Antibiotic selection in canine haemorrhagic gastroenteritis: first results of a randomized blinded clinical trial

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OBJECTIVES
Antibiosis is deemed appropriate in haemorrhagic gastroenteritis (HGE) cases with systemic signs of disease, but there are no clear recommendations on which antibiotics should be administered. Amoxycillin-clavulanate and metronidazole are the most commonly prescribed antibiotics for such cases, but the necessity for both antibiotics is unknown. A clinical trial was therefore designed to investigate the efficacy of metronidazole as an adjunct to amoxycillin-clavulanate therapy in HGE cases.

METHODS
Dogs presenting to a first opinion veterinary hospital with HGE <3d duration were recruited to an ethically approved, prospective, randomized, blinded treatment trial with owner consent. Cases were randomised to receive either metronidazole or saline in a blinded manner, in addition to standard supportive therapy consisting of amoxicillin-clavulanate, IVFT, buprenorphine and omeprazole. Treatment efficacy was assessed by duration of hospitalisation, and daily clinical progress measured by a clinical scoring system.

RESULTS
Twenty-one cases have successfully completed this trial to date, which is 44% of the total required to be able to detect >12hr difference in hospitalisation between the treatment groups (5% error rate and 80% power). The average duration of hospitalisation for dogs receiving metronidazole was 28.6hr (SD 17.9hr), and saline placebo was 24.3hr (SD 10.9hr). Statistical significance was not reached. There was also no significant difference between daily clinical scores of the two treatment groups.

IMPACT
The interim results of this study have shown that it is not necessary for both metronidazole and amoxicillin-clavulanate to be administered to severe HGE cases, as addition of metronidazole does not improve clinical outcome.

Borrelia burgdorferi sensu lato infections in ticks from dogs in Cumbria

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OBJECTIVES
To understand the infection prevalence of Borrelia burgdorferi sensu lato (s.l.), the causative agent of Lyme disease, in dogs in Cumbria.

METHODS
Nine veterinary practices in Cumbria collect ticks from animals that were brought in specifically for tick removal or if a tick was spotted during an appointment. The animals were subjected to a two minute examination, focused on ears, head and groin. Ticks were removed into 70% ethanol, and a questionnaire filled out for each animal. The ticks were identified to species using a dissecting microscope and appropriate taxonomic keys. DNA was extracted and the samples were tested for the presence of Borrelia burgdorferi s.l. DNA using a real-time PCR targeting the 5s-23s intergenic spacer region.

RESULTS
393 ticks have been collected from 246 animals. Most ticks were collected off dogs, but a not inconsiderable number were collected off other animals. Borrelia burgdorferi s.l. DNA was detected in eight ticks (2.03%).