



# WINN FELINE FOUNDATION

For the Health and Well-being of All Cats

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## EVALUATING THE EFFECT OF THE PROLONGED USE OF AN ANTACID IN CATS

**PROJECT STUDY:** Evaluating the effect of prolonged famotidine administration in cats

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*Final report summary, W17-017*

Healing of gastrointestinal (GI) ulceration and esophageal injury is based on increasing the pH of the stomach. Thus, acid suppressant drugs, such as proton pump inhibitors (PPIs; e.g. omeprazole or “Prilosec”) and histamine-2 receptor antagonists (H2RAs; e.g. famotidine or “Pepcid”), are commonly prescribed. In studies in dogs and cats, omeprazole is more effective at raising the stomach pH and is often recommended for the treatment GI ulceration. However, unlike PPIs, famotidine can be given with food unlike omeprazole, is immediately effective whereas omeprazole takes days to be effective, and is associated with less adverse effects compared to omeprazole. Thus, famotidine continues to be widely used by feline practitioners. However, the principal investigators had concerns that prolonged famotidine administration resulted in a diminished efficacy (“tolerance”) in cats. In this study, they evaluated for tolerance with daily famotidine administration and also evaluated to see if every other day (EOD) famotidine administration would avoid the people, they evaluated stomach pH in cats following administration of famotidine daily or every other day.

**This is the first study to demonstrate that tolerance occurs over time with daily oral famotidine administration and that tolerance can be avoided with EOD famotidine administration in healthy cats. Additional studies are needed to determine if the tolerance phenomenon develops in cats with metabolic, inflammatory, and neoplastic diseases. However, until such studies are performed, caution is advised when recommending long-term, daily oral administration of famotidine in cats.**

The impact on future research: It is widely accepted that PPIs are the treatment of choice for the medical management of upper GI ulceration in dogs and cats. However, the benefit of acid suppressant therapy and magnitude of acid suppression needed in non-ulcerative disease states such as chronic kidney disease (CKD) are unknown. In people, famotidine is recommended when fast-acting symptomatic relief is the main clinical goal. Although stomach pH appears to be very similar between healthy cats and cats with mild to moderate CKD, clinical trials evaluating the effect of acid suppressants in cats with CKD, especially in advanced stages, have not been published. Many veterinarians espouse that famotidine administered as needed improves clinical signs such as vomiting and decreased appetite in cats with CKD. Famotidine is metabolized by the kidneys. Thus, a reduction in the dose or frequency of famotidine is recommended in patients with kidney disease. Decreased kidney excretion would necessitate frequency reduction of famotidine administration in cats with CKD. Thus, EOD (every other day) administration of famotidine, if a beneficial effect can be demonstrated, might be a good option. Future studies should evaluate if EOD famotidine is effective to alleviate GI signs in cats with CKD.

*Summary prepared for Winn Feline Foundation © 2018*