2-A-15

Subject: Update on Maintenance of Certification and Osteopathic Continuous Certification (Resolution 920-I-14)

Presented by: William A. McDade, MD, Chair

Referred to: Reference Committee C  
(Daniel B. Kimball, Jr., MD, Chair)

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1 Substitute Resolution 920-I-14, Principles of Maintenance of Certification, introduced by the  
2 Pennsylvania Delegation and referred by the American Medical Association (AMA) House of  
3 Delegates (HOD), stated that specialty boards, which develop Maintenance of Certification (MOC)  
4 standards, may approve curriculum, but should be independent from entities designing and  
5 delivering that curriculum, and should have no financial interest in the process.

6  
7 Policy D-275.960 (12[b]), An Update on MOC, Osteopathic Continuous Certification (OCC) and  
8 Maintenance of Licensure (MOL), asks that our AMA prepare a yearly report regarding the MOC  
9 process.

10  
11 Policy D-275.960 (6), An Update on MOC, OCC, and MOL, called on our AMA to solicit an  
12 independent entity to commission and pay for a study to evaluate the impact that MOL and MOC  
13 requirements have on physicians' practices, including but not limited to: physician workforce,  
14 physicians' practice costs, patient outcomes, patient safety, and patient access. The policy requests  
15 that this study look at the examination processes of the American Board of Medical Specialties  
16 (ABMS), American Osteopathic Association (AOA), and Federation of State Medical Boards  
17 (FSMB), and also that the study be presented to the AMA HOD, for its deliberation and  
18 consideration, before any entity, agency, board, or governmental body requires physicians to sit for  
19 MOL licensure examinations.

20  
21 **BACKGROUND**

22  
23 The Council on Medical Education has prepared single reports covering both MOC/OCC and the  
24 principles of MOL for the past six years.<sup>1,2,3,4,5,6</sup> However, MOC, OCC and MOL are distinctly  
25 different processes, designed by independent organizations with different purposes and  
26 mandates. While MOC and OCC describe programs that address continued specialty certification  
27 for allopathic and osteopathic physicians, MOL principles, once implemented by each licensing  
28 authority (state medical board), will define the process by which physicians are to meet  
29 requirements for renewing their medical license. To provide greater clarity and avoid confusion  
30 about the relationship between MOC/OCC and MOL, the Council on Medical Education  
31 will address these issues separately in its reports, beginning with the 2015 Annual Meeting of the  
32 HOD. This report will address Resolution 920-I-14 as well as the mandate of Policy D-275.960 (6)  
33 as it relates to MOC/OCC, and also provide an update on the most recent activities on this topic. As  
34 shown in Appendix A, the AMA has extensive policy on MOC and OCC.

1 As part of the effort of the Council on Medical Education to monitor the implementation of MOC  
2 and OCC, Council members—along with the Board of Trustees and AMA staff—have participated  
3 in numerous meetings, including the ABMS Committee on Continuing Certification, ABMS Forum  
4 on Organizational Quality Improvement, Association of American Medical Colleges July 22  
5 Webinar, Aligning Maintenance of Certification (MOC) and Performance-based CME with On-  
6 going Quality Improvement, ABMS 2014 Conference, the Specialty Society-Board Summit  
7 Engaging in Lifelong Learning, and the 2015 American Board of Anesthesiology MOC Summit.

## 9 MAINTENANCE OF CERTIFICATION (MOC): AN UPDATE

### 11 *Emerging Data and Literature Regarding the Value of MOC*

13 Physicians generally recognize the need for MOC and support the need for ongoing formative  
14 assessment and feedback.<sup>7,8</sup> AMA policy reinforces the need for ongoing learning and practice  
15 improvement. However, there have been differences of opinion about the efficacy of MOC  
16 implementation in improving physician care and patient outcomes. Some question whether the  
17 process is relevant to contemporary clinical practice or meaningful as a measure of physician and  
18 health care quality. The ABMS member boards moved to more continuous processes for assessing  
19 competence because it became clear that: 1) medicine as well as public and political pressures were  
20 evolving rapidly; 2) evidence suggested that the knowledge and skills of many physicians decline  
21 over time; and 3) testing physicians every 10 years was not enough to ensure they would keep up to  
22 date with advances in medical practice.<sup>7</sup> The MOC program is based on sound theoretical  
23 rationale,<sup>9,10</sup> and evidence supports the components of MOC.<sup>10</sup> The ABMS member boards are  
24 developing MOC requirements that are supported by evidence-based guidelines, national clinical  
25 and quality standards, and specialty best practices.

27 Because the MOC program has been introduced gradually during the last decade, the evidence that  
28 results from longitudinal data collection is just beginning to emerge. Evidence in the literature  
29 suggests a correlation between physician board certification/MOC examination performance and  
30 performance in practice.

32 A webinar in December 2014, facilitated by the editors of *JAMA*, covered the findings from two  
33 recent research articles that look at the relationship between MOC and measures relevant to  
34 patients and physicians. Although the main findings from one small study showed no differences in  
35 the process measures between the 71 physicians with time-limited certification from the American  
36 Board of Internal Medicine (ABIM) and the 34 physicians with time-unlimited certification,<sup>11</sup> the  
37 finding from a larger study showed a two percent cost reduction for a cohort of Medicare  
38 beneficiaries associated with time-limited certification.<sup>12</sup> In an overview of both studies, Lee  
39 pointed out that, “the 2% reduction in spending is as large or larger than the savings recorded by  
40 the Medicare accountable care organizations in their first 2 years.” Thus, it can be concluded that  
41 recertification might have actually helped physicians become more efficient.<sup>13</sup>

43 In response to comments that the evidence supporting MOC is “ambiguous at best,”<sup>14</sup> Weinberger  
44 commented that “the important value of the MOC program is to have extra incentives to have the  
45 physician reviewing and integrating clinical information and updates that he or she might not  
46 necessarily do.”<sup>15</sup> Few MOC critics argue against the need for some structure to help and  
47 encourage physicians to stay up to date and improve their actual skills, but MOC has been viewed  
48 as an unnecessarily complex process that is misaligned with its purpose.<sup>7</sup> Some have suggested that  
49 thoughtful integration of the MOC program into the physician’s busy professional life is needed so  
50 the expense and time commitment are reasonable.<sup>13</sup> Continuous study of its evidence will be

1 important in identifying improvements to the program, especially to be able to keep pace with  
2 advances in clinical practice, technology, and assessment.<sup>9</sup>

3  
4 The ABMS Research and Education Foundation has been engaged in research efforts to support  
5 MOC. In 2011, ABMS staff and physician volunteers developed a comprehensive review process  
6 and criteria to provide a more complete and balanced perspective about the evidence for  
7 dissemination to the profession and the public. In general, studies to be included in the review  
8 process had to represent original research and address one or more of the following three areas: 1)  
9 board certification; 2) conceptual framework and initial structure of MOC; and 3) current MOC  
10 programs. In addition, they had to have a reasonable research design and methodology (e.g., studies  
11 with fewer than 20 participants would not qualify). More specific inclusion criteria modeled after  
12 the Agency for Healthcare Research & Quality's 2007 study on effectiveness of continuing medical  
13 education (CME) were applied to research related to MOC Part II. After reviewing more than 700  
14 research studies, approximately 200 were recognized as addressing the established criteria and  
15 were grouped into three categories: 1) the value of board certification; 2) support of the conceptual  
16 framework and initial structure of MOC; and 3) validation of current MOC programs. The other  
17 500 studies did not meet the established criteria.<sup>16</sup> A second phase of the project aims to identify  
18 research gaps. The intent is to develop research questions to guide subsequent studies of the  
19 effectiveness of programs for MOC. The ABMS Evidence Library, which houses the references  
20 and annotations of the research compilation, is available at: [evidencelibrary.abms.org/](http://evidencelibrary.abms.org/)

#### 21 22 *ABMS Multi-specialty MOC Portfolio Approval Program™*

23  
24 The ABMS Portfolio Program ([mocportfolioprogram.org](http://mocportfolioprogram.org)) provides a streamlined approach for  
25 hospitals and health care organizations to support physician involvement in quality improvement  
26 (QI) initiatives by allowing physicians from multiple specialties the opportunity to receive credit in  
27 their programs for MOC. Because the Portfolio Program allows hospitals and health care  
28 organizations to apply Part IV MOC to team-based, multi-specialty projects that physicians are  
29 already engaging in at their organizations, it eases the burden on physicians by reducing  
30 duplication of QI projects and promotes organizational effectiveness and efficiency through team-  
31 based initiatives. Furthermore, there are no additional costs to physicians who participate in the  
32 program.

33  
34 Currently, 21 ABMS member boards are participating in the program. The Portfolio Program has  
35 approved 650-plus QI projects, and more than 4,000 physicians have received MOC Part IV credit  
36 for participation, with many more in process; 39 health care organizations are active Portfolio  
37 Sponsors.

38  
39 Applicant organizations are considered based on the maturity, strength, and support of their internal  
40 QI program, and must be able to ensure that physicians meaningfully participate in QI activities. In  
41 addition, they must meet the reporting requirement, as outlined in the Portfolio Program Standards  
42 and Guidelines. The AMA submitted a formal application for the ABMS MOC Portfolio Program  
43 in January 2015 and expects to be a full member of the program by mid-2015. More information  
44 about the application process is available at: [mocactivitymanager.org/](http://mocactivitymanager.org/)

#### 45 46 *Alternatives to the Secure, High-Stakes Examination for Assessing Knowledge and Cognitive Skills* 47 *in MOC*

48  
49 In June 2014, the ABMS and the AMA facilitated an unprecedented meeting that brought subject  
50 matter experts in physician assessment together with representatives from the Council on Medical  
51 Education, AMA sections, and representatives of nearly all ABMS member boards to further

1 discuss the value of MOC Part III as well as practice-relevant and innovative concepts that could  
2 potentially enhance or replace the current thinking around the secure, high-stakes exam  
3 requirement of MOC. The meeting was structured around open dialogue, productive discourse, and  
4 new ideas and innovations shared by the various boards and educational experts in attendance. The  
5 meeting's positive outcomes reflect the promise of continued future collaborative dialogue among  
6 all key stakeholders to ensure physician competency and continued high-quality patient care. A  
7 MOC Part III White Paper, summarizing the meeting and reflecting on next steps, is currently  
8 being drafted.

9  
10 The ABMS has commissioned an External Assessment Task Force to explore opportunities for  
11 innovation in member boards' external assessment practices and methodologies, and to disseminate  
12 best practices in the development and implementation of rigorous alternatives to currently  
13 constructed MOC examinations. The 19-member task force has completed phase 1 of its charge,  
14 which included conducting a comprehensive assessment of the current practices and innovations  
15 mapping to the 2015 Standards for the Program for MOC and identifying innovative methodologies  
16 being used by member boards to evaluate core competencies. In phases 2 and 3, the committee will  
17 form work groups to examine issues such as what the core purpose of external assessment should  
18 be, how to improve relevance to physician practice, and how best to integrate core competencies  
19 within external assessments. Other innovations being explored include blueprinting and  
20 modularization techniques that facilitate customization of exam content to reflect focused practices;  
21 access to materials similar to those used at the point of care; remote testing; reduction of travel  
22 expense and inconvenience; and improved performance feedback to guide educational and  
23 development plans.

24  
25 On February 3, 2015, the ABIM announced that the Internal Medicine MOC exam is being  
26 updated. The update will focus on making the exam more reflective of what physicians in practice  
27 are doing, with any changes to be incorporated beginning in fall 2015, and with more subspecialties  
28 to follow. Other initiatives being pilot tested and/or implemented by the ABMS and its member  
29 boards are described in Appendix B.

### 30 *How the ABMS is Assessing the Time/Administrative Burdens Associated with MOC Participation*

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32  
33 The ABMS member boards recognize concerns that physicians have voiced over the cost of MOC.  
34 For example, in February 2015, the ABIM announced that MOC enrollment fees will remain at or  
35 below the 2014 levels through at least 2017. The MOC participation fee (which includes the cost of  
36 CME, time away from the office, etc.) varies depending on which activities are chosen to complete  
37 CME to meet MOC requirements.

38  
39 A 2013 Massachusetts Medical Society task force report reflecting research conducted by expert  
40 staff documented that the direct and indirect costs of MOC, as well as redundancy, may pose an  
41 additional burden on physicians and impact access to patient care due to time away from  
42 physicians' practices. Using examples taken from internal medicine and specialty practice  
43 (cardiology) involved in completing requirements for MOC every 10 years, the report showed that  
44 the direct costs range from \$3,720 to \$6,521; indirect costs (based on time spent, excluding travel,  
45 for live sessions, which is variable) range from \$20,000 to \$46,656; and hours ranged from 200 (20  
46 hours/year) to 216 (22 hours/year).<sup>17</sup>

47  
48 Information received verbally from the ABMS, however, suggests that across the 24 ABMS  
49 member boards, the average annual participation fee is \$300. This fee includes the cost of the  
50 secure, high-stakes examination (over 10 years). It should be noted that the participation fee is in  
51 line with or, in some cases, significantly less than similar fees paid by other professionals, such as

1 lawyers, pilots, and accountants. For example, the cost for certification by the National Board of  
2 Legal Specialty Certification ([nblsc.us](http://nblsc.us)) includes a \$400 application fee and a separate \$400  
3 examination fee. There is an annual fee of \$265 after the application is certified. In addition,  
4 attorneys must complete 45 hours of continuing legal education (CLE) during the three years prior  
5 to certification; these costs vary depending on which activities are chosen to complete CLE.

6  
7 In its 2015 Standards for Programs for MOC, the ABMS recognizes that physicians have multiple  
8 expenses associated with ongoing learning and assessment, including the recertification exam and  
9 CME requirements, and is working with its member boards to identify learning and assessment  
10 redundancies among these multiple interests. The Portfolio Program (described above) represents  
11 one way in which the member boards are actively working to identify learning redundancies and  
12 streamline processes to reduce overall MOC costs. Moving to remote testing and modularization of  
13 exams may also have an impact on reducing costs.

#### 14 *ABMS Member Boards' Policies Regarding Multiple Certifications*

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16  
17 In 2015, the ABMS Member Board Program for the MOC review process was launched. This  
18 review process will allow the ABMS to collect additional information on boards' policies  
19 pertaining to multiple certifications. Notable policies will be shared among the boards to facilitate  
20 the adoption of appropriate/best practices. The Council on Medical Education supports the ongoing  
21 efforts by the ABMS to streamline MOC for Diplomates with certification by multiple boards. The  
22 Portfolio program (described above) represents another way in which member boards are actively  
23 working to identify redundancies and streamline processes. In addition, ABMS member boards,  
24 such as the American Board of Pediatrics, currently give credit for work completed for other  
25 member boards (i.e., American Board of Medical Genetics and Genomics), and work completed on  
26 certain topics, such as asthma, will count for multiple boards.

27  
28 The AMA is also taking steps to assist physicians who hold multiple certifications. In October  
29 2014, the AMA launched a beta version of the STEPS Forward™ (**S**olutions **T**oward **E**ffective  
30 **P**RACTICE**S**) practice transformation series, a practice-based series that allows physicians to earn  
31 CME credit for completing online learning modules. STEPS Forward™ leverages findings from  
32 the AMA-RAND study, “Factors affecting physician professional satisfaction and their  
33 implications for patient care, health systems and health policy” ([ama-assn.org/ama/pub/about-  
34 ama/strategic-focus/enhancing-professional-satisfaction-and-practice-sustainability.page](http://ama-assn.org/ama/pub/about-ama/strategic-focus/enhancing-professional-satisfaction-and-practice-sustainability.page)). The goal  
35 is to provide physicians with relevant strategies that can improve practice efficiency and achieve  
36 Triple Aim outcomes—better care, better health and lower cost as well as greater professional  
37 satisfaction. The AMA Physician Practice Sustainability Program is currently pilot testing STEPS  
38 Forward.™ A full launch is planned for June 2015. As part of its application to the ABMS  
39 Portfolio Program, the AMA is also developing modules that physicians will be able to utilize for  
40 MOC Part IV.

#### 41 *MOC Part II: Self-Assessment and Lifelong Learning*

42  
43  
44 Although educational curricula may be offered by the member boards, most boards depend on the  
45 medical societies to develop the educational curricula for MOC. For example, the American  
46 College of Physicians develops the Medical Knowledge Self-Assessment Program® (MKSAP®)  
47 that is accepted by the ABIM for MOC. Some of the smaller boards, such as the American Board  
48 of Medical Genetics and Genomics, had to create their own educational programs out of necessity  
49 because the corresponding medical society, the American College of Medical Genetics and  
50 Genomics, lacked the resources to develop the programs.

1 Helping align the goals and work of the medical societies and ABMS member boards was the goal  
2 of a meeting convened in October 2014 by the ABMS and the Council of Medical Specialty  
3 Societies (CMSS). Representatives from these communities came together to discuss strategies for  
4 promoting the development of and access to meaningful and relevant activities to satisfy physician  
5 assessment and learning needs. More than 50 boards and societies were represented. The member  
6 boards and specialty societies share a commitment to professionalism and QI, and provide  
7 resources to support physician professional development, including assessment in a competency  
8 framework from the boards, and educational and measurement opportunities for identifying and  
9 resolving performance gaps by societies. They are working together to more efficiently and  
10 effectively help physicians assess their learning needs and participate in meaningful performance  
11 improvement.

12  
13 Several activities suggested during the October Summit that may be helpful to physician  
14 professional development include:

- 15  
16 • Developing an inventory of learning activities for all specialties that can be accessed by any  
17 physician regardless of specialty. The ABMS is seeking tools in support of the Program for  
18 MOC Lifelong Learning and Self-Assessment (Part II) and Improvement in Medical Practice  
19 (Part IV). These activities will be reviewed and housed in a common inventory where boards  
20 and Diplomates can access them electronically. The inventory will make it easier for  
21 physicians to find practice-relevant materials and activities.  
22
- 23 • Encouraging the development of society-sponsored registries and the use of registries to satisfy  
24 practice assessment expectations of the member boards. Registries are increasingly used as a  
25 source of clinically rich data to evaluate practices and track patients longitudinally. In the era  
26 of value-based care, registries will become a key path for physicians to understand their own  
27 practices and identify areas of practice for education and improvement. As registries are costly  
28 to implement, societies and boards should collaborate in their development as well as  
29 measures, reporting, and performance feedback as meaningful ways to satisfy the demand for  
30 value-based care. (See Appendix B for more information about innovative approaches to the  
31 practice audits and the use of registries being piloted and/or implemented by ABMS member  
32 boards.)  
33
- 34 • Encouraging specialty societies to become sponsors of the ABMS Multi-Specialty Portfolio  
35 Approval Program™ (Portfolio Program) to support physicians in their improvement efforts.  
36 The Portfolio Program is a single process for boards to approve quality improvement and  
37 learning activities that physicians undertake in their institutions or group practices. The  
38 Portfolio Program establishes criteria for quality improvement processes and meaningful  
39 physician participation. With the help of these criteria, programs provide support to physicians  
40 and enable physicians to count their practice-based learning and improvement towards  
41 satisfying board requirements. The American Academy of Pediatrics has led the way as a  
42 sponsor of improvement collaboratives that satisfy professional assessment requirements.  
43 Societies may become Portfolio Program sponsors and pass on to their members the benefit of  
44 having improvement and registry activity count for MOC credit.  
45
- 46 • Aligning CME and QI activities. The boards can help to create a more coherent certification  
47 system that weaves assessment, education, and improvement into a single improvement  
48 process. This could be achieved by integrating educational components (Part II activities) into  
49 performance and quality improvement activity (Part IV) in order to satisfy multiple areas of the  
50 MOC standards.

- 1 • Increasing consistency in process, language, and requirements across the ABMS member  
2 boards, and increasing alignment for physicians with multiple certificates. Consistency is an  
3 important factor in presenting the MOC framework and for societies to collaborate across  
4 specialties. Boards are already working towards consistency and alignment.  
5

6 The ABMS and CMSS plan to continue to promote effective partnerships between boards and  
7 societies. Information about the ABMS Call for MOC Activities is available at: [abms.org/news-](http://abms.org/news-events/abms-call-for-moc-activities/)  
8 [events/abms-call-for-moc-activities/](http://abms.org/news-events/abms-call-for-moc-activities/). Resources from the Specialty Society Board Summit are  
9 available at: [abms.org/news-events/events/specialty-society-board-summit/](http://abms.org/news-events/events/specialty-society-board-summit/).

10  
11 *Other Physician Educational and Quality Improvement Activities that Count for MOC*

12  
13 The ABMS recently launched two “Calls for MOC Activities,” related to patient safety activities  
14 and system-based practice and interpersonal/communication activities, in an effort to provide  
15 Diplomates with as broad a set of practice-relevant options for fulfilling the requirements of MOC.  
16 The submitted activities will be housed in the ABMS MOC Implementation Center, a centralized  
17 Web-based platform, enabling access by both ABMS member boards and their Diplomates. The  
18 Center will provide information on the activities approved by each of the boards and CME credit  
19 associated with each activity as well as the cost of each activity, although most of the educational  
20 programs will be offered free of charge.  
21

22 The goals of this initiative are to:

- 23  
24 • Provide a mechanism for identifying CME and QI activities and resources that reduce the  
25 burden and improve relevance for Diplomates fulfilling their MOC requirements;  
26 • Identify MOC activities that may be appropriate for multiple specialties and/or practice  
27 settings;  
28 • Simplify the approval process by allowing the member boards to advance the adoption of MOC  
29 activities that meet the needs of their Diplomates (ten boards have agreed to a common  
30 submission form, which will allow review of activities submitted by the educational  
31 community by multiple boards on a common review portal); and  
32 • Facilitate continuous QI and tracking real time approvals, system improvements, and additional  
33 feedback mechanisms to educational stakeholders.  
34

35 To date, five member boards have actively engaged in the MOC Implementation Center, and all 24  
36 member boards have been given access to the Center. In addition to the MOC activities that have  
37 been reviewed and approved through the Center, the National Patient Safety Foundation (NPSF)  
38 Curriculum has received approvals from 17 member boards and is currently being shared with the  
39 remaining member boards through the Center.  
40

41 MOC activities also satisfy the requirements of other national, state, and private-sector quality  
42 improvement and reporting activities. Diplomates from 12 ABMS member boards participated in  
43 the MOC: PQRS Program through the MOC Matters Platform, which was closed on January 31,  
44 2015. This final MOC Matters submission deadline allowed time for each of the participating  
45 member boards to verify Diplomate participation data for the 2014 reporting program and for the  
46 final transmission of Diplomate data to the Centers for Medicare & Medicaid Services (CMS) by  
47 March 31, 2015.  
48

49 Over 1,660 Diplomates across the 12 member boards participated in the MOC: PQRS Program  
50 through the MOC Matters Platform in 2014. In addition to the member boards participating through



1 the MOC Matters Platform, four additional member boards have been individually qualified by  
2 CMS to submit MOC: PQRS data on behalf of their Diplomates for the 2014 reporting program. It  
3 should be noted that 2014 was the final year for the MOC: PQRS payment incentive program.

4  
5 *MOC Part IV: Practice Performance Assessment*

6  
7 ABMS Standards do not specify how the member boards should structure the practice  
8 improvement component of MOC, due to the differences in clinical context across the specialties.  
9 The boards have generally taken four approaches to practice assessment: practice audits, registries,  
10 simulation, and organizational quality improvement (see Appendix B).

11  
12 As noted above, the Portfolio Program has been developed to provide a streamlined approach for  
13 hospitals and health care organizations to support physician involvement in quality improvement  
14 (QI) initiatives and allows physicians from multiple specialties the opportunity to receive credit in  
15 their programs for MOC Part IV. For example, these QI projects focused on such areas as reducing  
16 adverse drug events (Nationwide Children's Hospital), ensuring continuous professional  
17 development (Mayo School of Continuous Professional Development and Mayo Clinic Quality  
18 Review Board), and documenting QI (University of Michigan Health System).

19  
20 *MOC Requirements Modified for Internal Medicine*

21  
22 On February 4, 2015, the ABIM issued a formal announcement titled, "We got it wrong. We're  
23 sorry." in which it apologized that the organization had "launched programs that weren't ready"  
24 and "didn't deliver an MOC program that physicians found meaningful." In addition to the changes  
25 already noted above regarding the secure, high-stakes examination and enrollment fees, the ABIM  
26 announced that it was suspending the Practice Assessment, Patient Voice, and Patient Safety  
27 requirement for at least two years to address concerns about MOC and its relevance to practice as  
28 well as better align the requirements of the MOC program with physician learning and practice  
29 improvement needs. This means that no internists will have their certification status changed for  
30 not having completed activities in these areas for at least the next two years. Furthermore, ABIM  
31 Diplomates who are currently not certified but who have satisfied all requirements for MOC,  
32 except for the Practice Assessment requirement, will be issued a new certificate this year.

33  
34 The announcement also stated that the ABIM is changing the language used to publicly report a  
35 Diplomate's MOC status on the ABIM website within the next six months, from "meeting MOC  
36 requirements" to "participating in MOC." The ABIM also said it would assure new and flexible  
37 ways for internists to demonstrate self-assessment of medical knowledge by recognizing most  
38 forms of CME by the end of 2015. This change will affect internal medicine's more than 20  
39 subspecialties.

40  
41 **OSTEOPATHIC CONTINUOUS CERTIFICATION (OCC): AN UPDATE**

42  
43 Each of the 18 specialty certifying member boards of the American Osteopathic Association's  
44 Bureau of Osteopathic Specialists (AOA-BOS) has implemented OCC, effective January 1, 2013.  
45 All osteopathic physicians who hold a time-limited certificate are required to participate in the  
46 following five components of the OCC process in order to maintain osteopathic board certification:

- 47  
48 • Component 1 - Unrestricted Licensure: requires that physicians who are board certified by the  
49 AOA hold a valid, unrestricted license to practice medicine in one of the 50 states, and adhere  
50 to the AOA's Code of Ethics.

- 1 • Component 2 - Life Long Learning/Continuing Medical Education (CME): requires that all  
2 recertifying Diplomates fulfill a minimum of 120 hours of CME credit during each three-year  
3 CME cycle (some certifying boards have higher requirements). Of these 120 plus CME credit  
4 hours, a minimum of 50 credit hours must be in the specialty area of certification. Self-  
5 assessment activities will be designated by each of the 18 specialty certification boards. If an  
6 osteopathic physician holds subspecialty certification, a percentage of their specialty credit  
7 hours must be in their subspecialty certification area.  
8
- 9 • Component 3 - Cognitive Assessment: requires provision of one (or more) psychometrically  
10 valid and proctored examinations that assess a physician's specialty medical knowledge as well  
11 as core competencies in the provision of health care.  
12
- 13 • Component 4 - Practice Performance Assessment and Improvement: requires that physicians  
14 engage in continuous quality improvement through comparison of personal practice  
15 performance measured against national standards for his or her medical specialty. The  
16 Standards Review Committee of the AOA-BOS has specific criteria for each Component 4  
17 activity.  
18
- 19 • Component 5 - Continuous AOA Membership.  
20

21 Specific requirements for each specialty are available at: [osteopathic.org/inside-  
23 aoa/development/aoa-board-certification/occ-requirements/Pages/default.aspx](http://osteopathic.org/inside-<br/>22 aoa/development/aoa-board-certification/occ-requirements/Pages/default.aspx)

24 Osteopathic physicians who hold non-time-limited (non-expiring) certificates are not required to  
25 participate in OCC. However, to maintain their certification, they must continue to meet licensure,  
26 membership, and CME requirements (120-150 credits every three-year CME cycle, 30 of which are  
27 in AOA CME Category 1A).  
28

29 The AOA has developed policies for clinically inactive Diplomates as well as for Diplomates  
30 whose scope of practice is limited within their area of certification (limited scope physicians). For  
31 dually boarded (AOA/ABMS) Diplomates, the Standards Review Committee of the AOA-BOS is  
32 developing policies to potentially accept ABMS MOC Part IV activities for the AOA Component 4  
33 requirements; an osteopathic activity will still be required as part of the Component 4 requirements.  
34

35 The AOA-BOS is discussing the nature and goals of the Component 3 Cognitive Assessment and  
36 determining other possible methods for evaluating physicians' knowledge and currency in their  
37 respective specialty areas. The AOA-BOS is also discussing the single accreditation system for  
38 allopathic and osteopathic residency programs, under the aegis of the Accreditation Council for  
39 Graduate Medical Education (ACGME), as it relates to AOA board certification, including possible  
40 policy changes that may be necessitated by the new system.  
41

#### 42 AN UPDATE ON STUDY BY AN INDEPENDENT ENTITY ON MOC, OCC AND MOL

43

44 Policy D-275.960[6] directs the AMA to solicit an independent entity to commission and pay for a  
45 study to evaluate the impact of MOC, MOL and OCC on a number of issues, including health care  
46 workforce. Accordingly, in 2014, the AMA contacted the Cecil G. Sheps Center for Health  
47 Services Research (at the University of North Carolina at Chapel Hill) to explore the feasibility of  
48 such a study. The Sheps Center's Program on Health Workforce Research and Policy is one of four  
49 new national Health Workforce Centers focused on addressing the question of what health care  
50 workforce is needed to ensure access to high-quality, efficient health care for the US population.

1 The impact of MOC/OCC/MOL on physician workforce was one of the areas the study was to  
2 address. The Center is supported through a cooperative agreement with the Health Resources and  
3 Services Administration and managed by the Bureau of Health Professions' National Center for  
4 Health Workforce Analysis. As such, the Center would be considered an independent entity.

5  
6 In 2014, the AMA was advised by the Sheps Center that data are currently not available to study  
7 the effect of MOC and MOL on the retention of physicians in the workforce. Developing a study to  
8 answer the question of whether some physicians choose retirement over maintaining certification  
9 would require a fairly complex study design. Given the rapid pace of health system change, a  
10 multivariate analysis would be required to isolate the effects that MOC and MOL have relative to  
11 other factors that also affect physician retention in the workforce, including meaningful use  
12 requirements, electronic health records, accountable care organizations (ACOs), economic  
13 conditions, etc. A longitudinal study would be needed that also adjusted for physician age,  
14 specialty, certification cohort, gender, and years since graduation. Further, the study would need to  
15 adjust for geographic factors, including rural versus urban/suburban practices.

16  
17 Currently, the Sheps Center is not assisting with or conducting research/studies to evaluate the  
18 impact that MOC requirements have on physicians' practices, including, but not limited to  
19 physician workforce, physicians' practice costs, patient outcomes, patient safety and patient access.  
20 Such studies would require a fairly complex research effort and have prohibitive costs and a  
21 lengthy timeframe.

22  
23 The AMA also contacted the American Academy of Family Physicians (AAFP), which had looked  
24 at physician workforce from a different perspective. The study, conducted by the AAFP's Robert  
25 Graham Center, investigated the characteristics of differential participation in MOC by family  
26 physicians. The study reported that after completing the transition of all family physicians into  
27 MOC in 2010, participation appears to be higher than previously, and large numbers of family  
28 physicians are participating in MOC and meeting the requirements in a timely fashion. The study  
29 also showed that family physicians who have not participated in MOC tend to be practicing in  
30 underserved areas or caring for underserved populations where health care providers and  
31 technological resources are generally limited.<sup>18,19,20</sup> This raised questions about the impact of MOC  
32 participation related to workforce, physician maldistribution, and the potential of health care  
33 disparities.

34  
35 The Graham Center has not repeated this study. The Graham Center assisted the American Board  
36 of Family Medicine with developing a research team to look at issues related to MOC. Information  
37 about research in progress is available at: [theabfm.org/research/inprogress.aspx](http://theabfm.org/research/inprogress.aspx)

38  
39 The authors of a study published in January 2015 examined whether participation in the ABIM  
40 MOC program varies according to physician and practice characteristics and MOC status.<sup>9</sup> The  
41 study showed that those who do not participate in MOC are more likely to be general internists, are  
42 older (between the ages of 65 and 75), and are in solo practice. The study also found that  
43 participation in MOC may be higher in the Midwest than in other parts of the country due to the  
44 high quality and lower cost of patient care in this region.<sup>9,21</sup>

#### 45 46 RECERTIFICATION IN OTHER COUNTRIES

47  
48 Other developed countries are incorporating career-long learning and assessment programs into  
49 their systems of professional regulation, showing that the emphasis on ongoing professional  
50 development is not exclusive to the United States. Examples of countries that have implemented  
51 MOC programs include the following.

1 *Canada*

2  
3 Participation in the Royal College of Physicians and Surgeons of Canada MOC Program  
4 ([royalcollege.ca/portal/page/portal/rc/members/moc](http://royalcollege.ca/portal/page/portal/rc/members/moc)) is required to maintain membership and  
5 fellowship and is one of the recognized pathways approved by provincial medical regulatory  
6 authorities in Canada for renewal of medical licensure. The MOC program was developed on the  
7 concept of CPD to support learning across the CanMEDS competency framework  
8 ([royalcollege.ca/portal/page/portal/rc/canmeds](http://royalcollege.ca/portal/page/portal/rc/canmeds)) and to value learning activities against each  
9 dimension of professional practice: clinical, administration, education, and research. The Royal  
10 College's CPD program allows specialists to design, implement and document their  
11 accomplishment from multiple learning activities in order to build evidence-informed practices. An  
12 additional goal is to achieve competency-based residency education, which will define for each  
13 specialty a set of measurable milestones that practicing specialists can use to measure their  
14 progress from competence at the time of certification to mastery and expertise through their  
15 practice experiences.<sup>22</sup>

16  
17 *The United Kingdom*

18  
19 Revalidation is the process by which all physicians are required to demonstrate to the General  
20 Medical Council (GMC) in the United Kingdom ([gmc-uk.org/doctors/revalidation.asp](http://gmc-uk.org/doctors/revalidation.asp)) that they  
21 are up to date and fit to practice. In general, licensed physicians have to revalidate every five years,  
22 through an annual appraisal based on the GMC's core guidance for doctors. The appraisal is  
23 conducted by a senior physician, usually within the same organization, but not necessarily in the  
24 same specialty. At each appraisal, a portfolio of supporting information is provided by the  
25 physician to demonstrate a high standard of practice in relation to four areas set out by the GMC:  
26 knowledge, skills, and performance; safety and quality; communication, partnership, and  
27 teamwork; and maintaining trust.

28  
29 *Australia*

30  
31 Completion of CME credits is generally required for recertification/maintenance of competence of  
32 physicians in Australia. The Royal Australasian College of Physicians  
33 ([racp.edu.au/page/educational-and-professional-development/continuing-professional-  
34 development](http://racp.edu.au/page/educational-and-professional-development/continuing-professional-development)) has developed recertification criteria that include not only CME credits but also  
35 participation in quality improvement initiatives such as audits of practice. Physicians also  
36 participate in a unique assessment program in which they are rated by peers, coworkers, and  
37 patients on their clinical management and "holistic" and personal skills with patients.

38  
39 **SUMMARY AND RECOMMENDATIONS**

40  
41 The AMA supports the need for an evidence-based certification process that is evaluated regularly  
42 to ensure physicians' needs are being met and activities are relevant to clinical practice. The AMA  
43 Council on Medical Education is committed to monitoring the development of MOC and OCC and  
44 will continue to work with the ABMS, the AOA, and the member boards to identify and suggest  
45 improvements to the MOC and OCC programs and ensure that MOC and OCC support physicians'  
46 ongoing learning and practice improvement as well as assure the public that physicians are  
47 providing high-quality patient care in their practice settings (see Appendix B for a summary of  
48 ABMS initiatives). The AMA will continue to advocate for the most cost-effective and inclusive  
49 process to reduce duplication of work.

1 The Council on Medical Education therefore recommends that the following recommendations be  
2 adopted in lieu of Resolution 920-I-14, and that the remainder of the report be filed.

- 3  
4 1. That our American Medical Association (AMA) advocate that the American Board of Medical  
5 Specialties (ABMS) develop fiduciary standards for its member boards that are consistent with  
6 AMA Policy D-275.960 (4), An Update on Maintenance of Certification (MOC), Osteopathic  
7 Continuous Certification and Maintenance of Licensure, which states that our AMA  
8 encourages the ABMS to ensure that all ABMS specialty boards provide full transparency  
9 related to the costs of preparing, administering, scoring and reporting MOC and  
10 certifying/recertifying examinations and ensure that MOC and certifying/recertifying  
11 examinations do not result in significant financial gain to the ABMS specialty boards.  
12 (Directive to Take Action)  
13
- 14 2. That our AMA reaffirm Policy H-275.924 (15), Maintenance of Certification (MOC), which  
15 states that actively practicing physicians should be well-represented on specialty boards  
16 developing MOC. (Reaffirm HOD Policy)  
17
- 18 3. That our AMA encourage AMA members to be proactive in shaping Maintenance of  
19 Certification (MOC) and Osteopathic Continuous Certification by seeking leadership positions  
20 on the ABMS member boards, American Osteopathic Association specialty certifying boards  
21 and MOC Committees. (Directive to Take Action)  
22
- 23 4. That our AMA continue to monitor the actions of professional societies regarding  
24 recommendations for modification to Maintenance of Certification. (Directive to Take Action)  
25
- 26 5. That our AMA rescind Policy D-275.960 (6) (9), An Update on Maintenance of Certification,  
27 Osteopathic Continuous Certification, and Maintenance of Licensure, since that has been  
28 accomplished through this report. (Rescind HOD Policy)  
29
- 30 6. That our AMA work with interested parties to ensure that Maintenance of Certification uses  
31 more than one pathway to assess accurately the competence of practicing physicians, to  
32 monitor for exam relevance and to ensure that MOC does not lead to unintended economic  
33 hardship such as hospital de-credentialing of practicing physicians. (Directive to Take Action)

Fiscal Note: \$5,000

## APPENDIX A – AMA POLICIES RELATED TO MAINTENANCE OF CERTIFICATION AND OSTEOPATHIC CONTINUOUS CERTIFICATION

### H-275.924 Maintenance of Certification

#### AMA Principles on Maintenance of Certification (MOC):

1. Changes in specialty-board certification requirements for MOC programs should be longitudinally stable in structure, although flexible in content. 2. Implementation of changes in MOC must be reasonable and take into consideration the time needed to develop the proper MOC structures as well as to educate physician diplomates about the requirements for participation. 3. Any changes to the MOC process for a given medical specialty board should occur no more frequently than the intervals used by each board for MOC. 4. Any changes in the MOC process should not result in significantly increased cost or burden to physician participants (such as systems that mandate continuous documentation or require annual milestones). 5. MOC requirements should not reduce the capacity of the overall physician workforce. It is important to retain a structure of MOC programs that permit physicians to complete modules with temporal flexibility, compatible with their practice responsibilities. 6. Patient satisfaction programs such as The Consumer Assessment of Healthcare Providers and Systems (CAHPS) patient survey would not be appropriate nor effective survey tools to assess physician competence in many specialties. 7. Careful consideration should be given to the importance of retaining flexibility in pathways for MOC for physicians with careers that combine clinical patient care with significant leadership, administrative, research, and teaching responsibilities. 8. Legal ramifications must be examined, and conflicts resolved, prior to data collection and/or displaying any information collected in the process of MOC. Specifically, careful consideration must be given to the types and format of physician-specific data to be publicly released in conjunction with MOC participation. 9. The AMA affirms the current language regarding continuing medical education (CME): "By 2011, each Member Board will document that diplomates are meeting the CME and Self-Assessment requirements for MOC Part 2. The content of CME and self-assessment programs receiving credit for MOC will be relevant to advances within the diplomate's scope of practice, and free of commercial bias and direct support from pharmaceutical and device industries. Each diplomate will be required to complete CME credits (AMA Physician's Recognition Award (PRA) Category 1, American Academy of Family Physicians Prescribed, American College of Obstetricians and Gynecologists, and or American Osteopathic Association Category 1A)." 10. MOC is an essential but not sufficient component to promote patient-care safety and quality. Health care is a team effort and changes to MOC should not create an unrealistic expectation that failures in patient safety are primarily failures of individual physicians. 11. MOC should be based on evidence and designed to identify performance gaps and unmet needs, providing direction and guidance for improvement in physician performance and delivery of care. 12. The MOC process should be evaluated periodically to measure physician satisfaction, knowledge uptake and intent to maintain or change practice. 13. MOC should be used as a tool for continuous improvement. 14. The MOC program should not be a mandated requirement for licensure, credentialing, reimbursement, network participation, or employment. 15. Actively practicing physicians should be well-represented on specialty boards developing MOC. 16. MOC activities and measurement should be relevant to clinical practice. 17. The MOC process should not be cost prohibitive or present barriers to patient care. (CME Rep. 16, A-09; Reaffirmed: CME Rep. 11, A-12; Reaffirmed: CME Rep. 10, A-12; Reaffirmed in lieu of Res. 313, A-12; Reaffirmed: CME Rep. 4, A-13; Reaffirmed in lieu of Res. 919, I-13; Appended: Sub. Res. 920, I-14)

D-275.960 An Update on Maintenance of Certification, Osteopathic Continuous Certification, and Maintenance of Licensure

1. Our AMA will encourage the American Board of Medical Specialties (ABMS) and the specialty certification boards to continue to explore other ways to measure the ability of physicians to access and apply knowledge to care for patients as an alternative to high stakes closed book examinations.
2. Our AMA will continue to monitor the evolution of Maintenance of Certification (MOC), Osteopathic Continuous Certification (OCC), and Maintenance of Licensure (MOL), continue its active engagement in discussions regarding their implementation, and report back to the House of Delegates on these issues.
3. Our AMA will (a) work with the ABMS and ABMS specialty boards to continue to examine the evidence supporting the value of specialty board certification and MOC and to determine the continued need for the mandatory high-stakes examination; and (b) work with the ABMS to explore alternatives to the mandatory high-stakes examination.
4. Our AMA encourages the ABMS to ensure that all ABMS specialty boards provide full transparency related to the costs of preparing, administering, scoring, and reporting MOC and certifying/recertifying examinations and ensure that MOC and certifying/recertifying examinations do not result in significant financial gain to the ABMS specialty boards.
5. Our AMA will work with the ABMS to lessen the burden of MOC on physicians with multiple board certifications, in particular to ensure that MOC is specifically relevant to the physician's current practice.
6. Our AMA will solicit an independent entity to commission and pay for a study to evaluate the impact that MOL and MOC requirements have on physicians' practices, including but not limited to: physician workforce, physicians' practice costs, patient outcomes, patient safety and patient access. Such study will look at the examination processes of the ABMS, the American Osteopathic Association, and the Federation of State Medical Boards. Such study is to be presented to the AMA HOD, for deliberation and consideration before any entity, agency, board or governmental body requires physicians to sit for MOL licensure examinations. Progress report is to be presented at Annual 2014; complete report by Annual 2015.
7. Our AMA: (a) supports ongoing ABMS specialty board efforts to allow other physician educational and quality improvement activities to count for MOC; (b) supports specialty board activities in facilitating the use of MOC quality improvement activities to count for other accountability requirements or programs such as pay for quality/performance or PQRS reimbursement; (c) encourages the ABMS specialty boards to enhance the consistency of such programs across all boards; and (d) will work with specialty societies and specialty boards to develop tools and services that facilitate the physician's ability to meet MOC requirements.
8. Our AMA Council on Medical Education will continue to review published literature and emerging data as part of the Council's ongoing efforts to critically review MOC, OCC, and MOL issues.
9. Our AMA will continue to explore with independent entities the feasibility of conducting a study to evaluate the impact that MOC requirements and the principles of MOL have on physicians' practices, including, but not limited to physician workforce, physicians' practice costs, patient outcomes, patient safety, and patient access.
10. Our AMA will work with the ABMS and the ABMS Member Boards to collect data on why physicians choose to maintain or discontinue their board certification.
11. Our AMA will work with the ABMS and the Federation of State Medical Boards to study whether MOC and the principles of MOL are important factors in a physician's decision to retire and have a direct impact on the US physician workforce.
12. Our AMA: (a) encourages specialty boards to investigate and/or establish alternative approaches for MOC; (b) will prepare a yearly report regarding the maintenance of certification process; and (c) will work with the ABMS to eliminate practice performance assessment modules, as currently written, from the requirement of MOC. (CME Rep. 10, A-12; Modified: CME Rep. 4, A-13; Reaffirmed in lieu of Res. 610, A-14; Appended: CME Rep. 6, A-14; Appended: Sub. Res. 920, I-14)

H-275.920 Impact of Maintenance of Certification, Osteopathic Continuous Certification, Maintenance of Licensure on the Physician Workforce

1. Our AMA encourages the Federation of State Medical Boards to continue to work with state licensing boards to accept physician participation in maintenance of certification (MOC) and osteopathic continuous certification (OCC) as meeting the requirements for MOL and to develop alternatives for physicians who are not certified/recertified, and that MOC or OCC not be the only pathway to MOL for physicians. 2. Our AMA encourages the American Board of Medical Specialties to use data from maintenance of certification to track whether physicians are maintaining certification and share this data with the AMA. (CME Rep. 11, A-12; Reaffirmed in lieu of Res. 313, A-14)

H-275.923 Maintenance of Certification / Maintenance of Licensure

Our AMA will: 1. Continue to work with the Federation of State Medical Boards (FSMB) to establish and assess maintenance of licensure (MOL) principles with the AMA to assess the impact of MOC and MOL on the practicing physician and the FSMB to study the impact on licensing boards. 2. Recommend that the American Board of Medical Specialties (ABMS) not introduce additional assessment modalities that have not been validated to show improvement in physician performance and/or patient safety. 3. Encourage rigorous evaluation of the impact on physicians of future proposed changes to the MOC and MOL processes including cost, staffing, and time. 4. Review all AMA policies regarding medical licensure; determine if each policy should be reaffirmed, expanded, consolidated or is no longer relevant; and in collaboration with other stakeholders, update the policies with the view of developing AMA Principles of Maintenance of Licensure in a report to the HOD at the 2010 Annual Meeting. 5. Urge the National Alliance for Physician Competence (NAPC) to include a broader range of practicing physicians and additional stakeholders to participate in discussions of definitions and assessments of physician competence. 6. Continue to participate in the NAPC forums. 7. Encourage members of our House of Delegates to increase their awareness of and participation in the proposed changes to physician self-regulation through their specialty organizations and other professional membership groups. 8. Continue to support and promote the AMA Physician's Recognition Award (PRA) Credit system as one of the three major CME credit systems that comprise the foundation for post graduate medical education in the US, including the Performance Improvement CME (PICME) format; and continue to develop relationships and agreements that may lead to standards, accepted by all US licensing boards, specialty boards, hospital credentialing bodies, and other entities requiring evidence of physician CME. 9. Collaborate with the American Osteopathic Association and its eighteen specialty boards in implementation of the recommendations in CME Report 16-A-09, Maintenance of Certification / Maintenance of Licensure. 10. Continue to support the AMA Principles of Maintenance of Certification (MOC). 11. Monitor MOL as being led by the Federation of State Medical Boards (FSMB), and work with FSMB and other stakeholders to develop a coherent set of principles for MOL. 12. Our AMA will 1) advocate that if state medical boards move forward with the more intense MOL program, each state medical board be required to accept evidence of successful ongoing participation in the American Board of Medical Specialties Maintenance of Certification and American Osteopathic Association-Bureau of Osteopathic Specialists Osteopathic Continuous Certification to have fulfilled all three components of the MOL if performed, and 2) also advocate to require state medical boards accept programs created by specialty societies as evidence that the physician is participating in continuous lifelong learning and allow physicians choices in what programs they participate to fulfill their MOL criteria. 13. Our AMA opposes any MOL initiative that creates barriers to practice, is administratively unfeasible, is inflexible with regard to how physicians practice (clinically or not), that does not protect physician privacy, and that is used to promote policy initiatives above physician competence. (CME Rep. 16, A-09;



Appended: CME Rep. 3, A-10; Reaffirmed: CME Rep. 3, A-10; Appended: Res. 322, A-11; Reaffirmed: CME Rep. 10, A-12; Reaffirmed in lieu of Res. 313, A-12; Reaffirmed: CME Rep. 4, A-13; Reaffirmed in lieu of Res. 919, I-13; Reaffirmed in lieu of Res. 610, A-14; Appended: Res. 319, A-14)

#### D-275.971 American Board of Medical Specialties - Standardization of Maintenance of Certification Requirements

1. Our AMA will work with the American Board of Medical Specialties to streamline Maintenance of Certification (MOC) to reduce the cost, inconvenience, and the disruption of practice due to MOC requirements for all of their member boards, including subspecialty requirements. 2. Our AMA will actively work to enforce existing policies to reduce current costs and effort required for the maintenance of certification and to work to control future charges and expenses. (Sub. Res. 313, A-06; Reaffirmed: CME Rep. 7, A-07; Reaffirmed: CME Rep. 16, A-09; Appended: Res. 319, A-12; Reaffirmed in lieu of Res. 313, A-12; Reaffirmed in lieu of Res. 919, I-13)

#### D-275.969 Specialty Board Certification and Recertification

1. Our AMA will continue to monitor the progress by the ABMS and its member boards on implementation of Maintenance of Certification (MOC) and encourage ABMS to report its research findings on the issues surrounding certification, recertification and MOC on a periodic basis. 2. An update report will be prepared for the AMA House of Delegates no later than 2010. 3. Our AMA will encourage dialogue between the ABMS and its respective specialty societies to work on development, implementation, and monitoring of MOC that meets the needs of practicing physicians and improves patient care. 4. Our AMA will exercise its full influence to protect physicians from undue burden and expense in the Maintenance of Certification process. (CME Rep. 7, A-07; Reaffirmed: CME Rep. 16, A-09; Reaffirmed in lieu of Res. 919, I-13)

#### D-300.978 Continuing Medical Education Credit for Maintenance of Certification / Osteopathic Continuous Certification Activities

1. Our AMA will petition both the American Board of Medical Specialties (ABMS) and the American Osteopathic Association (AOA) to strongly encourage each of its specialty boards to offer certified Continuing Medical Education (CME) credit for required Maintenance of Certification (MOC) and Osteopathic Continuous Certification (OCC) activities dealing with practice performance assessment and life long learning. 2. Our AMA encourages all specialty societies to grant certified CME credit for activities that they offer to fulfill requirements of their respective specialty boards' MOC and associated processes. (Res. 329, A-11)

#### H-275.926 Maintaining Medical Specialty Board Certification Standard

1. Our AMA opposes any action, regardless of intent, that appears likely to confuse the public about the unique credentials of board certified physicians in any medical specialty, or take advantage of the prestige of any medical specialty for purposes contrary to the public good and safety. 2. Our AMA will communicate its concerns about the misleading use of the term "board certification" by the National Board of Public Health Examiners and others to the specialty and service societies in the federation, the Association of Schools of Public Health, the American Board of Medical Specialties, the Accreditation Council for Graduate Medical Education, the National Board of Medical Examiners, and the Institute of Medicine. 3. Our AMA will continue to work with other medical organizations to educate the profession and the public about the board certification process. It is AMA policy that when the equivalency of board certification must be

determined, accepted standards, such as those adopted by state medical boards or the Essentials for Approval of Examining Boards in Medical Specialties, be utilized for that determination. (Res. 318, A-07; Reaffirmation A-11)

#### D-275.987 Internal Medicine Board Certification Report - Interim Report

Our AMA shall: (1) support the ACP/ASIM in its efforts to work with the American Board of Internal Medicine (ABIM) to improve the Maintenance of Certification (MOC) program; (2) encourage specialty societies to work with their respective ABMS member board to develop, implement and evaluate the Maintenance of Certification (MOC) program; (3) continue to assist physicians in practice performance improvement; (4) continue to monitor the progress by the American Board of Internal Medicine and the other member boards of the American Board of Medical Specialties (ABMS) on implementing the Maintenance of Certification (MOC) program; (5) encourage the ABMS to include practicing physicians and physicians with time limited board certificates to assist in designing and evaluating the Maintenance of Certification (MOC) process for each of the ABMS member boards; and (6) shall study the ethical implications of the Maintenance of Certification (MOC) program including the patient assessment component vis-à-vis the doctor-patient relationship and the ethical implications of the peer review component vis-à-vis the practice environment. (CMS Rep. 7, A-02; Reaffirmed: CME Rep. 9, A-05; Reaffirmed: CME Rep. 7, A-07; Reaffirmed: CME Rep. 16, A-09)

#### H-275.944 Board Certification and Discrimination

(1) Where board certification is one of the criteria considered for purposes of measuring quality of care, determining eligibility to contract with managed care entities, eligibility to receive hospital staff or other clinical privileges, ascertaining competence to practice medicine, or for other purposes, the AMA oppose discrimination that may occur against physicians involved in the board certification process including those who are in a clinical practice period for the specified minimum period of time that must be completed prior to taking the board certifying examination. (2) Our AMA reaffirms and communicates its policy of opposition to discrimination against member physicians based solely on lack of American Board of Medical Specialties or equivalent American Osteopathic Board certification. (3) Our AMA continues to advocate for nomenclature to better distinguish those physicians who are in the board certification pathway from those who are not. (Sub. Res. 701, I-95; Appended: Res. 314, I-98; Appended: Sub. Res. 301, I-99; Reaffirmed: Sub. Res. 722, A-00; Reaffirmed: CME Rep. 7, A-07)

#### H-405.975 Recertification Exam for the American Board of Medical Specialties

Our AMA actively encourages those specialty boards that issue time limited certificates to include young physicians with such certificates in the decision-making process for any design of plans for recertification. (Res. 303, A-92; Reaffirmed: CME Rep. 7, A-02; Reaffirmed: CME Rep. 2, A-03; Reaffirmed: CME Rep. 7, A-07; Reaffirmed: CME Rep. 16, A-09)

#### H-275.950 Board Certification

Our AMA (1) reaffirms its opposition to the use of board certification as a requirement for licensure or reimbursement; (2) seeks an amendment to the new Medicaid rules that would delete the use of board certification as a requirement for reimbursement and would address the exclusion of internal medicine, emergency medicine, and other specialties; and (3) opposes mandatory MOC as a condition of medical licensure, and encourage physicians to strive constantly to improve their

care of patients by the means they find most effective. (Res. 143, A-92; ; Reaffirmed by Res. 108, A-98; Reaffirmation A-00; Reaffirmed: CME Rep. 16, A-09; Appended: CME Rep. 6, A-14)

#### H-405.973 Board Certification

It is the policy of the AMA (1) to continue to work with other medical organizations to educate the profession and the public about the board certification process; and (2) that, when the occasion arises that equivalency of board certification must be determined, the Essentials for Approval of Examining Boards in Medical Specialties be utilized for that determination. (CME Rep. D, A-92; Reaffirmed: CME Rep. 2, A-03; Reaffirmed: CME Rep. 7, A-07; Reaffirmed: CME Rep. 16, A-09)

#### D-275.977 Update on the American Board of Medical Specialties Program on Maintenance of Certification (MOC)

Our AMA will: (1) continue to monitor the progress of Maintenance of Certification (MOC) and its ultimate impact on the practice community; (2) encourage the Physician Consortium for Performance Improvement, the American Board of Medical Specialties (ABMS), and the Council of Medical Specialty Societies to work together toward utilizing Consortium performance measures in Part IV of MOC; (3) encourage the ABMS Maintenance of Certification Task Force to develop and adopt recommendations for re-entry into clinical practice and entry into Step IV of MOC for diplomates not involved in direct patient care; and (4) request that the ABMS restrain from dividing every aspect of their specialist physician practice into numerous added qualification exams and that, whenever possible, alternate methods be sought to ensure adequate qualifications and make the process less onerous for physicians. (CME Rep. 9, A-05; Reaffirmed: CME Rep. 7, A-07; Reaffirmed: CME Rep. 16, A-09; Appended: Res. 314, A-11)

#### H-275.932 Internal Medicine Board Certification Report--Interim Report

Our AMA opposes the use of recertification or Maintenance of Certification (MOC) as a condition of employment, licensure or reimbursement. (CME Rep. 7, A-02; Reaffirmed: CME Rep. 2, A-12)

#### H-275.919 American Board of Medical Specialties Board Member Enrollment in Maintenance of Certification

Our AMA will recommend to the American Board of Medical Specialties that all physician members of those boards governing the Maintenance of Certification (MOC) process be required to participate in the MOC process. (Res. 310, A-12)

#### D-270.989 Improvements to the Maintenance of Certification Process

By September 15, 2008, our AMA Board of Trustees will write a letter to the American Board of Medical Specialties (ABMS) asking that it work with its 24 member boards to: a. coordinate with each other, the ABMS, specialty societies and the AMA to ensure that the demands of Maintenance of Certification (MOC) are reasonable; b. educate physicians and increase their understanding of the MOC process and its requirements; c. solicit physician input and feedback regarding MOC implementation; d. make transparent all recertification-related costs; e. work to minimize the disruption of physician practice due to MOC requirements; and f. ensure that the number of MOC-related testing dates and the locations of testing sites are ample enough to minimize the burden on physician practices and their time away from clinical care. (Res. 323, A-08; Reaffirmed: CME Rep. 16, A-09; Reaffirmed in lieu of Res. 313, A-12)

#### H-405.970 Specialty Board Certification Fee Requirements

The AMA strongly encourages member boards of the American Board of Medical Specialties to adopt measures aimed at mitigating the financial burden on residents related to specialty board fees and fee procedures, including shorter preregistration periods, lower fees and easier payment terms. (Res. 303, A-93; Reaffirmed: CME Rep. 2, A-03; Reaffirmed: CME Rep. 16, A-09)

#### H-405.974 Specialty Recertification Examinations

Our AMA (1) encourages the American Board of Medical Specialties and its member boards to continue efforts to improve the validity and reliability of procedures for the evaluation of candidates for certification; (2) believes that the holder of a certificate without time limits should not be required to seek recertification; and (3) believes that no qualifiers or restrictions should be placed on lifetime certifications recognized by the American Board of Medical Specialties. (CME Rep. E, A-92; Reaffirmed: CME Rep. 7, A-02; Reaffirmed: CME Rep. 7, A-07; Reaffirmed: CME Rep. 16, A-09; Reaffirmed: CME Rep. 10, A-12; Reaffirmed in lieu of Res. 313, A-12; Appended: Res. 314, A-14)

#### D-275.999 Board Certification and Discrimination

Our AMA will collect information from members discriminated against solely because of lack of American Board of Medical Specialties or equivalent American Osteopathic Board certification. (Res. 314, I-98; Reaffirmed: CME Report 2, A-08)

#### H-275.933 Specialty Board Recertification Requirements for Employment

Our AMA opposes specialty board recertification as a sole condition of employment. (Res. 303, I-01; Reaffirmed: CME Rep. 7, A-07; Reaffirmed: CME Rep. 16, A-09)

#### H-405.972 Recertification Alternatives

Our AMA continues to support the development and validation of alternatives to recertification by standardized testing. (Res. 317, I-92; Reaffirmed: Res. 306, I-97; Reaffirmed: CME Rep. 7, A-02; Reaffirmed: CME Rep. 7, A-07; Reaffirmed: CME Rep. 16, A-09)

APPENDIX B



American Board  
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April 1, 2015

William A. McDade, MD, PhD  
Chair, Council on Medical Education  
American Medical Association  
330 N. Wabash Avenue  
Chicago, IL 60611

Dear Dr. McDade:

Thank you for the recent opportunity to speak to the American Medical Association (AMA) Council on Medical Education about Maintenance of Certification (MOC) and efforts on the part of the American Board of Medical Specialties (ABMS) and its 24 Member Boards to respond to the issues that have been raised by members of the AMA. You suggested that an update on activities by ABMS and the Member Boards since the November AMA House of Delegates Interim meeting would be helpful.

The 2015 Standards for the ABMS Program for Maintenance of Certification, which became effective in January 2015, were intended to allow the Boards to innovate in the delivery and design of their programs for MOC and address physicians' concerns regarding relevance, burden, and cost in ways most suitable and relevant to their discipline and diplomate population. In addition to requirements addressing each component of the MOC program, the Standards include requirements addressing the broad structure of MOC, focusing on issues of continuous improvement within the Boards' programs themselves. It is this latter set of standards that responds specifically to issues raised by the Council. Under the General Standards, the Boards are expected to:

- Seek input from practicing clinicians
- Reduce burden, increase relevance, and deliver value to physicians
- Engage in a formal process of continuous improvement of their MOC programs
- Evaluate the elements of MOC to ascertain their impact on practice

ABMS is pursuing a variety of initiatives to introduce new approaches to each of the components; create a mechanism for evaluating and identifying effective Board practices that might be shared; and encourage the Boards to work together to make it easier for physicians to find practice-relevant activities to satisfy their Board's expectation and, more importantly, support their learning needs.

Member Boards of the American Board of Medical Specialties

American Board of Allergy and Immunology | American Board of Anesthesiology | American Board of Colon and Rectal Surgery | American Board of Dermatology  
American Board of Emergency Medicine | American Board of Family Medicine | American Board of Internal Medicine | American Board of Medical Genetics and Genomics  
American Board of Neurological Surgery | American Board of Nuclear Medicine | American Board of Obstetrics and Gynecology | American Board of Ophthalmology  
American Board of Orthopaedic Surgery | American Board of Otolaryngology | American Board of Pathology | American Board of Pediatrics  
American Board of Physical Medicine and Rehabilitation | American Board of Plastic Surgery | American Board of Preventive Medicine  
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### **LIFELONG LEARNING AND SELF-ASSESSMENT**

The 2015 Standards call for the incorporation of professionalism and patient safety learning and assessment, as well as incorporation of all of the core competencies into the Boards' programs for MOC. In order to facilitate the identification of relevant educational and self-assessment activities for both physicians and the Boards, the following initiatives are currently underway:

- ABMS issued two calls for activities to identify and catalog CME activities in safety science, professionalism, communication, improvement science, and system-based practice, team-based care, supervision, and transitions of care.
- In partnership with the Association of American Medical Colleges, ABMS is developing an on-line platform that will house an inventory of approved activities available to physicians in any specialty. This platform will launch in 2015 and will allow physicians to access educational and assessment activities developed by specialty societies, academic medical centers, and other educational providers that they might not have had access to previously.
- Ten Boards have agreed to simplify the Board approval process for new MOC Part II and IV activities by agreeing to a common submission form, which will allow review of activities submitted by the educational community by multiple Boards on a common review portal.

### **ASSESSMENT OF KNOWLEDGE, JUDGMENT, AND SKILLS**

ABMS and the Member Boards are engaged in several initiatives to make the MOC Part III Assessment of Knowledge, Judgment and Skills less costly, more convenient, more practice-relevant, and more formative in nature.

- ABMS has convened a Task Force on External Assessment to evaluate how innovations in assessment and adult learning can improve the design and delivery of MOC examinations. The task force is exploring a number of innovations that will address concerns raised about the examination: blueprinting and modularization techniques that facilitate customization of exam content to reflect focused practices; access to materials similar to those used at the point of care; remote testing; reduction of travel expense and inconvenience; and improved performance feedback to guide educational and development plans. The task force also is reviewing innovations in test development that simulate clinical scenarios and assess diagnostic acumen and clinical judgment, rather than recall. We anticipate a report in late summer 2015.
- Several Boards have modularized their examinations, offering diplomates the ability to tailor exam content by selecting modules that more closely reflect their areas of practice focus.
- Three Boards are piloting remote exam proctoring.
- Four Boards provide access to resource material about questions or content areas, or have initiated pilots to allow the use of outside resources, during the examination itself.



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- One Board is piloting a new approach to external assessment that would replace the high-stakes summative exam with more frequent, formative assessments linked to educational resources, while still being able to ensure that the content has been mastered successfully. This approach would provide physicians with more opportunities to be assessed on new developments in the field as they arise.

## **IMPROVEMENT IN PRACTICE**

The ABMS Standards do not specify how the Boards should structure the practice improvement component of MOC, recognizing that it is most sensitive to differences in clinical context across the specialties. The Boards have generally taken four approaches to practice assessment:

**Practice Audits** – Several Boards have developed on-line practice assessment protocols that allow physicians to assess their care to patients using evidence based quality indicators.

- One Board is working with a data vendor to populate its system with data extracted from electronic health records (EHRs) and is working with its specialty society to incorporate data from the society's registry.

**Registries** – This is the fastest growing approach to practice assessment since it provides practice-relevant data and ongoing performance feedback.

- Many Boards recognize participation in registries developed by their professional societies as satisfying their practice improvement requirements.
- One Board has piloted an innovative approach to collecting patient-reported outcome data using convenient data capture pre- and post-treatment to track patient functional outcomes.
- One Board has a grant from the Agency for Healthcare Research and Quality (AHRQ) to develop unobtrusive data extraction from EHRs for self-assessment, as well as population-based assessment using patient data to identify “hotspots” of illness or outcomes to allow physicians to understand how they affect their patients' health.

**Simulation** – Several Boards have made available high-fidelity clinical simulation to assess clinical judgment and improve practice skills.

**Organizational Quality Improvement** – This is the fastest growing approach to practice improvement, as the Boards seek to integrate MOC activity with other organizations' quality improvement (QI) programs to reduce redundancy and physician burden.

- The ABMS Multi-Specialty Portfolio Approval Program (Portfolio Program) enables physicians engaged in meaningful QI activities within their organizations to receive credit for those activities from their certifying boards. Currently, 21 of the 24 Member Boards offer MOC Part IV credit for participation in organizational QI projects approved through the Portfolio Program. Nearly 50 organizations have signed up as Portfolio

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Program sponsors, creating opportunities for thousands of physicians to receive MOC Part IV credit for organizational QI activities. Another 100 organizations have applied, including the AMA and some state medical societies.

- Several Boards accept TeamSTEPPS activities, a team-based QI program developed jointly by AHRQ and the Department of Defense, that optimize patient care quality by reducing errors and improving communication within medical teams.
- Five Boards accept physician activities related to hospital-based Ongoing and Focused Professional Practice Evaluation conducted under The Joint Commission standards.

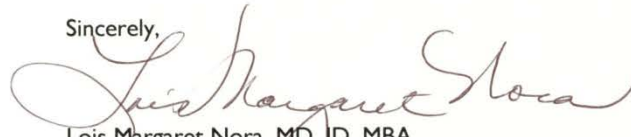
#### **Other ABMS Initiatives**

In addition to the MOC component-specific activities noted above, ABMS has:

- Constituted a Committee on Continuing Certification with membership from all 24 Boards to evaluate their programs for MOC and identify effective practices that could be shared across the Boards. In 2015 this committee is evaluating the practice assessment (Part IV) components of MOC programs.
- Launched a major initiative to evaluate the operations and practices of all 24 Boards, in order to identify areas where the Boards can work towards greater consistency.
- Organized a working group of the surgical Boards to examine solutions and core measures that might be suitable for multiple Boards.
- Convened a group of 10 Boards that have agreed to work together to share MOC practices and platforms.
- Convened working groups to examine the types of issues that physicians in unique practice environments encounter when engaging with their Boards' MOC programs and recommend ways to mitigate those issues. The specific cohorts being studied include physicians serving in the military, physician scientists, and physicians in administrative positions.

ABMS is committed to helping the Member Boards develop programs for MOC that are relevant and meaningful for diplomates, while helping support the social compact between the public and the profession. We look forward to continuing to work with the AMA Council on Medical Education to that end.

Sincerely,



Lois Margaret Nora, MD, JD, MBA  
President and Chief Executive Officer



## REFERENCES

1. Report 6-A-14, Update on Maintenance of Certification, Osteopathic Continuous Certification, and Maintenance of Licensure. AMA Council on Medical Education. Available at: <https://download.ama-assn.org/resources/doc/council-on-med-ed/x-pub/cme-rpt6-a-14.pdf> (accessed 2-10-15)
2. Report 4-A-13, An Update on Maintenance of Certification, Osteopathic Continuous Certification, and Maintenance of Licensure. AMA Council on Medical Education. Available at: [ama-assn.org/resources/doc/council-on-med-ed/cme-rpt4-a-13.pdf](https://ama-assn.org/resources/doc/council-on-med-ed/cme-rpt4-a-13.pdf) (accessed 2-10-15).
3. Report 10-A-12, An Update on Maintenance of Certification, Osteopathic Continuous Certification, and Maintenance of Licensure. AMA Council on Medical Education. Available at: [ama-assn.org/resources/doc/council-on-med-ed/a-12cmerpt10.pdf](https://ama-assn.org/resources/doc/council-on-med-ed/a-12cmerpt10.pdf) (accessed 2-10-15).
4. Report 11-A-12, Impact of Maintenance of Certification, Osteopathic Continuous Certification, Maintenance of Licensure on the Physician Workforce. AMA Council on Medical Education. Available at: [ama-assn.org/resources/doc/council-on-med-ed/a-12cmerpt11%20.pdf](https://ama-assn.org/resources/doc/council-on-med-ed/a-12cmerpt11%20.pdf) (accessed 2-10-15).
5. Report 3-A-10, Specialty Board Certification and Maintenance of Licensure AMA Council on Medical Education. Available at: [ama-assn.org/resources/doc/council-on-med-ed/cme-rep3-a10.pdf](https://ama-assn.org/resources/doc/council-on-med-ed/cme-rep3-a10.pdf) (accessed 2-10-15).
6. Report 16-A-09, Maintenance of Certification/Maintenance of Licensure. AMA Council on Medical Education. Available at: [ama-assn.org/resources/doc/council-on-med-ed/cme-report-16a-09.pdf](https://ama-assn.org/resources/doc/council-on-med-ed/cme-report-16a-09.pdf) (accessed 2-10-15).
7. Cook DA, Holmboe ES, Sorensen KJ, et al. Getting Maintenance of Certification to Work; A Grounded Theory Study of Physicians' Perceptions. *JAMA Internal Medicine*. 2014.
8. Gallagher TH, Prouty CD, Brock DM, et al. Internists' Attitudes About Assessing and Maintaining Clinical Competence. *J Gen Intern Med*. 2013;29(4):608-614.
9. Lipner RS, Brossman BG. Characteristics of Internal Medicine Physicians and Their Practices That Have Differential Impacts on Their Maintenance of Certification. *Acad Med*. January 2015;90(1):81-87.
10. Hawkins RE, Lipner RS, Ham HP, et al. American Board of Medical Specialties Maintenance of Certification: Theory and Evidence Regarding the Current Framework. *Journal of Continuing Education in the Health Professions*. 2013;33(S1):S7-S19.
11. Hayes J, Jackson JL, McNutt GM, et al. Association Between Physician Time-Unlimited vs Time-Limited Internal Medicine Board Certification and Ambulatory Patient Care Quality. *JAMA*. 2014;312(22):2358-2363.
12. Gray BM, Vandergift JL, Johnston MM, et al. Association Between Imposition of Maintenance of Certification Requirement and Ambulatory Care-Sensitive Hospitalizations and Health Care Costs. *JAMA*. 2014;312(22):2348-2357.
13. Lee TH. Certifying the Good Physician-A work in Progress. *JAMA*. 2014;312(22):2340-2342.
14. Teirstein PS. Boarded to Death-Why Maintenance of Certification is Bad for Doctors and Patients. *N Engl J Med*. 2015;372(2):106-108.
15. Interview with Dr. Steven Weinberger on the pros and cons of the new Maintenance of Certification standards. Supplement to the *N Engl J Med*. 2015;372:106-108.
16. Wolfe S, Carol R, Mejicano G. Using the Evidence to Make the Case for ABMS Board Certification and Maintenance of Certification. *Journal of Continuing Education in the Health Professions*. 2014;34(S1):S47-S48.
17. Creation of Massachusetts Medical Society Principles for Physician Demonstration of Current Professional Expertise. Massachusetts Medical Society. TFMOC Report I-13 A-4 [I-12 A-106]
18. Xierali IM, Rinaldo JC, Green LA, et al. Family Physician Participation in Maintenance of Certification. *Annals of Family Medicine*. May-June 2011;9(3):203-210.

19. Puffer JC, Brazemore AW, Newton, et al. Engagement of Family Physicians Seven Years Into Maintenance of Certification. *J AM Board Fam Med.* 2011;24:483-484.
20. Puffer JC, Brazemore AW, Jaen CR, et al. Engagement of Family Physicians in Maintenance of Certification Remains High. *J AM Board Fam Med.* 2012;25:761-762.
21. McKinney M. For better or worse. Report: Where you live affects the type of healthcare you're going to get. *Modern Healthcare.* March 19, 2012;42:6-7.
22. Campbell CM, Parboosingh J. The Royal College Experience and Plans for the Maintenance of Certification Program. *Journal of Continuing Education in the Health Professions.* 2013;33(S1):S36-S47.