



Emergency Medicine Exploration Camp Scenario for Trauma Day Car vs Bike

Please read the document in its entirety.

Exposure: Students will be exposed to dramatized trauma scenarios. Local actors will be in dramatic makeup depicting trauma injuries. Students will be exposed to but not limited to the following: photos of body disfigurement associated with bodily trauma (amputation and/or wounds), dramatized blood, broken bones, wounds, and dramatized pain and emotion associated with the trauma involving injured high school students. Students will be introduced to processes, procedures, medical equipment, and field craft and alternatives (items that can be used in a trauma, and alternatives to be used, if you don't have access to medical equipment).

Purpose/Objective: Students will utilize emergency skills processes, procedures, and anatomy and physiology knowledge attained and modeled to assess the victims and take appropriate actions. Students are assessed by the instructors on their skill and knowledge development. This is an exposure and opportunity for students to becoming familiar with the field of emergency medicine.

Example Backstory for Trauma Scenario:

Anne, Bill and Charlie- the accident victims- are all high school students in a rural community. **Bill** is driving with **Charlie**, headed to school on a rainy, sleety morning. **Charlie** realizes he left his phone in his bag and really wants **Bill** to see the latest "cute kitten" post on Instagram. **Charlie** unbuckles to reach the bag in the back seat and looks for the posting. He neglects to rebuckle his seat belt.

While **Bill** is looking at yet another kitten posting, he veers to the right, hits a slick spot in the road. This sends the car spinning off the road. While spinning they feel and hear two distinct impacts. The last one stops the car.

Student witnesses the accident and utilizing skills learned at camp on the scene first identifies a bystander and yells for that person to call 9-1-1 and begins to access the victims. First, the student finds **Bill** behind the steering wheel, **Charlie** lying face up on the floor of the back seat and **Anne** thrown from her bike. Community members are frantic and trying to talk to the injured youth. **Anne** was riding her bike when she was struck from behind by the vehicle and is lying face up in the dirt about 15 feet from the side of the road. She is conscious but is having trouble holding eye contact or answering questions. She knows her name but that is all. She is not wearing a helmet and bystanders state they did not see one. She is breathing rapidly and has strong pulses at 120 beats per minute. She is complaining of pain in her head, back, and neck and hips.

Student takes appropriate steps to be able to provide essential information to first responders, when they arrive.

Trauma Assessment and Procedures

- 1) Body assessment-total body visual and physical assessment
 - a. HABC
 - i. Hemorrhage- visible blood
 - ii. Airway- assessment of ability to breath
 - iii. Breathing-assessment of air movement
 - iv. Circulation-assessing pulse
 - b. Physical assessment-broken bones, deformities, bruising, tenderness, injuries, and foreign objects
- 2) Shock Management
- 3) Field Crafts and alternatives that can be performed on scene
 - a. Tourniquets
 - b. Bandaging
 - c. CPR
 - d. Securing an airway
 - e. Other procedures as instructed

Human Anatomy and Physiology in Virtual Reality

Exposure: Students will be receiving instruction on the cardiovascular system utilizing Zspace Virtual Reality. Zspace Virtual Reality will provide students instruction in a realistic environment depiction of human anatomy and physiology.

Purpose: Students will learn about human anatomy and physiology of the cardiovascular system. Though students will be focused on the cardiovascular system, students may be exposed to the human reproductive system in a virtual reality environment. Below are two sites for further information on the virtual reality system to be used and information co-authored by Stanford University on Virtual Reality.

Side effects: students prone to motion sickness may feel this sensation, while in the virtual environment. Students who experience this will be provided an alternative to this activity.

<https://www.commonsensemedia.org/research/virtual-reality-101>; [Http://www.Zspace.com](http://www.Zspace.com)