## **Message From the New Executive Director**

Kirk A. Frey, MD, PhD – Executive Director, American Board of Nuclear Medicine

ABNM Diplomates are highly encouraged to use the CertLink (CL) resource for ongoing demonstration of conceptual mastery in Nuclear Medicine (NM) and identification and improvement of knowledge gaps in recent advances in the field. By design, CL targets concepts (Key Points) that are established in the general practice of NM. The ongoing overall CL structure is intended to deliver 36 new items to each participant each year (9 items per quarter). After 4-5 years of participation, participants receive summative feedback on their final level of mastery for their upcoming certification renewal. If a diplomate has not had a satisfactory CL performance, they must then pass the ½-day re-certification exam to achieve a new certificate.

A significant majority of participants who do not meet the needed CL performance score have fallen short based on items "missed" due to failing to complete the items from at least one quarter, and often for several quarters. Thus, it is essential to complete CL items in the 3-month distribution period 4 times per year. Unanswered CL questions are scored as "incorrect" and count towards to overall 4-year assessment period.

Because CL participation is an important aspect of ABNM recertification, the Board conducts several item oversight procedures intended to enhance and maintain the reliability and accuracy of participant assessments. Each published item is tracked continuously for participant comments offered during the testing encounter. Items that may have controversial interpretations are brought to ABNM attention, triggering an additional review of the underlying medical evidence documentation. In instances where there is uncertainty about item validity, it is "deleted from scoring", resulting in elimination of the item from all participant assessments and removal of the item from further distribution.

Additional scrutiny occurs annually when all actively published items are assessed with psychometric statistical measures to identify potential problems with item validity. Again, items with outlying statistical properties are reviewed by ABNM reviewing the underlying medical evidence and the item structure. This process, known as key validation, identifies additional items that are deleted from scoring.

As a result of item curation and deletion, each participant may find their 4-5 year summative assessment based on fewer than the nominal 124 unique items. CL participant dashboards online do not reflect the impact of deleted items but do capture the effect of re-presentation of incorrect items to participants. If a participant correctly answers a re-presented item, the score replaces the initial incorrect classification. Thus, if a participant is prompted to review the underlying medical evidence for an item (literature references/links on the review page after item response), their improvement in understanding the item Key Point is rewarded (emphasizing the formative/educational aspect of CL participation).

An additional aspect of all ABNM exams, including CL, is the categorical distribution of item Key Points. As NM diplomates know, our field has many diverse aspects, all related to the fundamental property of the tracer principal central to NM. Residency training in NM requires experience throughout the breadth of the field, and includes patient experience in cardiovascular, therapeutic, and pediatric aspects. Additionally, residents must satisfy NRC criteria to achieve Authorized User designation for eligibility to attempt the ABNM Certification Exam.

After certification, ABNM diplomates follow a range of clinical practice activities, often not encompassing the entire range of NM. As a result, ABNM structures the CL (and re-certification exam) based on our active diplomate practice profiles (derived from diplomate annual updates on www.abnm.org). The ABNM exam blueprint distributes items according to diplomate profiles and reviews/updates this periodically. Data from the years 2018-2020 reveal that 35% employ general single-photon imaging, 39% use positron emission tomography, 17% perform cardiovascular imaging and 7% provide radiopharmaceutical therapy. Superimposed on these categories, 9% of diplomates include pediatric patients in their practices. The current ABNM CL blueprint consists of 64% general NM and PET imaging (with emphasis on oncology applications), 16% cardiovascular imaging, 10% NM therapy and 10% "core" concepts (regulatory, patient safety, imaging physics and radionuclide/decay properties).

Unfortunately, ABNM diplomates are insufficient in number to offer valid and reliable sub-disciplinary re-certification for diplomates who do not practice across the entirety of NM, but knowledge of the blueprint should provide background for diplomates to remain current across the entire field. ABNM periodically reviews diplomate profile data and updates the exam blueprint – anticipated review of 2021-2024 profiles and potential blueprint refinement will occur in early 2025.

Kirk Frey, MD, PhD Executive Director

