

2015 CFID THEMED SPECIAL PILOT PROJECT

Performance and cost-effectiveness evaluation of multiplex molecular testing for enteric pathogens in a Canadian health-care setting

Part 1: A survey will be conducted to review current enteric testing methods, protocols, and outcomes in a Canadian clinical microbiology laboratory in order to draw conclusions regarding improvements which could be made in enteric pathogen testing in Canada.

Part 2: Using a multiplex molecular approach to enteric infection diagnostics, the role of molecular enteric testing in a Canadian diagnostic laboratory will be assessed including its financial impact and effect on clinical outcome, in comparison to conventional diagnostic methods.

The following outcome variables on clinical care, infection control and financial impact of multiplex molecular testing for enteric pathogens will be determined:

- Turnaround Time for results
- Scale and cost of retention of conventional assays after multiplex implementation
- Impact on isolation days in hospital
- Impact on length of hospital admission
- Impact on nosocomial transmission and number of outbreaks (largely norovirus, rotavirus, other viruses, possibly *C. difficile*)
- Cost analysis of conventional testing vs. multiplex molecular, according to various testing algorithms