The Science and Art of Flea Control

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Question: How quickly are fleas killed once they infest the afoxolaner treated dog? Is this soon enough to prevent disease transmission?

Answer:
Residual efficacy is generally 94 – 100% with 12 hours of new fleas jumping on dogs. Even out to 3 to 4 weeks post treatment. Which is remarkably fast. However, completely preventing disease transmission (Bartonella or Rickettsia) has not been proven. Even if such studies did exist currently the FDA and EPA will not allow disease prevention claims on labels of these parasiticides. Too many variables, including client compliance to consider.

Question: How effective is afoxolaner in preventing flea bites and disease transmission?

Answer:
A great question, since I have already addressed the disease prevention in question # 1, I will focus on flea bites. It has now been clearly demonstrated that FAD is actually not directly related to “flea bites” That was clearly a myth perpetuated without data. FAD is related to flea feeding and injection of salivary proteins. 1st, no product has ever been shown to stop flea bites, that is next to impossible due to the rapid feeding of Ctenocephalides felis. What we are accomplishing is a decrease in prolonged flea feeding and injection of sufficient amounts of saliva. FAD is not anaphylaxis.

An important aspect of a residual flea product is that product’s residual speed of kill and its potential impact on managing flea allergy dermatitis (FAD). Historically, products containing imidacloprid, fipronil, fluralaner, imidacloprid, metaflumizone, nitenpyram, permethrin, selamectin and spinosad have clearly demonstrated they had a major impact on reducing the occurrence of FAD.1-9 However, the data from the several studies as reviewed by Dryden 2009 demonstrate that these compounds neither stop flea bites nor completely stop flea feeding.10 These compounds are very likely managing FAD because they decrease prolonged flea feeding and reduce the amount of salivary protein delivered to the allergic pet and in the long-term reducing flea numbers. It is also worth noting that whether an insecticide works topically or systemically may be irrelevant in the management of fleas or FAD, what is most important is rapid residual speed of kill.


Question: What do you use to treat areas in the house where pets sleep or tend to lay most commonly to try to kill larvae/eggs and pupae?

Answer:

Actually the best approach is daily vacuuming. Data has shown that 40-50% or eggs and up to 35% of larvae can be removed by a single vacuuming event with a modern bag-less & beater bar vacuum system. So I ask pet owners to vacuum daily. Also, wash area rugs, pet bedding and vacuum under all chair and sofa cushions as these become “flea nests” in many homes were flea infested pets sleep on chairs and sofas, with flea eggs and flea feces rolling under the cushions.

Question: There are so many flea products now on the market. Since most clinics can only stock a few - how does one go about figuring out the best ones for a given area, a clinic, and specific patients?

Answer:

There is no one correct answer here. I think you 1st pick a safe product and then 2nd pick a product with fast residual speed of kill. There are many good products, so find one you like, get to know its attributes and stick with it.

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Question: Many clinics will not carry the older preventive products stating there is resistance. I think it is client compliance over failure of product. Is there a reason to switch to newer products?

Answer:

I am a great believer in "if it isn't broke don't fix it" Only switch if you see real problems. And yes, most issues are directly related to compliance failures.

Question: For topical flea products what is your recommendation for dogs that swim or get wet frequently? Go oral or use a combo?

Answer:

You already have the answer, if animals are swimming a lot or are being bathed frequently, go to an oral product.

Question: To speed-up "residual kill" can one use area products like siphotrol? Especially in homes with patients with FAD?

Answer:

You can use area sprays and they do seem to help. Siphotrol does seem to be a good product.