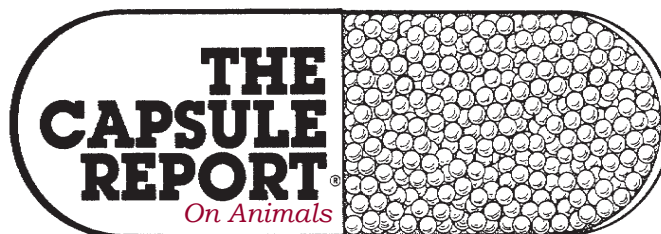


A digest of practical and clinically relevant information from this month's journals and proceedings



Small Animal/Exotic Edition

Our 30th Year

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Decreasing cat anxiety pre-visit

Decrease pre-visit anxiety by having the owner give a medication to a known anxious or fractious cat before the cat comes to the clinic—the visit will be more pleasant. 1) Alprazolam (Xanax), 0.25mg tablet. Use for cats that are lovers at home but fear aggressive at the clinic. For a 5-9 lb cat, give 1/8-1/2 tab 2 hours before visit; repeat 30 minutes before visit; For cats >9 lbs give 1/4-1 tablet at each dose. 2) Rescue Remedy (www.onlynaturalpet.com) or 5 Flower Remedy (fesflowers.com) atop head or as aerosol; the author uses in cats who become more anxious the closer they get to the vet office. 3) Feliway—have owners spray carrier before put cat into carrier and also spray car or use a car scenter with Feliway as the scent. 4) Aconite—use if cat's anxiety relates to prior painful visits; 2-3 tiny pellets every 15 minutes for about an hour before the car ride. 5) Buspirone for car sickness: 5 mg one hour before trip.

Hazel C. Carney, DVM, MS, Dip ABVP
Wash St VMA Conf Procd, 05:08

Innovations in wound healing

Enagic, a Japanese company (enagic.com), sells machines that uses an anti-bacterial charcoal system to filter contaminants and chemicals like chlorine from tap water, creating Kangen water. This author swears by it. Kangen water has been used in Japan for more than 30 years. The water gets rid of microbes, viruses, and bacteria on the wound after 30 seconds. The author uses it to flush wounds. The author also uses Assisi Loops by Musculoskeletal Therapies for Animals (MTA; mtavet.com) before bandaging wounds; these products cut healing time by increasing blood flow to the injury. Assisi uses post-magnetic field therapy and helps speed up and complete wound healing. You can use each loop about 90 times. The treatment time is about 15 minutes for each procedure. It is non-invasive and there are no side effects. After only 7 days of healing, the wound looks more like it's at 14 days into healing.

D. Tim Crowe Jr., DVM, Dip ACVS
Vet Pract News, Nov 2011

Zoonotic risk of Leptospirosis

Patients should be considered a zoonotic risk to hospital personnel and other patients until at least 48 to 72 hours after initiation of antibiotic treatment. At a minimum, hospital personnel should wear gloves when handling patients during this time. Face protection to prevent urine contact with eyes is also recommended. Urine should be considered infectious and disposed of accordingly until several days after initiation of antibiotic therapy. Hospital cages should be marked appropriately. Other dogs in the client's household should be treated with doxycycline because of possible concurrent or common exposure. If treated with ampicillin or penicillin G, you must follow up with doxycycline (5 mg/kg, PO, q12h) for at least 2 weeks to eliminate infection. Doxycycline (5 mg/kg, IV or PO, q12h) can be prescribed as initial treatment if vomiting or adverse reactions do not preclude administration. Optimal duration of doxycycline treatment is unknown, but administration should continue for at least 2 weeks after GI signs resolve.

George E. Moore, DVM, PhD, Dip ACVIM
NAVC Clin Brf, Jul 2011

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Gabapentin for analgesia

Gabapentin is only available in oral form. This author uses gabapentin to supplement analgesia for neuropathic pain conditions. More often than not chronic pain has a neuropathic component. Rarely is gabapentin used during emergency procedures because the analgesic effect is weak for acute pain and it is only available in oral form. However, the author often uses gabapentin for long term analgesia at home. Combination of gabapentin with other analgesic drugs is very effective. For example, the author recommends for chronic back pain a combination of muscle relaxants, NSAID and gabapentin (2-6 mg/kg). Side effects are: weakness, lethargy, ataxia and confusion. Careful with oral suspensions that may contain xylitol.

Pedro Boscan DVM, MSc, PhD, DACVA
71st Co St U Vet Conf Procd

The Capsule Report.

Rabies post-exposure management

Dogs, cats, and ferrets: Any illness in an exposed animal should be reported immediately to the local health department. If signs suggestive of rabies develop (e.g., paralysis and seizures), the animal should be euthanized and the head shipped for testing. Dogs, cats, and ferrets that have never been vaccinated and are exposed to a rabid animal should be euthanized immediately. If the owner is unwilling to have this done, the animal should be placed in strict isolation for 6 months. Isolation in this context refers to confinement in an enclosure that precludes direct contact with people and other animals. Rabies vaccine should be administered upon entry into isolation or up to 28 days before release to comply with pre-exposure vaccination recommendations. There are currently no USDA-licensed biologics for post-exposure prophylaxis of previously unvaccinated domestic animals, and there is evidence that the use of vaccine alone will not reliably prevent the disease in these animals. Animals overdue for a booster vaccination should be evaluated on a case-by-case basis based upon severity of exposure, time elapsed since last vaccination, number of previous vaccinations, current health status, and local rabies epidemiology to determine need for euthanasia or immediate revaccination and observation and isolation. Dogs, cats, and ferrets that are currently vaccinated should be revaccinated immediately, kept under the owner's control, and observed for 45 days.

JAVMA, 239:5

Wildlife rehabbing

There are numerous reasons why a veterinarian interested in wildlife medicine needs to develop a relationship with a wildlife rehabber. Wildlife rehabilitation involves certain legal restrictions, special caging and housing requirements, and safety considerations for animals and hospital staff; in addition, wildlife rehabbers may be required to provide highly specialized long-term intensive care. Permits from the U.S. Fish and Wildlife Service (www.fws.gov/forms/3-200-10b.pdf) are required to legally hold or rehabilitate many wildlife species on a long-term basis, even for medical care. Permits are required in most states for long-term housing of wild carnivores, deer, and other game species. Almost all wild bird species (including common species, such as doves, northern cardinals, blue jays, water birds, waterfowl, and hawks) are protected by the migratory bird act.

*Scott P. Terrell, DVM, Dip ACVP
NAVC Clin Brf, 4:11*

Treating chronic diarrhea

Veterinarians have known for some time that dogs

(and occasionally cats) with chronic idiopathic diarrhea (ID) may respond partially or completely to antibiotic therapy. In most cases however, the diarrhea returns when therapy is discontinued. The term idiopathic antibiotic-responsive diarrhea (ARD) is commonly used for these cases, and is preferred over small intestinal bacterial overgrowth (SIBO) due to a lack of consensus on what defines SIBO, and because a response to antibiotics does not necessarily indicate that SIBO is present. Although large numbers of dogs with idiopathic ARD have yet to be described, as many as 30% of dogs with chronic ID may be antibiotic-responsive. The response to antibiotics typically occurs within a few days to 1-2 weeks, and often requires low doses to maintain effect (e.g. 7-10 mg/kg of metronidazole, q12-24h; 6-16 mg/kg of tylosin, q12-24h). When antibiotic therapy is discontinued, most dogs relapse with diarrhea within 30 days. If there is a complete response to antibiotics, the author continues the course for a total duration of 4-6 weeks. If the diarrhea recurs, discuss with the owner longer-term antibiotic therapy (e.g., 2-3+ months) using the lowest effective dose vs. trying immunosuppressive therapy. Unfortunately some dogs require antibiotic therapy for years to remain diarrhea-free.

*Sally A. Bissett, BVSc, MVSc, Dip ACVIM
12th NC VMA Conf Procd*

Alternate therapies with amitraz

Approximately 40%-50% of dogs with juvenile-onset generalized demodicosis will self-cure. This helps to explain the success of vast numbers of "treatments" that have been proposed over the years (e.g. burnt motor oil). With that figure in mind, you should critically evaluate therapeutic claims that have not been scientifically evaluated. Although label claim for amitraz states a 98% cure rate, most of us haven't had this kind of success. However, amitraz therapy is probably effective in curing about 80% of cases of generalized demodicosis. Alternative therapies with amitraz follow. Frequency: While the label instructions call for amitraz to be used every 14 days, most dermatologists find it to be most effective when used on a weekly basis. In general, this author recommends treating weekly from the beginning. Be sure to inform owners that this is extra-label usage. Does size really matter? In large breed dogs, you may need to use higher volumes of dip (dilute 2 vials per 4 gallons of water). In toy breeds, it is recommended to start with 1/2 strength (1/2 vial per 2 gallons water). Concentration: Many proposals have been made to use amitraz at higher concentrations (500, 750, or 1000 ppm). It is important to note that with increasing concentrations, there is increased efficacy, but also increased risk of adverse effects. One study showed that applying amitraz at 1250 ppm to half the body daily resulted in a 73% cure rate in dogs that had previously failed amitraz treatment. Localized use: Amitraz in mineral oil (1:9) has been used for localized treatment of the ears and feet.

*Randall C. Thomas, DVM, Dip ACVD
Central FL Acad Vet Derm conf Procd, 05:09*

Presurgical treatment of mast cell tumors

This author has not used CCNU, or lomustine, before excising larger mast cell tumors, partly because no studies have evaluated CCNU's efficacy for this indication. Also, marked side effects can occur, particularly neutropenia, which makes it a poor match for surgical patients. Neoadjuvant therapy with prednisone has been studied and is effective for decreasing mast cell tumor size in dogs. This author usually considers prednisone therapy preoperatively in dogs when the mast cell tumor is either too large to excise with acceptable margins (minimum 3 cm) or the mass is located in an area where the margins are anatomically limited (e.g. perianal, distal limb). The mass is marked with an indelible pen before treatment so the response can be measured. Prednisone is typically given for 2 weeks. Duration of treatment may be adjusted based on the size and response of the mass.

*Jenifer Newton, DVM, MS, Dip ACVS
Vet Med, Jun 2011*

Feline practice tips

Neutropenia + fever + diarrhea ... think *Salmonella* (especially in the Northeast in the Fall). Chronic infectious diarrhea in cats... Clostridial diarrhea may not be responsive to metronidazole, try Clavamox. Heartworm disease causes vomiting in cats... keep on your differential list in endemic areas. ALWAYS check under the tongue for string in every vomiting cat. Newer appetite stimulants in cats include mirtazapine (Remeron), 1/8 -1/4 15 mg tab, PO, every 3 days and midazolam, 0.5-1.0 mg/kg, IV or IM. Ptyalism (drooling) is the most common sign in cats with portosystemic shunts. Also consider PSS in any cat with urate calculi. Shunts are more common in Persian and Himalayan cats. If serum bilirubin is >3.0 mg/dl, 90% of feline patients have a hepatic problem. If serum bilirubin is <3.0 mg/dl, 50% of patients have a nonhepatic problem. FeLV and FIV are the most common causes of non-traumatic urinary incontinence in cats. Mammary hypertrophy/hyperplasia causes massive symmetrical mammary development. OHE is curative but the mammary enlargement may take months to resolve. Aglepristone, a progesterone antagonist, 10 mg/kg, SQ, for 4-5 consecutive days may produce resolution. Use serum fructosamine levels to help separate stress hyperglycemia from true diabetes.

*Alice M. Wolf, DVM, Dip ACVIM
TN VMA Conf Procd, 03:07*

Gastric stasis in the rabbit

Provide fluid therapy to maintain circulation and rehydrate the GI contents. In mild cases, only oral fluids may be required, but in more severe cases, intravenous fluids are indicated. Maintenance volumes are 100 ml/kg/day. Analgesia: buprenorphine (0.01-0.05 mg/kg, SQ or IV, q8h), butorphanol (0.1-0.5 mg/kg, SQ or IV, q2-4h), carprofen (2-4 mg/kg, SQ or IV, q24h). Motility modifiers: metoclopramide (0.5

mg/kg, SQ, q12h), cisapride (0.5 mg/kg, PO, q12h), ranitidine (2-5 mg/kg, PO, q12-24h). It may take 3 days or more for fecal output to resume. The author does not advocate the use of antibiotics in uncomplicated gastric stasis. The use of enzymatic products (e.g., papain) to digest trichobezoars is controversial—these products do not actually digest hair (keratin) but may help to break down the matrix holding the material together. Although pineapple juice is often advocated because it contains the enzyme bromelain (and papaya to provide papain), it is high in simple sugars, which may promote cecal dysbiosis and clostridial overgrowth. The perceived beneficial effects of giving pineapple juice are likely due to rehydration of stomach contents.

*Anna L. Meredith, MA, VetMB, CertLAS, DZooMed, MRCVS
Comp, 29:3*

New feline life stage guidelines

Cats generally receive less veterinary care than dogs. In light of this the goals of the AAEP-AAHA Feline Life Stage Guidelines have been published and are available at aahanet.org/Public-Documents/FelineLifeStage-Guidelines.pdf. These guidelines: 1) Provide optimal healthcare recommendations for cats throughout the different stages of life. 2) Provide practical suggestions and tools to facilitate improved veterinary visits. 3) Promote more effective client communication and education about the benefits of regular veterinary care. 4) Enhance the client-veterinarian clinical encounter.

*C.A. Tony Buffington, DVM, PhD, Dip ACVN
Vet Med, Oct 2011*

When to discontinue fluid therapy

Discontinuing fluid therapy is as important as initiating fluid therapy. In most instances, fluid therapy should not be abruptly discontinued, especially if the patient is receiving high flow rates. During fluid therapy, the solute gradient in the kidneys may be changed as a result of fluid therapy (i.e., renal medullary solute wash-out). If fluid therapy is abruptly discontinued, the patient may not be able to concentrate urine well and may continue to lose excessive fluid in the urine for several days. This can be a serious problem if the patient is not ingesting adequate amounts of water and may lead to dehydration. The patient should be gradually weaned from fluid therapy. In the ideal situation, fluid therapy should be tapered to lower than maintenance for at least 24 hours before discontinuation of fluid therapy. This approach is not always possible, however. If fluid therapy must be abruptly discontinued, the patient should have access to adequate quantities of water and the owner should be informed of the patient's increased water requirements over the next several days.

*Steven Mensack, VMD
Vet Clin N Amer, 38:3*

Fixing slides

You can't over fix a slide, but you can definitely under fix one, and under-fixed cells will lyse and fail to stain adequately. Once you move from the fixative solution to the stain solution, an under-fixed slide can't be improved. For very thin cytology smears and for blood smears, 5 or 6 dips in the fixative solution may be adequate, but for thick smears, up to 120 seconds may be required for adequate fixation. When in doubt, fix them a little longer. Also note that prolonged exposure of the fixative to air at room temperature can result in impaired staining from formation of degradation products, and contamination of fixative with water can produce refractile "water artifact" on slides. Slides should be completely dry before staining (use of a gentle amount of warm air from a hair dryer can facilitate this), slide holders should be dried before slides are loaded, and stains should be tightly covered when not in use.

*Jennifer Neel, DVM, Dip ACVP
12th NC VMA Conf Procd*

Poor diabetic control

When energy issues have been ruled out, problems with how the patient interacts with the insulin should be considered next. Problems with erratic insulin absorption are relatively uncommon. However, some animals develop thickened skin and irritation of the subcutaneous tissues if the insulin is always administered at the same site. This is a consideration in dogs with a variable or delayed onset of insulin action, often manifested by the inverted glucose curve. With these patients, serial blood glucose concentrations are markedly different if a new injection site is used. Simply teaching the owner to rotate through six or eight sites on the flanks and dorsum usually solves this problem.

*Audrey K. Cook, BVM&S, MRCVS, Dip ACVIM
Vet Med, 105:4*

Senior pet foods

Dog owners often assume that pet food for senior dogs is tailored to the nutritional needs of the older pet, possibly offering reduced calories or age-specific nutrients. But results of a new study indicate the nutritional value of food targeted to older dogs can vary widely from brand to brand. In one key finding, the majority of respondents felt that senior dogs have different nutritional needs from adult dogs. In fact, the Association of American Feed Control Officials (AAFCO) and National Research Council don't have standardized dietary requirements for aging dogs. As a result, foods indicated for longevity or senior dogs do not have to follow a specific nutrition profile beyond the AAFCO nutrient profile minimums for adult dogs. Another notable finding was that most survey respondents believed that senior dog foods probably consisted of fewer calories. However, calories in the senior foods studied were highly variable, ranging from 246 to 408 calories/cup. Most polled also said that senior dog foods likely contained less fat, protein and sodium. Among the senior dog diets surveyed, these nutrients were not consistent across the board. Additionally, respondents were not clear whether, when compared to adult dog foods, senior foods would

contain more or less phosphorous, limits of which would help dogs with kidney disease. The actual diets had a three-fold difference in phosphorous content. According to researchers, the study illuminates the importance for owners to be aware that each senior diet is different and may or may not be suited for an individual dog, depending upon his or her body condition and health.

DVM, Jun 2011

Corneal sequestrum in the cat

Topical antibiotic therapy may be used to prevent secondary bacterial infection of the associated corneal erosion, but such therapy will have negligible effect on resolution of the sequestrum itself. Topical corticosteroids are generally contraindicated owing to the state of the epithelium and the possible etiologic link with feline herpesvirus. Topical lubricants, especially I-Drop Vet (I-Med:Pharma), may symptomatically decrease discomfort by providing a barrier over exposed corneal nerve endings. A German study suggested topical interferon alpha-2b (compounded to 3000 IU/ml) applied 2-4 times daily may speed resolution of the sequestrum without the need for surgery. In the author's experience, the clinical course is shortened when interferon therapy is initiated early in the sequestrum's development rather than when used in chronically affected eyes. In patients with a stubborn sequestrum, in those with notable discomfort, or in cats with progressive vascularization and scarring, a keratectomy may be indicated to remove the sequestrum, followed by a thin conjunctival graft or lamellar corneal graft to reduce the likelihood of recurrence. The second eye may also develop a sequestrum at a later date, in some cats even years later.

*Mary B. Glaze, DVM
TN VMA Conf Procd, 03:07*

Avoiding dehiscence

Dehiscence can be avoided by observing the ends of the abdominal wall incision (do not continue your wall incision past the ends of the skin incision); placing sutures at the end of the abdominal incision first and palpating under the wall ends to be sure sutures are located at the end of the incision; identifying and suturing the external rectus fascia (including the internal rectus fascia is not necessary) with healthy bites (at least 0.5 cm) without incorporating any subcutaneous tissue within these bites; suture size and knot technique must be correct. Closure pattern can be both simple interrupted or continuous (the author prefers continuous in most cases unless if the wall edges are not healthy it is better to place interrupted sutures).

*Daniel D. Smeak, DVM, Dip ACVS
72nd CO U CVM Conf Procd, 2011*