Antibacterials in canine gastrointestinal disease

How to treat canine gastrointestinal disease responsibly based on the nature of the condition

A
cute gastrointestinal (GI) disease is the most common reason for the empirical prescription of antibacterials in small animal practice, with a suspicion of Campylobacter infection being the most cited reason (German et al., 2010). Yet it can’t have escaped anyone’s notice that antibacterial resistance is a growing problem, and there is increasing pressure to reduce unnecessary usage.

While the tonnage of antibacterials prescribed in small animal practice is dwarfed by that in both medicine and the farm animal industry, the potential for zoonotic transmission of resistant organisms from companion animals is perhaps greater: owners are more likely to have close contact with their pet than any farm animal. Therefore, before the regulators restrict a vet’s right to prescribe, we need to ensure we are using antibacterials in a rational and safe manner.

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Campylobacter
When Campylobacter spp. are identified on routine stool culture, the likelihood is that it is C. upsaliensis; indeed, this can be isolated from about 30 percent of young dogs in the UK. Although potentially a zoonotic pathogen, C. upsaliensis may actually be a commensal in dogs and not need any treatment.

C. jejuni can only be reliably identified by PCR after culture, and so antibacterials are usually started before a confirmatory result of infection is obtained. However, it can also be isolated from the stool of healthy dogs, and so isolation does not prove it is the cause of any signs. Furthermore, most C. jejuni infections appear to be self-limiting and antibacterials are often unnecessary, although pet owners often expect antibiotics to be prescribed when their dog has diarrhoea. Appropriate fluid therapy is the most important treatment, but on the principle of “first do no harm”, when there is an expectation to treat in likely self-limiting diarrhoea, it is safer to use adsorbents (eg kaolin, pectin, etc) and/or probiotics.

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With the increasing popularity of feeding raw foods, there appears to be increasing numbers of dogs excreting Salmonella in their faeces. Freeze-thawing raw food before feeding does not kill all potential pathogens, and unless each batch is microbiologically tested, a risk of infection exists. However, use of antibacterials is not generally recommended as Salmonella infection may be asymptomatic or self-limiting, whereas treatment increases the chances of antibacterial resistance and induction of a carrier state. Only when there is evidence of sepsis is treatment warranted, and this is seen more frequently in cats than dogs.

Haemorrhagic gastroenteritis
Renamed “acute haemorrhagic diarrhoea syndrome” (AHDS), because there is no gastritis, the general consensus is still that dogs with haemorrhagic gastroenteritis...