# What's New in the Patient Safety World

## January 2024

## Guns and MRI Don't Mix

In our October 24, 2012 Patient Safety Tip of the Week "Serious MRI Accident at Unregulated MRI Center" we highlighted a serious MRI accident in which a prisoner with ferromagnetic shackles around her waist was sucked up against the MRI machine. A prison guard accompanying that prisoner then entered the MRI room to help and he was also "stuck to the MRI machine because of his gun." We speculated the outcomes could have been much worse had the gun discharged.

An incident where a gun in an MRI suite did discharge was just reported in the media (Cara 2023). The incident was reported to FDA's MAUDE database. It occurred on June 28, 2023, when a 57-year-old woman entered the MRI room with a concealed (ferromagnetic) handgun. As she was about to enter the machine, the gun was attracted to the powerful magnet inside it and fired off a single round into and through her right buttock. Luckily, the bullet barely penetrated her skin and the doctor on site described her entry and exit wounds as "very small and superficial." The MAUDE report said the woman received a standard screening for ferromagnetic objects and explicitly said no when asked if she was carrying any firearms. It's not known whether she had a permit for the gun, however.

In January 2023, a Brazilian lawyer died of a gunshot to the stomach triggered by an MRI machine (<u>AuntMinnie.com 2023</u>, <u>Cost 2023</u>). He was taking his mother to get the MRI scan. Staff had reportedly asked the pair to remove all metal objects before entering the MRI room, as per protocol. However, the lawyer decided to go in without announcing his concealed weapon. Disaster struck after the machine yanked the weapon from his waistband, causing it to go off and strike him in the stomach. He was subsequently hospitalized for weeks, before eventually succumbing to his injuries.

These were not non-ferromagnetic "ghost" guns constructed on 3-D printers. Better systems are needed to prevent anyone with a gun from entering a room with an active magnet. And our prior columns discuss many other incidents in which ferromagnetic materials reach the room with the active magnet. It suggests to us that there needs to be a system where the door to the magnet room remains closed when the metal detector identifies a metallic item (not just relying on a human to prevent entry when metal is

detected). That, of course, also depends upon the metal detectors working properly. And there would need to be an "override" capability for those instances where a patient has an "allowable" metallic item in their body.

### Some of our prior columns on patient safety issues related to MRI:

- February 19, 2008 "MRI Safety"
- March 17, 2009 "More on MRI Safety"
- October 2008 "Preventing Infection in MRI"
- March 2009 "Risk of Burns during MRI Scans from Transdermal Drug Patches"
- January 25, 2011 "Procedural Sedation in Children"
- February 1, 2011 "MRI Safety Audit"
- October 25, 2011 "Renewed Focus on MRI Safety"
- August 2012 "Newest MRI Hazard: Ingested Magnets"
- October 22, 2013 "How Safe Is Your Radiology Suite?"
- October 21, 2014 "The Fire Department and Your Hospital"
- August 25, 2015 "Checklist for Intrahospital Transport"
- August 2016 "Guideline Update for Pediatric Sedation"
- October 2016 "MRI Safety: There's an App for That!"
- January 17, 2017 "Pediatric MRI Safety"
- August 8, 2017 "Sedation for Pediatric MRI Rising"
- March 2018 "MRI Death a Reminder of Dangers"
- March 2018 "Cardiac Devices Safe During MRI But Spinners!?"
- November 2018 "OMG! Not My iPhone!"
- April 2, 2019 "Unexpected Events During MRI"
- September 2019 "New MRI Hazard: Magnetic Eyelashes"
- October 15, 2019 "Lots More on MRI Safety"
- November 5, 2019 "A Near-Fatal MRI Incident"
- November 2019 "ECRI Institute's Top 10 Health Technology Hazards for 2020"
- January 7, 2020 "Even More Concerns About MRI Safety"
- March 2020 "Airway Emergencies in the MRI Suite"
- October 2020 "New Warnings on Implants and MRI"
- January 2021 "New MRI Risk: Face Masks"
- June 1, 2021 "Stronger Magnets, More MRI Safety Concerns"
- November 2021 "Yet Another Risk During MRI"
- January 2022 "MRI Safety Issues"
- July 26, 2022 "More Risks in the Radiology Suite"
- October 24, 2012 "Serious MRI Accident at Unregulated MRI Center"
- November 21, 2023 "Another Terrifying MRI Accident"

#### References:

Cara E. Woman Enters MRI Machine With a Gun, Gets Shot in Butt. The 57-year-old woman denied having any firearms before entering the MRI, according to an adverse event report filed to the FDA. Gizmodo 2023; December 6, 2023 <a href="https://gizmodo.com/mri-machine-accidents-gun-shot-woman-butt-1851077446">https://gizmodo.com/mri-machine-accidents-gun-shot-woman-butt-1851077446</a>

AuntMinnie.com staff. Brazilian man dies after bringing concealed gun into MRI scanner. AuntMinnie.com 2023; Feb 13, 2023 <a href="https://www.auntminnie.com/clinical-news/mri/article/15632844/brazilian-man-dies-after-bringing-concealed-gun-into-mri-scanner">https://www.auntminnie.com/clinical-news/mri/article/15632844/brazilian-man-dies-after-bringing-concealed-gun-into-mri-scanner</a>

Cost B. Lawyer dies after gun triggered by hospital MRI scanner. NY Post 2023; Feb. 9, 2023

https://nypost.com/2023/02/09/lawyer-dead-after-mri-discharges-gun/



http://www.patientsafetysolutions.com/

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