Drowning



History

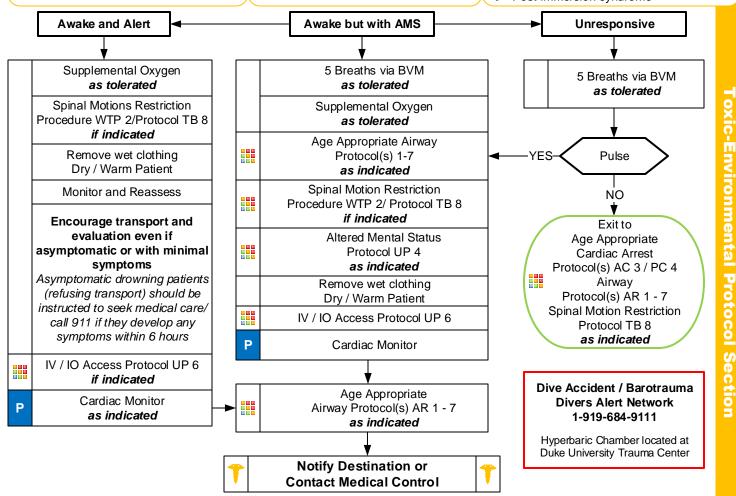
- Submersion in water regardless of depth
- * Possible history of trauma
 - Slammed into shore wave break
 - Duration of submersion / immersion
- Temperature of water or possibility of hypothermia

Signs and Symptoms

- * Unresponsive
- * Mental status changes
- * Decreased or absent vital signs
- ★ Foaming / Vomiting
- Coughing, Wheezing, Rales, Rhonchi, Stridor
- * Apnea

Differential

- * Trauma
- * Pre-existing medical problem
 - * Hypoglycemia
 - Cardiac Dysrhythmia
- Pressure injury (SCUBA diving)
 - * Barotrauma
 - Decompression sickness
- * Post-immersion syndrome



Pearls

- * Recommended Exam: Respiratory, Mental status, Trauma Survey, Skin, Neuro
- Drowning is the process of experiencing respiratory impairment (any respiratory symptom) from submersion / immersion in a liquid.
- ★ Begin with BVM ventilations, if patient does not tolerate then apply appropriate mode of supplemental oxygen.
- * Ensure scene safety. Drowning is a leading cause of death among would-be rescuers.
- * When feasible, only appropriately trained and certified rescuers should remove patients from areas of danger.
- ***** Regardless of water temperature resuscitate all patients with known submersion time of ≤ 25 minutes.
- * Regardless of water temperature If submersion time ≥ 1 hour consider moving to recovery phase instead of rescue.
- * Foam is usually present in airway and may be copious, DO NOT waste time attempting to suction. Ventilate with BVM through foam (suction water and vomit only when present.)
- * Cardiac arrest in drowning is caused by hypoxia, airway and ventilation are equally important to high-quality CPR.
- * Encourage transport of all symptomatic patients (cough, foam, dyspnea, abnormal lung sounds, hypoxia) due to potential worsening over the next 6 hours.
- * Predicting prognosis in prehospital setting is difficult and does not correlate with mental status. Unless obvious death, transport.
- * Hypothermia is often associated with drowning and submersion injuries even with warm ambient conditions.
- ▶ Drowning patient typically has <1 3 mL/kg of water in lungs (does not require suction) Primary treatment is reversal of hypoxia.
- * Spinal motion restriction is usually unnecessary. When indicated it should not interrupt ventilation, oxygenation and / or CPR.

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