

Design Document

Training Title: Summit Health Hospital MRI Training

Business Goal and Problem	Summit Health Hospital is a healthcare services organization operating within the healthcare industry. The organization is dedicated to supporting the health and healing of individuals in a safe and secure environment. Hospital Management has identified a growing number of MRI safety incidents and near-miss reports involving non-MRI staff. Currently, there is no standardized or accessible MRI safety training for non-MRI personnel who enter the MRI environment. This gap contributes to preventable safety risks and avoidable operational costs. This training is designed to support a 50% reduction in MRI safety incidents and near-miss reports within 3–6 months of implementation, as well as decrease MRI downtime related to safety events.
Target Audience	Hospital, clinical, and support staff, as well as newly onboarded employees ages 18–65+ with varied educational backgrounds and little to no MRI-specific training.
Learning Objectives	Terminal LOs: • Follow the required safety protocols pertaining to entry into each MRI zone. • Remove items not allowed in the MRI environment. • Communicate common patient contraindications requiring screening or staff approval before entry. Enabling LOs: • Recognize the dangers related to the MRI Magnet. • Identify the four MRI zones. • Identify items not allowed in the MRI environment. • Determine correct screening procedures. • Recognize patient contraindications. • Identify appropriate non-MRI staff roles.
Training Recommendation	Delivery Method: • e-Learning course • Developed in Articulate Storyline • Job Aid Approach: This course, developed in Articulate Storyline, is accessible anytime, allowing learners to complete it at their convenience across various schedules and shifts. Learners may also revisit the content as needed for ongoing

	reference. This course will feature a range of interactive elements, including a continuous scenario woven throughout, as well as click-to-reveal, slider, and accordion interactions. It also includes two practice scenarios, two knowledge checks, and a performance-based final assessment to reinforce learning and evaluate competency.
Training Time	20 minutes
Deliverables	• 1 Storyboard outlining Summit Health Hospital Training, including narration script. • 1 eLearning course ◦ Developed in Articulate Storyline ◦ Includes voiceover narration ◦ Source File ◦ SCORM file ◦ Job Aid outlining MRI safety protocols
Training Outline	• Welcome • Navigation • Course Objectives ◦ LO 1: Follow the required safety protocols pertaining to entry in each MRI zone. ◦ LO 2: Remove items not allowed in the MRI environment. ◦ LO 3: Communicate common patient contraindications requiring MRI screening or staff approval before entry. • Introduction to MRI Safety ◦ MRI Magnet Risks ■ Define Ferromagnetic items as “unsafe” items ■ Video of MRI Machine • MRI Safety Zones Map ◦ Zone I: Public Areas / Unrestricted ■ Safety Protocols- Move freely, carry personal items, perform normal duties, no MRI risk in this zone. ◦ Zone II: Screening Area / Restricted ■ Safety Protocols-Remove ferromagnetic and electronic items, complete MRI safety questionnaire, follow safety signs, adhere to MRI personnel instructions. ◦ Zone III: Control Room / Restricted

- Safety Protocols-Entry is restricted to screened individuals, entry is prohibited without MRI approval, Stop.Knock. and Wait for MRI personnel escort, only MRI safe items and equipment allowed.
 - Zone IV: Scanner Room / Highly Restricted
 - Safety Protocols- Enter only when directed by MRI personnel, no ferromagnetic items or equipment, patients and staff are fully screened, follow MRI instructions for emergencies.
- Knowledge Check
 - Drag and Drop safety protocol to the correct zone
 - Two attempts allowed
 - Customized feedback for Correct, Incorrect, and Try Again layers
 - Assesses LO 1
- MRI Unsafe Items
 - Continuous Scenario introduces zone 2 and importance of screening.
- Screening for items
 - Explore items that are unsafe in an MRI environment.
 - Personal items
 - Clothing
 - Hospital Equipment
 - Contraindications
- Knowledge Check
 - Identify contraindications on Safety Questionnaire.
 - Two attempts allowed
 - Customized feedback for Correct, Incorrect, and Try Again layers
 - Assesses LO 3
- Workplace Scenarios
 - Two contrasting scenarios in which learners practice safely preparing patients for an MRI scan and selecting the best course of action to address safety concerns. Each scenario highlights the potential risks associated with incorrect actions.
 - Two attempts allowed
 - Customized feedback for Correct, Incorrect, and Try Again layers
 - Assesses LO 2 and LO 3
- Screening Steps
 - Step 1 - Fill out safety questionnaire
 - Step 2- Remove unsafe ferromagnetic items
 - Step 3- Place items in belongings bag
 - Step 4- Change into MRI approved clothing
 - Step 5- Ferromagnetic wand detection
 - Step 6- MRI personnel conduct final safety screening interview

	• Non-MRI Staff Role ◦ Ensure the Safety Questionnaire is delivered to MRI staff. ◦ Verbally communicate contraindications and safety concerns. ◦ Follow safety protocols during screening and wait for approval to move forward. • STOP. SCREEN. ASK ◦ Safety slogan for MRI Safety. ■ Stop: Never enter zones III or IV without MRI staff approval. ■ Screen: Check for unsafe items and equipment before moving forward. ■ Ask: Check with MRI staff if you are unsure about an item or contraindication. • Final Quiz Section ◦ Summary: Reviews the key points of the content that was covered in this course. ◦ Multiple Choice Questions • Conclusion ◦ Congratulates the learner on completing the course.
Assessment Plan	Level 2 Assessment: • Final Quiz ◦ 80% passing score ◦ Unlimited attempts to pass ◦ 5 Scenario based multiple choice questions • 2 Ungraded knowledge checks Level 3 Assessment: The evaluation will assess the extent to which learned skills are applied in the clinical environment using objective performance data. Direct observation will be conducted by supervisors or MRI personnel approximately 2 to 8 weeks following training to evaluate the application of MRI safety protocols and ensure that staff consistently demonstrate safe practices. Standardized checklists will be used to measure adherence to critical safety behaviors, including appropriate screening of staff and patients, prevention of unsafe items entering restricted zones, and consistent compliance with established safety protocols. In addition, MRI safety audit data, including zone access compliance, screening form completion rates, and badge access violations, will be analyzed. Incident and near-miss reports will also be reviewed, with pre- and post-training comparisons used to identify changes in real-world safety practices.