

MC.013—Mass Casualty Incident

Scientific Merit for Achievement:

The cadaveric specimens provide an opportunity for learners to have hands-on practice and testing with human anatomy. The learners may receive training via three or more ways such as simulation, live animal and NAM. Each of these training modalities provides a different perspective to the overall procedure. Overall, the NAM portion of the training is pivotal for the completeness of the learning process.

Objectives:

To expose learners to an environment that supports education and instruction related to human anatomy and physiology regarding pre-hospital procedures used during the treatment of injuries encountered in patients as a result of a mass casualty incident (MCI) natural or man-made.

To expose learner in an interactive session with regard to the proper use of the Incident Command System (ICS) with focus on operational aspects, with particular emphasis on the Medical Branch and its functions.

Methodology to Achieve Objective:

- A full day of courses, lectures and debriefings (8 hours)
- Students will be divided into two groups (A&B). One for procedural lab and one for Mass Casualty Incident (MCI) event.
- The disaster simulation scenarios and procedural cadaver lab training will run concurrently, with each group of 25 students alternating in the afternoon.
- MCI Exercise will include simulators, mannequins, and actors, staged around the assigned rooms.
- MCI Exercise will simulate a real-life disaster scenario.
- There will be four general areas of the disaster scenario: Search and Rescue, Triage, Treatment, and Transport. These students will be divided into groups that will rotate to the different divisions during this exercise.
- With the use of proper PPE and equipment /supplies, paramedics and EMTs will perform search and rescue, triage, and treat simulated patients as they would in real world event.
- The format of the cadaveric portion of the course will be practice of advanced life-saving skills, including intubation, use of hemorrhage control devices, intraosseous venous access, external jugular access and IV access within a more complex, MCI disaster frame of reference. There will be three learning environments in this lab they are:
 - General Anatomy and Physiology
 - Focused airway/chest anatomy with variation in intubation and advanced airway techniques

- Anatomy of the upper and lower extremities- vascular access- IO insertion – various sites.
- The entire experience will be recorded for further review following the course to assess competency and determine opportunities for additional training needs.

Scenario:

To be read to participants prior to entering the building will be dependent on the disaster chosen, explosive device, tornado, earthquake, and active shooter. The number of victims will be dependent on the number of participants in the course.

Equipment, Supplies, and/or Instrumentation Potentially Required for Methodology:

Equipment Needed:

MCI:

- Jurisdictional approved Triage Tags
- Portable patient tracking devices with laptops with wireless capability
- ICS command boards, identifying vest, and radios.
- Endotracheal Tubes, Combi-tubes, BVMs, Glide scopes, Oral and Nasal Airways, King Airways, Bougie, SALT Airway, Porta-vent, various dressings and bandages- For treatment area.
- Long Backboards, Straps, C-collars, tape, head restraints, stretchers (2)
- MCI Trailer for various supplies and equipment.
- Hemorrhage control, I/O equipment and initial treatment bags

Procedural Lab:

- LMA,
- King Airway,
- Endotracheal tubes,
- Asherman chest seals,
- 14 G 3inch IV,
- EZ IO Device with proper needles,
- Bag-Valve-Mask,
- Oral and Nasal Airways,
- Combitubes,
- CPAP Device -Mask
- Glide Scope
- Porta-vent
- Hemorrhage control devices

Rooms Needed:

- Auditorium – Opening Didactic
- Labs at 44 South Cleveland – Anatomical models (airway, anatomy, etc.)
- 1381 Madison building – MCI Exercises

Simulators Needed:

From MERI:

Static mannequins, high fidelity mannequins patient, standardize patients for walking wounded, moulage

Anatomical Specimens Needed:

- Cadavers for intubation practice
 - one with hemi-dissection for airway and jugular anatomy
 - one with no dissection for blind airway insertion
- Cadaver for anatomy, hemorrhage control, and intraosseous injection access all sites (full dissection)

Time Frame (General):

- Welcome, Incident Command and the Medical Branch, Improvised Explosive Devices (1.5 hrs)
- 2 – hour sessions (Concurrent Simulation Scenario and Cadaveric Sessions)
 - Disaster Scenarios
 - Search and Rescue (30-45 minutes)
 - Triage and Transport (30-45 minutes)
 - Transport – Patient Tracking (30-45 minutes)
 - Cadaver Labs
 - Anatomy of the Airway and Chest with Intubation
 - Variation in Intubation
 - Variation in Intubation, Anatomy and I/O Injections, hemorrhage control

Qualified Learners/Participants:

These individuals shall include board certified physicians, resident physicians, physician assistants, nurses, and other medical and non-medical learners/participants. Typically, the students are of the same specialties and of the same position in the medical/surgical field, field of study or the medical device industry.

Sponsors Approved in Utilization of Curriculum:

- Category “A”-Sponsors shall mean medical device companies, professional societies, and federal, state or local government agencies.
- Category “B”-Independent board-certified physicians, healthcare professionals and others shall be subject to MERI’s Sponsor Application process.

Faculty Approved for Instruction of Curriculum:

- 1) Client Sponsored Event:

Credentials review of Sponsor's faculty and other teaching specialists is exempt from MERI'S Academic Review Board review. However, MERI expects that normally maintained faculty, teaching specialists, and Sponsor representatives are educated and trained in the content outlined in the curriculum and have other demonstrated competencies within the specific discipline or field of study to instruct learners so they maintain and improve the quality of medical care by enhancing professional skills. A fully executed "Sponsor Agreement" between MERI and outside organizations shall serve as assurance of faculty competency.

2) MERI Sponsored Event

a) None at this time.

Escorted by MERI Personnel or Non-Escorted:

- Category "A"-Sponsors as listed in "Sponsor Approved for Utilization of Curriculum" are approved to utilize MERI services both escorted and non-escorted.
- Category "B"-Sponsors as listed in "Sponsors Approved for Utilization of Curriculum" are subject to utilization of escorted and/or non-escorted services through MERI's "Sponsor Application" process.