

Metals Matter: An Endoscopy Movement Toward Magnetic Resonance Imaging Safety

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Abstract Background Information: In Endoscopy, placement of metal devices such as clips, coils, and stents are not uncommon. In fiscal year 2023, between July 1, 2023 through July 1, 2024, a total of 3,715 metal devices were purchased by our department. With a volume of 9,197 cases during that time, it is safe to assume that many patients left with metal implants. Although most metal implants placed were intended to fall out naturally, there is no definitive way to ensure the metal had exited the body versus being retained.

Objectives of Project: The aim of our initiative was to enlighten staff on the uses of a medical device ID card to properly identify metal in the body, with a goal to implement distribution of cards to every patient that receives a metal device.

Process of Implementation: Endoscopy and PACU nurses were unfamiliar with the cards and classification of the devices, so we began by educating the clinical nurses on the information required to be written on the medical ID card, which devices were metal, and their safety classification for MRI. Subsequently, we began keeping a log to track which patients received a card, and what procedure they had completed to maintain an accurate count of how many cards were being disseminated post-procedure. In November 2024, we introduced the newly established Medical ID Distribution process to our department.

Statement of Successful Practice: To our knowledge, no adverse event related to MRI has occurred involving the use of any of the endoscopically placed metal implanted devices mentioned based on our literature search. However, it is widely accepted as best practice prior to MRI studies to identify all metal in the body when determining magnetic field strengths, what anatomical location to image or avoid, limitations on specific absorption rates, the sequences performed, and when to consult a radiologist on whether or not to proceed.

Implications for Advancing the Practice of Perianesthesia Nursing: We hope that our efforts will further protect endoscopy patients who undergo MRI from any possibility of a negative outcome. It is our mission to stay vigilant in properly identifying metals implanted during endoscopy, while maintaining our process to educate patients on MRI safety.