

In recent years, the American College of Radiology (ACR) Magnetic Resonance Accreditation Program (MRAP) has been adopted by close to 5000 sites, with a large increase in the past three years due to reimbursement changes. Those sites agree to follow a weekly QC program set up and monitored by a qualified medical physicist or MR scientist. They also agree to undergo initial and annual equipment performance evaluations by a qualified medical physicist/MR scientist. There are several published documents, including the *ACR Phantom Testing Guidance* and the *2004 ACR MRI QC Manual*, which describe the tests and the performance criteria. With the current rush for accreditation, the physicist may be asked to perform a large part of the initial accreditation tests on a very short notice. Many sites may view the physicist as the individual most experienced in the MRAP process.

This lecture will describe the physicist's role in the MRAP program along with other tasks that may be requested of the physicist by the applicant. Required tests will be described along with potential pitfalls which may be avoided. The submission procession will be described, including deadlines, phantom tests, and electronic submissions. Emphasis will be placed on recent changes in the MRAP program, including new modalities and electronic submission.

Educational objectives:

1. Learn the current status of the ACR MRAP program and the role of the medical physicist in that program.
2. Understand how to perform required phantom tests on various scanners and the performance criteria and pitfalls for those tests.
3. Understand how to successfully prepare site phantom data for successful MRAP submission.
4. At the end of this lecture, the participant will be able to assess which part of the MRAP process he/she is willing to perform and which parts should be deferred to others.