FALLS ASSOCIATED WITH WHEELCHAIRS

A few healthcare facilities have reported incidents to the PA-PSRS system involving patient falls from wheelchairs. While no serious injury has been identified, to date, studies have indicated that wheelchair-related deaths do occur and are more prevalent in persons over 65 years of age. Wheelchairs falling and tipping are the factors most commonly associated with such deaths.²

Another wheelchair hazard is its improper use. For example, one PA-PSRS incident indicated that a patient fell while using an empty wheelchair as a walker. The wheelchair tipped backwards while the patient was bearing her upper body weight on the wheelchair handles. Falls are also associated with mechanical problems. For example, falls are more likely to occur when footrests, wheel locks, or other parts do not function properly or are loose. Risks can be reduced by using wheel locks and anti-tipping devices.³

MRI HIDDEN RISKS

The PA-PSRS database includes incidents in which an MRI was ordered for a patient who had a cardiac pacemaker. Fortunately, the procedures were cancelled in both cases. Patient injury might have resulted if these patients had received MRI's.

The healthcare community is most likely aware of MRI-associated patient injuries/death involving ferrous gas cylinders as projectiles.⁴,⁵ Also nationwide, other ferromagnetic objects have been involved in projectile incidents when near MRI’s, such as tools, scissors, IV poles, mop buckets, floor buffers, laundry carts.⁶

What may be less known are the risks associated with items implanted or imbedded within the patient. Studies of implants and prostheses have been conducted associated with MRI’s. Some implants can be adversely affected by the MRI’s electromagnetic fields: for example, cochlear implants, internal or external cardiac pacemakers, implantable infusion pumps, cerebral aneurysm clips. Devices that contain a magnet that might move or become demagnetized, such as dental implants or prostheses with magnetic components may also be adversely affected by the MRI. In addition, metal fragments or shrapnel might be twisted or dislodged during the procedure, resulting in patient injury. Persons with tattoos may experience skin irritation as a result of an MRI.⁷,⁸,⁹

Many resources are available that can be utilized to develop strategies to reduce the risk of injury or death related to implanted/imbedded objects and the MRI procedure. Such resources include, but are not limited to, the following.

- American College of Radiology  http://www.acr.org
- Institute of Magnetic Resonance Safety, Education, and Research  http://mrisafety.com
REFERENCES


4. Archibold RC. Hospital details failures leading to MRI fatality. The New York Times 2001 August 22; B1

5. Patient death illustrates the importance of adhering to safety precautions in magnetic resonance environments. ECRI. 2001 http://www.ecri.org/Include/Docs/hazard_MRI_080601.pdf


Consistent with Act 13, ECRI, as contractor for the PA-PSRS program, is issuing this newsletter to advise medical facilities of immediate changes that can be instituted to reduce serious events and incidents. For more information about the PA-PSRS program or the Patient Safety Authority, see the Authority’s website at www.psa.state.pa.us.

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