**Ringworm Treatment for Owned and Foster Animals**

*Updated 28 June 2021, LJ, LM; 1 Nov 2021 lime s dilution LJ; 29 Nov 2021 lime s dilution LJ*

**Which ringworm-positive animals can be treated at home?**

1. Ringworm fosters – strongly encouraged, especially if welfare concerns, kitten socialization needed, kittens in general.
   1. Can clear for foster after 1-2 weeks of treatment if improved clinically
2. Owned animals should be treated at home whenever possible
3. **Print out “Home Treatment for Ringworm” sheets below and provide to owner or foster parent. To be explained by a veterinarian or veterinary technician.**

**Procedure for owned animals**

1. Owned animals will be rechecked at intake if:
   1. An adopted animal was exposed to ringworm in the shelter (see Ringworm outbreak protocol). Use the script provided in the RW protocol folder.
   2. A treated and cleared animal tests positive on a culture that was pending at adoption (3+ colonies per plate)
   3. Adopters think they or the adopted animal have ringworm based on their doctor or vet’s opinion.
2. Diagnostics at intake:
   1. History: Ask how the diagnosis was made if a person is affected (presumed or confirmed)
   2. Thorough lesion check and Wood’s lamp
   3. *IF LESIONAL AND WOOD’S LAMP POSITIVE:*
      1. Positive, treatment needed
   4. *If NOT LESIONAL:*
      1. Counsel the FP or adopter – further testing and treatment at veterinarian’s discretion
   5. *IF LESIONAL AND WOOD’S LAMP NEGATIVE:*
      1. Submit culture if the animal has already been treated for ringworm
      2. Submit PCR if the animal has not been treated for ringworm
      3. Start treatment in interim at DVM discretion

**Treatment for owned and foster animals**

1. Medication – as detailed in the standard ringworm treatment protocol

**- AND -**

1. Lime Sulfur **compounded by Chiron[[1]](#footnote-1)** **(EDR lime sulfur is only for use on-site)** 
   1. Dilute ~1:16 (60mL/L or 15mL per 250mL cup measure) i.e. same as EDR product
   2. Provide syringe and show owner or FP how to measure
   3. Treatment is as per standard THS protocol
   4. WARN OWNERS AND FOSTER PARENTS THE LIME SULFUR MAY STAIN – REMOVE JEWELLERY ESP. RINGS BEFORE USING, ONLY USE IN EASILY CLEANABLE AREA
   5. Warn them about the smell and presence of sulfur
2. ALTERNATIVES TO LIME SULFUR FOR TOPICAL TREATMENT
   1. If owner/FP allergic to sulfur or some other good reason, and use Malaseb shampoo (CHX 2%, miconazole 2%) (see main protocol for alternative if not available)
   2. Not a first choice – takes longer, harder to shampoo a cat (rinsing required), harder to shampoo face, no residual action on coat so cure takes longer

**Follow-up diagnostics**

1)Weekly cultures until cleared as negative based on protocol.

**When can foster parents foster again after a ringworm foster?**

1. To foster **ringworm kittens**: Foster parent should submit an environmental culture after the current group leaves but can re-foster ringworm-positive kittens after thoroughly cleaning and disinfecting the area (before the culture result is back)
2. To foster **non-ringworm kittens**: After the first group of ringworm kittens, foster parents will be required to submit an environmental culture and wait for a negative result before fostering negative kittens.

FOR HOW TO DO an environmental culture, **see instruction page below**

**Instructions for Home treatment of Ringworm**

**NOTE:** These instructions use bleach as the disinfecting agent. See instructions for how to mix and usem below. If Accel is beng used instead, ONLY Accel must be used. NEVER use bleach and Accel in the same area as the mixture can create gas that is harmful to the lungs.

**1. What is ringworm?**

Ringworm is a fungal infection of the skin that can affect animals with hair or fur, and can be transmitted to humans and other animals. It is a “nuisance” infection rather than a serious medical problem. It does not make people or animals sick. Ringworm is a curable disease. The very young, elderly, immunocompromised or people with pre-existing skin problems may be at greater risk of contracting ringworm. For more information, please refer to www.veterinary partner.vin.com. Type “ringworm” in the search field.

**2. Treatment**

Ringworm is treated with a combination of oral antifungal medication, dipping and environmental cleaning. **All three components must be diligently carried out as it is considered a “chain” of treatment – if one link is weak, the chain will collapse and the ringworm will not be cured.**

Please use the treatment sheet provided to keep track and for our records.

**How long will treatment take?**

In most cases, 1-3 weeks in the home (after 1-2 weeks of treatment in the shelter). It can be longer, especially in young kittens.

**Timeline for home treatment:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Phase 1:**  **Initial treatment (usually in shelter)** | **Phase 2:**  **After 1-2 weeks of treatment** |  |
| **Typical Time To Cure** | 2-5 weeks | 1-3 weeks |  |
| **Medication** | Daily or 7 days on, 7 days off | Daily or 7 days on, 7 days off |  |
| **Dipping or shampooing** | Twice a week | Twice a week |  |
| **Cleaning** | * **Daily:** Remove hair, debris; laundry, soak toys   **Twice weekly:** Thorough cleaning | **Daily:** Remove hair, debris as needed  **Twice weekly:** Thorough cleaning  **Weekly:** Laundry, soak toys |  |
| **Personal protective equipment (PPE)** | Gloves, gown, booties, hairnet recommended | Full PPE may not be needed; gown and gloves recommended. |  |
| **Risk of infection** | Low - but is at its highest in the first week | Very low |  |

**Medications**

**1. Oral medication:**

Give the oral medication exactly as specified on the label. You can give with food or disguise in food if this is easier, but then you must make sure it is eaten.

**2. Dipping:**

Dips are done twice a week until the animal is ringworm negative.

**WARNING: Lime sulfur contains sulfur so should not be used by anyone with a known sensitivity to sulfur. It stains white fabric and gold jewellery so please make sure it is not used around these objects.**

Mix up the **Lime Sulfur** concentrate with lukewarm water as per the label and instructions from the technician.

Place the cat in a sink or a large plastic tub. Use a [clean!] garden rose sprayer or a sponge/rag to wet the body completely, including the feet and tail. You must **soak the cat to the skin**. Then gently sponge on dip all over the face and ears. **The face and ears are the most important** and tend to be the most difficult to resolve, so make sure the whole face is wet, including the inside surfaces of the ears. Avoid getting dip in the eyes. Do not rinse off the dip. Do not towel dry. Let the animal “drip dry” in a warm crate or room.

If there is unused dip left over you can store it in a safe place and use it for the next dip.

Rinse hose and nozzle of sprayer with water after each use, otherwise sprayer will get blocked.

**3. Environmental cleaning:**

It’s best to keep the animal in an easy-to-clean area, such as a bathroom, at least until the first negative culture result and ideally for the whole treatment period.

**See “Timeline for Home Treatment” Table above for frequency of cleaning.**

**To remove hair and debris:** Use broom, mop, vacuum or Swiffer. Must be done before disinfecting. Soak or spray brooms and mops with fresh bleach solution after using. Discard Swiffer pads and spray the Swiffer with bleach. Empty vacuum bags regularly and spray/wipe with bleach. Vacuum filters must be replaced when the kittens go back to the shelter.

**Cleaning** **and Disinfection:** Clean any caked-on material from surfaces or objects with bleach first. Then disinfect all non-porous surfaces (floors, walls, counter-tops, windowsills, carriers, etc) with bleach. Apply to surface using a sprayer or clean sponge/cloth and allow to stand for at least 5 minutes.

**Laundry:** Wash bedding twice in a washing machine on the hottest setting. Discard (or do not use) scratching posts or cat trees since they can harbor ringworm spores and are not easily cleaned.

**Toys:** Soak toys at least 5 minutes in bleach solution.

When discarding any contaminated objects in the garbage, place securely in a black garbage bag and tie off, instead of placing directly in the garbage bin.

**4. Weekly hair sample collection (can be done at THS or in home):**

Using a new packaged toothbrush, brush the entire hair coat thoroughly until the bristles are full of hair or the cat has been combed for at least 1 minute. If areas of hair loss are present, **brush the normal part of the body first and the area of hair loss last.**

Once the sample has been collected, place in the ringworm sampling envelope or in a bag and seal with tape if needed. Place inside a lab request Ziploc bag. Keep toothbrush samples at room temperature and protect them from heat extremes, especially high temperatures.

**Returning to shelter**

Prior to returning the foster animal back to the shelter, please dip the animal one final time and then place it in a CLEAN carrier in order to bring it in. Placing the animal back in its original carrier will increase the risk of re-infection. **The final dip should be done within 24 hours of returning to the shelter.**

**Congratulate yourself**

Congratulate yourself for doing such a wonderful service for an animal and helping to minimize their stay in the shelter. Thank you from all of us!

**Environmental Culture after Ringworm Fosters**

Environmental cultures are done to confirm that an area or home has been effectively disinfected after contamination with ringworm spores.

This is essential to ensure that foster homes are safe for new animals and do not pose a risk to the whole shelter. **Fostering new animals will not be possible until we have negative cultures.**

Only culture when the affected animals are cured of ringworm or have left the environment.

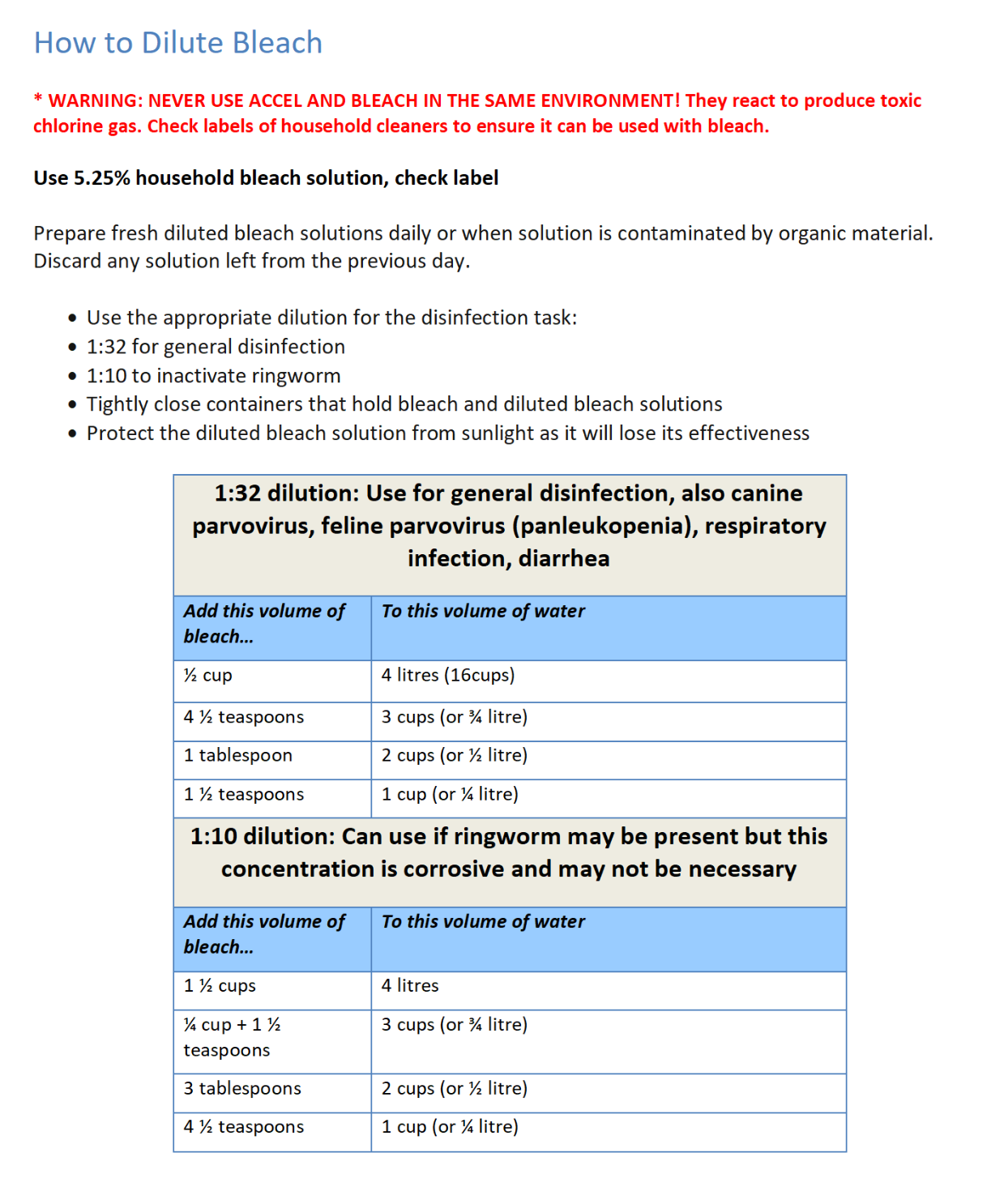
CULTURES SHOULD ONLY BE DONE AFTER THOROUGH CLEANING AND DISINFECTION of all the areas where affected animals have been.

**HOW TO CULTURE: GENERAL**

* Take the samples as soon as everything is completely dry after cleaning.
* Focus on places where the animals have spent the most time.
* You should focus on the dirtiest areas, grimy corners, dusty spots, crevices of sofas where animals have been lying and shedding hair - anywhere that spores could be. Remember, nobody is judging your housekeeping, we are trying to make sure the environment is safe for new animals - so if there are spores, we want to find them. Therefore focus on the areas most likely to be contaminated.

**HOW TO CULTURE: SPECIFIC**

* Wear gloves or wash hands very well and dry thoroughly
* Cut clean Swiffer pads into approx. 5x5cm squares
* Wipe down several areas of the room(s) until the Swiffer pad is visibly soiled with dust or hair
* You can use just one sample if your home is much cleaner than mine (!) or start a new one when the first one is very soiled
* Place each square in a separate Ziploc bag and label with the foster parent name, room information and date
* Keep at room temperature. Drop them off at the shelter within a day or two - intake will pass them on to the lab.

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**Home treatment checklist for RVTs/foster agent**

**Provide to owner or foster parent:**

|  |  |
| --- | --- |
|  | **Check** |
| Terbinafine or Sporanox |  |
| Lime sulfur |  |
| Syringe to measure lime sulfur |  |
| If using bleach, provide instruction page for how to mix and use |  |
| If Accel is preferred to bleach, provide in spray bottles or other sealed container, ensure will be sufficient for several weeks |  |
| Sealed toothbrushes, culture envelopes, IDEXX bags, lab rec forms (if culturing at home) |  |
| Home treatment sheets (provide standard orange treatment sheets) |  |
| If needed, instruction page for how to do a Swiffer culture |  |
| **Extra-label treatment form for Terbinafine, Itraconazole (owned cats only) or obtain and document verbal consent** |  |

1. As of Nov 2021, it is labelled as 23% lime sulfur and 23% calcium polysulfite – but it is actually 79.9% lime sulfur. [↑](#footnote-ref-1)