

MCI Training Program: Evaluation and Future Directions

Gabrielle Ramirez, EMT; David Gordon, EMT; Abhishek Rao, EMT; Brett Bell, EMT

University of Pennsylvania Medical Emergency Response Team



Abstract

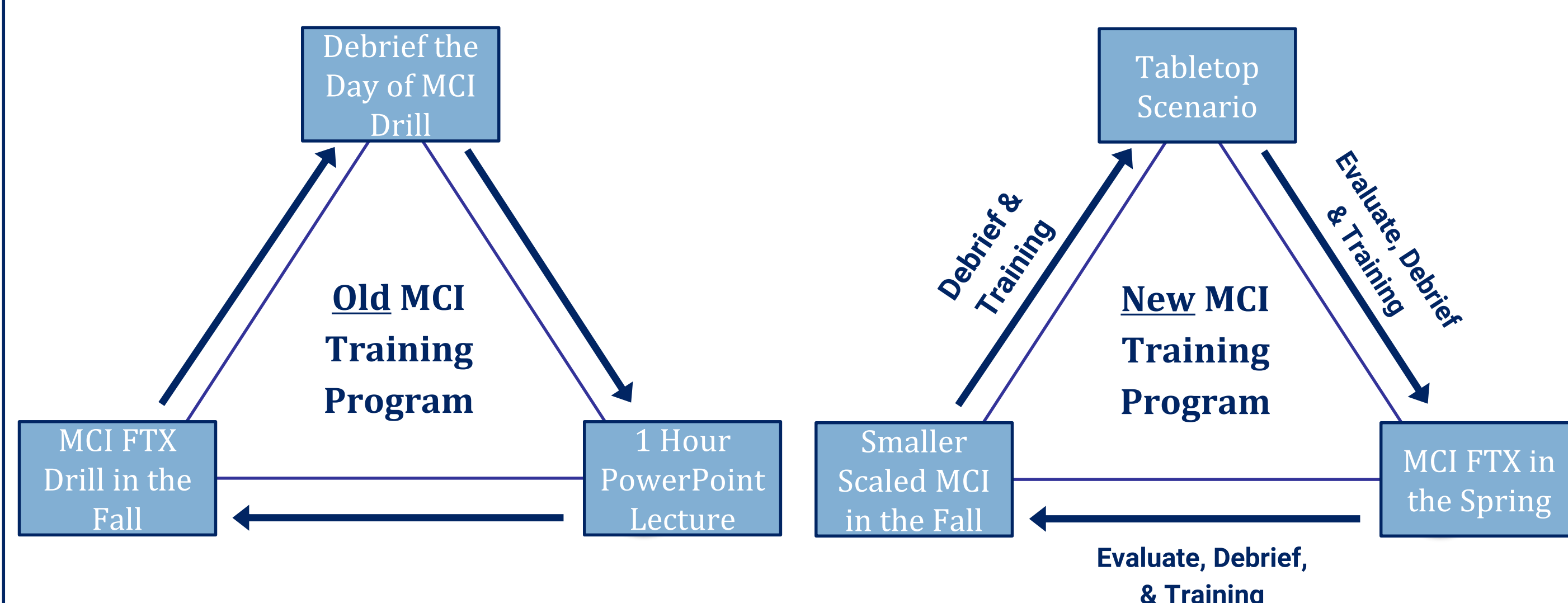
In 2010, the University of Pennsylvania Medical Emergency Response Team (MERT) initiated a Mass Casualty Incident (MCI) training program anchored by a MCI Field Training Exercise (FTX), which allows MERT to rehearse MCI protocol execution with interagency partners and approximately 40 simulated patients. **To further improve MCI response, MERT developed a tabletop exercise** that ensures MERT members are fluent in the Incident Command System (ICS) and familiar with MERT MCI operating guidelines. **Unlike the fast-paced MCI drill, the tabletop exercise is an environment for members to ask clarifying questions, learn the ICS thought process, and make mistakes at their own pace.**

The tabletop scenario introduces a MCI scenario to a small group overseen by a facilitator and evaluator. The facilitator presents information to the group and questions members' decision-making while the evaluator tracks progress using a **FEMA-adapted rubric**¹ that parallels the rubric used to evaluate the MCI drill's success. Both **highlight often-forgotten MERT operating guidelines and parts of ICS**. Afterwards, all of those involved debrief and complete feedback forms. Our hope is that **members will apply what they have learned during the tabletop to an MCI drill** and, thus, **show improvement in the fluidity of the simulated response.**

Introduction

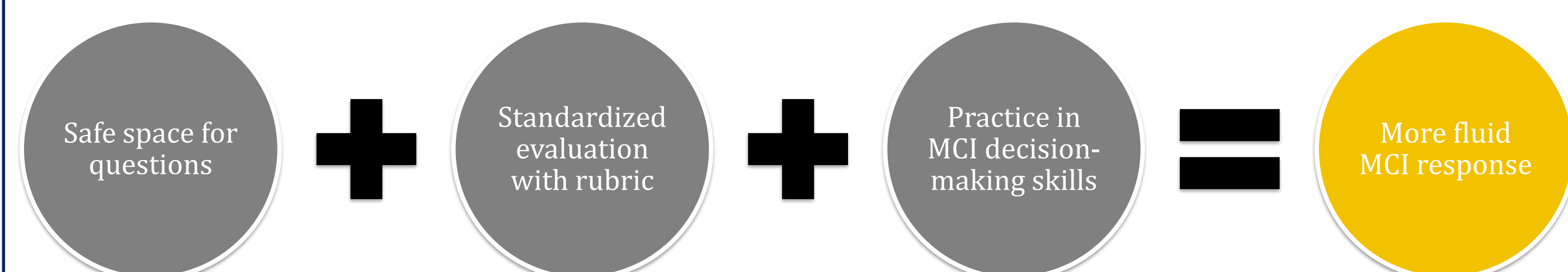
In response to suggestions from UPenn's Division of Public Safety and Philadelphia Fire Department after our past MCI Field Training Exercises, MERT sought to redesign its Mass Casualty Incident training program.

Our MCI Training Program Transition



Key Element: *Tabletop Exercise*

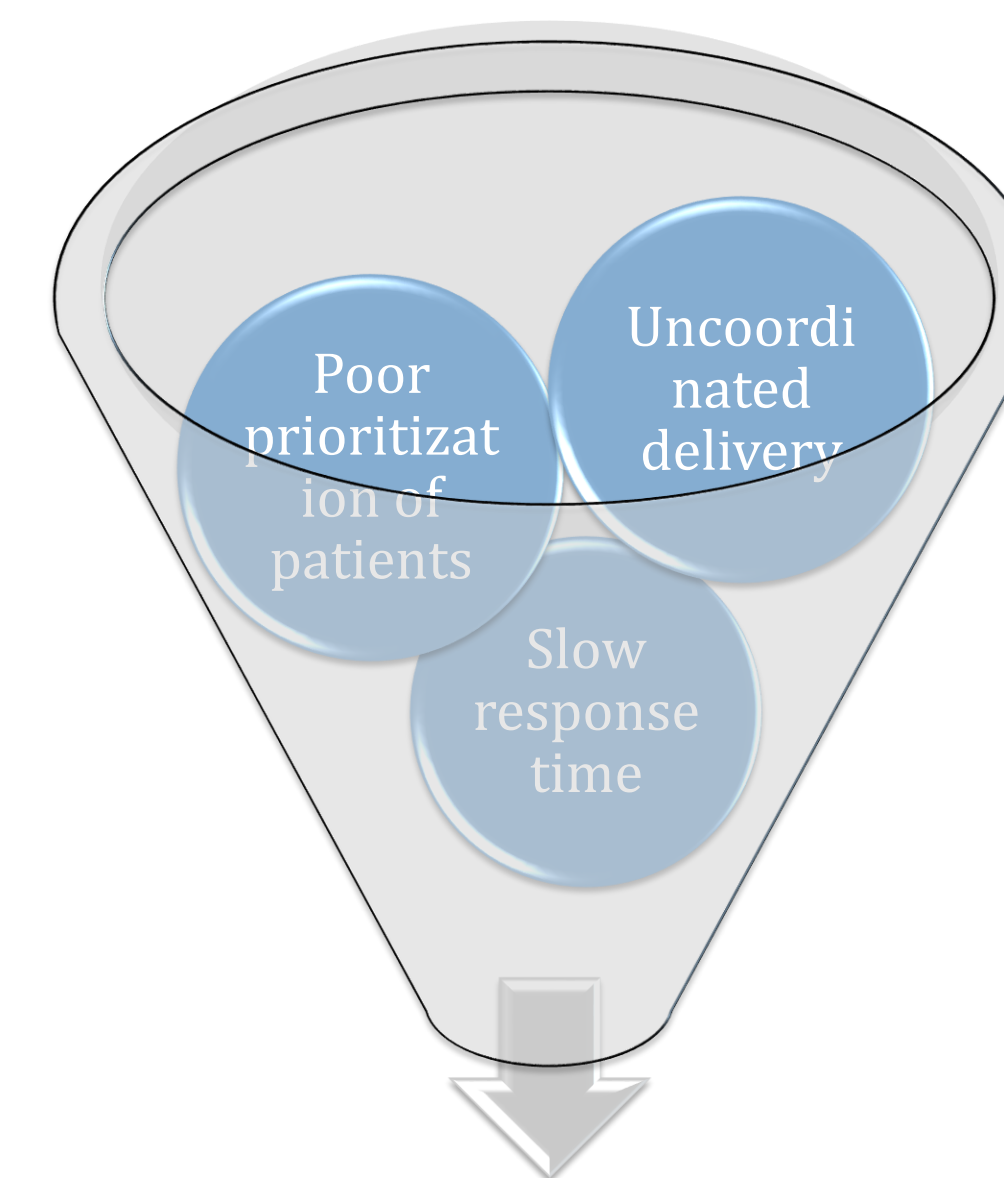
Our New MCI Training Philosophy



Development/Implementation

The Tabletop Exercise

In the past, MERT has placed a strong emphasis on the triage aspect of mass casualty incident response. Little to no training has been done on the decision-making aspect. This lack of practice is reflected in the repeated flaws of judgment seen during MERT's annual MCI Field Training Exercise.



Our Goal: To fix these mistakes.

Purpose of the exercise:

Provide a space to clarify misconceptions, highlight missed procedures, and rehearse proper MCI response.

Delivery:

- Held in an informal and "no-fault" setting.
- Presented by Facilitator.
- No field work.
- Executed in three phases.

Exercise Materials and Personnel:

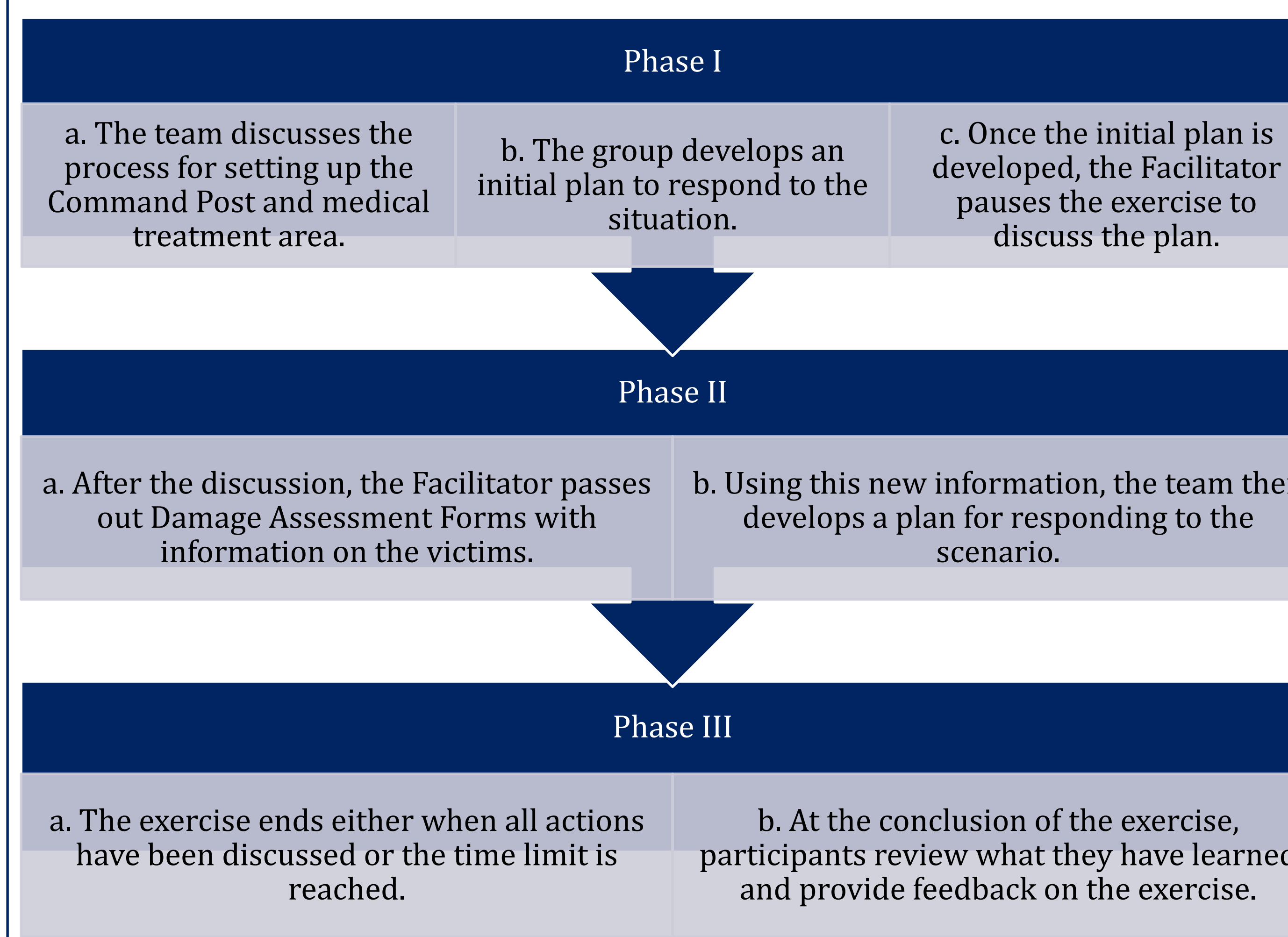
- Facilitator (1 for each group)
- Evaluator (1 for each group)
- Worksheets:
 - o Floor plan
 - o Damage Assessment Forms
 - o Facilitator Guidelines
 - o Rubric
 - o Feedback Forms

Exercise Personnel Roles:

- Facilitator
 - o Leads and guides the exercise by presenting information and asking participants' thought process and the factors they considered in making choices.
 - o Debriefs with participants.
- Evaluator
 - o Assesses members based on the events and expected actions listed on the rubric.
 - o Passive role and does not interfere with the exercise.

Team is presented with:

- A hazard
- Location
- Time limit (40-60 minutes)
- Scenario



Evaluation

Two-Time Evaluation Process



The Tabletop Exercise Evaluates MERT's Capabilities and Knowledge in:

- Incident Command²
- MERT operating guidelines
- Sizeup

Examples of Expected Actions Per Tabletop Rubric:

- Remembers to bring Mass Casualty Response Bag.
- Incident Command established.
- Gives an initial report to PennComm.
- Establishes a staging area.
- Ensures MERT members sign-in/out.

Other Aspects Evaluated by the Tabletop Exercise:

- *Time action completed* → response to slow response time
- *Knowledge of ICS and relevant MERT operating guidelines* → response to uncoordinated delivery
- *Assignment of level of priority to sections of floor plan* → response to poor prioritization of patients

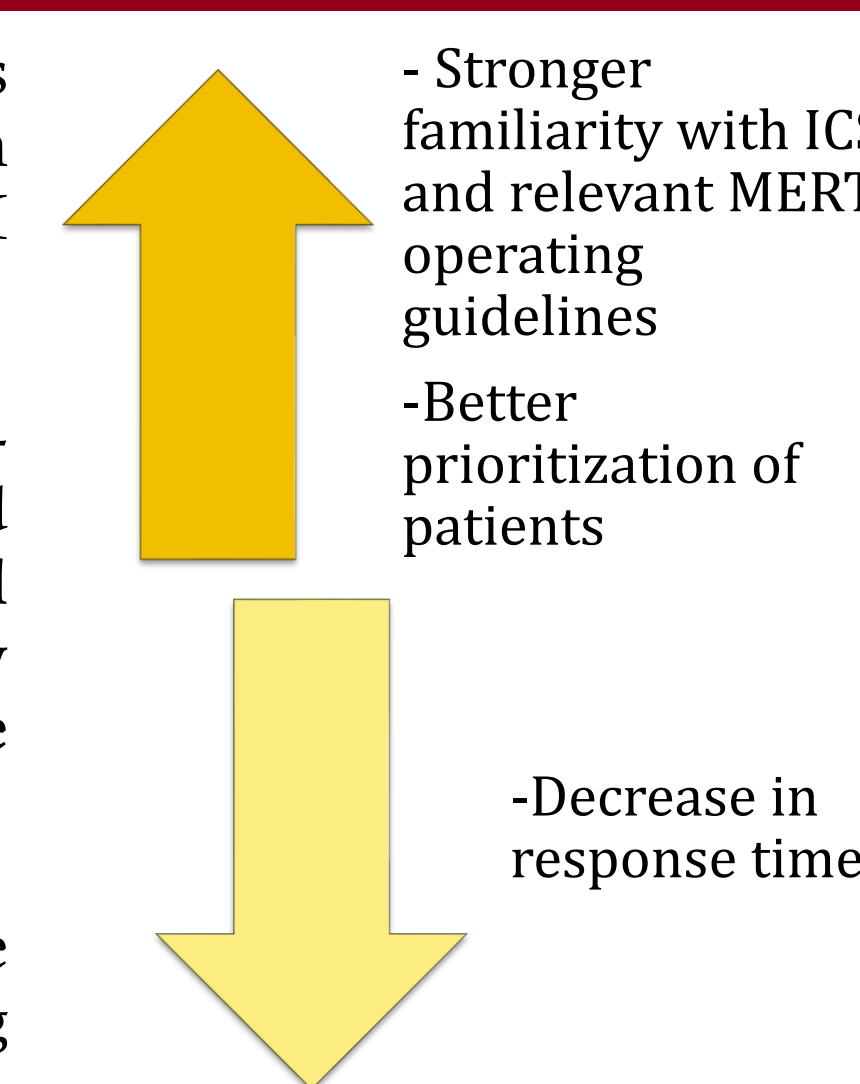
Note: MCI Field Training Exercise rubric assesses different, yet similar criteria as found in the Tabletop rubric.

Discussion/Conclusion

MERT's Disaster Response Officer has already prepared MERT's first tabletop exercise, which is scheduled to run in early March 2018. Later that month, MERT is holding a smaller-scaled MCI Field Training Exercise to test the effects of the Tabletop Exercise.

The Tabletop Exercise was made to address common decision-making mistakes performed by MERT members during MCI Field Training Exercises. **We expect to see improvements in overall performance, particularly in the factors that were originally impeding the fluidity of MERT's MCI field training exercise response.**

Little to no considerable improvement in performance will require a revision of the Tabletop Exercise and, possibly, the MCI training program.



References

1. *Community Emergency Response Team Tabletop Exercise*. https://www.fema.gov/media-library-data/20130726-1917-250457806/cert_tabletops_combined.pdf. Accessed February 15, 2018.
2. IS-100.B Course Materials. Federal Emergency Management Agency | Emergency Management Institute. <https://training.fema.gov/is/coursematerials.aspx?code=IS-100.b>. Accessed February 15, 2018.

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Please direct correspondence to chief@pennmert.org