Gatorland Animal Services SOPs

Treatment of Canine Demodex Mange

Effective Date: 10/15/2021 **Revised:**

Responsible Staff:

- Vet techs

Purpose: This SOP provides vet techs with a step-by-step procedure for diagnosis and treatment of dogs with demodectic mange. Treatment consists of the extralabel use of a parasite product shown by clinical studies to be effective in eliminating demodex mites and resolving skin lesions in 2-3 months.

Canine Demodex Mange Facts

- Demodex Mange = skin disease caused by Demodex canis mite overpopulation of hair follicles. Overpopulation destroys hair follicles, causes intense inflammation in the skin, and secondary bacterial infections.
- Mite overpopulation and subsequent mange is associated with genetic predisposition, pregnancy and lactation, diabetes, Cushing's disease, hypothyroidism, and other underlying medical conditions
- Localized demodex mange = patchy alopecia, inflammation, and crusts on face or legs or trunk. May resolve without treatment or can progress to the generalized form
- Generalized demodex mange = alopecia, inflammation, and crusts distributed over entire body, including the feet. Secondary bacterial infections of the damaged skin. Can have intense pruritis from the inflammation and bacterial infection resulting in further skin trauma and bleeding wounds from scratching. Will not resolve without treatment.
- Canine demodex mange is **NOT CONTAGIOUS** to other animals or people.

Supplies Needed

- Disposable exam gloves
- Size 10 scalpel blade with dulled edge
- Mineral oil
- Glass microscope slides with cover slips
- Microscope with 10X objective
- Bravecto chewable tablets for adult dogs
- Nexgard chewable tablets for puppies
- Sharps box for scalpel blade disposal

Procedures

1. Wear clean exam gloves.
2. Open the animal's medical record in Chameleon.
3. Ensure that the animal's ID neckband and description match the medical record.
4. Weigh dog
5. Apply mineral oil to 2 to 3 areas with skin lesions to suffocate mites and bring them to the skin surface. Gently squeeze the skin under these areas to force the mites out of hair follicles.
6. Perform a deep skin scrape in the sites using the size 10 scalpel blade. Scrape deep enough to cause some bleeding.

7. Transfer the skin scrapings from the scalpel blade to a drop of mineral oil on a glass microscope slide. Place a cover slip on top of the oil.
8. Examine the entire area under the coverslip with a microscope with the 10X objective.
9. Repeat a deep skin scraping in other areas of the body if there are no adult or immature Demodex mites from the initial scrapings. The mites are typically present in large numbers in canine demodex mange.
10. Record an estimated number of adult and immature mites in the medical record for positive skin scrapes. Many dogs have mites that are too numerous to count and should be recorded as such. Refer to pictures of adult and immature Demodex mites posted by the microscope.
11. **Dogs ≥6 months old** (all permanent teeth): Administer one **Bravecto** chewable tablet to dogs with positive skin scrapes. Use the strength recommended for the body weight. Record in the medical record.
12. **Puppies <6 months old** (deciduous teeth): Administer one **Nexgard** chewable tablet to dogs with positive skin scrapes. Use the strength recommended for the body weight. Record in the medical record.
13. Start the dog on oral cephalexin at a dose of 15 mg/lb given twice daily with food for 30 days. Record in the medical record.
14. Consult with the veterinarian about prescribing the following additional medications
    a. Carprofen for inflammation
    b. Gabapentin for pain
    c. Triple antibiotic ophthalmic ointment for purulent ocular discharge and eye discomfort
    d. Otic solution containing antifungal, antibiotic, and anti-inflammatory medications for inflamed and pruritic ears
15. Demodex mange dogs should not stay in the shelter till resolution of the disease as this may take 2 to 3 months or longer in severe cases.
    a. Inform the shelter manager about demodex cases so they can arrange transfer to a rescue group or to a foster home for recovery.
16. Schedule recheck appointments at 2-week intervals for dogs in foster care to monitor progress
    a. Perform deep skin scrapes to monitor reduction in and elimination of demodex mites
    b. Continue preventive health care such as dewormings and heartworm prevention
17. Repeat Bravecto or Nexgard treatment
    a. Bravecto: repeat at 3 month intervals till resolution of infection
    b. Nexgard: repeat at monthly intervals till resolution of infection