**Appendix 1 (available online only). Course Syllabus.**

**Introduction to Terror Medicine**

**Rutgers New Jersey Medical School, Newark, New Jersey (USA)**

This 2-week elective course introduces fourth year students to the field of Terror Medicine and its relationship to Emergency and Disaster Medicine. The course explores medical features distinctively associated with terrorism events in four broad areas: preparedness, incident management, nature of injuries, and psychological issues.

Students are expected to:

1. Review the literature related to Terror Medicine, largely performed independently via computer or library research. (Relevant resources are listed for each class session.)
2. Participate in course activities including seminars with guest specialists, student discussions on aspects of Terror Medicine, and tabletop and simulation exercises.
3. Write a paper on one of the following three topics: a) key lessons learned from the course and prospective methods to advance the field of Terror Medicine; b) a specified aspect of Terror Medicine (following consultation with the course director); c) a simulation-based case of terrorism (following consultation with the simulation center director).

Papers should be submitted within two weeks following completion of the course.

In addition to individual meetings with the director, students will meet as a group for eight sessions (approximately two hours each), schedules to be provided. [The schedule of class times and dates are not included in this syllabus.]

**Session 1. Introduction.** Introduction to terrorism studies and overview of Terror Medicine; discussion of student responsibilities for the course; expectations for individual papers.

Presenter: Course Director

Resources: 3, 4, 5, 6, 7, 8, 9

**Session 2.** **Weapons of Mass Destruction (WMD): Biological, Chemical, Radiological Agents**.

Overview of WMD with emphasis on bio-agents and chemical agents as terror weapons; key response roles of the physician and other medical personnel.

Case Studies:

* Ebola as a potential weapon;
* The anthrax letters;
* Nerve and mustard agents; and
* Tour of Biosafety laboratory.

Presenters: Director, Biosafety Laboratory; Experts on Biological and Chemical Weapons

Resources: 10, 11, 12, 13, 14, 15

**Session 3. Psychological Issues and Societal Resilience.**

Select features:

* Unusually intense early reaction by people who experience a terror event;
* Immediate psychological intervention essential;
* Early group briefings inadvisable (exception: family members);
* Responders and therapists may need therapy; and
* Availability of long-term care (psycho-physical).

Conversation with a survivor of a terror attack (bus bombing):

* Need for therapy? If so, when and what kind?
* Coping mechanisms?
* Support groups--what they are and what they do?
* Role of physicians who are not psychiatrists?

Presenter: Psychiatrist

Resources: 16, 17, 18, 19

**Session 4. Nature of Injuries—Mechanisms and Responses.**

* Numerous penetration wounds;
* Blast injuries;
* Blunt trauma;
* Inhalation injuries;
* Crush;
* Burn; and
* Effects of biological, chemical, and radiological agents (a surgeon’s perspective)

Presenter: Trauma Surgeon

Resources: 20, 21, 22

**Session 5. Preparedness, Incident Management, and Security.**

Select Preparedness Issues:

* Supplies and equipment (type, quantity);
* Structural enhancements of hospitals (surge capacity, walls/windows, ventilation systems, protected/underground areas); and
* Education; rehearsals/exercises.

Select Management and Security Issues:

* Incident Command System; tour of Ebola isolation facility;
* Triage—at scene of incident; at hospital entry;
* Security eg: ambulance inspection at hospital perimeter; cell phone lines blocked; and
* Communications capability among hospitals; between hospitals, law enforcement, and other authorities; between hospitals and inquiring families.

Presenter: Director, Disaster Preparedness Office

Resources: 23, 24, 25

**Session 6. Table Top Exercise.**

Students participate in a tabletop exercise.

Presenter: Simulation Leader

Resources: 26

**Session 7. Simulation Exercise.**

Simulation/modeling approaches.

Students participate in a hands-on exercise.

Presenter: Director, Simulation Center

Resources: 27, 28

**Session 8. Summary and Discussion of** **Course Highlights.**

With Course Director