SNAKEBITE

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Information Needed:

- Type of snake, if known and location found
- Appearance of snake, shape of pupil, presence of stripes or rattle, size of snake
- Time of bite
- Prior first aid by patient or friends
- Symptoms: local pain or swelling, metallic taste in mouth, hypotension, coma, bleeding

Objective Findings:

- One or more punctures wounds, or horseshoe set of teeth marks
- For pit-vipers (*Crotalines*), there is a spectrum of envenomation from nonenvenomation to serious envenomation

Non-envenomated:

- No discoloration around puncture marks
- Little or no pain after a few minutes Treatment:
 - Safety first; do not attempt to capture snake and do not handle an apparently dead snake or decapitated snake head with your hands
 - o If transporting the snake, be certain that it is in a closed solid container
 - Remove rings or other jewelry which might constrict circulation later
 - Routine Medical Care
 - Transport all suspected patients with envenomations for medical evaluations

Serious Envenomation:

- Dark discoloration around punctures within 5 minutes
- Marked edema formation
- Severe pain within a short time
- Altered mental status
- Oozing of hemolyzed blood from punctures, possible formation of fluid blebs on skin
- Fasciculation
- Hypotension
- Marked tachycardia
- Definite metallic taste

Treatment:

- Safety first; do not attempt to capture snake
- o Remove rings or other jewelry which might constrict circulation later
- Routine Medical Care
- Monitor EKG
- Transport all suspected envenomations for medical evaluations
- Document distal pulse
- o Immobilize bitten part with splint, etc.
- Consider IV access in the unaffected extremity
- Fluid challenge 250-1000 ml NS for hypotension
- Consider morphine sulfate 2 5 mg slow IVP for discomfort. May repeat morphine in 2-5 mg increments every 5 minutes or more up to 20 mg.
- If unable to establish an IV up to 5 mg of MS may be administered IM. May repeat in up to 5 mg increments every 10 minutes to a max of 20 mg.
- Prior to the administration of morphine sulfate, and prior to each repeat dose, the patient's pain and vital signs should be reassessed. The patient must have a SBP>90 mmHg, respirations>12, and awake to report pain.

Precautions and Comments:

- Do not incise envenomations
- If the snake is dead, bring it in for positive identification in a closed solid container. Avoid the fangs because they are capable of envenomation even when dead. If alive, do not try to capture
- Ice applied directly to skin surfaces can cause serious tissue damage and should not be used
- All so-called "pet" snakes should be identified
- Exotic poisonous snakes such as those in zoos have different signs and symptoms than those of the pit vipers. Zoos and legal exotic snake collectors are required to have a starter supply of antivenom on hand for each type of snake. Bring the antivenom with the patient to the hospital
- Bites from coral snakes, *elapids* related to cobras, usually do not have any early symptoms, thus all bites are considered envenomated (coral snakes are not indigenous to California)
- Early notification of the receiving hospital is recommended