

# York MRI Facility

Standard Operating Procedure #40-01

## Medical Emergency Procedure

### **1. Introduction**

- 1.1. Research involving Magnetic Resonance Imaging (MRI) at high magnetic field strengths present unique hazards to both research subjects and individuals working within and around the MRI system. Consequently, the potential for serious personal injury is present due to the sheer size and strength of the static magnetic field along with the flexibility of the research system and associated peripheral hardware.
- 1.2. The static magnetic field in the 3T MRI facility is always present. It is important that all those entering the facility be aware of the presence of the field, as it cannot be detected in any way, i.e. magnetic fields cannot be felt, seen or smelled. Ferromagnetic objects brought into the magnet room could quickly become dangerous projectiles, and the magnetic field can also interfere with the operation of certain medical implants.
- 1.3. As a result of the potential for serious injury, access to the 3T MRI Facility is restricted, and requires permission. See SOP #10-01 "Restricted Access Policy".
- 1.4. Working within and around the high field MRI requires in depth training on safety and Standard Operating Procedures, and documented proof of other necessary training. See SOP #30-01 "Safety Training Procedures".
- 1.5. It is imperative that all personnel who are within and around the 3T MRI Facility always keep in mind the potential safety risks, and act in accordance with the guidelines set out in the Standard Operating Procedures.

### **2. Medical Emergency**

- 2.1. A medical emergency is specifically defined as a situation in which a person requires immediate medical attention, because of an acute injury or illness that poses an immediate risk to a person's life or long-term health.
- 2.2. Medical emergencies encountered in the MRI environment may include stroke, cardiac arrest, impaled objects, crush wounds or burns.
- 2.3. If a medical emergency arises, the procedure set out below must be followed.

### **3. Emergency Procedure**

- 3.1. Immediately STOP the scan (if in progress).
- 3.2. Remove the volunteer/patient from the scanner.
  - 3.2.1. Either use the "Home" button to advance the bed out of the scanner, or
  - 3.2.2. Pull the Emergency Release located under the support frame of the bed to unlock the clutch, and pull the bed out manually.

- 3.3. Assess the condition of the injured person.
- 3.4. If immediate medical assistance is required:
  - 3.4.1. Call 911 (9-911 from a campus phone).
  - 3.4.2. Call York Security x33333 (416-736-5333).
  - 3.4.3. Prop open the Control Room door to facilitate access for the emergency response team.
  - 3.4.4. Have someone wait at the entrance to the York MRI Facility to let the paramedics into the facility when they arrive.
  - 3.4.5. The paramedics or other emergency responders must not enter the magnet room unless they have been fully screened, and have removed all metal.
- 3.5. Remove the injured person from the magnet room either by aiding them while walking or by using the non-magnetic stretcher as follows:
  - 3.5.1. Place the stretcher next to the MRI bed.
  - 3.5.2. Lock wheels in place to avoid movement of the stretcher.
  - 3.5.3. Slide the person onto the stretcher using the sheet to help you.
  - 3.5.4. Protect the person's head at all times.
  - 3.5.5. Raise the siderails of the stretcher, unlock the wheels and move the stretcher into the control room.
  - 3.5.6. Close the magnet room door.
- 3.6. Apply first responder principles or help the injured person according to your skills, knowledge and comfort level. Follow instructions of emergency personnel when they arrive.
- 3.7. Once the emergency situation is over, report the incident to the Facility Director or the Safety Officer.