

## What is an NMAA?

The only thing that is certain in this world is change. We now have a change in the nuclear medicine technology community with the appearance of an advanced practice designation known as the Nuclear Medicine Advanced Associate (NMAA). Although the program standards have been created, the criteria in the examination do not necessarily mean it will be successful. Many technologists do not understand what the program is about, and most physicians have no idea it even exists.

The concept for the NMAA began in Europe. The British Institute of Radiology initiated advanced practice in the imaging sciences and has more than 10 y of experience with this type of program. The British success created the desire for Americans to look into creating a similar program. However, the regulatory and political nature of our country is quite different from that of Great Britain. We overcame that barrier because we wanted to have an advanced practice nuclear medicine technology program. The committee worked for more than 5 y to identify what the components of an NMAA program should look like and what the curriculum should entail.

The Nuclear Medicine Technology Certification Board (NMTCB) has created a certifying examination. Model legislation for licensure in some states now exists, and the American College of Radiology has given their stamp of approval. With all of this hard work behind us, what do we expect an NMAA to do? The NMAA falls into the category of the physician extender. This sounds somewhat like a mechanical arm, but, in fact, is a physician ally at an advanced level. Physicians today perform a wide range of duties and tasks, some of which do not require high skill levels. One of the results is that physicians spend less time using their most advanced skills, a losing proposition for both patients and practitioners.

In clinical medicine, the physician assistant (PA) has been available for a number of years. However, it was not our desire to create a PA program. PA programs require 2 y of training and would not satisfy the specific needs of nuclear medicine. Instead, we believed that a highly skilled technologist who completes a master's level training program could improve the quality of nuclear medicine practice by taking on some of the physician's tasks to improve patient care.

The first NMAA program was started at the University of Arkansas for Medical Sciences (UAMS; Little Rock) in 2004. This institution has extensive experience with distance learning and education. A consortium model had been used for a similar low-volume program, and it was decided this would be the best approach for the NMAA program as well. A consortium is an agreement between multiple institutions to undertake tasks that are not feasible for a single institution.

The current consortium members include UAMS, St. Louis University (MO), University of Missouri–Columbia, and Georgia Health Sciences University (Augusta).

Technologists with 2 y of clinical experience and certification are eligible for the program. The didactic portion of the program is taught via distance learning through UAMS. The clinical component of the program is completed at an approved institution, which is usually the institution in which the student is employed. Therefore, each NMAA will have different experience based on the physician preceptor under whom he or she works. For example, in one institution the NMAA may have expertise in PET, whereas at another institution the NMAA might have expertise in neurologic diseases. The expectation is that the NMAA and physician may practice together at the completion of the program. Although the basic knowledge of all NMAAs will be the same, their ability to specialize services at each institution is a unique feature of the program. The NMTCB has created an examination to ensure that a certain base level of knowledge exists in all NMAAs.

An NMAA can be compared to a nuclear medicine resident. The NMAA can perform many of the same functions as a resident, except those that require a physician's license. The NMAA can oversee therapy patients, provide improvement of imaging quality in the laboratory, and deal with special clinical situations that require above-average knowledge. Most of all, the NMAA has close ties to the physician and the practice and so understands what is expected in a given situation to obtain the results desired by the physician. When something falls outside predetermined bounds, the NMAA knows that he or she can go to the physician and discuss how to resolve the problem.

The most potent task the NMAA has in nuclear medicine is to ensure and improve the quality of practice. This might be a PET practice, a brain imaging practice, or a general nuclear medicine practice. The scope of duties is outlined in the document endorsed by the Society of Nuclear Medicine Technologist section and the Society



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