# A New Way to Manage Inappetence in Dogs

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When selecting an appetite stimulant, it is critical to look at pharmacologic management that stimulates appetite as a *main effect*, not side effect, of the drug.

Inappetence is best described as a spectrum with varying degrees of appetite reduction. Although inappetence is most commonly associated with anorexia, it is equally important to recognize and acknowledge hyporexia and dysrexia.<sup>1</sup>

#### Definitions<sup>1</sup>

- ► Anorexia: A lack of appetite leading to no food intake.
- ► **Hyporexia:** A decreased appetite leading to decreased food intake.
- ▶ **Dysrexia:** A change in appetite that results in an altered food intake.

## Assessment

To recognize the form of inappetence, clinicians must take a full medical history and conduct a physical examination to gather vital information. This includes weight history, owner assessment of appetite and behavior changes, and body and muscle condition scores.<sup>2</sup> Nutritional intake should also be recorded, including type and amount of food fed to determine whether the diet is complete or balanced<sup>3</sup> and meets resting and metabolic energy requirements.<sup>4</sup>

Many patients may require assisted feeding, which is any alteration to voluntary eating (eg, using a feeding tube, changing food texture, navigating the patient to food). Although assisted feeding is useful, it can be time-intensive and, in the case of tube feeding, cost-prohibitive for the owner.<sup>5,6</sup> Forced feeding may result in food aversion, aspiration, unnecessary stress, and delay to spontaneous eating (voluntary food intake).<sup>6</sup>

## **Pharmacologic Options in Dogs**

The ability to return to and maintain spontaneous eating is frequently a positive prognostic indicator.<sup>7</sup> Traditional pharmacologic management of appetite

stimulation has been through use of drugs that are not primarily indicated for that purpose—and in many cases, with only anecdotal reports of safety and efficacy. The primary goal of extra-label use of these medications is to encourage spontaneous feeding, but there have been no FDA-approved medications labeled for appetite stimulation in dogs before Entyce (capromorelin oral solution) was available in October 2017.

**Capromorelin (Entyce)** is a ghrelinreceptor agonist that is FDA-approved and indicated for appetite stimulation in dogs. <sup>1</sup> The drug mimics the action of ghrelin, the "hunger" hormone that plays an important role in appetite. <sup>9</sup> Clinical trials support its safe use and efficacy in canine patients with reduced appetite. <sup>1</sup>

**Cyproheptadine** is an antihistamine used in dogs extra-label as an appetite stimulant. Its mechanism of action is through competition with histamine for  $H_1$ -receptor sites and antagonization of serotonin receptors. Cyproheptadine is known to cause sedation and anticholinergic effects.<sup>8</sup>

**Maropitant citrate** is a neurokinin receptor agonist (NK1) that blocks the action of substance P—a neurotransmit-

ter involved in vomiting—in the central nervous system. It is FDA-approved for the prevention of acute vomiting and the prevention of vomiting in dogs due to motion sickness. Clinicians may use maropitant to enhance food intake in inappetent dogs working under the assumption that these patients are nauseous; however, this is *not always* the case.

**Mirtazapine** is a tetracyclic antidepressant used extra-label in dogs as an appetite stimulant and/or antiemetic. Little data exist regarding the pharmacokinetics or efficacy of mirtazapine as an appetite stimulant in dogs.<sup>10</sup>

**Prednisone/prednisolone** is a glucocorticoid used as an anti-inflammatory and anti-neoplastic agent. Side effects of this medication include polyphagia from the hyperglycemic effect of antagonizing insulin, seen in short- and long-term dosing. There are many contraindications and undesirable effects with steroids, including polyuria, polydipsia, and immune suppression.<sup>8</sup>

## Conclusion

Early recognition and intervention are key to avoiding detrimental outcomes of decreased appetite. Entyce is the only appetite stimulant FDA-approved for use in dogs.<sup>1</sup>

IMPORTANT SAFETY INFORMATION: ENTYCE® (capromorelin or al solution) is for use in dogs only. Do not use in breeding, pregnant or lactating dogs. Use with caution in dogs with hepatic dysfunction or renal insufficiency. Adverse reactions in dogs may include diarrhea, vomiting, polydipsia, and hypersalivation. Should not be used in dogs that have a hypersensitivity to capromorelin. Please see the brief summary for more detail.

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