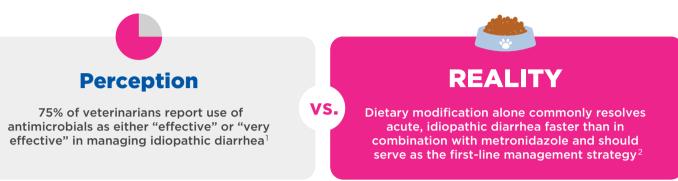


An evidence-based, antibiotic-sparing approach to canine idiopathic acute diarrhea



Metronidazole is unnecessary in non-infectious acute diarrhea and may be detrimental to patients

- Metronidazole use depletes key bacterial species that produce short-chain fatty acids critical to gut health.³
- Metronidazole-induced dysbiosis may not fully resolve even 4 weeks past discontinuation of antibiotic therapy.^{2, 3}
- Microbiome alterations association with administration of metronidazole mirror features of dysbiosis seen in chronic enteropathy patients, raising concern over potential long-term health implications.³

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When should I consider antibiotics for acute diarrhea cases?⁴

- Diagnosed infectious causes of acute diarrhea where metronidazole is approved for treatment
- Signs of severe infection indicating SIRS, such as fever, leukopenia, leukocytosis with a left shift (bands), hypoglycemia, and/or persistent hypotension
- Patients that are immunocompromised (such as those receiving chemotherapy)
- Patients not responding to fluid therapy and supportive care after multiple days

2. Rudinsky AJ, Parker VJ, Winston J, et al. Randomized controlled trial demonstrates nutritional management is superior to metronidazole for treatment of acute colitis in dogs. Published online December 1, 2022. doi:10.2460/javma.22.08.0349

3. Pilla R, Gaschen FP, Barr JW, et al. Effects of metronidazole on the fecal microbiome and metabolome in healthy dogs. J Vet Intern Med. 2020;34(5):1853-1866. doi:10.1111/jvim.15871

4. Ellis C, Odunayo A, Tolbert MK. The use of metronidazole in acute

What are my management options for acute idiopathic diarrhea if I'm not using antibiotics?

- Highly digestible nutrition ⁷
- Nutrition enhanced with prebiotic fiber sources ²
- Fecal microbiota transplantation (FMT) given by enema is a minimally invasive, adjunctive microbial-directed management strategy shown to demonstrate superior resolution of clinical signs compared to metronidazole ^{5, 6}

References: 1. Francillon WB, Winston JA, Schreeg ME, Lilly ML, Parker VJ, Rudinsky AJ. Clinician prescribing practices for managing canine idiopathic acute diarrhea are not evidence based. Published online December 1, 2023. doi:10.2460/javma.23.06.0313

diarrhea in dogs: a narrative review. Topics in Companion Animal Medicine, Volumes 56–57, 2023, 100824,ISN 1938-97365. Chaitman J, Ziese AL, Pilla R, et al. Fecal microbial and metabolic profiles in dogs with acute diarrhea receiving either fecal microbiota transplantation or oral metronidazole. Front Vet Sci. 2020;7:192. doi:10.3389/fvets.2020.00192

^{6.} Winston JA, Suchodolski JS, Gaschen F, et al. Clinical guidelines for fecal microbiota transplantation in companion animals. Adv Small Anim Care. 2024;0(0). doi:10.1016/j.yasa.2024.06.006

^{7.} Candellone A, Cerquetella M, Girolami F, Badino P, Odore R. Acute Diarrhea in Dogs: Current Management and Potential Role of Dietary Polyphenols Supplementation. Antioxidants (Basel). 2020 Aug 9;9(8):725.