



Marine Envenomation/ Injury

History

- Type of bite/ sting
- Identification of organism
- Previous reaction to marine organism
- Immunocompromised
- Household pet

Signs and Symptoms

- Intense localized pain
- Increased oral secretions
- Nausea/ vomiting
- Abdominal cramping
- Allergic reaction / anaphylaxis

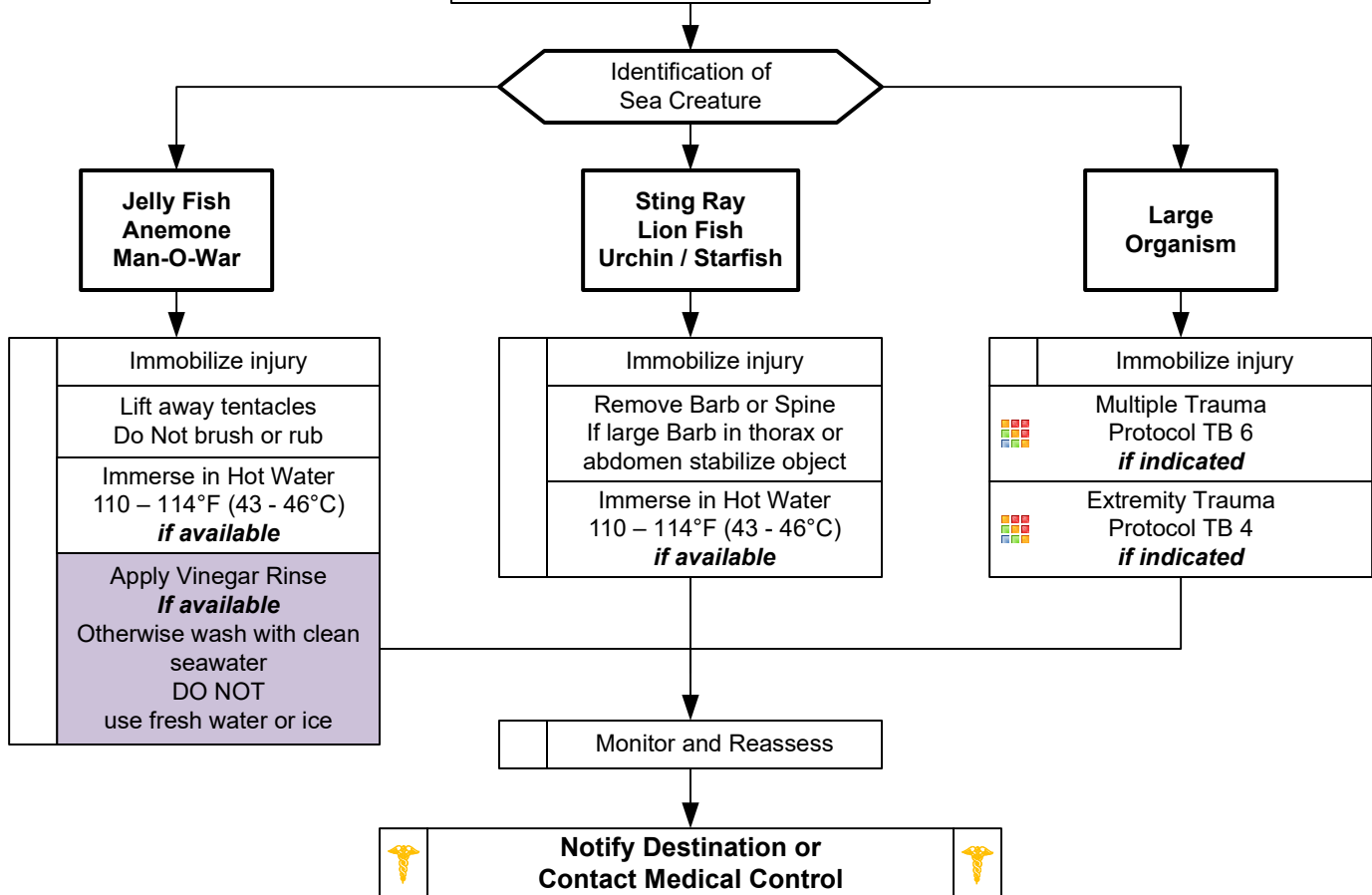
Differential

- Jellyfish sting
- Sea Urchin sting
- Sting ray barb
- Coral sting
- Swimmers itch
- Cone Shell sting
- Fish bite
- Lion Fish sting

Call for help/ additional resources
Stage until scene safe

	General Wound Care Procedure
	IV or IO Access Protocol UP 6 if indicated
P	Cardiac Monitor if indicated
	Drowning Protocol TE 3 if indicated
	Age Appropriate Allergy/ Anaphylaxis Protocol AM 1/ PM 1 if indicated
	Age Appropriate Hypotension/ Shock Protocol AM 5/ PM 3 if indicated
	Pain Control Protocol UP 11 if indicated

Contact
Carolinas Poison Control
1-800-222-1222
Or
Agency Specific Number





Marine Envenomation/ Injury

Pearls

- **Ensure your safety: Avoid the organism or fragments of the organism as they may impart further sting or injury.**
- **Priority is removal of the patient from the water to prevent drowning.**
- **Coral:**
 - Coral is covered by various living organisms which are easily dislodged from the structure.
 - Victim may swim into coral causing small cuts and abrasions and the coral may enter into cuts, causing little if any symptoms initially, but later causing inflammation, pain and/ or infection.
 - The next 24 – 48 hours may reveal an inflammatory reaction with swelling, redness, itching, tenderness, and ulceration.
 - Treatment is flushing with large amounts of fresh water or soapy water then repeating.
- **Jelly Fish/ Anemone/ Man-O-War:**
 - Wash the area with fresh seawater to remove tentacles and nematocysts.
 - Do not apply fresh water or ice as this will cause nematocysts firing as well.
 - Recent evidence does not demonstrate a clear choice of any solution that neutralizes nematocysts.
 - Vinegar (immersion for 30 seconds), 50:50 mixture of Baking Soda and Seawater, and even meat tenderizer may have similar effects.
 - Immersion in warm water for 20 minutes, 110 – 114°F (43 - 46°C), is effective in pain control.
 - Shaving cream may be useful in removing the tentacles and nematocysts with a sharp edge (card).
 - Stimulation of the nematocysts by pressure or rubbing cause the nematocyst to fire even if detached from the jellyfish.
 - Lift away tentacles as scrapping or rubbing will cause nematocysts firing.
 - Typically symptoms are immediate stinging sensation on contact, intensity increases over 10 minutes.
 - Redness and itching usually occur.
 - Papules, vesicles and pustules may be noted and ulcers may form on the skin.
 - Increased oral secretions and gastrointestinal cramping, nausea, pain, or vomiting may occur.
 - Muscle spasm, respiratory, and cardiovascular collapse may follow.
- **Lionfish:**
 - In North Carolina this would typically occur in a residence/ business as lionfish are often kept as pets in saltwater aquariums.
 - Remove any obvious protruding spines and irrigate area with copious amounts of saline.
 - The venom is heat labile so immersion in hot water, 110 – 114°F for 30 to 90 minutes is the treatment of choice but do not delay transport if indicated.
- **Stingrays:**
 - Typical injury is swimmer stepping on ray and muscular tail drives 1 – 4 barbs into victim.
 - Venom released when barb is broken.
 - Typical symptoms are immediate pain which increases over 1 – 2 hours.
 - Bleeding may be profuse due to deep puncture wound.
 - Nausea, vomiting, diarrhea, muscle cramping, and increased urination and salivation may occur.
 - Seizures, hypotension, and respiratory or cardiovascular collapse may occur.
 - Irrigate wound with saline. Extract the spine or barb unless in the abdomen or thorax, Contact Medical Control for advice.
 - Immersion in hot water, if available, for 30 to 90 minutes but do not delay transport.
- Patients can suffer cardiovascular collapse from both the venom and/ or anaphylaxis even in seemingly minor envenomation.
- Sea creature stings and bites impart moderate to severe pain.
- Arrest the envenomation by inactivation of the venom as appropriate.
- Ensure good wound care, immobilization and pain control.