Protect Your Pet From One of the Worst Veterinary Mistakes

Be on guard - too many veterinary practices still make this careless mistake that can have potentially devastating results for your pet, including long-term side effects. If your veterinarian suggests this, here's how you should respond and request before doing anything else.

Analysis by Dr. Karen Shaw Becker

STORY AT-A-GLANCE

- Antibiotics continue to be overprescribed in too many veterinary practices, and the results are potentially devastating
- Today's dogs and cats are exposed to antibiotics not just through veterinary prescriptions, but also through the factory farmed meat used in almost all commercial pet food
- Antibiotic resistance is creating superbugs able to survive multiple types of antibiotics; the end result can be strains of potentially deadly bacteria for which no effective treatment exists
- Except in emergency situations, antibiotics should never be prescribed without a culture and sensitivity test to determine the bacterial strain and the most effective antibiotic
- If your pet needs an antibiotic, give it exactly as prescribed and also give a probiotic supplement to replenish healthy gut bacteria

In my experience, antibiotics continue to be dangerously overprescribed in too many veterinary practices, with devastating results. Like people, pets can develop allergies to medications that are overprescribed. In addition, antibiotics have a long list of side effects, many of which are long-term.

There is also the escalating problem of antibiotic resistance, which is the result of too frequent and unnecessary use of these drugs. One of the most important things to know is that dogs and cats are exposed to antibiotics when they eat food containing the meat of animals that were **factory farmed**, which includes about 99% of pet foods on the market today.

Antibiotic residues are passed up the food chain, so even if your veterinarian hasn't prescribed unnecessary antibiotics to your pet, there's a good chance your animal companion is exposed to them regularly through the food he or she eats.

The exception would be if you're buying free-range, organic meats and making your own pet food, or if you're purchasing one of a very small handful of pet foods that contain free-range, organic meats.

It's also important to realize viral and fungal infections do not respond to antibiotics. Dispensing antibiotics to treat a viral infection is a classic example of indiscriminate overuse of the drug, and I see it happen way too often in veterinary medicine. Veterinarians don't know exactly what to do with a sneezing or coughing or itchy pet, so they send the owner home with an antibiotic.

Antibiotic Resistance Defined

Antibiotic resistance is a term used to describe a situation in which bacteria are able to survive and multiply in the presence of an antibiotic that at one time killed them or stopped their proliferation. In many cases, even when bacteria are exposed for the first time to a particular antibiotic, the majority will die, but some will survive and pass on that resistance to other bacteria.

Unlike higher organisms, bacteria can transfer DNA not only to bacteria that is not their offspring, but also to bacteria of other species. The problem is not that certain disease-causing bacteria are antibiotic-resistant, but the presence of resistance genes in any type of bacteria that transfer their survivability to billions of other bacteria.

This is how superbugs are born. A superbug is a strain of bacteria able to survive assault by multiple types of antibiotics. When your veterinarian can no longer eliminate bacterial infections with antibiotics, the life of your animal is threatened, and that's our biggest concern.

Why Culture and Sensitivity Testing Is so Important

If you suspect your pet has an infection — or if your veterinarian makes a diagnosis of infection — before you agree to a course of treatment, if your vet doesn't suggest it, ask for a culture and sensitivity test. When a veterinarian prescribes an antibiotic without a bacterial culture and sensitivity test, he or she is making a guess at what type of organism is present and the best antibiotic to treat it.

Although lots of veterinarians are very good guessers, given the growing danger of antibiotic-resistant strains of disease-causing bacteria, in my opinion, there's no longer any room for error.

Each time an unnecessary or inappropriate antibiotic is prescribed, the potential for resistance increases. A culture and sensitivity test gives your veterinarian two very important pieces of information: 1) the precise organism causing the infection, and 2) the best antibiotic to treat it.

A culture is simply a sample from the affected area. It could be a sterile swab dipped in urine, or a swab of infected tissue, skin, or ear discharge. The sample is incubated and monitored for organism growth, which typically starts the following day.

When colonies of organisms form, each one is tested to determine what type of bacteria is present. The sensitivity portion of the test involves placing tiny amounts of different antibiotics on the organisms to see which ones the bacteria are the most sensitive (susceptible) to.

The minimum inhibitory concentration, or MIC, is the lowest concentration of antibiotic that prevents visible growth of bacteria, allowing the veterinarian to choose the correct antibiotic and dose to successfully treat your pet's infection.

The decision-making process must also involve choosing an antibiotic that can be administered by injection, orally or topically for optimum results in the specific area of the body where the infection is located.

A culture and sensitivity test takes a little extra time, usually a minimum of 72 hours, so you should be prepared to leave your veterinarian's office without a definitive diagnosis of exactly what type of bacteria is growing, and without a prescription.

Only in an emergency situation (such as sepsis, or a severe urinary tract, oral, ear or skin infection) should your veterinarian prescribe an antibiotic before the culture and sensitivity test can be performed. He or she can then switch medications if necessary when the test results arrive.

Rest assured the additional time it takes to identify the type of bacteria present and the medication needed will allow precise treatment of your pet's infection rather than a hit-or-miss approach.

Be Sure to Give Your Pet Antibiotics Exactly as Prescribed

Waiting for a culture and sensitivity test will ensure your dog or cat heals more quickly and thoroughly. In addition, giving the proper dose of the antibiotic at the proper intervals and using up the entire prescription is important, even if your pet seems to be fully recovered before the medication has run out.

This will ensure the infection is totally resolved and prevent your pet from being subjected to another full course of antibiotics because the first one wasn't fully administered, and the infection wasn't effectively cleared.

I see this quite a bit with non-life threatening **skin infections** (aka hot spots and staph infections). The skin begins to get better within a few days to a week, and clients stop the antibiotic before the really deep infection is thoroughly treated. This not only increases the risk of developing antibiotic resistance, but also leaves the pet not fully treated.

Recurrence is almost inevitable in these situations, since most bacterial skin infections take four to six weeks to resolve with antibiotics.

Also Be Sure to Rebalance Your Pet's Gut Microbiome

It's important to understand that antibiotics literally mean “anti-life.” They indiscriminately kill off all bacteria, both the good guys and the bad guys. If your dog or cat has been treated with antibiotics, the trillions of healthy bacteria in her digestive tract have also been destroyed, which can set the stage for additional health problems, such as digestive upsets, intermittent diarrhea, poor food absorption, and **dysbiosis** (leaky gut syndrome).

It's important to reseed your pet's gastrointestinal (GI) system with friendly microorganisms — **probiotics** — during and after antibiotic therapy to reestablish a healthy balance of gut bacteria. This will also help keep your dog or cat's digestive system working optimally and her immune system strong.

Alternatives to Antibiotics

The decision to use antibiotics should never be taken lightly or viewed as no big deal. They should not be prescribed unless absolutely necessary. Aside from the ability of bacteria to mutate and develop resistance to antibiotics, these drugs also have side effects, including diarrhea, tooth discoloration, suppression of bone marrow, and even permanent deafness.

Many conditions for which antibiotics are often indiscriminately prescribed respond very well to a combination of natural therapies, including herbs, homeopathic remedies, nutraceuticals, immune system stimulants, and specific nutritional interventions.

Functional medicine veterinarians, a group that is thankfully growing in number, realize this and are able to partner with pet parents to offer alternatives to antibiotics.

A 2016 study showed that cranberry extract may be as or more effective in preventing E. coli-related urinary tract infections (UTIs) in dogs as short-term antibiotic treatment.[1] In addition, cranberry extract can help fight multidrug-resistant bacteria in dogs with recurrent E. coli UTIs.

In a study of shelter dogs, researchers compared the use of probiotics to antibiotics to treat acute diarrhea caused by stress.[2] They concluded probiotic therapy was as effective as antibiotic therapy. In addition, dogs who were unresponsive to antibiotics appeared to benefit significantly from subsequent probiotic treatment. Similar results were found with working dogs and soluble fiber supplementation for chronic diarrhea.[3]

I regularly use diluted oregano and other essential oils, propolis, olive leaf, colloidal silver and **manuka honey** to help reduce bacterial skin infections caused by methicillin-resistant staphylococcus aureus (MRSA), with really good success, along with topical anti-bacterial shampoos (which I find more effective in many cases than systemic, oral antibiotic therapy — it's just a little more work).

If your dog or cat isn't facing a life-threatening health situation, talk with your veterinarian about alternatives to antibiotics. In these situations, pet parents often find it beneficial to consult a functional medicine or integrative veterinarian because our goal is to treat these problems by starting with the least toxic options first.

Sources and References

[1] Clinician's Brief, June 2016

[2] Rose, L. et al. Journal of Veterinary Internal Medicine, 2017; 31:377–382

[3] Alves, J.C. et al. BMC Veterinary Research, Volume 17, Article number: 100 (2021)