Vomiting and Antiemetic Use in Cats: What’s the Evidence?
The reflex motor act of vomiting is coordinated at the brainstem and can be triggered by peripheral, central, or vestibular stimuli. Currently, there are no published clinical trials of antiemetic use for naturally occurring vomiting in cats. When evaluating experimental studies, the type of emetic and vomiting pathway must be considered. The antiemetics used for cats include phenothiazines, dopamine receptor antagonists, 5-HT₃ receptor antagonists, and neurokinin-1 (NK-1) receptor antagonists; however, few of these have published evidence to support their use. Maropitant is a potent, highly selective NK-1 antagonist that seems well tolerated and shows promise as a broad-spectrum antiemetic for cats. In experimental studies, when emesis was induced by a centrally acting agent (xylazine), maropitant was effective with once-daily oral administration. In another study, the acute phase of cisplatin-induced emesis was managed with granisetron, a 5-HT₃ receptor agonist. Dexmedetomidine-induced vomiting was controlled with ondansetron when administered with dexmedetomidine, but not when administered 30 minutes before. Metoclopramide is often listed as an antiemetic for cats, but its usefulness is questionable.—Batchelor D

What to Do When Vascular Access is Challenging
IV access can be difficult in small patients and in patients with constricted or collapsed veins. Venous cut-down can be effective, but alternative routes exist. Intratracheal and endobronchial administration of drugs has been advocated; however, studies suggest that even doses 10x the IV dose fail to reach effective plasma levels. The intracardiac route includes the risk for myocardial trauma and damage to the coronary arteries. The intraperitoneal route is used but in cases of hypovolemia or shock, perfusion is severely reduced and there is risk for damaging internal organs. The intraosseous route is often recommended in human pediatrics and is gaining recognition in veterinary medicine, as it allows easy administration of drugs and fluids and veins do not collapse during circulatory failure. It is best to use a needle with a trocar and surgically prepare the insertion site. Lidocaine can be used along the path of the needle to reduce pain. The needle must be positioned perpendicular to the bone surface, then rotated clockwise/counterclockwise with minimal pressure, followed by increasing pressure. When the medulla is reached, there is clear loss of pressure. The needle must be fixed; different techniques can be used, depending on animal size and needle type and location.—Robben JH

Getting the Best Out of Your Practice for Dermatology Cases
The skin may be accessible for sampling, but a good microscope, including an oil immersion lens with 1000x magnification, is essential. Ectoparasite diagnostic techniques can vary, depending on the parasite involved and where it resides on the skin. With coat brushing, a simple technique, the patient sits on a piece of paper and is brushed vigorously; the debris collected on the paper can be examined by picking it up with sticky tape or transferring it to a slide. Superfi-
cical skin scrapings can be done with mineral oil and a scalpel blade. Deep skin scrapings are needed if Demodex mites are suspected. Before scraping, the area can be squeezed to extrude material from the follicles and the material spread onto a slide. Cytology samples should be collected by obtaining direct impressions of the lesion using a microscope slide. Samples from oily lesions or lesions that are difficult to reach can be procured by repeatedly touching clear tape to the area.Ear samples can be obtained by swabbing the ears and then gently rolling the swab onto a slide. Samples should be air-dried and fixed before staining; heat fixing before staining may be helpful for oily samples.—Neuber A

The Fifth Vital Sign: Opportunity or Cost? Calorie consumption has risen dramatically in the past 50 years as patterns of behavior problems are the primary reason for pet euthanasia. With a reported prevalence of 42% – 87%, behavior problems are the primary reason for pet euthanasia. Many overweight pets have overweight owners with little understanding of how much to feed and exercise their pets. Feline Advisory Bureau data show that about 10% of cat owners will do what the veterinarian suggests, 40% understand and are committed to appropriate pet health but have not implemented it yet, and the remaining 50% simply refuse. Supplementation in dogs and cats appears to be increasing, but owners often do not consider supplements as food or medicine; thus, it is important to specifically ask owners if they are administering them. While pets fed prepared food seldom have deficiencies, those eating unbalanced diets (eg, homemade, vegetarian, raw) may not be eating a nutritionally balanced diet. In addition, some small pet food manufacturers do not have sufficient quality-control measures in place to ensure that their food is nutritionally balanced. Some pets may be eating nutritionally balanced food but get additional calories from table scraps or treats. Nutritional information should be collected and specific nutritional recommendations made at every hospital visit. —Freeman LM, Tiffin R

Treating Behavioural Problems with Pheromones With a reported prevalence of 42% – 87%, behavior problems are the primary reason for pet euthanasia. With a reported prevalence of 42% – 87%, behavior problems are the primary reason for pet euthanasia. Major issues, or behavior problems, are potentially dangerous to humans, other animals, or the animal itself. These include aggression, obsessive-compulsive disorders, and self-mutilation. Methods to lessen behavior problems in pets include pet training, owner education, environmental management, intensive behavior modification, and psychotropic medication. Several pheromones have been identified in cats and dogs, including a feline facial pheromone (Felicyan, felicyan.com) and dog-appeasing pheromone (Adaptil, adaptil.com). Both appear to help reduce anxiety and promote calmness. For cats, pheromones have proven useful in managing urine spraying, vertical marking, and hospitalization stress. Dog-appeasing pheromone has been recommended to lessen stress from separation anxiety, noise phobia, and motion sickness. When the diffuser form is used, it is important that dogs have easy access to it because they may become stressed if the diffuser is placed behind furniture or in other hard-to-reach places.—Sekel K