Bystander Emergency Response
Mini-Elective
Spring 2015

Course Dates: January 8, 15, 22, February 5, 12, 19 Thursdays, 1:00-3:00 PM

Maximum Students: 12

Class Year: MS1

Course Director: Adam Z. Tobias, MD, MPH
Assistant Professor of Emergency Medicine

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Description:
“Is there a doctor on the plane?” These words are simultaneously some of the most anticipated and dreaded by physicians-in-training. This course will provide a framework for bystander treatment and first aid, taught at the knowledge level of first and second year medical students. Each session will approach a different “real-world” clinical scenario with an exploration of the approach to the patient, available resources, stabilization of the condition, and the pathophysiology of the condition. Each session will be held in the WISER simulation center with the use of high-fidelity simulation mannequins.

Course Objectives:
- Provide a general structured approach to the injured/ill patient for medical students with limited clinical experience
- Explore scenario-specific techniques for patient stabilization and management
- Discuss initial patient management in resource-poor environments

Requirements:
Attendance at each session
Course Outline:
Bystander Emergency Response

Course Director:
Adam Z. Tobias, MD, MPH
Assistant Professor of Emergency Medicine

Location:
WISE center, 230 McKee Place, 3rd Floor

Week 1: January 8, 2015
Standard Approach to the Ill or Injured Patient
The course will begin with an introduction to scene safety and how to best protect yourself when re-
sponding to an ill patient. We will review the "ABCs", abnormal vital signs, the “SAMPLE” history, and
focused physical exam techniques. Once we have reviewed patient assessment, we will discuss organ-
izing available resources (such as recruiting bystanders to help) and calling for backup.

Week 2: January 15, 2015
Basic Life Support
After your initial assessment (learned in Week 1) you may need to perform life saving interventions.
Some of the most fundamental (yet life-saving) maneuvers in bystander intervention involve CPR and
basic airway management. During this session, participants will have an overview of CPR techniques
for the adult. Basic airway maneuvers will involve assessment of the airway; finger sweep, chin lift and
jaw thrust. Participants will also be introduced to BVM ventilation, considerations for management of
supraglottic vs infraglottic airway obstruction, and the Heimlich maneuver.

Week 3: January 22, 2015
In-flight Medical Emergencies Part 1
Have you yet been on a plane when a doctor was requested? Soon you will be able to rise to the chal-
lenge! During this week’s session we will discuss common medical emergencies during commercial air-
line flights and what resources are available on the airplane for your use. We will review cases from the
UPMC Medical Command Center, where flights from all over the world call to speak to a doctor. In ap-
plying your new skills, there will be simulation of in-flight medical emergencies.

Week 4: February 5, 2015
In-flight Medical Emergencies Part 2
This week’s cases will include an introduction of how to approach a patient with an acute loss of con-
sciousness in the context of an in-flight medical emergency. The first question we will explore is, “was
this syncope or seizure?” Depending on this answer; overview of syncope management, approach to
the seizing patient, and discussion of the differential diagnosis will be reviewed. Finally, does this plane
need to be diverted to take this patient to the hospital?

Week 5: February 12, 2015
Witness to a Car Accident
You are the first person on scene as a multi-vehicle accident occurs before you. Now what? This ses-
son will review an approach to the multi-casualty event. Discussions will include ensuring scene safety,
an overview of triaging systems for mass casualty events, and which patients to approach first.
The trauma patient: As you approach your first patient you see he is confused, bleeding from the scalp
and has an obvious leg deformity. How do you proceed? In the review of the trauma patient a system-
atic approach will be discussed. Primary and secondary survey, hemorrhage control and cervical spine
immobilization will be among the topics reviewed.

Week 6: February 19, 2015
Hiking in the Wilderness
The final session will provide an introduction to Wilderness Medicine. Students will be offered several
skills stations and case based learning modules. Learning modules will include approaching hyperther-
mia and hypothermia, such as recognizing the stages of temperature related illness and how to reverse
the injuring temperature. Skills stations will include assessment of long bone fracture, joint dislocation
and ankle sprain. Discussions will include assessing the injury, immobilization of the injury, associated
physical exam and first aid techniques.