Gatorland Animal Services SOPs

Feline Ringworm Diagnosis and Treatment

Effective Date: 11/1/2021 **Revised:**

Responsible Staff:

- Vet techs

Purpose: This SOP provides vet techs with a step-by-step procedure for diagnosis and treatment of cats infected by the dermatophyte fungus *Microsporum canis* (*M. canis*)

Feline Ringworm Facts

- Dermatophytosis or "ringworm" is a common skin disease in shelter cats caused by the dermatophyte fungus *Microsporum canis.*
- Ringworm is **CONTAGIOUS** and mainly spread by cat-cat contact.
- Ringworm is **ZOONOTIC.** Gloves must be worn when handling ringworm cats.
- Kittens are the most susceptible to *M. canis* infection. Ringworm outbreaks commonly occur in the summer and fall ("kitten season") when large numbers of kittens are admitted to shelters.
- Typical ringworm skin lesions include patchy areas of hairloss with erythema, scales, and crusts. The ringworm "hot spots" are the face, ears, and feet.
- Skin lesions typically appear within 7 to 14 days after infection.
- The best diagnostic approach is use of the Wood's Lamp exam, microscopic exam of plucked hairs from the lesions (trichogram), and toothbrush samples for DTM culture and the Ringworm PCR Panel (Idexx).
- Ringworm is a treatable and curable disease.
- Infected cats should be housed in Isolation for treatment. Staff must wear appropriate PPE in Isolation.
- The mainstay of treatment is lime sulfur dips twice weekly combined with Itrafungol daily for 21 days.
- Cats are considered cured when skin lesions have resolved and they have a negative DTM culture. The average time to cure is 4 to 6 weeks.

Supplies Needed

- Disposable exam gloves
- Tyvek suit and rubber boots (for Isolation)
- Wood's Lamp (plug-in with magnifier)
- Forceps for plucking hairs
- New clean toothbrushes
- Mineral oil
- Lactophenol dye
- Scotch tape
- Glass slides with cover slips and microscope for trichograms and scotch tape preps
- DTM culture plates
- Lime sulfur dip
- Sprayer for applying lime sulfur dip, sponges, shallow plastic tub
- Itrafungol suspension
- Oral dosing syringes

Procedures

1. All cats with skin lesions must be screened for ringworm (*M. canis*) infection
2. Wear exam gloves.
3. Perform a thorough Wood's Lamp exam of the entire body, including the skin lesions. Carefully screen the head, ears, and feet as these are infection hot spots. Record results in the cat's medical record.
4. Perform a trichogram
    a. Pluck hairs around the lesions
    b. Place in a drop of mineral oil on a glass slide and add a cover slip
    c. View hairs under the microscope using the 10X objective. Look for thickened shafts coated in ectothrix
    d. Record results in the medical record.
5. Perform toothbrush collection of hairs around the skin lesions.
    a. Submit the toothbrush to Idexx for the Ringworm PCR Panel (test code 3565).
    b. PCR results are usually available in 3 to 4 days.
6. Cats with negative Wood's Lamp and trichogram results can stay in place with no treatment pending PCR confirmation of no detectable *M. canis* infection.
7. Move cats with a positive Wood's Lamp and trichogram to Isolation for treatment pending PCR results.
8. Wear required PPE while working in the ringworm Isolation
9. Start lime sulfur dips (8 oz per gallon) following the Lime Sulfur Dip Protocol. Once the PCR test confirms *M. canis* infection, continue the dips twice weekly for 4 weeks.
10. Start Itrafungol at 5 mg/kg [4.5 mg/lb] body weight PO SID according to the Itrafungol Dosing Table. Once the PCR test confirms *M. canis* infection, continue Itrafungol SID for a total of 21 days.
11. Discontinue all treatments if the PCR results are negative for *M. canis*. Consult with veterinarian about moving the cat out of isolation.
12. Perform a Wood's Lamp exam weekly to monitor response to treatment.
13. **Treatment Week 4**: collect toothbrush samples for in-house DTM fungal culture.
    a. Follow the DTM culture incubation protocol
    b. Perform a scotch tape prep on colonies to verify *M. canis* macroconidia
    c. Incubate plates with no growth for 10 days before recording a negative result
14. Cats with a negative DTM culture and resolved skin lesions can be moved out of Isolation to adoption.
15. Cats with a positive DTM culture:
    a. Continue 2X weekly lime sulfur dips
    b. Perform toothbrush collection for DTM fungal culture once weekly
    c. Move cats out of Isolation when they have a negative DTM culture and resolved skin lesions.
16. Cats are typically "cured" in 4 to 6 weeks using this treatment protocol.