

MRI SAFETY: APPLYING THE LATEST GUIDELINES FROM THE JOINT COMMISSION

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ABSTRACT

Magnetic Resonance Imaging (MRI) is associated with the potential for accidents, injuries, failure of the implanted medical devices and other adverse outcomes as a result of the powerful magnet and radiofrequency fields in the MRI environment. The Joint Commission (TJC), a nonprofit organization that accredits more than 21,000 health organizations and programs in the United States, recently published revised accreditation requirements for MRI and other types of medical imaging services in US hospitals and ambulatory healthcare centers. The guidelines establish specific standards that must be met related to several aspects of medical imaging, including the environment of care, human resources, provision of care and performance improvement. Additional MRI safety standards and guidelines have been developed by other organizations including the American College of Radiation (ACR). Magnetic resonance (MR) technologists and other MR professionals share a critical responsibility to ensure adherence to TJC and ACR guidelines and standards, including controlling access to the MRI facility, screening for ferromagnetic objects and medical devices, the risks associated with MRI contrast agents, patient positioning to prevent burns, special considerations for patients in the MRI facility who require urgent or emergent care, emergency shutdown procedures, patient claustrophobia or anxiety, and acoustic noise injury and protection. Controlling access to the MR environment, combined with staff education and training are the foundations of good MRI safety practices.