

## Oral rehydration therapy for gastrointestinal disorders

*Oralade®*, MacaHL Animal Health

Increased fluid loss and decreased uptake mean that it is common for patients with gastrointestinal (GI) symptoms to experience a degree of dehydration. This can potentially lead to fatigue and nausea, as evidenced in human medicine, in addition to wide-reaching complications from more severe levels of dehydration such as kidney and urinary tract disease, seizures and hypovolaemic shock.

While many dogs do not show clinical signs of dehydration until they are already 5% dehydrated, patients with mild to moderate GI symptoms can benefit from early oral rehydration therapy. Plus, in more severe cases, oral rehydration support can help to reduce reliance on intravenous fluids.

### Rehydration

Isotonic solutions such as Oralade® have been shown to increase voluntary fluid intake by 70% compared to patients offered solely water<sup>1</sup> and can be effective for correcting mild to moderate cases of canine dehydration<sup>2</sup>. Oralade® is fast-acting because it is absorbed quickly to help replenish essential electrolytes in addition to fluids, and the formula is designed to support gastrointestinal health.

Particularly in the warmer weather, isotonic solutions are also useful as part of a multi-modal approach for chronic conditions that benefit from increased fluid intake. A ready-to-serve formula is advantageous for these patients, as it is very practical for home use.

### Enteral nutrition

Fasting can be very damaging to the integrity of the GI tract, with the veterinary community moving away from the classic advice to fast patients for 24-72 hours until their GI symptoms have ceased. At a cellular level, lack of suitable nutrition can lead to atrophy of enterocytes<sup>3</sup> – simple, columnar epithelial cells that play a key role in the absorption of sugars, amino acids, fluid and electrolytes. These cells also have an important defensive function, creating a physical barrier through their tight adherence to neighbouring cells. This means that atrophy of the enterocytes increases the risk of bacterial translocation.

While therapeutic diets have been developed to support patient recovery from GI symptoms, these are often not tolerated during the first 24 hours, especially given that inappetence is still common. Therefore, isotonic solutions can contribute to early enteral nutrition in these patients.

### Pancreatitis

These cases pose additional considerations due to the need for low fat options. A zero fat, isotonic formula for microenteral nutrition can work well in these patients, with research in human and veterinary patients showing positive findings in those who received early enteral nutrition. The benefits included improved return to appetite and decreased levels of gastrointestinal intolerance<sup>4,5</sup>.

### How are veterinary practices using Oralade®?

*'We use Oralade products a lot, particularly for cases of V&D, inappetence and in patients who are just struggling to keep things down. It's a really useful way to provide electrolytes and enteral nutrition without offering food. We've had really great success with Oralade, and most of our patients come back for a second bottle! I would definitely recommend Oralade, particularly for patients who are*

*inappetant – it's a good way to get them eating. We sometimes recommend that owners can warm it up, to help encourage their pets to take on more fluids.' Medivet, Dover*

*'We use Oralade products daily, particularly the renal and GI. We obviously use the GI products for gastrointestinal cases and haemorrhagic gastritis, but we also use this for a lot of post-op cases, particularly following ex laps. We find the Oralade critical care protocol very helpful as we are a 24 hour hospital. We often mix into other diets to make them more palatable for our hospitalised patients. We get very positive feedback from owners, and some of our chronic patients are on Oralade long-term particularly if they are at risk of dehydration such as chronic kidney cats.' Medivet Southend*

1 <https://oralade.com/vet/>

2 Reineke EL, Walton K, Otto CM. Evaluation of an oral electrolyte solution for treatment of mild to moderate dehydration in dogs with hemorrhagic diarrhea. J Am Vet Med Assoc. 2013 Sep 15;243(6):851-7. doi: 10.2460/javma.243.6.851. PMID: 24004233.

3 Mohr AJ, Leisewitz AL, Jacobson LS, Steiner JM, Ruaux CG, Williams DA. Effect of early enteral nutrition on intestinal permeability, intestinal protein loss, and outcome in dogs with severe parvoviral enteritis. J Vet Intern Med. 2003;17(6):791-798. doi:10.1111/j.1939-1676.2003.tb02516.x

4 Jensen, K.B. and Chan, D.L. (2014), Nutritional management of acute pancreatitis in dogs and cats. Journal of Veterinary Emergency and Critical Care, 24: 240-250. <https://doi.org/10.1111/vec.12180>

5 Harris, J.P., Parnell, N.K., Griffith, E.H. and Saker, K.E. (2017), Retrospective evaluation of the impact of early enteral nutrition on clinical outcomes in dogs with pancreatitis: 34 cases (2010–2013). Journal of Veterinary Emergency and Critical Care, 27: 425-433. <https://doi.org/10.1111/vec.12612>