Snakebite Management Guidelines:

Initial Treatment:

1. Local wound care and tetanus immunization if indicated.
2. Wound measurement: see measurement instruction sheets for UE & LE.
3. Elevate and extend arm or leg.
4. Remove jewelry.
5. Do not apply tourniquet, constrictive clothing, or wrap.
6. Consider 20cc/kg NS bolus with possible maintenance infusion.
7. Observe for at least 6 hours for upper extremity bites and 8 hours for lower extremity bites.
8. Pediatric extremity envenomations should be considered for overnight observation.

Do NOT use:

- Ice
- Tourniquets
- Prophylactic antibiotics
- Steroids
- Prophylactic fasciotomy

Laboratory Testing Indications & Timing: Do **Not** Need D-Dimer

- Copperhead/Cottonmouth bites:
  - If being observed and only mild swelling and no evidence of coagulopathy (no bleeding/excessive bruising) then routine laboratory testing not required.
  - Recommend CBC, PT/INR, fibrinogen if treated with antivenom
  - Repeat labs not necessary unless initial labs abnormal or clinical coagulopathy develops
- All other snakebites including unknown pit viper bites:
  - Obtain PT/INR, fibrinogen (if it is not a send out) and CBC at least 6 hours after bite.
  - If antivenom administered, then repeat set prior to d/c (~24 hrs)
  - For any coagulopathy then patients will need another set at approximately 72 hrs (can be outpatient)

Antivenom Indications & Information: (Caution: Potential for Allergic Reaction)

- **Anavip®** is not as efficacious for Copperhead/Cottonmouth tissue effects as **Crofab®** → most envenomations from these snakes are mild.
    - Used in patients with moderate or worsening swelling or pain and/or significant systemic symptoms.
    - Use cautiously in patients who:
        - Have previously received sheep serum products.
        - Are hypersensitive to pineapples, papayas, papain, or latex.
        - Have asthma.
        - Are on β-blockers.
- Halt infusion for hypotension, bronchospasm, or rash.
    - Most patients can tolerate antivenom infusion at a lower infusion rate after steroids & antihistamines.
- Progressive swelling usually requires treatment with more antivenom.
- Abnormal labs *may* require further treatment.
- Maintenance vials of antivenom are rarely required for Copperhead/Cottonmouth bites.
- If they develop coagulopathy, PT/INR, fibrinogen, and platelets laboratory testing to be checked at 72 hours after antivenom completion.

Expected course of swelling following envenomation:

- For a hand bite, the patient should have an increase in swelling of forearm and bicep but a decrease in the swelling of hand and wrist if properly elevated above the heart in relative extension (< 45 degrees flexion).
- For a foot bite, the patient should have increase in swelling in calf and thigh but decrease in the swelling in foot and ankle if properly elevated above the heart in relative extension (< 45 degrees flexion).
- If swelling increases in the hand and/or wrist:
    - Treatment with more antivenom may be required.
    - The extremity may need additional elevation or re-positioning.
- Although rare, compartment syndrome does occur -- symptoms include:
    - Severe pain not well controlled by medication.
    - Poor capillary refill of envenomed extremity.
    - Severe ecchymosis/cyanosis of envenomed extremity.
    - Loss of peripheral sensation of envenomed extremity.
        - If capillary refill normal, distal sensation is intact, and pain proportional to physical findings then compartment syndrome not likely.
    - Requires compartment pressure measuring.