

Use of Antibiotics in Dogs and Cats Having Surgery at the Foster Hospital for Small Animals

We commonly receive questions from owners regarding antibiotic administration in our surgical patients. To help answer some of these questions, we have created this handout to help you understand the perioperative antibiotic protocol at the Foster Hospital for Small Animals. Antibiotics are often administered to human and animal patients undergoing surgery. However, not all patients having surgery require—nor will benefit from—prophylactic (preventive) use of antibiotics. Antibiotics should only be administered when they are needed. This is because they are medications that have potential side effects AND because over use of antibiotics can quickly help more dangerous bacteria to develop and grow.

Which surgical patients should receive antibiotics?

We have carefully selected the patients which should receive perioperative antibiotics, based on current research from the medical and veterinary fields. In general, the following patients should receive antibiotics:

- Patients having surgery lasting longer than 2 hours
- Patients receiving major implants (metal plates, joint replacements)

Occasionally, our surgeons may elect to prescribe antibiotics to a patient that does not fall into the above categories. This is because the surgeon may feel that the patient is particularly prone to an infection. Patients falling into these categories may include:

- Geriatric patients
- Immunocompromised patients (those with a low level of immunity)
- Patients with metabolic disease (e.g., diabetes)
- Patients with open wounds
- Certain patients having surgery involving non-sterile areas of the body (stomach, intestines)

What if your pet does not fall under the above categories?

Owners are sometimes surprised to learn that their pet will not receive antibiotics prior to routine surgery and also will not be sent home with oral antibiotics. When infections do develop in

these cases, it may seem that the decision not to use antibiotics was to blame. However, there is overwhelming evidence that unnecessary antibiotic administration in these circumstances does not help prevent post-operative infections. Additionally, this routine use of antibiotics puts both you and your pet at risk for infections that are potentially resistant to all but the most potent antibiotics, contributing to a world-wide health crisis.

If your pet needs antibiotics that are prescribed, it is very important that you give all the medication to your pet as directed on the bottle (specifically as prescribed); skipping doses and stopping before all the medication has been given is as effective as not administering these drugs at all.

How are antibiotics administered to surgical patients?

When antibiotics are used, they are administered intravenously, immediately prior to the beginning of surgery, every 2 hours during anesthesia, and then discontinued.

Studies have demonstrated that antibiotics are most effective in preventing postoperative infections when adequate blood levels are present throughout surgery. In general, continuing antibiotics beyond the end of surgery has shown little effect in decreasing infection rates, except in selected patients as described above.

Our veterinarians will be happy to answer any questions you may have concerning our Antibiotic Use protocol.

Summary

- Antibiotics should be only administered when they are really needed. This is because they are drugs that have potential side effects and because over use of antibiotics can quickly help more dangerous bacteria to develop and grow.
- Most patients that have surgery do not need antibiotics to go home.
- Occasionally, patients get infections after surgery. This can happen even when patients are being administered antibiotics.
- If your patient needs, and receives, antibiotics for home use, it is very important that you give all the medication to your pet, as directed on the bottle (as prescribed).

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