



Calicivirus Protocol Handbook

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Calicivirus FAQ

What is Feline Calicivirus (FCV)?

Feline calicivirus is a common respiratory virus in cats. The virus attacks the respiratory tract (lungs and nasal passages), the mouth and esophagus (causing ulceration), and in severe cases, the intestines & musculoskeletal system. It is highly contagious to unvaccinated cats, and is commonly seen in shelters.

This infection can occur in a cat of any age, but young kittens older than six weeks and unvaccinated cats have been found to be most susceptible.

What are the symptoms of calicivirus?

- Loss of appetite
- Eye discharge
- Nasal discharge
- Development of ulcers on tongue, hard palate, tip of nose, lips or around claws
- Pneumonia
- Arthritis (inflammation of joints)
- Lameness / limping
- Fever
- Bleeding from various sites

How is calicivirus spread?

Feline calicivirus is shed primarily in saliva and oculonasal discharge, but can be found in all body secretions during acute disease. Although FCV can be spread by droplets sneezed out to a distance of ~ 4 feet, true aerosol transmission of FCV is unlikely.

In addition to direct contact, fomite transmission is the primary means of spread for FCV. The importance of this and the ease with which it occurs is hard to over-state. As well as potentially being found in all bodily excretions, the virus is very likely present on hair, due to both self grooming and consequent saliva on hair, and virus clustering at the base of hair follicles.

Fomite transmission refers to the transmission of infectious diseases by objects. (Your hands, clothes, shoes, bowls, bedding, the door knob, pens, laminate, cage handle, cat carrier, etc.)

Procedure for Cat Staff when Calicivirus is suspected

If you think you have found calicivirus in a cat: Alert, Contain, Do Not Spread

- 1.) Leave the cat where she is. Do not move her.
- 2.) Consider yourself now contaminated by virus. Touching as few objects as possible, go to a sink and wash your hands with soap and water. Now spray down the faucet with Trifectant, the exterior of your clothes and body, and shoes.
- 3.) Go back to the cat's living quarters and place a sign, if needed, to ensure no one else comes into contact with this cat.
- 4.) Find the Cat MOD and alert her to the possible calici. Do not handle other cats or go into to any other cat areas until you hear from the Cat MOD.

Procedure for Cat MOD when Calicivirus is suspected

Alert, Isolate, Disinfect

- 1.) If you believe the cat may have calicivirus, leave the cat where she is. Do not move her.
- 2.) If you have examined the cat, consider yourself now contaminated by deadly virus. Touching as few objects as possible, make your way to a sink and wash your hands with soap and water. Now spray down the faucet with Trifectant, the exterior of your clothes, body, and shoes.
- 3.) Find the TLAC veterinarian or clinic manager and alert them to the situation. Do not handle other cats or go into to any other cat areas until you hear from the veterinarian or clinic manager on diagnosis.
- 4.) If the clinic diagnoses calici, alert the original reporting cat staff that they are contaminated and must wash and change into replacement clothing, wash or tie up long hair, and disinfect footwear.
- 5.) Acquire the following items first then head to the housing unit of the diagnosed cat: Three trash bags, gloves, paper towels, cleaner, trifectant, cat carrier, 1 large clean towel.
- 6.) Put the cat into a carrier; put the carrier on the floor in the immediate area. Cover the cat carrier a clean towel. Strip the condo down, placing all porous items into a trash bag. (This means we throw out all bedding, toys, and food dishes. Only stainless steel litter boxes and Kuranda beds can be saved.) Litter box and Kuranda bed go into the third plastic bag.
- 7.) Clean the kennel with detergent and paper towels. Used paper towels to go inside same calici trash bag. Double bag the trash and spray the bag exterior with disinfectant. Bag the stainless items and spray the bag exterior with disinfectant.
- 8.) Disinfect the kennel, inside and out, using Trifectant or 1:32 bleach. Spray the kennel down completely and let air dry. Kennel is not to be touched in this time. While you are gone in the next step, a cat staff member is now to disinfect the floor, surrounding areas, and re-spray the kennel once the first application has dried. Any items used for clean up (brooms, dust pans) must be submersed in a bleach bath now, or thrown out.
- 9.) Touching as few items as possible, take the cat to the calici ISO area and set her up. Remove your contaminated clothing and footwear and change into your replacement set. Your clothing must be bagged up and taken home for cleaning.
- 10.) Return to the cat's original location and disinfect any items you may have touched anywhere along your route, including door handles, faucets, hand sanitizer bottles, spray bottles, keyboards, clipboards, pens. Take the bagged trash to the dumpster. Take the bagged Kuranda/litterbox to a bleach bath where they can be submerged for 10 minutes. Ensure the original area has been disinfected, including floor mopped and any contaminated areas cleaned. Ensure the original reporting counselor has been decontaminated.

Calici Room Rules

Protective clothing required in the Calici ISO area is:

- Gown
- Gloves
- Booties (to be put on as entering, then taken off when exiting the room)

Any person medicating or cleaning calici cats should wash hands for 20 seconds between each animal. Hand sanitizer and trifectant alone are not enough.

Minimal handling is important. Avoid over-handling and holding cats against clothing at all times. Even if a robe is worn. No snuggling.

Items used in the calici room are to remain there and thrown out or disinfected at the end of their use.

Items to be double bagged and washed:

- All animal bedding
- Food
- Litter
- Toys
- Dishes
- Sponges
- Open paper towel rolls
- Plastic litter boxes
- Litter scoops.

Items to be disinfected:

- Stainless litter pans
- Brooms
- Mops
- Hand soap
- Hand sanitizer

These items must be able to be submerged in a bleach bath for 10 minutes and be non-porous.

If you have been in the calici room, you should avoid entering the cattery or FeLV unless absolutely necessary.

Calici Exposure

- Cats who have been exposed to a cat with calicivirus will be considered "Exposed."
- The exposure period is seven days.
- These cats should be checked for calici symptoms daily and remain isolated from other cats.
- After 7 days, they should be thoroughly examined for calici symptoms. If they are free from calici symptoms and URI symptoms, they are considered clear.

Calici Clearance

The APA! Medical Clinic is responsible for clearing cats diagnosed with calicivirus. The clinic will alert Cat Staff when a cat is able to be released from Calici ISO.

Calicivirus Protocol for Cats and Kittens

Calicivirus can have multiple forms:

1. **Respiratory tract form** – Usually upper (but can be lower) respiratory tract. Eye discharge, nasal discharge, fever, dehydration, ulcers on tongue, roof of mouth, or nose. COMMON and occurs in cats and kittens that are not vaccinated or newly vaccinated.
2. **Joint form** – Fever, joint swelling, lameness, possible oral ulcers (usually kittens)
3. **Mutant Virulent form** – fever, possible edema of face/legs, URI signs, trouble breathing, blood from nose, ulcers on face, pneumonia, death. NOT COMMON and occurs in cats that are well vaccinated.

Cats with suspected Calicivirus should be moved to isolation immediately – discuss placement with vet if no area already allocated for Calicivirus. If in a group (intake, communal housing) separate into two groups:

1. First Group: Those with clinical signs
 - a. To Isolation
 - i. Clean original cage/area/supplies with either bleach at 1:32 dilution or Trifectant (NOT BOTH) and let sit at least 10 minutes. Clean cage 3 times before moving in new cats or kittens.
 - ii. WEAR GLOVES/GOWN WHEN HANDLING/MEDICATING
 - b. Medication:
 - i. Azithromycin 10 mg/kg PO SID x 5 days then q 3 days for 3 – 6 doses
 - ii. Sucralfate, 1 gram tablets IN WATER SLURRY:
 1. If less than 5 pounds: $\frac{1}{4}$ T PO BID x 7 days
 2. If greater than 5 pounds: $\frac{1}{2}$ T PO BID x 7 days
 - iii. If ocular discharge:
 1. Gent drops, 1 drop BID - TID x 5 days
 2. If no improvement or worsening towards end of course discuss with vet.
 - iv. If not eating:
 1. 24 hours – consider bup SR (VET) and offer buffet of wet, stinky warmed foods
 2. 36 hours – mirtazapine (3.75 mg po q once)
 3. 48 hours –
 - a. fluid support BID x 3 days (can discontinue if starts eating:
 - b. 10 mLs of fluid SQ/per pound
 4. Ex: 4 pound kitten gets $4 \times 10 = 40$ mLs BID
 - a. Syringe feeding if cat will tolerate it (BID – TID)
 - v. If congested – Nebulize BID – TID
 - c. Recheck every 3-5 days with vet – do not let medications run out unless directed
 - d. Check mouth every 1-2 days and monitor the ulcers. Once clinical signs (including ulcers) have resolved/completely healed monitor cat for recurrence.
 - e. No clinical signs for 7 days – cat can move out of isolation. If possible, should be “No Mix” with rest of population.
2. Second group: DIRECTLY exposed, no clinical signs. Direct exposure considered if shared cage/housing for past 5 days.

- a. To isolation if no other options, but best if kept in separate room from the clinical calici cats AND from any other cats.
- b. Cleaning:
 - i. Clean cage/area with either bleach at 1:32 dilution OR Trifectant
 - ii. WEAR GLOVES/GOWN WHEN HANDLING/MEDICATING
- c. Monitor these for progression of signs or development of ulcers for 7 days, checking cats for signs every day. If no signs develop than it's okay to move out of isolation, ideally would be moved into "no mix" area.
- d. If URI develops but NO ulcers treat using the URI protocol and keep cat in same location.
- e. If ulcers develop – move to calicivirus ward and treat per protocol.

Kittens (less than 4 months of age) with suspected Calicivirus should be moved to isolation immediately- – discuss placement with vet if no area already allocated for Calicivirus with littermates or those sharing a cage.

- 1. Move To Isolation
 - a. Clean original cage/area/supplies with either bleach at 1:32 dilution or Trifectant (NOT BOTH) and let sit at least 10 minutes. Clean cage 3 times before moving in new cats or kittens.
 - b. WEAR GLOVES/GOWN WHEN HANDLING/MEDICATING
- 2. Medication:
 - a. Azithromycin 10 mg/kg (20mg/1lb) PO SID x 7 days then q 3 days for 3 – 6 doses
 - b. Sucralfate, 1/4 gram tablets IN WATER SLURRY:
 - i. If less than 1 pound: ¼ of mixture PO BID x 7 days
 - ii. If greater than 1 pound: ½ of mixture PO BID x 7 days
 - c. If ocular discharge:
 - i. Gent drops OU BID – TID x 5 days
 - ii. If no improvement or worsening towards end of course discuss with vet.
 - d. If not eating:
 - i. MUST force feed caloric requirements just like in the nursery based on weight.
 - ii. If in a lot of pain, consider bup SR (VET) and offer buffet of wet, stinky warmed foods
 - iii. fluid support plus Pen G SID x 3 days (can discontinue if starts eating and switch to oral meds):
 - iv. Id congested nebulize BID-TID
 - v. 5. Recheck every 2-3 days with vet – do not let medications run out unless directed
 - vi. 6. Check mouth every 1-2 days and monitor the ulcers. Once clinical signs (including ulcers) have resolved/completely healed monitor cat for recurrence. No clinical signs for two weeks – cat can move out of isolation. If possible, should be "No Mix" with rest of population.

Calicivirus in Ringworm Cats

The treatment and clearance time for both ringworm and calicivirus can be lengthy, so for cats that are diagnosed with both calicivirus AND ringworm – we do not want to delay treatment for either disease if possible to make cats available as soon as able. However, we must monitor them closely to make sure improving and tolerating all treatments.

- 1) If a cat/kitten has calicivirus and ringworm (not just exposure):
 - a. Monitor how much cat/kitten is eating everyday
 - b. If cat/kitten is eating ½ or more of the anticipated amount of food for size/and, then okay to proceed with standard ringworm treatment (terbinafine and full lime dips).
 - c. For days that cat/kitten does not eat ½ or more of anticipated amount of food, withhold treatments that would fall on those days (both terbinafine and lime dips if falls on lime dip day).
 - d. Any questions or concerns about individual cats – contact clinic.

- 2) If a cat/kitten is calici-exposed and has ringworm
 - a. Follow same protocol EXCEPT these cats will receive spot treatment instead of full dips (to avoid potentially spreading calicivirus by sharing lime dip container)
 - b. Dip non-calici exposed first and then pour that used dip into Dixie cups (one per exposed cat) and use that with disposable cotton balls to spot treat. Wash hands between each cat.

Calici Foster Protocol

Calici cats and kittens can go to foster homes where resident cats are **over 1 yr** and have had 2 or more FVRCP vaccines. Foster must provide vigilant care and cleaning and keep foster cat/s quarantined from resident cats.

A foster home which fosters calici cat/s will be considered a “Calici House” for **14 days** following the calici foster, in which the home is only allowed to foster cat/s with calici (similar to Panleuk or Parvo homes.)

The foster home should be thoroughly disinfected after each calici foster placement. Housing of these cat/s in a bathroom is recommended so the floor and surfaces can be disinfected. All surfaces should be cleaned, then disinfected with a 1:32 bleach solution or trifectant and allowed to remain on the surface for ten minutes, or air dry. Contaminated bedding or linens can be laundered by washing the load twice with common detergent and bleach. If carpet has been exposed, cleaning twice with a household carpet cleaning machine is recommended.

Azithromycin Dosing For Calici Cats

40 MG/ML, 10 MG/KG PO SID X 7 DAYS THEN Q 3 DAYS X 3 DOSES

Weight in Pounds	Dose of Azithromycin (in mLs)
1.5	0.20
2.0	0.25
2.5	0.30
3.0	0.35
3.5	0.40
4.0	0.45
4.5	0.50
5.0	0.55
5.5	0.60
6.0	0.70
6.5	0.75
7.0	0.80
7.5	0.85
8.0	0.90
8.5	0.95
9.0	1.0
9.5	1.05
10.0	1.1
10.5	1.2
11.0	1.25
11.5	1.3
12.0	1.35
12.5	1.4
13.0	1.45
13.5	1.5
14.0	1.55
14.5	1.6
15.0	1.65