Drowning

Aliases

Fatal drowning
Immersion
Near-drowning
Non-fatal drowning
Submersion

Patient Care Goals

1. Rapid assessment and management of life-threatening injuries
2. Rescue from the water-based environment
3. Transport patients suffering from drowning for hospital evaluation unless field arrest resuscitation termination guidelines apply.

Patient Presentation

Inclusion Criteria

Patients suffering from drowning or drowning events independent of presence or absence of symptoms

Exclusion Criteria

When protocol is inapplicable.

Patient Management

Assessment

1. History should include circumstances leading to the submersion, details of mechanism of injury, time under water
2. Primary survey should include aggressive airway management and restoration of adequate oxygenation and ventilation. Unlike the CAB strategy used in standard cardiac arrest, patients suffering cardiac arrest from drowning require an ABCs (Airway, Breathing, Circulation) approach with prompt airway management and supplemental breathing
3. History, mechanism of injury and exam should include consideration of possible c-spine injury. Manage c-spine if evaluation suggests injury to the cervical spine
4. Assess for other associated injury such as injury to the head or dive-related emergency

Treatment and Interventions

1. Ensure scene safety for patient and rescuers. Remove patient from water as soon as possible
   a. Practice the safest water rescue technique possible, given circumstances on scene
   b. Evacuate to land or a watercraft as soon as possible
   c. If there is a delay to accessing shore or a rescue boat, initiate in-water basic life support consisting of ventilation only
2. Manage airway per the Airway Management Guideline
3. Follow Cardiac Arrest Guideline as indicated with consideration of **ABC**s (**A**irway, **B**reathing, **C**irculation) strategy for drowning victims in cardiac arrest
   a. Initiate 5 rescue breaths followed by 30 chest compressions
   b. After the initial 5 breaths, use ratio of 30 compressions to 2 breaths
4. If mechanism or history suggest cervical spine injury, manage c-spine, per the Spinal