3E: Development of a Single Human Antibiogram for Alberta

Pillar: Surveillance
Theme: Innovation and Commercialization
Keywords: Antimicrobial Resistance; Antibiogram; Surveillance

AMR
One Health Consortium

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AIM

The primary goal of this project is to collate antimicrobial susceptibility testing data from the clinical microbiology laboratories in the province and generate a single provincial antibiogram accessible to researchers and health care professionals in Alberta.

WHY IS THIS IMPORTANT?

Understanding the antibiotic resistance rates of bacterial pathogens is critical information for clinicians treating patients. While antibiograms (i.e. antimicrobial susceptibility profiles for individual bacterial pathogens) exist in Alberta there is no one overarching antibiogram for the province as a whole. The work funded here will target the development of a provincial antibiogram in Alberta.

OUTCOMES

1 A public-facing, interactive, provincial antibiogram to help guide AMR Research Scientists on the most important human AMR issues in Alberta to tackle.

2 Generate valuable human AMR surveillance data from Alberta over time. 3) Link Alberta data into National Surveillance Programs (AMRNet, for example).

RESEARCH QUESTIONS

1 What are the provincial antibiotic resistance rates for the most commonly encountered human bacterial pathogens?

2 Do these antibiotic resistance rates vary by zone, age range or specimen type?

3 Are resistance rates changing over time?

OUR APPROACH

Data from the Laboratory Information Systems (LIS) from across the province will first be combined into a format that can be easily analyzed. The data will be analyzed according to Clinical and Laboratory Standards Institute guidelines (M39 document). The antibiogram will be presented in a public-facing, interactive, Tableau dashboard.

ALIGNMENT WITH THE AMR - ONE HEALTH CONSORTIUM

LEVERAGED SOURCES OF SUPPORT

Antimicrobial susceptibility data is produced daily in laboratories across the province. This data is provided in-kind to this project.

KNOWLEDGE & TECHNOLOGY EXCHANGE AND EXPLOITATION

- The province-wide antibiogram will be shared publicly for use by research scientists and healthcare professionals. A tableau dashboard will be used as a platform to display the data.

TRAINING OF HIGHLY QUALIFIED PERSONNEL

- The PI is in charge of Antimicrobial Resistance Surveillance at APL - Public Health Laboratory.
- 0.5FTE Postdoctoral Fellow
- 0.5FTE is shared with Project 3D

AFFILIATIONS:
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