

NMTCB REPORT

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Chair**

By the time this article is published, the item writers of the Nuclear Medicine Technology Certification Board (NMTCB) will have received another assignment. Based upon their interests, expertise and knowledge, they will contribute toward maintaining the high standards of the NMTCB. I thank all those individuals who have participated in this vital function. The reward of writing questions is the knowledge that you have made a very important contribution to your profession.

Not everyone wants to present a paper at a meeting or has the time to contribute to committees or the behind the scenes work of our professional societies. Writing questions is an alternate way that you can contribute to your profession. Although it takes skill to write a good question, this skill is learned. I would like to invite those of you who plan on attending the SNM Annual Meeting in Denver to join the NMTCB at a workshop on item writing. If you aren't able to attend the annual meeting but would still like to write questions, please contact the NMTCB office at the address below. We have handouts and an item writer's booklet that we send to volunteers.

One of the NMTCB's goals is to incorporate more images into our test. We can only do this if we have high-quality images for our questions. This is something that almost everyone can contribute and you will be helping your profession. If you have an image that would lend itself to a question, bring it to the workshop. If you have the computer resources, bring the image both as hardcopy and digitally on computer disk. If you have a good image but cannot attend the workshop at the annual meeting, send your image to us at the address below. The best images for the computerized test are those that are acquired in a digital format, since that is how the image will appear in the test. We may be able to convert your hardcopy image to digital format, but we will lose resolution in the process.

When the NMTCB was established in 1977, the board recognized the need for professional psychometric expertise and contracted with American College Testing (ACT) for examination development

and administration services. Based on their recommendations and other pertinent information, the NMTCB committed itself to developing a competency-based, criterion-referenced certification examination. This was an innovation at that time. As testing theory evolved, the NMTCB became aware of the advantages of computer adaptive testing (CAT). The primary reasons that the NMTCB chose to implement CAT were flexible scheduling, the opportunity for higher-quality images, faster test results and a shorter examination while maintaining a high standard of testing.

While the NMTCB was exploring CAT, the board contacted six professional testing organizations and requested a proposal to implement CAT for the nuclear medicine technology examination. An ad hoc committee of board members was formed to compare the proposals and recommend the company that offered the best combination of services at the most competitive prices. The recommendation was to continue working with ACT. To quote from an ACT brochure, titled *New Dimensions in Services to Professions*, "ACT is a not-for-profit corporation dedicated to excellence in educational testing and in measurement research. ACT has more than 30 years' experience providing a variety of assessment information to millions of people and thousands of institutions and organizations world-wide."

During the conversion process, the NMTCB became more aware of the types of information made available by CAT. The board chose to implement CAT for classification purposes. The board recognized that the nuclear medicine technology examination is used to determine the entry-level status of an examinee.

In using CAT for classification, the computer randomly selects questions from the item bank. The selection is based upon the examination matrix and the probability is that no two examinees will see the same set of questions. Any examinee whose overall results are significantly removed from the passing

standard will need fewer questions for a decision to be made on her knowledge of entry-level nuclear medicine technology practice. Each candidate will see 80 to 90 questions. Seamlessly incorporated into the examination will be a varying number of pretest items. Before a new item can be used to make such an important pass/fail decision, the board has to know that the item is testing the knowledge it is intended to test. Those items that do not perform well are edited and re-tested. Only those items that contribute a high probability to the pass/fail decision are used in the CAT for classification.

When the NMTCB board met this spring, they removed from the item bank those items that did not contribute the necessary information. This means that the NMTCB needs new, high-quality items on areas identified by the task analysis and that test for knowledge at the application level. Simple recall of knowledge is classified as comprehension. Application is the ability to recognize and apply technical principles, ideas, theories and formulas. Application level requires comprehension plus the ability to apply knowledge.

Another decision reached by the board, in March, was to charge those candidates who fail to appear for their examination appointment the full fee to reactivate their application. Since our professional associate, ACT, is charged for seat time at the computer centers when candidates fail to show for an appointment, regardless of the reason, they pass those charges along to the NMTCB. The board, in turn, has to pass those charges along to examinees. If a candidate fails to cancel by noon two days prior to his appointment, the candidate must pay the full fee to reactivate his application. Most of the fee that candidates pay for the examination is to cover charges to the NMTCB from ACT for professional services.

If you are interested in writing items or contributing images, contact the NMTCB at:

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