

Message from the Chair

Louise E. Thomson, MB.ChB., Chair

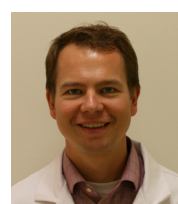
ABNM diplomates and the Board-working together to serve and support current and future diplomates.
[More Details](#)



Message from the Executive Director

George M. Segall, M.D., Executive Director

2015 Financial Report.
[More Details](#)



Message from MOC Committee Chair

Daniel A. Pryma, M.D., MOC Committee Chair

Simplification of the Part IV requirements.
[More Details](#)

SNMMI Newsline: Looking to the Future: The ABNM in the Next 10 Years

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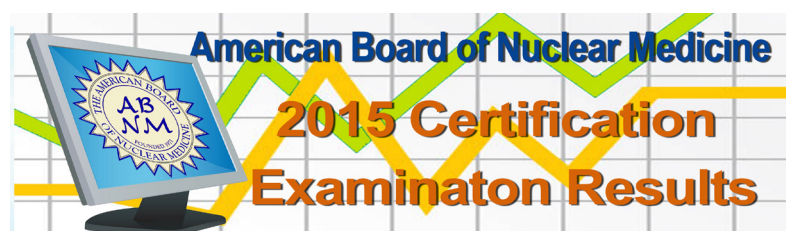
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MOC Presentation at the SNMMI Mid-Winter Meeting

[More Details](#)

SNMMI Newsline: Value of ABNM Certification and MOC to Diplomates and the Public

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Certification Examination

Number of Candidates Who Took Exam	81
Number Who Passed	63
Pass Rate	78%
First Time Pass Rate	86%

Maintenance of Certification (MOC) Examination

Number of Candidates Who Took Exam	120
Number Who Passed	117
Pass Rate	98%

2016 NEW BOARD MEMBERS



Esma A. Akin, M.D., FACR
Director, Division of Nuclear Medicine
Department of Radiology
The George Washington University Hospital



Andrei H. Iagaru, M.D.
Co-Chief, Division of Nuclear Medicine
and Molecular Imaging
Stanford University Medical Center



Jonathan E. McConathy, M.D., Ph.D.
Director, Molecular Imaging and Therapeutics Division
Department of Radiology
University of Alabama at Birmingham

FUTURE EXAMINATION DATES

Certification/MOC Examination
Week of October 3 - 8, 2016
Week of October 2 - 7, 2017

Application period is NOW OPEN for both Exams
April 1 - May 31, 2016

In-Training Examination:
Week of January 9 - 14, 2017



Associate Executive Director

American Board of Nuclear Medicine

The ABNM is searching for a new Associate Executive Director to serve a 5-year term, beginning March 1, 2017. The Associate Executive Director is responsible for examinations and the Maintenance of Certification (MOC) program. Qualified individuals must be certified by the ABNM, participating in MOC, and have a full and unrestricted medical license. Prior or current Board membership is preferred. Individuals must be willing to take the MOC examination if they have a time-limited certificate that will expire before 2021. Individuals with lifetime certificates must take the MOC examination if they have never taken the examination, or they must take the examination if they have taken the examination prior to 2011. For more information, contact the ABNM at abnm@abnm.org. Applications will be accepted from March 1 until May 30, 2016. Individuals may apply to the ABNM Search Committee at abnm@abnm.org by sending their CV with a brief statement describing their qualifications and interest in the position.

Comments/Feedback

The ABNM welcomes comments from diplomates and residents regarding issues raised in this Tracers or any other issues affecting the practice of nuclear medicine or certification processes.

Please email your comments to:
George M. Segall, M.D., Executive Director
American Board of Nuclear Medicine (gsegall@abnm.org)

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Quick Links

- [ABNM Website](#)
- [ABNM Board Members](#)
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Relevant References

- [Donations Received in 2015](#)
- [New Diplomates Who Passed the 2015 Certification Examination](#)
- [Congratulations to Our Diplomates Who Passed the 2015 MOC Examination](#)
- 2016 New Board Members
- 2015 ABNM Examination Results
- Associate Executive Director

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Newark, Delaware

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Philadelphia, Pennsylvania

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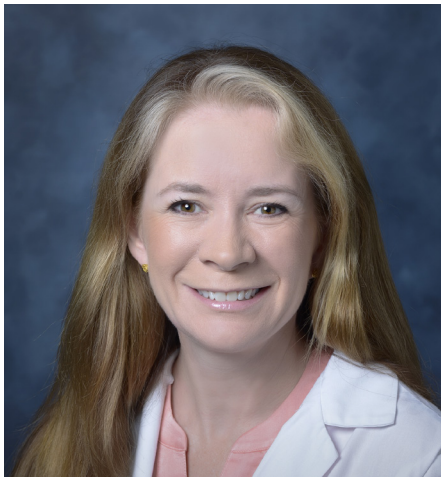
The American Board of Nuclear Medicine

2016 Issue 1

A Member Board of the American Board of Medical Specialties

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Chair's Message



Louise E. Thomson, MB.ChB.
Chair, ABNM

It is my pleasure to write this message as the out-going chair. During the course of discussions within our community over the last year questions have been asked regarding the composition of the ABNM board of directors. Who are the members of the Board and why would the Board have considered changes in structure that could influence the nuclear medicine community as a whole?

The stated primary purpose of the ABNM board is the advancement of the health of the public through the establishment and maintenance of standards of training and education, and the qualification of physicians rendering nuclear medicine services in the United States. The board has 12 directors - 4 of whom serve in positions as chair, vice-chair, secretary-treasurer and past chair. On a yearly basis, as Board members complete terms of service, replacement members are nominated by the nuclear medicine community and are selected to ensure balanced representation of subspecialty interests and the diversity of practice in our community. Directors give their time freely for a term of up to 6 years, with the work of the Board being organized and supported by the Executive Director and Assistant Executive director (non-voting officers). All directors are required to take the recertification examination prior to serving. Current members come from 9 states and one is from Canada. There is representation from private and academic centers, with a mix of ABNM only and dual certified directors, seven women and five men. Board members have one thing in common – we are all motivated by the desire to see nuclear medicine thrive, and our belief in high quality practice standards.

The past year saw very important conversations within the nuclear medicine community about training, certification, maintenance of certification and the future of the ABNM. The majority participating in this discussion supported the need for the ABNM to remain an independent board. However, there was also a majority in favor of dual training for nuclear medicine physicians in radiology. Moving forward, the ABNM will be working with nuclear medicine stakeholders and contributing to the new SNMMI led taskforce and I hope that our diplomates will be engaged in these ongoing very important discussions. Our community needs to find ways to encourage medical school graduates and radiology residents to consider training in nuclear medicine and we are challenged to offer practical support to diplomates who may face great difficulties related to local credentialing, workplace competition and healthcare economics.

The ABNM is a small member board of the American Board of Medical Specialties. The long-term success of ABNM as an independent specialty board is in the hands of our diplomates. Numbers of candidates being certified each year is stable, however the count of nuclear medicine trainees and training pathways is decreasing and we see a rapid rise in the proportion participating in pathways for dual certification. In an ideal world, all ABNM certified physicians remain connected with their certifying Board, and participate in recommended programs for maintenance of certification and quality of practice. In the real world, there is a 19% participation rate by active lifetime certificate holders, 62% participation rate by time limited certificate holders and those who are dual boarded may choose not to maintain two certificates. This is the financial foundation upon which we are expected to support all diplomates.

As the ABNM looks to the future, priority is being given to updating the MOC process. Redesign is aimed at increasing accessibility, relevance, and very importantly, increasing active participation. These changes are in line with many other ABMS member boards, will meet ABMS requirements, and come in response to criticisms of the existing recertification process. The Board hopes that current and future diplomates will embrace developments in MOC and that you will participate, and support your Board as we continue to serve you.

It is the time of year for transitions as the Board farewells three directors and welcomes new members. We say farewell to Dr Janis O'Malley, Dr Eric Rohen and Dr Jerry Wallis and thank them very much for their years of dedicated service.

We welcome three new directors – Dr Esma Akin from Washington, DC; Dr Andrei Iagaru from Stanford, CA; and Dr Jonathan McConathy from Birmingham, AL. Congratulations go to Dr Daniel Pryma, the new Secretary-Treasurer, Dr Erin Grady who becomes Vice-Chair and Dr Munir Ghesani who becomes Chair.

It has been an honor to serve as Chair. My thanks go to recent past and current Board members for their support; and for their commitment to our specialty and to the ABNM.



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Message from the Executive Director

2015 Financial Report



George M. Segall, M.D.
Executive Director, ABNM

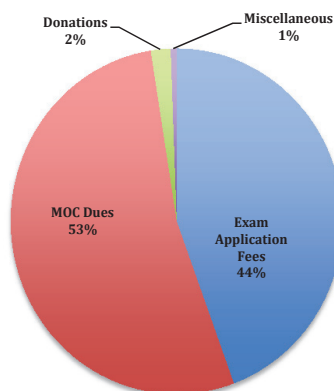
The ABNM fiscal year is January 1 through December 31. A full audit is conducted every two years by a certified public accounting firm, UHY. The firm audited the financial statements for the year ending December 31, 2014. The report dated July 10, 2015, stated, "In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of The American Board of Nuclear Medicine, Inc. as of December 31, 2014, and the results of its operations and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America. The firm noted total assets of \$3,123,320, with an increase of \$118,489 compared to the prior year.

The United States Income Tax Return, Form 990, filed by all non-profit organizations, is publicly available. There are many websites that provide free access to the tax returns, including the returns filed by the ABNM. One such website is

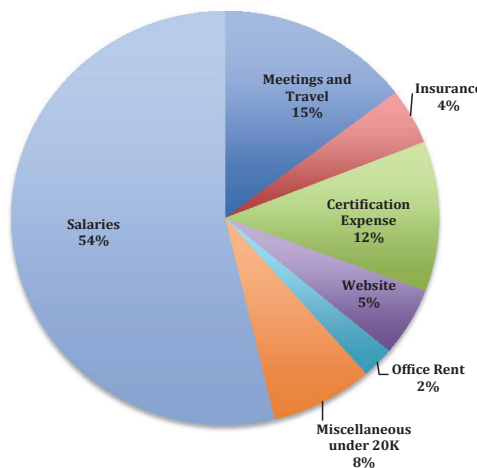
<http://foundationcenter.org/findfunders/990finder/>.

The ABNM started 2015 with a balanced budget of \$861,942 in operating income and expense. At the end of the year, total non-investment income was \$875,595, which was \$13,653 over budget. Operating expense was \$847,154, which was \$14,788 under budget. The ABNM ended the year with a small surplus of \$28,441.

Operating Income



Operating Expense



A break down of the major income and expense categories for 2015 is shown in the following diagrams.

The largest percentage of income is derived from Maintenance of Certification annual dues. Annual dues were \$150 when they were instituted in 2007. They were increased to \$175 in 2010. The dues were increased to \$400 in 2012, partially to offset the fee paid by diplomates for the Maintenance of Certification examination. As a result, the exam fee, which was \$2,050 in 2011, has been decreased by \$205 per year. The 2016 exam fee is \$1025. It will be phased out completely in 2021.

The largest expense is salary for six employees, including the Executive Director, Associate Executive Director, Administrator, Data Analyst, and two Secretaries. The percentage of expense for salary has decreased from 58% in 2011 to 54% in 2015.

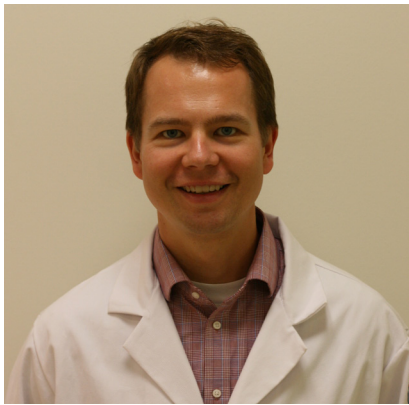
The ABNM also has \$2.12 million in an investment portfolio as of December 31, 2015, which is managed by Wells Fargo Advisors. The investment portfolio is the ABNM's reserve fund for unexpected financial difficulties, and major new initiatives.

The budget for 2016 is essentially balanced, with expected income of \$828,156 and expected expense of \$826,611. Income is decreased compared to 2015 largely because of the planned reduction in the fee for the Maintenance of Certification examination. The ABNM is financially robust, but maintaining a balanced operating budget is becoming more challenging. The board hopes to meet the financial challenges in 2017-2021 by increasing diplomate participation in Maintenance of Certification, which the ABNM is working to make easier and more valuable for all diplomates.



Expansion of Qualifying Improvement Activities

Daniel A. Pryma, M.D. – MOC Committee Chair



Daniel A. Pryma, M.D.
MOC Committee Chair, ABNM

Many diplomates have found Improvement in Medical Practice (Part IV of MOC) the most troublesome. Therefore, the ABNM has expanded the list of improvement activities that will fulfill the Part IV requirement. Many of these activities already are a part of any practice, and so many diplomates continually fulfill the spirit of Part IV. Below is a list of qualified activities. Note that the ABNM also accepts any improvement activity qualified by another American Board of Medical Specialties (ABMS) board.

Previously, Part IV projects consisted of 3 parts; each of the 3 parts counted as one activity (toward a minimum requirement of one activity per year). Diplomates may continue to receive Part IV credit for these projects. In addition, the items listed below will provide credit for one activity. As long as a diplomate has meaningful and ongoing participation in one of these activities, the diplomate may receive credit each year. It is possible for more than one diplomate to participate in the same activity so long as each diplomate's participation is meaningful and ongoing.

In addition to these activities, the ABNM will periodically provide diplomates with a survey on current practice patterns. The results of these surveys will be reported so that participating diplomates can see how their practice compares to their colleagues. Participation in a survey will also provide credit for one activity.

List of Expanded Part IV Activities

1. Member, clinical quality and/or safety committee
2. Participation in a peer-review process or OPPE
3. Participation in a root cause analysis team
4. Publication of an article related to QI, or safety, or improvement in clinical care
5. Invited presentation at a national meeting regarding QI or safety
6. Regular (10/year) participation in clinical conferences (e.g. tumor boards)
7. Creation, management, or participation in a quality or safety program (e.g. daily huddle)
8. Local or national leadership role in a national/international QI program (e.g. Image Wisely)
9. Completion of a peer survey on quality or patient safety
10. Completion of a patient encounter of care survey
11. Participation in applying for or maintaining accreditation (e.g. ACR, IAC)
12. Participation in passing a federal or state radiation safety inspection without violations
13. Participation in a phantom simulator program (e.g. SNMMI imaging proficiency phantom exercise)
14. Being a program director for an ACGME-accredited residency or fellowship program
15. Academic promotion
16. Participation in an approved registry (e.g. NOPR)



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SNMMI Newsline: Looking to the Future: The ABNM in the Next 10 Years

Reprinted with permission SNMMI Newsline J Nucl Med 2016 57:12N

The American Board of Nuclear Medicine (ABNM) and the American Board of Radiology (ABR) have decided not to move forward with proposals in a joint statement sent to stakeholders in July 2015, which included replacing nuclear medicine and nuclear radiology training programs with a single training pathway leading to a new ABR certificate in nuclear medicine, with ultimate dissolution of the ABNM. The reason for the decision was explained in a letter sent to stakeholders in November and covered in the December issue of Newsline.

The specialty of nuclear medicine has seen tremendous growth in the past 2 decades. Hybrid imaging has become widespread since the introduction of SPECT/CT in 1999, PET/CT in 2001, and PET/MR in 2011. Many new radiopharmaceuticals have been approved for diagnosis and therapy, including the first amyloid- β imaging agent in 2012 and ^{223}Ra -dichloride for treatment of prostate cancer skeletal metastases in 2013. Nuclear medicine is poised for an historic expansion of the specialty into molecular imaging using nonradioactive tracers, including targeted biomarkers, nanoparticles, microbubbles, and optical imaging.

The continued growth of nuclear medicine will require physicians of the future to have more training in functional and anatomic imaging. Fortunately, 3 well-defined pathways lead to dual certification by the ABNM and the ABR, including 1 year of nuclear medicine training after diagnostic radiology residency, 16 months of nuclear medicine training during 4 years of diagnostic radiology residency, and the new 5-year training programs combining 3 years of diagnostic radiology training with 2 years of nuclear medicine training.

The future of the specialty is bright, but the ABNM recognizes the challenges that lie ahead. The most critical issue is a lack of understanding or interest in nuclear medicine training among medical students and residents, which has resulted in a decrease in the number of nuclear medicine training programs and residents—from 56 programs with 156 residents in 2009–2010 to 43 programs and 84 residents in 2015–2016. ABNM will be working with SNMMI and other stakeholders on an outreach plan to reverse this trend. The plan could include development of a series of high-quality PowerPoint presentations introducing nuclear medicine and molecular imaging to medical students. The plan could also include a web portal where medical students could go to learn about training programs, job markets, and earnings. Most of all, we need to be proactive and recruit.

Future employment opportunities are likely to be plentiful for physicians who are dual certified by ABNM and ABR. We need to work, however, to support physicians certified only by

the ABNM, especially recent graduates. ABNM recognizes the qualifications of ABNM diplomates to perform and interpret CT optimized for diagnosis when performed on a hybrid PET/CT or SPECT/CT camera, of diplomates who trained in an Accreditation Council for Graduate Medical Education–accredited nuclear medicine program after July 2011, and of diplomates trained prior to this date who have had residency or postgraduate training fulfilling the recommendations of SNMMI for hybrid imaging and who have been recertified by ABNM. ABNM can publish this policy to help current diplomates and can work with other groups to help diplomates who need to meet the American College of Radiology requirements for on-the-job training in CT. ABNM can work with the Nuclear Medicine Program Directors to help current nuclear medicine residents and recent graduates access additional residency training in diagnostic radiology. According to the 2015 report of the National Resident Matching Program, 55 out of 166 programs offering PGY-2 positions in diagnostic radiology were unfilled, and only 862 positions were filled out of 999 offered. These data suggest opportunities for the 60–80 physicians annually certified by ABNM who want additional training in diagnostic radiology.

ABNM is also working to make maintenance of certification (MOC) more valuable, less expensive, and easier. These goals are especially important for physicians who are certified by more than one American Board of Medical Specialties (ABMS) member board. ABNM currently accepts all MOC activities meeting the Parts 2 and 4 requirements of other ABMS member boards. ABNM is also likely to expand the list of quality improvement activities that meet Part 4 requirements to include activities physicians already do. ABNM is also considering replacing the MOC exam, which diplomates take every 10 years, with a user-friendly process that encourages learning and self-assessment. A pilot program is likely to be launched in 2017. Finally, if more diplomates participated in MOC, ABNM could lower annual dues, which are currently \$400 per year.

ABNM is prepared to meet the challenges and opportunities of the future to ensure the continued growth of nuclear medicine, meet the needs of diplomates, and serve the public by setting high standards for training, initial certification, and continuing competence of physicians.

Please send comments, suggestions, and ideas to abnm@abnm.org.



George M. Segall, MD



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MOC Presentation at the SNMMI Mid-Winter Meeting

Part IV MOC and PDSA

Daniel A. Pryma, MD
Associate Professor of Radiology & Radiation Oncology
Chief, Nuclear Medicine & Clinical Molecular Imaging
University of Pennsylvania Perelman School of Medicine



Maintenance of Certification

- ☞ Medicine is a rapidly evolving profession
- ☞ Patients deserve physicians who are up to date with current best practices
- ☞ Maintenance of Certification (MOC) programs aim to ensure that participating physicians are current
 - ☞ Should also facilitate that currency



MOC focus areas

- ☞ Participating physicians must be competent in six areas:
 - ☞ Medical knowledge
 - ☞ Patient care
 - ☞ Interpersonal and communication skills
 - ☞ Professionalism
 - ☞ Practice-based learning and improvements
 - ☞ System-based practice



MOC: Historical timeline

- ☞ Prior to 1992: board certified for life
- ☞ 1992-2007: regular (every 10 years for ABNM) recertification exam
- ☞ 2007-present: periodic recertification exam plus all other aspects of MOC
- ☞ Potential future: medical knowledge evolution from periodic exam to frequent testing/learning moments
 - ☞ Blurring of lifelong learning/self-assessment and formal assessment



MOC components

- ☞ I. Professionalism and professional standing
- ☞ II. Lifelong learning and self-assessment
- ☞ III. Assessment of Knowledge, Judgment and Skills
- ☞ IV. Improvement in Medical Practice



The MOCA minute

- ☞ Started as a pilot by the American Board of Anesthesiology
 - ☞ Weekly question
 - ☞ One minute from opening to answer
 - ☞ Immediate feedback (SAM-style with explanation)
 - ☞ Replacement for part 3 recertification exam
 - ☞ Functional adjunct to part 2 (lifelong learning)
- ☞ Very positive feedback
- ☞ Picked up by ABMS
 - ☞ Pilot preparing across multiple member boards





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MOCA advantages

- ☞ Ongoing assessment that directly facilitates learning
 - ☞ Versus once every 10 years
 - ☞ Potential for early intervention
- ☞ More data points (520 questions over 10 years)
 - ☞ Versus 100-200 questions on exam
 - ☞ Psychometric advantages in question writing and selection
- ☞ Potential for adaptive testing and/or re-testing to promote learning



MOCA disadvantages

- ☞ A lot of questions to write
 - ☞ Greater burden on small boards (like MOC)
 - ☞ Potential for creative question sources
- ☞ Radically different from current system
- ☞ Potential security issues



ABNM MOCA?

- ☞ Considerable discussions with ABMS
- ☞ Platform under active development
- ☞ ABNM hopes to initiate a pilot
 - ☞ Stay tuned!



Part IV: Improvement in Medical Practice

- ☞ PDSA: Plan, Do, Study, Act
- ☞ Purpose: be engaged in your practice and specifically in improving practice
 - ☞ Don't just coast through work on the status quo
- ☞ Broad definition of practice improvement
 - ☞ Anything with a reasonable justification
 - ☞ Must be relevant to the physician's practice
 - ☞ Can be physician- or practice-specific



Plan: Decide on an area that could be improved

- ☞ Must be relevant to your practice
- ☞ Assess (quantify) the baseline situation
- ☞ Hypothesis for an intervention to improve situation
- ☞ Decide on a testing period and mechanism
- ☞ Obtain IRB approval if necessary
 - ☞ Not strictly necessary for QA/QI process
 - ☞ Prospectively required if publication may be considered
 - ☞ Many IRBs offer expedited process



Do: carry out the intervention

- ☞ Make the practice change/intervention hypothesized in the planning stage
- ☞ Collect outcome data





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Study: data analysis

- ☞ Analyze the post-intervention data
- ☞ Compare to the pre-intervention baseline
- ☞ Did the intervention improve the problem?
 - ☞ If yes, go to next slide
 - ☞ If no, go back two slides: plan



Act: change prior practice

- ☞ If the intervention improved things, make it a permanent change
- ☞ If the intervention could have impact in other practices, publish it



The steps another way

- ☞ 1) Select, and measure
 - ☞ Plan
- ☞ 2) Analyze, plan, and improve
 - ☞ Plan, Do
- ☞ 3) Re-measure, and analyze
 - ☞ Study, Act
- ☞ Same goals, annual organization



Efficiency

- ☞ We are all busy
 - ☞ Greater efficiency = greater sanity
- ☞ Part IV goal is to facilitate practice improvement
 - ☞ Does not require a standalone project done solely for part IV
 - ☞ If you are already doing a QA project, submit it for Part IV!
 - ☞ Must be relevant to your nuclear medicine practice.



Types of projects

- ☞ Individual
 - ☞ Submit to ABNM, have documentation in case of audit
- ☞ Group/center
 - ☞ Submit to ABNM, have documentation in case of audit
- ☞ Society-based
 - ☞ Pre-approved by ABNM (and/or ABR), so no audits
 - ☞ Can be done individually or by a group



SNMMI projects

- ☞ <http://interactive.snm.org/index.cfm?PageID=7742>
- ☞ Interpretive Accuracy and Diagnostic Certainty of Myocardial Perfusion Imaging
- ☞ Implementation of Practice Guidelines: Pediatric Radiopharmaceutical Administered Doses
- ☞ Diagnostic Accuracy of 18F-FDG PET/CT in Patients with Cancer
- ☞ Report Turn-Around Time Quality Improvement (PQI) Template
- ☞ Patient Experience of Care Survey





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Example SNMMI project

Interpretative Accuracy and Diagnostic Certainty of Myocardial Perfusion Imaging

I. OVERVIEW

This Performance Improvement Project (PIP) is designed to improve interpretative accuracy (higher sensitivity and specificity), and diagnostic certainty (fewer equivocal reports) of myocardial perfusion imaging. Completion of this project may be used for the Part IV requirement of the American Board of Nuclear Medicine and the American Board of Radiology for Maintenance of Certification.

This PIP is appropriate for physicians performing and interpreting myocardial perfusion studies performed with SPECT (single photon emission computed tomography).

II. OBJECTIVES

Physicians who complete this PIP should

- Improve diagnostic accuracy compared to coronary arteriography (abnormal studies) or normalcy rates (normal studies) so that overall accuracy is > 80% per patient
- Improve diagnostic certainty so that > 80% of reports will be reported as normal or abnormal (i.e. < 20% equivocal interpretations)



Part IV Project Participation and Verification Form

AMA PRA Category 1 Credit™

The AMA has provided criteria to accredited providers for offering CME credit to MOC Part IV project participants. Three stages have been identified for credit-reporting purposes. In the attached participant form, you will be instructed on how to document your PPAP in order to receive CME credit.

- Stage A – learning from current practice performance assessment
 - Assess current practice using identified performance measures
 - Participating physicians are actively involved in data collection and analysis
 - 5 CMEs
- Stage B – learning from the application of performance improvement to patient care
 - Implement performance improvement interventions based on performance measures selected in Stage A, using suitable tracking tools
 - Participating physicians will receive guidance on appropriate parameters for applying the interventions and addressing performance change specific to the physician's patient base
 - 5 CMEs
- Stage C – learning from the evaluation of the performance improvement effort
 - Re-evaluate and reflect on performance in practice (Stage B) by comparing to the assessment done in Stage A
 - Summarize any practice, process and/or outcomes changes that resulted from conducting the project.
 - 5 CMEs

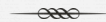
Credit is awarded for practice performance assessment activities as follows:

- Five credits for completion of each stage in which the physician actively participates
- Credit is not based on time
- Credit is issued even if there is no change in practice

Please fill out the following pages in order to receive credit for completing a Part IV Project and CME. For the forms to Lisa Lefebvre at 703-708-9013 or e-mail them to Lefebvre@abnm.org. For questions, call Lisa Lefebvre at 703-652-6783.



Summary



- ☞ MOC process is meant to ensure and facilitate current patient care
- ☞ Evolving process
- ☞ Part IV designed to engage all physicians into relevant practice improvement
 - ☞ Very liberal definition of practice improvement
 - ☞ Many options for projects
 - ☞ Can use projects done for any purpose
 - ☞ Must be relevant to NM practice



Thank you!





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SNMMI Newslines: Value of ABNM Certification and MOC to Diplomates and the Public

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J. Anthony Parker, MD, PhD, Associate Executive Director, American Board of Nuclear Medicine

Certification and maintenance of certification (MOC) provide assurance to our patients, our colleagues, and the public that we are experts in the practice of nuclear medicine. Much of the work and expense for the American Board of Nuclear Medicine (ABNM) is directed at providing credible assurance of diplomate qualifications.

Initial and periodic examinations are perhaps the most visible and credible mechanism for demonstrating expertise. Developing in-training, certifying, and MOC examinations consumes a major portion of the board's resources. Board members produce the images and graphics and write the questions used on all 3 of these image-rich exams. Questions are reviewed and edited by topic-based groups of board members. The exams are constructed from the question pools to represent the important aspects of current nuclear medicine practice. A psychometric consultant assists board members in making questions and exams psychometrically valid. Much of this work is done by e-mails and conference calls, but 2 face-to-face meetings each year are an important part of the process. A major diplomate benefit is that board members volunteer the considerable amount of time they spend on ABNM business.

The psychometric firm employed by the board evaluates exam results. The first part of the process is evaluating question performance. Based on the results of this evaluation, board members review the questions with the psychometric consultant and decide whether each question provides useful information about candidate performance. A portion of the questions (often 5%–10%) is discarded. The psychometric firm then provides a final ranking of candidates. The board determines a criterion standard for passing, using the Angoff method. The criterion standard is independent of the particular group of candidates taking the exam or the questions on the exam.

Certification and MOC are not just about passing exams. After all, practice is not about taking an exam, but treating patients. The certification application would be much shorter if certification depended only on the exam. The ABNM office, with the help of the executive staff and Credentials Committee, verifies training, recommendations of training directors, and professional standing for each candidate. In 2015, the ABNM received 58 inquiries about training and eligibility for certification. Many inquiries came from physicians who were trained in nuclear medicine or radiology outside the United States and Canada.

Participation in MOC provides assurance to colleagues and the public that our diplomates are in good professional standing and meet current standards of specialty expertise.

The board verifies that the medical licenses of all diplomates remain valid without restrictions. The board receives reports from the Federation of State Medical Licensing Boards and the American Board of Medical Specialties (ABMS) about actions taken against a diplomate's medical license. In 2015, the ABNM reviewed actions taken against the medical licenses of 11 diplomates. In each of these cases the board determined the appropriate action to take, with possibilities including probation, suspension, or revocation of ABNM certification.

Participation in the ABNM's MOC program means that diplomates are staying current with continuing medical education (CME) and are completing self-assessments. Participation means that the diplomate's practice is remaining up to date through practice performance assessment. Tracking these activities by the ABNM provides credibility in assuring that the diplomate and the diplomate's practice are up to date.

Although the ABNM is a small board, it maintains a website that provides board information and regulations. The website records CME and self-assessment module credits. For those who take part in the Radiological Society of North America gateway, the transfer to the ABNM website is transparent. The website also supports electronic application for the certifying and MOC exams. The board tries to strike a balance between website functionality and cost. The bigger boards go through extensive testing and modification of their websites that would be prohibitive given our number of diplomates.

Four full-time employees located in St. Louis, MO, perform the work of the ABNM. The executive director, George Segall, MD, and an associate executive director, J. Anthony Parker, MD, PhD, who both actively practice clinical nuclear medicine, direct office operations. Twelve members serve as directors of the board, all of whom actively practice nuclear medicine.

The ABNM belongs to the ABMS, an umbrella organization for the major medical boards. In addition to providing a forum for the boards to share and learn from each other, the ABMS represents its members' interests to payers and regulators. Although we are a small board, we have a seat at the table, where we can make sure our special interests are heard. The ABMS evaluates each board's activities to provide additional credibility,



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especially to other organizations and licensing bodies, that agreed upon standards are followed. The ABMS is currently supporting development of a new MOC assessment platform for use by member boards that would be much too expensive for the ABNM to develop by itself (1). The work of the ABMS is transparent to

most diplomates, but the value it provides is high compared to the cost for the ABNM.

REFERENCE

1. Parker JA. From the ABNM: Practice of nuclear medicine. *J Nucl Med*. 2015; 56(11):18N.



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2015 Contribution List

The ABNM appreciates all the diplomates who support the ABNM by paying MOC fees and voluntary contributions every year. In addition, we would like to thank the following diplomates for their generous support of the ABNM through a financial donation in 2015.

Fluorine (\$1000-\$1999)

Vaseem Unnabi Chengazi, M.D., Ph.D.

Kevin Joseph Donohoe, M.D.

George M. Segall, M.D.

Indium (\$500-\$999)

Bennett Steven Greenspan, M.D.

J. Anthony Parker, M.D., Ph.D.

Scott J. Sherman, M.D.

Iodine (\$200-\$499)

Jorge Antonio Brito, M.D.

Judith Ellen Ho, M.D.

Ryan Daniel Niederkohr, M.D.

Jeffrey S. Stevens, M.D.

Technetium (Up to < \$199)

William J. Elton, M.D.

Marcial Quinones Favila, M.D.

James William Reinig, M.D.

Harold Z. Scheinman, M.D.

Martha E. Stauffer, M.D.



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New Diplomates Who Passed the 2015 Certification Examination

Andrew N Aikins MD	Jongho Kim, M.D., Ph.D.
Gulcin Altinok, M.D.	Michael Klodnicki, M.D.
David Barank, M.D.	Nam Ju Lee, M.D., MMS
Dawn Behr-Ventura, M.D., MPH	Hong Y. Ma, M.D.
Volkan Beylergil, M.D.	Brian James Magee, D.O., M.S.
Anne Marie Boustani, M.D.	Stephen J Malutich, M.D.
Eric Byrum, M.D.	Todd Lee Mapes, D.O.
Raphaella Da Silva, M.D.	Holly Marciniak Thompson, M.D., MPH
Stephen I Dinning, M.D.	Pareen Arun Mehta, M.D.
Phyllis Ann Kathryn Dioguardi, M.D., M.A.	Esther Mena Gonzalez, M.D.
David Byron Douglas, M.D.	Brett Justin Mollard, M.D.
Marinos Drakopoulos, M.D.	Farshad Moradi, M.D. Ph.D.
Riham El Khouli, M.D.	Veena Arpit Nagar, M.D.
Saeed Elojeimy, M.D., Ph.D.	Bernard B. O'Malley, M.D.
Thomas Jose Eluvathingal, M.B;B.S., M.D.	Brett C. Pieper, M.D.
Adriana Danielle Faulkner, M.D.	Janet Helen Pollard, M.D.
Bradley William Fehrenbach, M.D.	Osama Anwar Ahmed Raslan, M.D., MSc, MBChB
Lesley Flynt, M.D.	Matthew Scott Robertson, M.D.
Mark Joseph Foley, MB BCh, BAO	Sam Samaan, M.D.
Joseph S. Fotos, M.D.	Panagiotis A. Sideras, M.D.
Maya Galperin-Aizenberg, M.D.	Houman Sotoudeh, M.D.
Somali Gavane MBBS	Devaki Shilpa Sudha Surasi, M.D.
Ajit H. Goenka, M.D.	Michael Tabone, D.O.
Kinzya Bernice Grant, M.D.	Yingbing Wang, M.D.
Narainder K Gupta M.D.	Wolfgang A. Weber, M.D.
Andrew Stewart Hawkins, M.D.	Steven Lyle Weiner, M.D.
May Yu-Ting Huang, M.D.	Erik Daniel Weiss, M.D., M.P.H.
Nevein F Ibrahim, M.D.	Homeira Zahiri, M.D.
Rashmi Jain, M.D.	Elcin Zan, M.D.
Adam Harris Kaye, M.D., MBA	Honglei Zhang, M.D.
Mubeen A. Khan, M.B., B.S.	Xiaosun Zhou, M.D., Ph.D.
Anthony Nguyen Khuu, M.D.	



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Diplomates Who Passed the 2015 MOC Examination

Sue H. Abreu, M.D.
Atul Aggarwal, M.D.
Esma A. Akin, M.D.
Thomas William Allen, M.D.
Donald R. Anderson, M.D.
Syed a Asad, M.D.
Shiva Badiie, M.D.
Reetha Bakthula, M.B., B.S.
Kenneth Bennet, M.D.
Gholam Reza Berenji, M.D., M.S.
Pradeep G Bhambhani, M.D.
Tamara Lien Biega, M.D.
Bijan Bijan, M.D., MBA
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Howard A. Carpenter, M.D.
Brigid Gordon Castro, M.D.
George N Chacko, M.D.
Izzat Chalabi, M.D.
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Zachary Collins, M.D.
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Johannes Czernin, M.D.
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Mark Phillip Dunphy, D.O.
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Eduardo Moroni, M.D.

Christopher Knoll Mosley, M.D.
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