

Lantus (Glargine) Insulin 12 hrs give 4 units if well fed

Potassium Gluconate Gel 1 tsp orally 2 x day

Maropitant 16 mg tablets ½ tablet at MIDNIGHT And you are correct, it should not be used more than 5 days at a time. Administer Cerenia tablets orally at a minimum dose of 3.6mg/lb body weight once daily for up to two consecutive days. What are the side effects of Cerenia for cats? Use with caution in cats and dogs with hepatic dysfunction.

The following adverse events reported for cats are listed in decreasing order of reporting frequency for CERENIA Injectable Solution: Depression/lethargy, anorexia, hypersalivation, pain/vocalization upon injection, dyspnea, ataxia, fever, recumbency, vomiting, panting, convulsion, and muscle tremor.

Finally, would the accepted every-3-day dosing in cats give the best results with the fewest side effects?



Mirataz

CONTRAINDICATIONS: Mirataz™ is contraindicated in cats with a known hypersensitivity to mirtazapine or to any of the excipients.

Mirataz™ should not be given in combination, or within 14 days before or after treatment with a monoamine oxidase inhibitor (MAOI) [e.g. selegiline hydrochloride (L-deprenyl), amitraz], as there may be an increased risk of serotonin syndrome.

* One cat with renal insufficiency was reported with a serious adverse reaction of acute renal failure, hematuria (Blood in the urine) , and pyuria (Pyuria in Cats. Pyuria is a medical condition that can be associated with any pathologic process (infectious or noninfectious) that causes cellular injury or death, with tissue damage provoking oozing inflammation. Pyuria is characterized by evidence of increased white and red blood cells and protein in the urine.) at the Week 2 visit. The cat was enrolled with a history of chronic kidney disease. Euthanasia was elected and necropsy revealed hypertrophic cardiomyopathy, bilateral parathyroid hyperplasia, and mild to moderate renal disease.

** At Week 2, blood urea nitrogen (BUN) values were significantly higher in the Mirataz™ group compared to the vehicle control group (p<0.10). The BUN in the Mirataz™ group was 43.60 mg/dL (reference range 16-37 mg/dL) compared to 36.05 mg/dL in the vehicle control group.

September 21, 2018

Dear Veterinarian:

The U.S. Food and Drug Administration (FDA) recently approved Mirataz (mirtazapine transdermal ointment), a new animal drug used to manage

undesired weight loss in cats. Mirataz is the first transdermal product to receive FDA approval for use in cats. FDA-approved drugs have been demonstrated to be safe and effective for their intended use and manufactured in a consistent manner.

FDA wants to remind you of the benefits of using FDA-approved drugs in your clinic and inform you of the bioavailability concerns associated with mirtazapine formulations compounded from bulk drug substances. Manufactured for Kindred Biosciences Inc., Mirataz is a prescription animal drug that is intended to be applied topically on the inner pinna of the cat's ear once daily for 14 days. Each 5 g tube contains 100 mg (0.1 g) of mirtazapine. Please refer to the Freedom of Information Summary and package insert for Mirataz before using it.

Because Mirataz is administered transdermally, gloves should be worn when handling the drug to prevent accidental topical exposure to humans. After application, people should dispose of used gloves and wash hands with soap and water. Appropriate safety measures should be taken so that people or other animals in the household do not come in contact with the treated cat for at least two hours.

Mirataz must be prescribed by a licensed veterinarian because a trained professional is needed to correctly diagnose the cause of weight loss in cats and determine whether Mirataz is an appropriate treatment.

Benefits of FDA Approval

FDA rigorously evaluates an animal drug before determining whether to issue an approval. As part of the approval process, the drug company must prove to FDA that:

- The drug is safe and effective for a specific use in a specific animal species;
- The manufacturing process is adequate to preserve the drug's identity, strength, quality, and purity from lot to lot for a consistent product; and
- The drug's labeling is truthful and not misleading.

FDA's role does not stop after the agency approves an animal drug. As long as the drug company markets the animal drug, the agency continues to monitor:

- The drug's safety and effectiveness. Sometimes, the agency's post-approval monitoring uncovers safety and effectiveness issues that were unknown at the time of approval;
- The manufacturing process to ensure quality and consistency are maintained;
- The drug's labeling to make sure the information remains truthful and not misleading; and
- The company's marketing communications related to the drug to make sure the information is truthful and not misleading.

Adverse Drug Events and Drug Interactions Associated with Mirataz

Mirataz is contraindicated in cats with a known hypersensitivity to mirtazapine or to any of the excipients. Mirataz should not be given in combination, or within 14 days before or after treatment with a monoamine oxidase inhibitor (MAOI) [e.g. selegiline hydrochloride (L-deprenyl), amitraz], as there may be an increased risk of serotonin syndrome.

Upon discontinuation of Mirataz monitor the cat's food intake. The cat should be re-evaluated if food intake diminishes >75% for several days.

In the clinical field study, 115 cats received 2 mg Mirataz every day for 14 days. The most common adverse reactions included application site reactions (erythema, dermatitis or irritation, residue, crust/scabs), behavioral abnormalities (vocalization and hyperactivity), and vomiting. Please see Table II.3 of the Freedom of Information Summary for more information.

Safety and Effectiveness of Mirataz Compared to Compounded Transdermal Forms of Mirtazapine

Animal drugs compounded from bulk drug substances are not FDA-approved drugs, nor are they FDA-approved generic drugs, therefore their safety and effectiveness has not been established.

Unlike FDA-approved Mirataz, compounded formulations of transdermal mirtazapine have not been reviewed by FDA for safety or effectiveness, and may vary in quality and potency.

Mirataz is formulated for transdermal absorption. The absorption and effectiveness of this product have been demonstrated. In contrast, like many compounded transdermal drugs, the absorption and bioavailability of compounded transdermal mirtazapine are unknown and may be inadequate or variable, making treatment outcomes unpredictable.

Pharmacokinetic data in healthy cats demonstrated that Mirataz was well absorbed after topical administration to the cat's inner pinna as directed. Maximum plasma concentrations were achieved within 2 - 6 hours after administration. The mean plasma half-life was long, ranging from 11.2 hours in cats who were allowed to rub their ears and lick their paws (both oral and transdermal absorption) to 20.7 hours in cats wearing Elizabethan collars (transdermal absorption only).

The effectiveness of Mirataz was demonstrated in one adequate and well-controlled clinical field study. Mirataz was administered to 115 client-owned cats and a vehicle control was administered to another 115 client-owned cats. All cats had a history of weight loss. The mean percent body weight increase at Week 2 compared to Day 1 was 3.94% in the Mirataz group compared to 0.41% in the vehicle control group and showed statistical significance. This clinical field study demonstrated that the topical administration of Mirataz to the inner pinna of the ear at a dose of 2 mg/cat for 14 days was effective for the management of weight loss in cats.

FDA's Center for Veterinary Medicine (CVM) is committed to promoting and protecting animal health by ensuring safe and effective drugs are available for animals. For more information, please contact CVM's Education & Outreach Staff at 240-402-7002 or AskCVM@fda.hhs.gov.

Sincerely,

FDA's Center for Veterinary Medicine



Mirtazapine 15 mg tablets_ transdermal

formulation of mirtazapine 1/8th tablet orally as needed (CUT, cut and cut) as needed to stimulate appatite Mirtazapine, commonly known as **Remeron®, Soltab®, Zispin, Avanza, Axit**, is used as an appetite stimulant and anti-nausea drug for dogs and cat s. Mirtazapine can be used in combination with other anti-vomiting drugs. Remeron.

Remeron (mirtazapine) is a tetracyclic antidepressant used to treat depression. Remeron is available in generic form (mirtazapine). Remeron has been used to treat nausea, anxiety, post traumatic stress syndrome, and used as an appetite stimulant. **One hour before feeding dinner.** Problems Treatment tenets of pancreatitis in cats

Sprinkle some nutritional yeast powder onto their food; it's got a nutty, cheesy flavor that many cats go absolutely crazy for. An added bonus is that it's rich in B vitamins! (Don't confuse brewer's yeast with nutritional yeast — they're very nearly the same thing, but not exactly. Brewer's yeast often has a bitter taste, which many cats may not like.) (Try the yeast product S with some yeast)

Metronidazole sus 50 mg/l .8 ml orally 2 x day after SHAKE WELL DO NOT REFRIDGERATE What is metronidazole used to treat in cats? Metronidazole is a prescription antibiotic used in dogs and cats to treat various conditions such as inflammatory bowel disease, nonspecific diarrhea disorders, infections caused by Giardia, and periodontal disease. COMMON BRAND(S): Flagyl

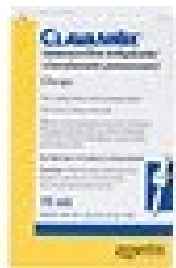
Amoxicillin is in a class of antibiotics called "aminopenicillins," and is closely related to penicillin and Augmentin. It kills bacteria by preventing their ability to put together their cell wall. Amoxicillin is FDA-approved for use in cats, for upper respiratory infections caused by three types of bacteria; urinary tract infections caused by four types of bacteria; gastrointestinal infections caused by one type of bacteria; and skin infections caused by four types of bacteria. NO EFFECT VIRUS AND FUNGI.(Geep tooth removal root infection, MEEP while at MedVet)



1. Fluid replacement and electrolyte correction, but just remember **not to choose lactated Ringer's** solution if there is evidence of liver pathology or malfunction.

Regarding electrolyte imbalances, hypokalemia is common in cats with pancreatitis. Watch for it and correct it with **appropriate potassium supplementation in the intravenous fluids**. Next up, calcium. The prognosis for cats with pancreatitis is directly related to the severity and duration of hypocalcemia. "Hypocalcemia needs to be corrected with calcium gluconate in the intravenous fluids during the first 12 to 24 hours," says Colleran.

Vitamin B12. Even if you don't measure cobalamin and folate concentrations, Colleran recommends that all cats with pancreatitis receive injectable B12 treatment. Cyproheptadine can also cause drowsiness. It works by blocking serotonin in the brain, leading the cat to desire more food. The drug also acts as an antihistamine. B-vitamins are water-soluble and CRF cats are "polyuric" and make a lot of urine that dissolves and washes away the water soluble B-vitamins.



JAW swell up Friday full size Monday left side in 3 days in to Oak Creek 2/18/2019 Kitten weigh 9.1 and temp as well as swelling but no known source. Drain some puss but not discover a source for the infection. Saccharomyces boulardii, and B-12 and fortiflora added starting on Sat -about 1 day left on med before runs out, with warmed liquids. Meep responded with only slight inflammation within 3 days so must be one of the covered bacteria in the abscess.

Work and warm rub wash and throat line and no seepage by Thursday. Call vet, anti biotics stop on Sat night or Sun AM bring in blood work exam with another cat Monday (Monza?) Start Fortiflora, B-12 and S

Clavamox (Amoxicillin / Clavulanate Potassium) Oral Suspension for Dogs & Cats, 15-mL Clavamox: a combination antibiotic drug consisting of Amoxicillin and Clavulanate that

work together to treat bacterial infections in cats and dogs. Broad-spectrum antibiotic for prescribed by veterinarians for the treatment of infections, like those found in the **urinary tract**. This medication can also help treat **infected wounds and abscesses**, and comes in an easy-to-administer liquid form—simply disguise it in normal meals. (Meepus neck abscess 2/2018 responded 3 days give with shaved B-12, fortiflora check as not that effective on Meepus 2017, Geep 2017 re post antibiotic gut reactions. Investigate additional probiotics and S. Yeast based to re colonize after treatment with some B 12 instead of ear

Antibiotics. Be aware that using antibiotics for treating pancreatitis is controversial. If you are going to use them, Colleran says cephalosporins are a good choice, as is amoxicillin (with or without enrofloxacin). **Cephalexin** for Dogs and Cats. A broad range antibiotic, Cephalexin is used to treat many common bacterial infections such as urinary tract, skin and soft tissue, bone and respiratory tract infections in dogs and cats. **They inhibit enzymes in the cell wall of susceptible bacteria, disrupting cell synthesis.** **There are 5 generations of cephalosporins (see table Cephalosporins).**

Treatment of Clostridium perfringens in Cats.

Any number of antibiotics can be used to remove Clostridium perfringens. Some choices include: ampicillin, amoxicillin, metronidazole, erythromycin, and tylosin. Tetracycline was formerly on the list but too much resistance has developed.

All activities will be restricted during your cat's recovery time and a diet high in fiber will likely be advised. High fiber diets reduce the number of Clostridial bacteria, while acidifying the inner intestine, which will reduce the growth of intestinal bacteria.

Tylosin strong anti-inflammatory properties comes from its manufacture from natural bacteria. The drug works by interfering with the protein-manufacturing abilities of other bacteria, and it does this while not impacting the patient's own ability to manufacture protein. Because Tylosin is a bacteriostatic antibiotic, it doesn't kill off the bacteria in the patient's bowel, it simply prevents it from growing and reproducing. By limiting the growth of the bacteria, the drug helps the patient to manage the infection using his or her own immune system.

Tylosin works by inhibiting the infecting bacteria from synthesizing protein and preventing the reproduction of more bacteria. **Tylosin is very similar to another antibiotic, erythromycin, and cross resistance has been shown.** Tylosin is a bacteriostatic antibiotic, meaning that it does not actually kill the bacteria, but prevents it from growing and reproducing, allowing your pet to cope with the infection more easily using its own defenses.

Bifidobacterium lactis.
Enterococcus faecium.
Lactobacillus acidophilus.

Lactobacillus plantarum.
Bifidobacterium longum.
Lactobacillus reuteri.

The addition of soluble fiber, such as psyllium, to the diets of cats with inflammatory colitis may be helpful, and supplementation with folate or vitamin B12 should be provided if an affected cat is deficient in these B vitamins. The bland diet I prefer is a grain-free menu of cooked ground turkey and canned pumpkin (pure pumpkin, not the filling used in pies) or cooked sweet potato.

They tend to be formulated to be low in fat or based on a protein that your cat has never eaten before such as venison, lamb, rabbit, or duck.

PROVIDABLE- Reviewed by Veterinary Practice News as reliable most others not

Fructooligosaccharide, gum arabic, maltodextrin, dried Enterococcus faecium fermentation product, dried Bifidobacterium bifidum fermentation product, gelatin, dried Enterococcus thermophilus fermentation product, dried Lactobacillus acidophilus fermentation product, dried Lactobacillus bulgaricus fermentation product, dried Lactobacillus casei fermentation product, dried Lactobacillus plantarum fermentation product, magnesium stearate, ascorbic acid, and titanium dioxide.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5322762/>

The classic example of the importance of colonization resistance to *C. difficile* is the very high rates of colonization in healthy neonates before their gut flora is established.¹⁷ Antibiotic therapy, inflammatory bowel disease with colitis, cytotoxic chemotherapy, and bowel cleansing for colonoscopy or for bowel surgery can all change the endogenous microflora and allow *C. difficile* to colonize and proliferate.

S. boulardii grows at an unusually high temperature of 37°C and is generally nonpathogenic and noninvasive. *S. boulardii*, given twice daily for 4 weeks during and after antibiotic treatment for CDI yielded an overall CDI recurrence rate of 26.3% comparing to a 44.8% CDI recurrence rate in the placebo group

In 1987, Seal et al⁵⁶ reported that the administration of a nontoxinogenic strain of *C. difficile* to patients with multiple recurrences of CDI was effective in preventing further recurrence of disease. One interesting facet of this approach is that spores of nontoxinogenic *C. difficile* will quickly be disseminated in the environment of treated subjects leading to a “herd treatment” effect that will inevitably expand far beyond the individuals opting for treatment.

Probiotic mixtures and *Saccharomyces boulardii* may be effective in prevention of CDI in high-risk antibiotic recipients,^{27,34,36,59} but this finding is based on small, individual, studies of different probiotic agents and further well-controlled studies are needed to confirm preliminary positive findings.

Adding Fiber to Kitty's Diet

Irritable bowel syndrome can cause either diarrhea or constipation, and fiber supplementation can address both symptoms. If your cat lived in the wild, her natural prey would provide ample fiber in the form of fur, feathers and predigested gut contents. Since housecats don't get prey animal fiber in their meals, it can be beneficial to add fiber to an IBS kitty's diet to help keep things moving smoothly through the digestive tract — not too fast, and not too slow. NO cellulose. Good options include:

<p>Psyllium husk powder: 1/2 teaspoon per 10 pounds of body weight one to two times daily on food Unflavored psyllium (e.g., Metamucil)</p>

<p>Ground dark green leafy veggies: LETTUCE yes, 1 teaspoon per 10 pounds of body weight one to two times daily with food. SPINACH bad if any urinary or kidney problems. It has a substance called calcium oxalate which can cause crystallization in the urinary tract. (Also chopped: peas, green beans, broccoli florets)</p>
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<p>Canned 100 percent pumpkin: 1 teaspoon per 10 pounds of body weight one to two times daily on food, COOKED ground or pureed carrots or sweet potato)</p>

<p>Soluble fibers include lentils, oatmeal, apples, and blueberries. Psyllium and some other fruits and vegetables are also soluble fibers.</p>

Organic apple cider vinegar (ACV) Taking apple cider vinegar internally (diluted, is a remedy for bladder blockages, bladder infections, respiratory infections, and other illnesses caused by bacteria. Along with using apple cider vinegar, cats which normally eat dry food should be switched to wet food and up their moisture intake.

❑ Mix ¼ tablespoon of apple cider vinegar with a ½ teaspoon of chicken broth juice or tuna juice. Add some of the resulting mixtures to your cat diet stirring till it is well dispersed. Feed it to your cat once daily, repeat treatment for a few days till your cat shows improvement in health.

❑ You can also add Apple Cider Vinegar to your cat water. 2 teaspoon to one cup of water will do. It is not necessary that your cat takes in the whole mixture. You should stop administering ACV when conditions improve

Long-term (chronic) cases of clostridial enterotoxigenesis, meanwhile, involve recurrences of diarrhea, which may repeat every two to four weeks, and may continue for months to years.

When compared to its incidence in dogs, this is an uncommon condition in cats. Most animals have antibodies that will effectively fight the bacteria and clear it from the body.

Symptoms and Types

Diarrhea with shiny mucus on its surface, Small amounts of fresh blood in diarrhea Small, meager stools, May have large volume of watery stools Straining to defecate Increased frequency of defecation Vomiting (on occasion) Abdominal discomfort – characterized by standing with lowered front and raised back end, or curling up to cover abdomen, resistant to being touched in abdominal area Abnormal amount of flatulence (i.e, passing gas) Fever (uncommon)

Oral Protectants

Oral protectants such as kaolin-pectin, bismuth, activated charcoal, and barium are purported to act locally within the gut lumen to adsorb bacteria and toxins and to provide a protective coating on inflamed mucosal surfaces. Bismuth subsalicylate is the most useful of these agents because it has antienterotoxin, antibacterial, antisecretory, and anti-inflammatory actions. DO NOT USE Bismuth dosed at 0.5 to 1 ml/kg BID for 2 to 3 days is safe in cats.



Kaolin Pectin 32oz Dogs & Cats: 1 to 3 teaspoons, 4-6 times/day A palatable oral suspension for use in controlling simple diarrhea in horses, cattle, dogs and cat Each fluid ounce contains:

Kaolin (colloidal).....90 gr.
Pectin (citrus)..... 4 gr.

How to manage feline chronic diarrhea, Part II: Treatment

<http://veterinarymedicine.dvm360.com/how-manage-feline-chronic-diarrhea-part-ii-treatment?id=&pageID=1&sk=&date=>

ANTIPROTOZOAL THERAPY

In cats with diarrhea caused by Giardia, Cystoisospora, or Tritrichomonas species, an antiparasitic, antiprotozoal, or antimicrobial agent is indicated alone or in combination.

ANTIBACTERIAL AGENTS

Antimicrobials can be used to treat cats with Clostridium or Campylobacter species-associated diarrhea, chronic idiopathic diarrhea, or inflammatory bowel disease (IBD).

DIETARY THERAPY

High-fiber diets High-fiber diets may be helpful in cats with large bowel diarrhea. Insoluble fibers increase fecal bulk, improve intestinal motility, and bind nonabsorbed fluid in the intestinal lumen. Soluble fibers decrease fecal bulk, bind nonabsorbed fluid into gels, and increase the

concentrations of beneficial bacteria. Soluble fibers are fermented by intestinal bacteria into short-chain fatty acids, which are the preferred energy source for colonocytes. They also decrease intestinal intraluminal pH, thereby inhibiting opportunistic pathogens such as *Clostridium* and *Salmonella* species. Most high-fiber diets contain both soluble and insoluble forms to provide the benefits of both.



Pet-Tinic® delivers smaller quantities of the b vitamins than the other products on this page but it does supplement both iron and copper. Accordingly, Pet-Tinic® is only recommended for **anemic CRF cats who can benefit from the iron/copper supplementation.**

NutriVed B Complex Plus Iron Liquid; Each teaspoonful (5 mL) contains: Liver fraction 250 mg Minerals: Copper (from copper sulfate) 250 mcg Iron (from iron peptonized) 25 mg Vitamins: Vitamin B1 (thiamine) 7.5 mcg Vitamin B2 (riboflavin) 1.5 mg Vitamin B6 (pyridoxine) 1.5 mg Vitamin B12 (cyanocobalamin) 2.5 mcg Choline 7.5 mg Folic acid 10.0 mcg Inositol 20.0 mg Niacin 20.0 mg Pantothenic acid 7.5 mg Indications: For supplementation of the diet to aid in the prophylaxis and treatment of iron, copper, amino acid, and vitamin B-complex deficiencies in young or orphaned dogs and cats and convalescent or debilitated dogs and cats. [Editor's note -- best for anemic animals.]

Cornell

<https://www.vet.cornell.edu/animal-health-diagnostic-center/veterinary-support/disease-information/feline-coronavirus>

(from my normal ref Cornell site) In response to the increased interest within the cat breeding and cat owning community, the Animal Health Diagnostic Center at Cornell University now offers a fecal RT-PCR test for FCoV.

This test can be used to identify asymptomatic FCoV shedding cats so steps can be taken to isolate them from other cats or to prevent their introduction to a resident population. Samples required for the fecal RT-PCR screening test are 2-5 grams fresh feces. When screening an individual cat in a multi-cat household it is important to positively identify the source of the fecal sample. Mixing of fecal samples from multiple cats may result in an inaccurate result. Feces should be stored in a clean plastic bag to prevent dehydration.

In clinical FIP suspect cats, the test can also identify FCoV in ascites fluid, whole blood, plasma, serum or fresh tissues (kidney, liver, or spleen). Samples from FIP-suspects should include 1-2 ml of fluid (ascites, whole blood, serum, or plasma) or 1-2 grams of fresh tissues.

<https://www.vetstream.com/treat/felis/labtest/fip-fcv-test>

A comparison of available FCoV antibody tests showed the following sensitivity and specificity

(some laboratories and test manufacturers requested their data not to be shown (others, eg Idexx, Antech, declined to take part in the study):

	IFA FCoV		IFA TGEV		ELISA	Rapid Immunomigration		
	Biobest	VDS	EVNA	Zurich	FCoV Immunocom b	Speed F- Corona	FASTest FIP	Anigen Rapid FCoV
Sensitivity %	96.1	100	96.2	100	100	92.4	84.6	64.1
Specificity %	100	100	97.5	83.3	100	100	100	100