

The Medicare Improvements for Patients and Providers Act of 2008 mandates that outpatient clinics which provide advanced imaging services (MRI, CT, PET and nuclear medicine) and bill for the technical component under the physician fee schedule must be accredited by January 1, 2012. Although this does not include most hospitals, it does affect a large number of private imaging clinics. In this presentation the accreditation options that are available for nuclear medicine facilities will be discussed. There are 3 organizations which are recognized as accreditation providers: the American College of Radiology (ACR), the Intersocietal Commission on Accreditation of Nuclear Laboratories and the Joint Commission.

A key component of accreditation is the quality assurance and quality control of equipment. All of the accreditation agencies embrace acceptance testing and having a well defined quality assurance program that addresses annual evaluations as well as more routine tests. For nuclear medicine, these procedures include evaluations of both planar and SPECT imaging system along with non-imaging devices such as the dose calibrator. PET quality control includes normalization procedures as well as quantitative evaluations.

Specific phantom imaging procedures are required by at least one of the accreditation providers. For nuclear medicine imaging these include planar uniformity and spatial resolution evaluation as well as SPECT uniformity, resolution and contrast measurements. For PET, validation of the standardized uptake value is required along with uniformity, spatial resolution and contrast. Recommendations for effective and efficient performance of these tests will be given. In addition, common pitfalls in these procedures will be discussed along with guidance as to how they can be avoided.

Educational Objectives

1. Understand the basic quality control requirements for accreditation.
2. Understand the performance requirements for SPECT imaging systems along with avoiding the common problems that result in unsatisfactory scores.
3. Discuss reasonable approaches to quality control.