

AbstractID: 9839 Title: Physics Procedures for ACR MRI Accreditation

Medical physicist participation in the American College of Radiology (ACR) MRI Accreditation Program can be multifaceted.

1. Technical assistance is usually needed in the acquisition of initial scanner performance data.
2. On-site quality control (QC) programs markedly benefit from the involvement of technically trained personnel.
3. Annual ACR benchmark examinations require experts with a more profound understanding of MRI physics and experience with MRI testing than is often possessed by technologists or local physicians.

Dr. Robert Bell was one of the original designers of the ACR MRI program and phantom. He routinely conducts ACR benchmark exams and performance testing for hospitals and independent imaging centers on a wide range of MRI equipment (over 400 systems to date). His lecture will provide an overview of the technical aspects of ACR MRI accreditation and will offer details of testing techniques based on the ACR program and associated issues. These will include topics such as field homogeneity, image intensity uniformity, resolution, slice thickness accuracy, location accuracy, specialty coil testing, fringe field measurement, interslice crosstalk, console monitor evaluation and others. Participants interested in MRI testing and accreditation are encouraged to attend.

Educational Objectives:

Participants will:

1. Be made aware of the requirements of the ACR MRI Accreditation Program,
2. Be exposed to opportunities where their expertise can benefit MRI quality control and accreditation,
3. Learn about MRI testing techniques to improve their expertise.