Surveillance of antimicrobial resistant bacteria in raw dog and cat food on retail sale in the UK

Area of research interest: Antimicrobial resistance
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Project status: Ongoing
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Background

Some dog and cat owners appear to increasingly favour the feeding of raw pet food as they consider it is a more natural product. Raw pet food does not undergo any heat/cooking treatment meaning that the final retail product can be contaminated with microorganisms including pathogens and AMR bacteria. Whilst these raw pet foods are not consumed by the public, there are concerns around the storage and handling of such feed products within the home and the potential of cross-contamination of foods for human consumption and surfaces within domestic kitchens. These raw pet food products may contain pathogens infectious to pets which also poses a zoonotic risk of infection in humans. Therefore, guidance on handling raw pet foods should be followed to reduce the risk of infection.

This survey will primarily gather data on bacteria and AMR in bacteria found in raw dog and cat food on retail sale in the UK.

Objective and approach

This survey involves collecting 280 dog and 100 cat food individual items on retail sale in the UK from March 2023 to February 2024 using a shopping basket approach.

The samples will be tested for the detection and enumeration of Escherichia coli, Salmonella spp., Campylobacter spp., Shiga toxin-producing Escherichia coli and Livestock-associated Methicillin-Resistant Staphylococcus aureus (LA-MRSA) prior to testing for AMR. Screening of AMR will include Extended Spectrum Beta Lactamases (ESBLs), AmpC, Carbapenems and fluoroquinolones. Analysis for colistin resistance and the colistin resistant mcr genes will also be included.

Furthermore, a subset of 140 dog and 50 cat products will have the packaging swabbed prior to opening and tested for the same contaminants. This data will give an indication of whether the raw dog and cat food packaging is appropriate to prevent microbiologically contaminated meat liquid seepage during thawing and potential to cross-contaminate other foods and surfaces within the home.