DENTAL CARE that is one step beyond

Here are several tools right at your fingertips to take your veterinary dental care protocol further than ever before.
In most communities, the standard of care in companion animal dentistry has transformed into performing diagnostics and providing needed care in anesthetized, intubated patients. This gives us the best opportunity to conduct tooth-by-tooth examinations with probes and intraoral radiographs and remove plaque and tartar on the teeth above and below the gum line.

Thanks to this ability, we can diagnose and help more dogs and cats live happier lives. Fortunately industry has helped our efforts by providing evidence-based effective products. If your practice is not doing it already, now is the time to adopt just one more step in each of the assessment, treatment and prevention (ATP) sections of the oral visit.

**Extra assessment step: Thiol diagnostics**

Wouldn’t it be helpful if a client could see clear-cut proof that his or her awake dog or cat on the examination table has gingivitis or periodontitis necessitating additional care? Taking one more step using diagnostic strips to test for thiols (OraStrip—Virbac) can accomplish this.

In essence, the strip is a visual representation of...
halitosis secondary to periodontal infection that leads to irreversible tissue and bone destruction. The darker the yellow color reaction, the higher the concentration of thiols, which is directly related to the severity of periodontal infection.¹ What does a positive result mean when the patient does not appear to have excessive plaque or tartar on the teeth? It means disease is present below the gum line. It’s a call to action to find out where the elevated concentrations are coming from, whether a periodontal or an endodontic abscess hidden from the naked eye or a periodontal pocket somewhere you can’t see. Either way, diagnosing and treating the cause of an abnormal thiol concentration results in your patient’s breath and its health improving (Figure 1).

What happens if the strip’s pad remains white, indicating the absence of thiols? It may not be time for dental scaling because even though there may be plaque and tartar present, the host has not responded with significant gingivitis or periodontitis. Routinely using the strip in all wellness examinations allows the veterinarian to better determine when anesthesia is needed for thorough oral assessment and treatment—when the bacteria have changed from good to bad (Figure 2).
To use a strip in the exam room, you just have to:

- Open the package.
- Flip the patient’s lips.
- Rub the strip from the last maxillary molar to the canine just below the marginal gingiva (where the tooth meets the gingiva) to sample the sulcular fluid (not the saliva) (Figure 3).
- Explain to your client that the yellow pad result means the patient has a periodontal infection due to anaerobic bacteria trapped under the gum line. Then you can explain that if not treated and prevented, progressive periodontal disease and worse can occur.

The strip is also effective as a sentinel monitor to see how the patient is doing after the procedure, thanks to removal of periodontal pathogens and tailored prevention. This is easily accomplished by including an OraStrip bundle, including once-monthly strip rechecks, after the oral ATP visit.

Extra treatment step: Local application of antimicrobials

Once you’ve diagnosed the stage of periodontal disease, it’s time to create a treatment plan. Stage 4 advanced periodontal disease treatment is easy—extract the tooth or teeth. Treatment decisions appropriate for pets with stages 1 to 3 periodontal disease can be challenging depending on the client’s ability to provide preventive plaque control and the patient’s willingness to accept it.

There are two nonsystemic locally applied antimicrobial products approved for use in the oral cavity for treating pets with stage 1 to 3 periodontal disease with mild to moderate pockets—Clindoral (TriLogic Pharma) for dogs and cats and Doxirobe Gel (Zoetis) for dogs only.2,3

Clindoral is a periodontal pocket filler containing 2% clindamycin hydrochloride in a biodegrading, muco-adhesive gel matrix that releases clindamy-
cin over seven to 10 days after a single application. As the product warms to body temperature, it increases in viscosity two- to threefold to form a soft pliable matrix the consistency of a thick jam.

Doxirobe Gel is provided in a two-syringe system requiring mixing before use. Syringe A contains the polymer delivery system—N-methyl-2-pyrrolidone and poly (DL-lactide). Syringe B contains the active ingredient—doxycycline hyclate. Once mixed, the product is a flowable solution equivalent to 8.5% doxycycline activity. The formulation is applied subgingivally to the periodontal pockets of affected teeth, and doxycycline is slowly released from the polymer providing a local antimicrobial effect particularly toward gram-negative anaerobic bacteria involved in periodontal disease. The product is nonirritating and biodegradable.

A few application pointers:
• Both products are supplied in 0.5-ml syringes with 0.25-ga blunt-nosed cannulas.
• Both products are applied subgingivally to the periodontal pockets of affected teeth, achieving slow release from their polymer matrix and providing a local antimicrobial effect. Clindoral forms a soft pliable matrix that conforms to the pocket and stays in place because of its bioadhesive properties. Doxirobe forms a hard matrix that stays in place via mechanical force.
• Clindoral works best in dried tissue (either by forced air or gauze), whereas Doxirobe often requires additional liquids to make it set up after application.
• Clindoral can be stored and reused as long as it is recapped until the expiration date of the product. Doxirobe not used on the day of mixing should be stored in its resealable foil pouch and used within three days of reconstitution.
• Although Clindoral thickens at body temperature, it remains a pliable matrix that forms to the shape of the sulcus or pocket.

Doxirobe is liberally applied in the sulcus to create a wedge-like effect to hold it in place. Because of Clindoral’s pliable matrix, you can apply it in sulci where bleeding on probing exists. In our practice we commonly use Clindoral to help decrease the cause of bleeding and return the gingiva to normal (Figures 4-6).
Extra preventive step: Sealant application

The 2013 AAHA Dental Care Guidelines offer clear recommendations to decrease plaque accumulation in both dogs and cats, including the application of antiplaque substances such as fluoride and barriers. Barrier products typically bind to the surfaces of teeth. A barrier gel system, OraVet (Merial), is positioned to reduce plaque formation in companion animals. The professional product is applied as a last step before the pet awakens from anesthesia.

In human dentistry, sealants prevent caries, or cavities. They are applied to the chewing surfaces of the back teeth (premolars and molars) where decay most often occurs. Sealants protect these vulnerable areas by bonding to the enamel, sealing out plaque and bacteria produced acids. As long as the sealant remains intact, the tooth surface is protected from decay. Sealants hold up well under the force of normal chewing and may last several years in humans before a reapplication is needed.

Dogs and cats are rarely affected by caries and are not protected with the same sealants as used in human dentistry. There are two veterinary approved products: OraVet and Sanos (AllAccem). Both are applied into the sulcus to help prevent the accumulation of plaque (Figures 7 and 8).

Figure 7
OraVet applied in an anesthetized cat.

Figure 8
A polishing angle used to place OraVet into the sulcus.
After application, OraVet is recommended to be applied to the marginal gingiva weekly (Figure 9).

Sanos, a Veterinary Oral Health Council-accepted product, is applied after the teeth cleaning and irrigation to the dried sulcus while the dog or cat is still anesthetized. It has been shown to be effective at least six months (Figure 10).6

References

Figure 9
Demonstrating home application of OraVet.

Figure 10
Sanos application into the left mandibular second premolar sulcus.

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Tools to promote dental wellness in pets

On the following pages, are three full sized handouts for you to print out and use in your practice. Want even more dental? We can help. Check out dvm360.com/forms-dentistry-handouts or scan the QR code below.

By the way ... we have hundreds of other handouts to help you practice the best medicine and business. Visit dvm360.com/forms or scan below.
FROM YOUR VETERINARIAN

5 signs of dental pain in pets

Your pets can’t tell you when they’re suffering from a toothache or other types of pain. If you notice any of these signs, contact your veterinarian to schedule an exam.

1. No signs at all.
Dogs, cats and other companion animals, such as rabbits, rarely show signs of dental pain. This is a survival mechanism, an instinctual behavior that our domesticated animals have in common with their wild ancestors.

2. Bad breath.
The odor is a byproduct of the bacterial metabolic process. In pets with periodontal disease, there is more bacteria in the mouth, and so the odor increases. “Doggy breath” or “tuna breath” is not normal and needs to be evaluated.

3. Altered behavior.
Chewing on one side of the mouth, dropping food, running away from the food dish, crying when yawning, hiding, not grooming themselves and acting “grumpy” are all signs of dental pain. You know your pet better than anyone, so look for abnormal behaviors.

4. Bleeding.
Bleeding from the mouth is usually due to periodontal disease, but it could also be evidence of fractured teeth, lacerations or ulcers on the tongue or gum tissue or the presence of an oral mass. Look for thick, ropey saliva, spots of blood found on toys or beds or drops of blood in the water or food dish. If the periodontal disease is severe enough, you may notice bleeding from the nose or bloody discharge when your pet sneezes.

5. Return to normal.
Once our veterinary team addresses your pet’s oral issues, your pooch may show he’s feeling better by acting like a puppy again or your kitty might seek extra attention.

SOURCE: PAT MARCH, RVT, VTS (DENTISTRY)
You’ve probably felt your cat’s sandpaper-like tongue on occasion, but getting a good look at his mouth and teeth takes a little more effort. So gather your furry friend in close, gently open his mouth, and take a closer look at these critical parts of your cat:

The gums
Lift up your cat’s lips and take a look at the gums. They should be pink, not shades of red, white, yellow, or blue. Some cats have dark pigment spots on their gums and tongue. Don’t panic—that’s normal.

If your cat’s gums look red and swollen, that’s the first sign of periodontal disease, a serious condition you’ll want your veterinarian to address right away. As the condition worsens, your pet’s gums will recede, and without treatment his teeth will eventually loosen and fall out. The key: Catch the condition early and take action.

The teeth
Next, look at the teeth. They should be white, clean, and smooth and should not be broken, cracked, or pitted. Cats can develop pit-like areas in the teeth near the gum line—they’re similar to cavities in people and can be quite painful. If you think a tooth may be cracked or pitted, take your cat to the veterinarian.

He or she will examine your cat’s teeth and may take X-rays to determine the extent of the damage. Depending on the results, your veterinarian may choose to pull the tooth, restore it, or refer your pet to a veterinary dental specialist.

Just like people, cats accumulate tartar at different rates. If your pet’s teeth have lost their pearly shine, your veterinarian can take care of the problem with a professional cleaning. He or she also can tell you how often your pet’s teeth need to be cleaned. Some pets may need their teeth cleaned every six months, while others can go a few years between cleanings.

Part of the difference depends on the characteristics of your cat. However, you can control some factors that affect tartar buildup.

For example, pets who eat dry food accumulate less tartar than pets who eat moist or canned food. You can also make a difference by brushing your cat’s teeth at home. And if you’re not up to that, you can still give your pet special treats that help control tartar. Your veterinarian can recommend specific products.

A note on cat breath
Your cat’s breath may not smell sweet, but it shouldn’t make you flee the room. And foul odor in the mouth can indicate dental disease. Excessive drooling and lumps in your cat’s mouth aren’t normal either. Alert your veterinarian if you notice any of these problems.
You probably get plenty of sloppy kisses from your canine cohort, but getting a good look at his mouth and teeth takes a little more effort. So gather your furry friend in close, gently open his mouth, and take a closer look at these critical parts of your pooch:

The gums
Lift up your dog's lips and take a look at the gums. They should be pink, not shades of red, white, yellow, or blue. Some dogs have dark pigment spots on their gums and tongue. Don't panic—that's normal.

If your dog's gums look red and swollen, that's the first sign of periodontal disease, a serious condition you'll want your veterinarian to address right away. As the condition worsens, your pet's gums will recede, and without treatment his teeth will eventually loosen and fall out. The key: Catch the condition early and take action.

The teeth
Next, look at the teeth. They should be white and clean and should not be broken or cracked. If you think a tooth may be cracked, take your dog to the veterinarian right away.

He or she will examine your dog's teeth and may take X-rays to determine the extent of the damage. Depending on the results, your veterinarian may choose to pull the tooth, restore it, or refer your pet to a veterinary dental specialist.

Just like people, dogs accumulate tartar at different rates. If your pet's teeth have lost their pearly shine, your veterinarian can take care of the problem with a professional cleaning. He or she also can tell you how often your pet's teeth need to be cleaned. Some pets may need their teeth cleaned every six months, while others can go a few years between cleanings.

Part of the difference depends on the characteristics of your dog. However, you can control some factors that affect tartar buildup.

For example, pets who eat dry food accumulate less tartar than pets who eat moist or canned food. You can also make a difference by brushing your pet's teeth at home. And if you're not up to that, you can still give your pet special treats and dental chew toys that help control tartar. Your veterinarian can recommend specific products.

A note on dog breath
Your dog's breath may not smell sweet, but it shouldn't make you flee the room. And foul odor in the mouth can indicate dental disease. Excessive drooling and lumps in your dog's mouth aren't normal either. Alert your veterinarian if you notice any of these problems.
It’s so exciting, we’re in danger of losing our heads.

vetted™
VetEc + VetMed, shaken not stirred

You want in the circle, people. We’ve got treats.