COMMENTARY

DOES MULTICOMPETENCY MEAN COMPETENCE?

The issue of "multicompetency" training for nuclear medicine technologists may not arouse concern among nuclear medicine physicians, technologists, and hospital administrators, but some disturbing trends have emerged that could affect everyone involved in nuclear medicine. The new breed of the "multicompetent" or "multiskilled" individual in allied health may well pose problems for technologists as well as their employers.

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Before discussing these potential problems, it is necessary to establish some precise definitions because these terms should not be used interchangeably. *Cross-training* occurs when an individual has training in more than one allied health discipline, as, for example, in nuclear medicine technology and radiography. The term does not distinguish whether this training is formal or "on-the-job." A *multicompetent* professional has acquired more than one competency that has been demonstrated through certification or licensure. Lastly, a *multiskilled* person may perform several jobs—such as taking an X-ray, drawing blood, performing simple laboratory procedures, and typing reports—but is not certified or licensed in any one area. Much of the recent confusion has resulted from an increased use of the term "multicompetent" to describe individuals who are actually "multiskilled," and from newly established educational programs that offer degrees in "multicompetency" although the graduates more closely fit the definition of "multiskilled."

The recent emphasis on multiskilled workers has developed in part from a reported "shortage of health technicians." (*1*) Others have rationalized that financial limitations on employers and the need in rural hospitals for allied health workers who are proficient in several areas result in a high demand for multiskilled personnel (*2*). The obvious short-term advantage for institutions employing multiskilled employees lies in paying one salary instead of two or three. One obvious disadvantage, however, is that hospitals and physicians are at greater risk of facing lawsuits when required procedures are not performed by competent technologists.

Some states require that certain tasks be performed by licensed individuals, and lawsuits could also develop when these rules are overlooked (*3*). Certified workers could eventually be displaced by multiskilled technicians, opening up the possibility of employee lawsuits against hospitals. The question of whether third-party payers will reimburse for procedures done by noncredentialed technicians has been investigated by the National Commission on Health Certifying Agencies, and the results are inconclusive (*4*). The Joint Commission on Accreditation of Hospitals may

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tions, the numbers reflect a fairly complete picture of the misadministration problem.

It appears that most misadministrations result from momentary distractions or miscommunications—human errors that occur despite adequate training and experience of the individuals involved and their observance of all safety measures. These human errors may be categorized in four groups.

- **Mislabeling** caused by selection of the wrong adhesive label, inadvertent selection of the wrong vial from stock, or inadvertent transposition of vials or syringes.
- **Miscommunication** caused by unclear or incorrect use of terminology intended to identify the desired clinical procedure or patient.
- **Patient misidentification** caused by common surnames, hearing difficulties, or failure to check identification bracelets.
- **Incorrect stock selection** caused by inattention to detail.

The process for ordering and performing nuclear medicine studies does not appear to be amenable to the kind of mechanical or electronic fail-safe measures used to prevent mistakes in manufacturing and other multi-step processes. Diagnostic misadministrations, however, occur quite infrequently.

[For a copy of the most recent complete analysis of misadministration reports, contact: Kathy Black, Office for Analysis and Evaluation of Operational Data, Nuclear Regulatory Commission, Washington, DC 20555.]

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also question the performance of certain tasks by noncertified individuals.

The trend toward multiskilled technicians also offers an advantage to educational institutions that are seeing reduced numbers of qualified candidates for accredited programs, or that have not earned accreditation in certain areas. The School of Technical Careers at Southern Illinois University, for example, now offers a program in which students learn medical laboratory skills, radiography, and respiratory therapy. The program, however, is not accredited in all of these areas (*5*). Another new program at the University of Alabama awards graduates with a Multiple Competency Clinical Technician (MCCT) degree. The program is accredited in medical assisting, but it also includes some nursing, laboratory, radiographic, and emergency medicine procedures (*6*).

Allied health professionals in general, and nuclear medicine technologists in particular, have evolved through the years from being trained on the job to graduating from formal educational programs which are accredited by the Committee on Allied Health Education and Accreditation (CAHEA), and recognized by certifying bodies such as the Nuclear Medicine Technology Certification Board. This development has provided employers—whether they are physicians or hospital administrators—with reliable measures of competency for technologists. In addition, state licensure gives the public assurance that these individuals are competent.

According to the Human Resource Survey taken by The Society of Nuclear Medicine (SNM) Technologist Section, 45% of all nuclear medicine technologists in the United States are also radiographers, and 22.5% work in both nuclear medicine and radiography (*7*). With a work force of approximately 12,000, the number of technologists multicompetent in these two disciplines alone is about 2,700. The truly multicompetent nuclear medicine technologist, who may also be certified in radiography and/or ultrasound, can serve a valuable role in the health care system. There is also a need for multicompetent technologists who acquire training in other modalities for which there is no certification exam, such as computerized tomography, nuclear magnetic resonance, and electrocardiography. The medical community needs to look carefully, however, at this issue and distinguish the multicompetent from the multiskilled members of the allied health professions.

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Physician Removed from NRC License for Failure to Report Misadministrations

The Nuclear Regulatory Commission (NRC) has issued an order to Bloomington Hospital in Indiana prohibiting the hospital's designated radiation safety officer, one of nine physicians authorized by that insititution's NRC license to use radiopharmaceuticals, from performing or supervising the use of NRC-licensed radiopharmaceuticals at the hospital.

The problem arose from a 1984 NRC inspection after an allegation that five radiopharmaceutical administrations were not done correctly. Four were not reported to the NRC as required, and the fifth was reported during the inspection.

During the NRC's subsequent investigation between October 1985 and January 1986, the agency determined that "the physician had provided false and misleading information to the NRC inspectors," and that there is no longer reasonable assurance that [the physician] can be relied upon to comply with Commission requirements in the performance or supervision of licensed activities," stated the NRC.

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