

CPR AND DROWNING

Time: 30-60 minutes

Material: CPR Manakin, CPR Masks, Pocket BVM, AED Trainer

Potential Learning Objectives

1. Understand that drowning is a brain problem and that getting oxygen to the patient is the priority
2. Practice with CPR Masks and BVM
3. Understand when to evacuate

Introduction - Overview

Drowning is defined as a process of experiencing respiratory impairment from submersion/immersion in a liquid medium.

Key Points

- The brain can only go 3-5 minutes without oxygen before permanent brain damage is likely. Most people will die after 10 minutes without oxygen. Lungs are injured from taking on water but they usually heal well.
- If the patient inhales water the lungs will produce foam that will keep coming making it necessary to ventilate through the foam. A CPR mask is necessary to do this and a Bag Valve Mask (BVM) is ideal.
- Evacuate anyone who was unconscious, produces foam through the airway, has trouble breathing, won't stop coughing and/or high respiratory rate

Topics to Cover

Anyone who is unconscious or has an altered LOR based on immersion in the river is likely in the process of drowning.

Suggested Treatment for Drowning Patients

1. Immediately give 5 rescue breaths
2. Get to land, remove PFD, and begin CPR
 - a. With pulse give one breath every 6 seconds
 - b. Without pulse give 30/2 CPR
 - c. Use AED if available
3. Contact EMS and rapidly evacuate for any unconscious patient or patient with foam in airway
4. Communicate with friends/family, other trip members, and bystanders about situation and try and keep them away from patient
5. For other patients monitor for 4 hours for signs of difficulty breathing or increased heart rate

Practice with BVM, Pocket Mask, PFD and helmet on manikin.

Sample Demonstrations and Student Activities

Create scenarios for students to work through:

- Unconscious swimmer pulled into raft
 - Use pocket CPR mask for initial 5 breaths while in river
 - Get to shore, remove PPE, and get on stable surface for CPR
 - Check for quick call to EMS
 - Add BVM and AED
 - Observe communication with other trip members
- Unconscious swimmer with pulse but not breathing after swim
 - One breath every 6 seconds, continue to check pulse
 - Check for quick call to EMS
 - Observe communication with other trip members
- Conscious swimmer who took water into lungs but does not have foam
 - Monitor for 4 hours
 - Observe communication with other trip members