

MDS Alert

PATIENT SAFETY: Standardize a Risk Assessment Checklist for Residents Receiving MRI

Asking the right questions in time can head off serious harm.

For certain residents, magnetic resonance imaging can be a safety disaster waiting to happen if you don't take the right precautions. But nurses who regularly assess patients can take the lead in error-proofing this common imaging procedure.

The reality: MRI poses a list of potential dangers, especially to elders with cognitive impairment who may not be able to tell the imaging staff that they have a pacemaker or prosthetic device, among other contraindications and risks that can cause serious injury during the imaging procedure.

"Nursing homes can't necessarily rely on the MRI facility to be responsible for identifying all risks and contraindications," warns **Frank G. Shellock, PhD, FACC, FACS**, director for MRI Studies of Biomimetic Microelectronic Systems, National Science Foundation - Engineering Research Center, at the University of Southern California.

That's why he and other safety experts advise healthcare facilities to screen patients for risks and contraindications to MRI before sending them to the imaging suite.

Develop a Simple Checklist

Make sure the assessment checklist includes some of the very strict contraindications to MRI, Shellock suggests, including a cardiac pacemaker or an ICD or a ferromagnetic aneurysm clip. "If the clip is nonmagnetic, you can do the MRI procedure," but the MRI provider needs to know about the clip. "If the person has a vascular stent, the physician will have to evaluate what type of stent is in place."

More warnings: "An insulin pump, spinal cord stimulator, or prosthetic limb could also be a problem" for someone undergoing an MRI procedure, adds Shellock. "A person may have a spinal cord stimulator that hasn't been in use for some time" and thus forget it's in place, he cautions. "To assess for that type of problem, the facility staff and physician should review the person's chart and history. Look for any scars or bumps on the patient that may indicate the person has a pacemaker or a spinal stimulator."

Watch out: Doing an MRI scan of someone with a cochlear implant may only be safe if you remove the magnet associated with the implant which requires surgery, adds Shellock. The screening should also identify whether the resident has a tattoo and/or transdermal medication patch. "The MRI facility will determine whether a transdermal medication patch is one that contains metal," adds Shellock. (For more information on tattoos and transdermal medication patches, go to www.MRIsafety.com, he suggests.)

The physician ordering the MRI and the MRI provider should also know if the person has abnormal renal function, advises **Nancy Gorman, RN**, field director for the Joint Commission on Accreditation of Healthcare Organizations. (www.MRIsafety.com includes the procedure for evaluating renal function for patients receiving contrast agents.)

The Joint Commission has issued a sentinel alert on MRI-related dangers that lists a number of ferromagnetic objects that can be a problem, including hearing aids, prosthetic limbs, shrapnel, and pulse oximeters. The MRI provider will switch the patient's pulse oximeter for one the person can wear during the MRI, says Shellock.

Hand Off the Information

Give the clinician who ordered the MRI a heads up about your assessment findings, or, better yet, devise a procedure where the care team assesses a resident before ordering the imaging procedure. "Physicians should do a risk-benefit assessment to determine if the MRI is the best choice for diagnostic imaging," advises Shellock. If the MRI appears to be contraindicated or poses risks, the best way to handle the issue is for the attending physician to consult with the radiologist about an alternative imaging approach, Shellock adds.

If the physician decides to proceed with the MRI, make sure to communicate what you've assessed during a "hand-off" to the imaging technologist or other person responsible for the resident in the MRI suite. "The nursing staff can also give the [MRI provider] information about the person's cognitive status and behavior," says Gorman. "It's not always easy for someone who doesn't know the resident to tell that the person is cognitively impaired." The nursing home would, of course, assign a staff person to accompany someone with cognitive impairment, she adds. Or sometimes the family member will go with the resident. But keep in mind that the person who accompanies the resident into the MRI room will also need to undergo screening to make sure she doesn't have any risks or contraindications for being there.

Safety and payment tip: Consider discussing patients scheduled for MRIs in the morning care team meetings, suggests **Christine Twombly, RN**, a consultant with Reingruber & Co. in St. Petersburg, Fla. "The person who knows the resident the best, who could be the MDS nurse who does the assessment," can help identify any risks or contraindications, she notes. At that time, the team can also emphasize that the MRI needs to be set up to be provided by the hospital outpatient department. Otherwise, it won't be excluded from Part A consolidated billing, Twombly says.