NMTCB REPORT

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Chair

Last fall the NMTCB held a strategic planning session where it was decided to actively pursue computerized testing of the NMTCB examination. In this era of rapidly advancing computer technology in the testing arena, the NMTCB realized there were many advantages to the new certificants and possible uses to current certificants as well.

There are two types of computerized testing commonly used on the market today. The first type is called computer-based testing (CBT) and simply means that the entire examination is placed on the computer. Examinees sit in front of a computer in individual carrels and answer 225 questions if taking the NMTCB, which is the current exam length. They have access to a calculator and paper and pencil just as they would for a written exam. Sometimes images on the exam might be provided on hard copy as well.

With CBT, examinees have the option of skipping questions or changing answers if desired. Because taking a test on the computer requires more manipulation and thus more time than a standard exam, more time for the test itself is usually allotted. For example, NMTCB examinees might be allowed five hours instead of four.

The second type of computerized testing is called computer-adaptive testing (CAT). This test is adapted to each examinee's ability to answer the questions. The test is also taken on a computer and starts out with a question of medium difficulty. If the examinee answers correctly, the next question will be a little harder. It is assumed that if the examinee answered the questions of medium difficulty, he would also have answered the easier questions correctly. If the examinee does not answer the first question correctly, an easier item is selected automatically by the computer program.

The examinees proceed through the exam and depending on their ability to answer more difficult items, they may not have to answer the easier items. Therefore, it is possible for a very knowledgeable examinee to take a relatively short test, perhaps answering only 60 or 70 questions. The examinee who has more difficulty may have to answer all the questions. Regardless of test length, the examinee who makes a passing score will have to have answered questions in all categories and on all tasks identified by the examining board.

The advantage of CAT for the examinee is the possibility of a much shorter test. The disadvantage is that the examinee may not change an answer as each successive question is based on a previous answer. The advantage to the NMTCB is that no test is exactly the same, so test security is improved; passing information along to future test candidates regarding the questions becomes much more difficult.

Often a professional certification board such as the NMTCB starts with CBT and moves into CAT. It takes many more test items and a wider variety in an item bank to use CAT, which is considered to be the more advanced form of computerized testing. Test statistics change considerably when utilizing either CBT or CAT, and it is important that these changes in testing procedures be worked out in detail with the testing agency. The NMTCB contracts with the American College of Testing (ACT) for its testing services.

With either approach, students still must sit for the exam in the manner currently employed. An application is submitted and upon approval, the examinee is provided an admission form and a list of possible test locations. There are many more test sites when using computerized testing since many universities and private businesses now have extensive computer labs that can be used for professional testing services.

Instead of being assigned to a specific date in September, the examinee calls and makes an appointment at the most convenient test site on the list and selects a time and date after a predetermined start date, e.g., after September 1. Usually there is a window during which the test must be taken, but that window is fairly generous. We might expect the NMTCB exam to be offered anytime from September 1 through November 30, for example.

Upon completion of the test, depending on exactly the kind of testing services the NMTCB will contract for, the examinee will get the results within a very short period of time, perhaps even immediately after completing the exam. The waiting time for results depends upon the statistical information the NMTCB will use for determining a passing score (we know that some changes from our current procedure will be necessary with computerized testing). In any case, the examinee will know the test results much sooner than the current four to six weeks. This will be particularly useful for examinees who receive pay raises with a successful test score.

If the NMTCB is successful in meeting the deadline for implementation of computerized testing, we hope to offer

Examination Dates

The Nuclear Medicine Technology Certification Board 1994-1995

Year	Exam Date	Application Deadline
1994	September 24	July 16
1995	June 24	April 15
1995	September 23	July 15

For more information or to request an application, contact:

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the first NMTCB exam on computer in September 1996, which would coincide with the first use of the new test blueprint developed from the latest task analysis.

Once computerized testing is implemented, the NMTCB recognizes that there may be many other interesting and exciting possibilities open for consideration. We may see different kinds of nuclear medicine technologists on the market, and we may need different kinds of exams. We may see a "limited" certification exam. We may see advanced competencies become a possibility. We may see non-nuclear medicine-trained technologists asking to take certain competency exams. We may see recertification exams as an alternative to continuing education in verifying continued competency.

Much depends upon what happens in the health care reform arena, especially in how our profession will be defined in the next three to six years. We've already been told by health care providers not to expect business as usual. But with the implementation of computerized testing, the NMTCB will be in a good position to assist technologists in responding in a proactive fashion to the market needs.