Helpful Q:A from the VETgirl-Zoetis webinar “Treating pyoderma is NOT what it used to be” with Dr. Valerie A. Fadok, DVM, PhD, Diplomate, ACVD (All answers are provided by the speaker).

Cytology:
A few of our participants made the comment that they use pipettes to put their stain on the slides. They have no dunking and they only require one set of stains this way. Sounds good!

Some hospitals’ cytology fees are per site. If all lesions are visibly similar and one cytology is performed, will it be accurate?
This is a tough question. In general, if all lesions are epidermal collarettes and you find some good cocci in one, the probability is high that the lesions are quite similar. In atopic dogs, though, they may have yeast around their muzzle, on their feet, and up under the claw along with a classic pyoderma on the body. The patient will need to be treated for both, so at least 2 cytologies would needed here. At our practice, we charged the same fee for up to 3 cytologies.

Pyoderma
How contagious is \textit{S. schleiferi} from animals to people?
We don’t really know, to tell you the truth. Please see this blog written by Dr. Scott Weese at U. Guelph. It is superb. Here is a hyperlink. \url{https://www.wormsandgermsblog.com/2011/12/articles/animals/dogs/staph-schleiferi-in-dogs/}

What dosage of cephalosporin do I recommend?
When I use cefovecin (Convenia\textregistered), I use the label dose, which is 8 mg/kg. When I use cefpodoxime (Simplicef\textregistered) I use 5-10 mg/kg every 24 hrs. The tablet sizes are 100 mg and 200 mg, and they are scored so we can split them in half. The minimum I use is 5 mg/kg. Honestly, I don’t use cephalexin anymore. As a referral dermatologist, many patients were referred to me as cephalexin failures. If I were to use it, I would try to recommend at least 22 mg/kg every 8 hrs. This is quite hard for many owners to do.

Can Convenia be given repeatedly every 2 weeks?
The label states that a second injection can be given if there is not complete resolution of the pyoderma with one injection. If it is a superficial pyoderma and it is not at least 50\% resolved in 2 weeks, it would be best to culture then. But if greater than 50\% improvement is seen, by all means repeat the injection. I have used Convenia in dogs with deep staphylococcal pyoderma and have given 3 total injections at 2-week intervals. I think if you have to use it every 2 weeks repeatedly, the risk for MRS will increase, as it would for any antibiotic given for long periods of time.
Is Augmentin an effective alternative to Clavamox? Is generic amoxicillin clavulanate effective?

Augmentin comes in a number of formulations. The 250 mg tablet and the 500 mg tablets contain the same amount of clavulanic acid (125 mg) and the chewable formulation 250 mg contains 62.5 clavulanic acid. So, I am not clear on how we would dose it correctly. The 250 mg Clavamox contains 50 mg clavulanic acid. So, they are not really interchangeable. The generic amoxicillin clavulate 250 mg contains 50 mg clavulanate. I don’t know that anyone has ever done a head-to-head comparison of these 3, to tell you the truth. If I couldn’t use Clavamox brand and I had to pick between the generic veterinary product and the human product I would go with the generic veterinary product.

How long should we treat a first-time pyoderma?
We have no hard evidence for this. I treat until the pyoderma is gone. I do 2 and 4 week rechecks. I want to see no papules, pustules, epidermal collarettes, or crusts. If I am using Convenia, one injection will be a sole treatment for close to 90% dogs with superficial pyoderma. Most dermatologists will recommend that you treat a superficial pyoderma for 3 weeks with an oral antibiotic. But be sure to do your recheck.

What would be your protocol for treating “Golden retriever hot spots?”
Definitely antibiotics! I do prefer either cefovecin or cefpodoxime myself. When things start to dry up and be less painful, some gentle topical therapy with a chlorhexidine shampoo. I am certainly comfortable using Apoquel if there is itch and/or the dog has allergies.

How should we treat the pet as we wait for the culture and sensitivity to come back? Some owners do not want to wait.
This is where topical therapy can be a real help. We advocated for bathing daily or every other day until we could get the culture results back. You could also consider bathing on day one, then spraying or moussing daily until the culture results come back. Some owner see such good improvement with topical therapy that they prefer to continue it rather than use a risky antibiotic.

What is the dose for Staphage Lysate?
There is great information and dosing recommendations on their website. I encourage you to have a look. https://delmontlabs.com/treatment-with-staphage-lysate-spl/
The company recommends 0.5 cc twice weekly for up to 12 weeks, then you may be able to reduce the frequency. I have given it weekly, starting with 0.25 cc week 1, then 0.5 cc week 2, 0.75 cc week 3, 1 cc week 4 then 1 cc weekly for the first 3 months. What we are looking for is a reduction in the relapse rate of the pyoderma. This product will not treat active infections, so if the dog has an infection when you start, you need to use an antibiotic or aggressive topical therapy.

What is the best treatment for lip fold pyoderma?
These are fold pyodermas and I think they are best treated topically. Daily cleansing initially then maintenance cleansing to prevent relapse. I have listed some useful wipes below. Control any underlying disease like atopic dermatitis.

**Topical therapy and barrier repair**

What is the best way to bring up using topical therapy when veterinarians wish to dispense antibiotics?

I think it would be fair to tell your veterinarian that you have heard that dermatologists are recommending topical therapy for all pyodermas and you would like to give it a try. Some clients if offered the chance would prefer to bathe, especially if the bugs are resistant or their dog doesn’t tolerate oral antibiotics. If we use topical therapy alone, we need to have antiseptic on the skin daily. So that might be bathing twice a week and putting a mousse or spray on the skin in between baths. You may be able to get some of the companies that make topical products come in to do a lunch and learn for your clinic!

How did we set up bathing packages at our clinic?

There are lots of ways to do this. One suggestion from my friend and colleague John Angus is to give 10 baths for the price of 7! And to make drop off and pick up as easy on the client as possible. I would recommend having the client buy the shampoo for their dog, and then you can charge for labor. Using one bottle of shampoo on multiple patients may increase the risk of a contaminant like Pseudomonas getting in it and creating some problems.

What are my favorite chlorhexidine shampoos and products?

These are the products that I have used, and which I use for my own allergic Frenchie! You can visit their websites to get more information, and consider having the companies come to your clinic to do a lunch and learn.

1. DOUXO and the CEVA conventional line.
2. Miconahex Tris and Tris-chlor 4 (Dechra)
3. Biohex and Hexaderm (VetBiotek)
4. Malaseb (DVM, Bayer)
5. KetoChlor is now back from Virbac in the US.

Is there a difference in efficacy between 2% and 4% chlorhexidine shampoo?

As far as we know, there is no proven difference. To my knowledge, no one has done a head-to-head in vivo study though! I think if you have a good quality shampoo between 2 and 4% you will get good results.

What products might be available in Australia?

Dr. Ken Mason invented the original Malaseb! I would recommend you contact your favorite dermatologist to ask them what they recommend.

How often should owners wash with the chlorhexidine shampoo?
If I am using bathing along with a systemic antibiotic, I usually ask owners to bathe twice the first week then once a week thereafter. If they wish to bathe more often, I encourage it! If we are using topical therapy alone to treat a MRSP, then we have to have an antiseptic on the skin daily. So, wash 2-3 times a week, and spray in between with a chlorhexidine shampoo until the infection is resolved. If there is a history of bacterial recurrence, then regular bathing should be continued. Weekly, every other week, or even monthly depending on the dog and the shampoo used.

**What is the name of the sodium hypochlorite shampoo?**
Command, from Vetrimax is available in the US. [https://vetrimaxproducts.com/](https://vetrimaxproducts.com/)
Canine Skin Solutions is also available. [http://www.healthyskin4dogs.com/products](http://www.healthyskin4dogs.com/products)

If dogs have a lot of adherent crusts is it better to leave them alone or gently remove them during the bath?
As a dermatologist, I am a picker! I let the shampoo sit as I gently massage the skin. If the crust will come off without hurting the dog, I like to get it off of there. If it is tightly adherent, then better to leave it alone.

**Follow-up on barrier lipids. Clients are using topical coconut oil. What do we know?**
We have no evidence for using coconut oil in dogs, but interestingly, very recent reports are emerging for potential efficacy in human atopic dermatitis. Hopefully we will see some studies.

**What was the name of the spot-on for barrier repair?**
Dermoscent Essential 6, a mix of essential oils from herbs and grains. Excellent information on their website: [http://www.dermoscent.com/en/](http://www.dermoscent.com/en/). There is a veterinary corner with case reports and clinical studies. There are a number of products available for barrier repair; shampoos, sprays, mousses, wipes, pot-on that contain phytosphingosine (e.g. DOUXO (CEVA), shampoos, sprays, mousses that contain ceramides (Dechra, VetBiotek). You can visit their websites to get more information.

**How does bathing affect the barrier lipids?**
The hypothesis behind these products is that they penetrate the skin to stimulate the keratinocytes to make their own lipids. So, bathing should not remove them. I tell people to bathe their dog first, gently towel dry, then apply to the skin. This is how barrier lipids are used in humans; the skin is well hydrated then. If something like Dermoscent Essential 6 is applied after a bath and the owners bathe the next day, the effects should not be reduced. And if you are using a shampoo containing barrier lipids like EFA or phytosphingosine or ceramides, some will be absorbed.

**Must the shampoo stay on the skin for a certain duration? 5-10 minutes?**
We have traditionally asked for a contact time of 10 minutes, but there is no evidence to support this recommendation. To my knowledge, no one has evaluated contact time in a scientific way. One way to help increase contact time is to ask clients to put the shampoo into their hand and massage it into the lesional areas first, then add to the rest of the body. Try to rinse in reverse order. We need some studies!

Is there a benefit to using a chorhexidine spray in between shampoos? If so, what concentration?
If we are using topical therapy alone, then we definitely need an antiseptic on the skin every day. The one paper that looked at this had dogs washed twice a week with a 4% chlorhexidine shampoo and sprayed in between with a 4% chlorhexidine. HOWEVER, most evidence we have suggests that 2-4% percent chlorhexidine will work. The key to success is using a product from a reputable manufacturer.

Does the temperature of the water matter when we bathe dogs?
Absolutely. We recommend that tepid to cool water be used, especially when we are bathing atopic dogs. Water that is too warm can stimulate itch, and owners will interpret this as reactivity as “allergy” to the shampoo.

Please suggest some brands for chlorhexidine wipes.
The wipes with which I am most familiar are:
1. DOUXO wipes (CEVA, also contains clotrimazole and phytosphingosine)
2. TrizCHLOR 4 (Dechra)
3. Miconahex + Tris (Dechra, also contains miconazole and ceramide complex)
4. BioHex wipes (VetBiotek, also contains miconazole and ceramides and microsilver)

If the client wishes to use a bleach rinse, how do we dilute it? What about hydrogen peroxide? Vinegar for yeast?
We are still working out what the ideal bleach concentration is, but I ask clients to put 5-6 cc in a gallon of water and sponge or spray it on the dog OUTSIDE after a bath or in between baths. This is quite close to the concentration used in children with atopic dermatitis. I can’t really recommend regular hydrogen peroxide; I only have experience with the accelerated product. I do use vinegar and water. About 1/3 white vinegar to 2/3 water can be put in a sprayer bottle and sprayed or wiped onto the yeasty areas. We don’t know the stability of any of these mixes so the solutions need to be prepared fresh for each application.

Allergies
Apoquel vs. Cytopoint. Is one better or safer?
It is interesting to me that some dogs do better with Apoquel and others do better with Cytopoint. Regrettably we have no way to predict which will work better for dogs. Lots of dogs can do well with either, some dogs do lots better with Cytopoint,
and others do better with Apoquel. With regard to safety, both are safe. I always remind clients that safe doesn’t mean no risk, it means low risk! The fact that Cytopoint is a biologic might appeal to those clients who don’t like the concept of lifelong drugs or don’t want to give a daily pill.

**Demodicosis and Apoquel**

When dogs have demodicosis, is Apoquel contraindicated until mites are controlled?

The nice thing about Apoquel is that there are no absolute contraindications; there are cautions. In my view, this would be a case by case decision. If you have an elderly atopic dog who develops demodicosis and Apoquel is the only medication that relieves the itch, I would likely continue the Apoquel, use an isoxazoline, and monitor the dog’s progress clinically and by skin scrapings. You could also consider a change to Cytopoint. Keep in mind that in the USA, the use of isoxazolines for demodicosis is considered off-label, but the dosing and frequency is on label.

What if Apoquel is not available in my country?

I surely hope it will get to you soon. Honestly most of the studies looking at antihistamines show no more efficacy than placebo. Antihistamines (the H1 blockers we usually use) have little efficacy for itch even in people. They are better for hay fever systems. One product that we used is a combination pill with trimeprazine and prednisolone (Temaril-P in the USA). This combination seems to allow us to reduce the dose of steroid used. I think that glucocorticoids are your best choice, and you can get some steroid sparing effect by using fatty acids with them.

Any research about Apoquel in cats?

Using Apoquel in cats is definitely off-label. However, if you are willing to email me personally, we can set up a time to talk about it by phone.

**Otitis**

Do I recommend Otic Armor?

I have used Otic Armor successfully to prevent recurrence of Pseudomonas otitis in chronic cases. It is not a treatment. So we have to clear the infection first. To me, this requires a negative cytology. Then we clean the ear, dry it, and apply the Otic Armor. I think it needs to be reapplied every 2 months minimum. It doesn’t work for all dogs, but I think I have close to 80% efficacy with those chronic Pseudomonas infections! Haven’t tried it on other chronic infections (e.g. *Malassezia*).

What are my thoughts on heat fixing ear cytologies?

I do tend to do a heat fix before I put them in the methanol fix of the Diff-Quick. There was one study presented at the NAVDF a few years ago that suggested it was not necessary. However, old habits are hard to break so I continue to do it!

**Other**
Any improvements seen with (other) supplements such as quercetin?
I am unable to find any studies about this and I have no personal experience. Sorry!

What antifungals are useful for Malassezia dermatitis?
Any of the azoles can be used: itraconazole, fluconazole, ketoconazole. We use a daily dose of 5 mg/kg, which seems to reduce the potential GI side effects. Of these three, ketoconazole is the one most likely to create problems. I also use terbinafine at 30-40 mg/kg daily. Each of these can be pulsed if needed.

Looking for some evidence-based medicine? Find some helpful articles [HERE](#).