![Food Standards Agency — food.gov.uk logo]

A survey of AMR E. coli on beef and pork on retail sale in the UK (2021)

Area of research interest: Antimicrobial resistance
Study duration: 2021-08-25
Planned completion: 25 March 2022
Project status: Ongoing
Project code: FS430889
Conducted by: HallMark and APHA

Background

The FSA's programme of AMR surveillance of retail meats in the UK began in 2014. This surveillance is a key component of the FSA contribution to the national action plan to tackle AMR.

The previous EU harmonised survey on AMR ended in 2020, and though it is no longer mandatory for the UK to participate in EU-led surveillance, there is a need to continue to monitor AMR E. coli in pork and beef and other retail meats to observe trends of AMR in comparison to previous years and also against European member states.

Research approach

This project will continue to mirror the EU harmonised survey on AMR, with sampling methodology and analytical methods mirroring the specification as closely as possible to ensure comparability of data with previous years surveillance.

This survey involves collecting 100 beef and 100 pork meat samples on retail sale in the UK from October through to December 2021, with sampling representing 80% retail market share and 80% population coverage of the four UK countries.

Analysis will require initial isolation and enrichment of E. coli from all meat samples, prior to testing for AMR, specifically Extended Spectrum Beta Lactamases (ESBLs), AmpC and Carbapenemase-producing E. coli. Analysis for colistin resistance and the colistin resistant mcr genes will also be included.

This survey will help to determine if these meats pose a risk to public health in relation to AMR and allow future monitoring of trends over time. This new data will inform the UK AMR National Action Plan, the FSA AMR surveillance strategy, risk assessments and consumer advice.