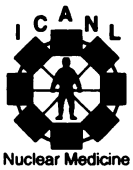
ICANL and ACR Nuclear Medicine Accreditation: A Comparison

Nuclear Cardiology



Nuclear Medicine

The Intersocietal Commission for the Accreditation of Nuclear Medicine Laboratories (ICANL) finalized its General Nuclear Medicine Accreditation program in February 2000 and plans to publish a comprehensive general nuclear medicine program in the first half of 2000. The *Essentials and Standards* (Columbia, MD: ICANL; 1998) and the application for comprehensive nuclear medicine accreditation were developed by representatives of the sponsoring organizations (American Society of Nuclear Cardiology, Society of Nuclear Medicine, Technologist Section of the Society of Nuclear Medicine, American College of Cardiology, American College of Nuclear Physicians, and Institute for Clinical PET), with additional review by more than 40 nuclear medicine specialists. A separate nuclear medicine accreditation program was released by the American College of Radiology (ACR) during the Radiological Society of North America meeting in November 1999. The ICANL and ACR accreditation programs share some similarities, but their differences are worth noting.

The major difference between the 2 programs is in underlying concept and focus of review. The ICANL accreditation program places emphasis on the presence of laboratory- and camera-specific procedure protocols for each of the nuclear medicine examinations and on the submission and review of complete patient studies and reports. The purpose of reviewing procedure protocols and representative patient studies is to evaluate the structural, technical, and interpretative quality of the laboratory as a whole. Paramount to the ICANL review is the evaluation of a significant number of abnormal examinations. In addition, the selected patient studies must represent the work of as many staff members as possible. The ICANL program requires the submission of at least 2 patient studies per body system area (i.e., gastrointestinal, central nervous, endocrine, skeletal, genito-urinary, pulmonary, infectious diseases, cardiac, tumors, and therapy). Only 1 patient study per examination type may be normal. If a laboratory performs and seeks accreditation for nuclear cardiology, 3 SPECT studies and 3 equilibrium radionuclide angiographic (ERNA) studies also must be submitted. If applying for PET accreditation, at least 3 PET studies must be submitted. All patient studies must be performed by current personnel using current equipment. In all, as many as 20 patient studies must be submitted for comprehensive review.

After review of an application, the ICANL will grant accreditation in nuclear medicine by body system, not per γ camera or module. For example, if a laboratory submits pulmonary and gastrointestinal studies of good quality that meet ICANL standards and cardiac studies that do not meet ICANL standards, the laboratory will be granted accreditation only in those areas in which standards are met.

In contrast, the ACR accreditation program is divided into modules by imaging equipment instead of by body systems. These 3 modules are planar imaging, SPECT imaging, and nuclear cardiology (PET is not evaluated currently). For each module, 2 different examination types must be submitted for a total of up to 6 examinations per camera. All case study examinations must be normal. In addition, the ACR requires no written procedure protocols.

The ICANL *Essentials and Standards* require that physicians with board certification in diagnostic radiology but not in nuclear medicine must have documented special competency in nuclear medicine. The ACR program does not require physicians with board certification in diagnostic radiology to have documented special competency in nuclear medicine. Both programs have similar requirements/pathways for practice experience of 10 years or more without formal training in nuclear medicine. The ICANL also provides a pathway for accreditation of dedicated nuclear cardiology facilities directed and staffed by qualified nuclear cardiologists. The ACR does not provide such a pathway.

ACR standards require the presence of a medical physicist in the laboratory, although the extent of his or her involvement, aside from annual quality control reports, is not specified. The ICANL does not require each laboratory to employ a physicist, but explicitly recognizes the benefits of a physicist to the laboratory. Both the ICANL and the ACR require

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specific evidence of quality control tests of all imaging and nonimaging equipment on a daily, quarterly, or annual basis. The ACR requires that these quality control tests be performed at least annually under the direct supervision of a medical physicist. The ICANL does not require the direct supervision of a physicist.

In addition to the requisite quality control reports, the ACR requires submission of planar and SPECT images obtained using an ACR-approved phantom. If this phantom is not provided by the manufacturer of the camera, it must be purchased from the phantom manufacturer for $1347 plus shipping. The ICANL does not require phantom images but, instead, relies on the laboratory's quality control protocols and documentation. However, the ICANL requires, in addition to evidence of technical quality control, evidence of quality assurance of imaging procedures, processing, and interpretation.

The ICANL and ACR programs retain the right to perform random on-site evaluations as part of their internal validation procedures. The accrediting body pays the cost of these random site visits. Both the ICANL and ACR programs grant accreditation in 3-year cycles. The pricing structures of the programs are quite different. Because the focus of the ICANL is on the quality of the submitted case studies, the review is laboratory specific and camera independent. The ICANL fee is $2000 for general nuclear medicine accreditation. If nuclear cardiology or PET accreditation is requested, the fee is $2500. In neither case is there a fee per camera. The ICANL also has an initial, one-time fee of $200 for the purchase of the *Essentials and Standards* and application in both paper and electronic format.

ACR fees are γ camera specific by module. There is a facility fee of $650 and a camera fee of $300 per module. In a laboratory with a single camera applying for planar, SPECT, and nuclear cardiology accreditation, the fee would be $1550. With 2 cameras in the laboratory, the fee would be $2450; 3 cameras would be $3350.

The most significant difference in the 2 programs is that the ACR effort was developed specifically for radiology facilities, with a focus on the quality of equipment and technology. The ICANL program was developed by a multispecialty organization with a primary focus on the final product: the nuclear medicine examination and its report.

In addition to requiring evidence that a quality control program is in place for imaging procedures, processing, and interpretation, the ICANL reviews more case studies than are required by the ACR, including a large percentage of abnormal examinations, performed and interpreted by different staff members. The laboratory is required to document adherence to their submitted camera-specific procedure protocols and to provide evidence of clinical correlation of nuclear medicine examinations as part of an ongoing quality assessment program.

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As a final step in developing its general nuclear medicine accreditation program, the ICANL board of directors sought outside review of the *Essentials and Standards* and application from more than 40 practicing nuclear physicians and technologists. This was done in an effort to assure that the ICANL Nuclear Medicine Accreditation Program would reflect what nuclear medicine professionals consider important in providing high-quality nuclear medicine services.

—Frans Th. J. Wackers, MD
President, ICANL

For more information about ICANL accreditation programs and applications visit the Web site at www.icanl.org.

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