

SURVEY OF ANTIBIOTIC RESISTANCE *ESCHERICHIA COLI* AND *KLEBSIELLA PNEUMONIAE* FROM CANALS IN LAK SI DISTRICT, BANGKOK

Chamchoy K¹, Chompulong P², Soda R², Kongnoen T³, Tunyong W³, Indrawattana N³, Hinthong W¹

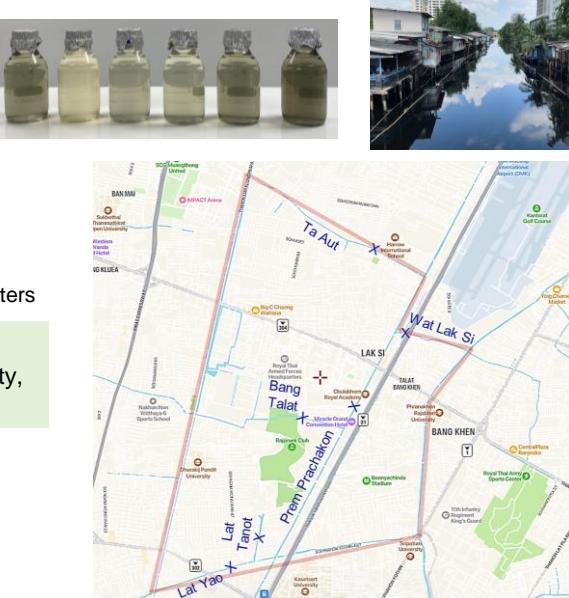
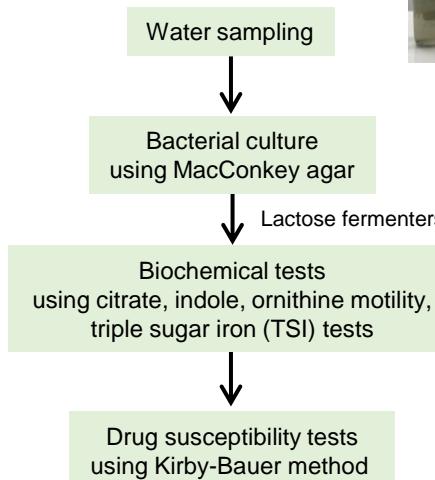
¹Princess Srisavangavada College of Medicine, Chulabhorn Royal Academy;

²Princess Chulabhorn Science High School Loei; ³Faculty of Tropical Medicine, Mahidol University

INTRODUCTION

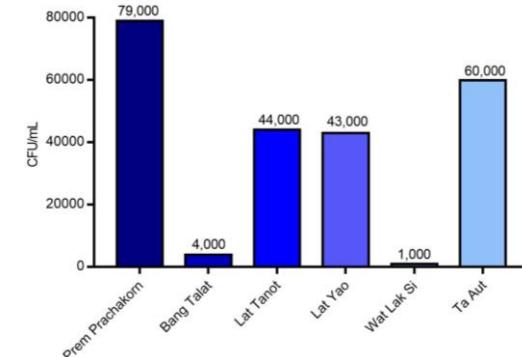
- Laksi district is one of the major districts in Bangkok.
- The district has 6 major canals including Prem Prachakon, Bang Talat, Lat Tanot, Lat Yao, Wat Lak Si, and Ta Aut, which flow through many communities and hospital.
- The communities and hospital in the district have a chance to contaminate the water with waste and potentially antibiotic resistant bacteria, especially fecal bacteria.
- This study aimed to isolate Enterobacteriaceae from water in the canals of Laksi district and determine antibiotic resistance pattern of isolates.

METHODS

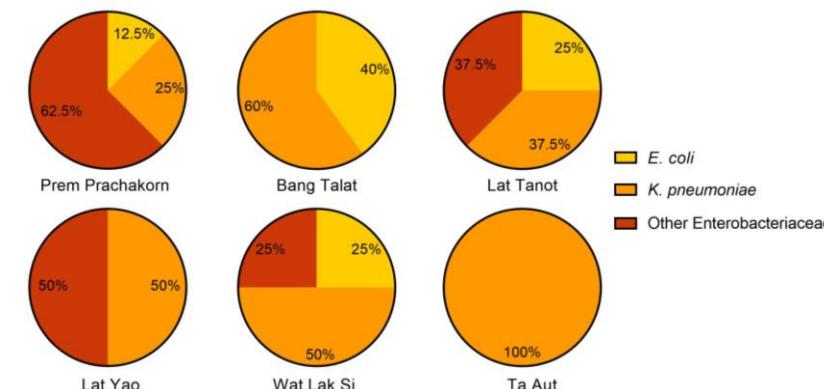


RESULTS

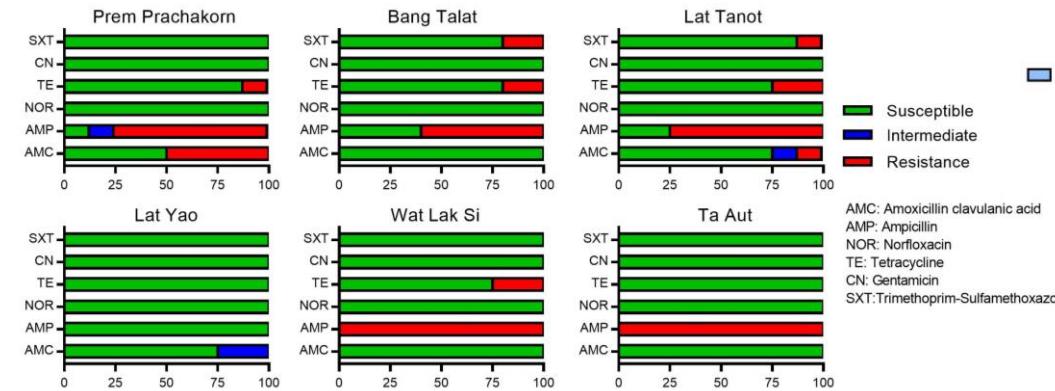
1. Numbers of Gram-negative isolates



2. Identification of lactose fermenter isolates



3. Antibiotic resistance characteristics of isolates



CONCLUSION

- The water in the main canals of Laksi district is contaminated with antibiotic resistant bacteria.
- E. coli* and *K. pneumoniae* isolated from water samples collecting from the canals in Laksi district resist mostly to Ampicillin and Amoxicillin-clavulanate antibiotics, especially Prem Prachakon canal which flow through big community and hospital.
- Interestingly, some isolates are found to resist to more than one antibiotic group.
- The findings raise concern of people exposure to these bacteria and call for more cautious approach to manage wastewater from both community and hospital in the district.

REFERENCE

Clinical and Laboratory Standards Institute. CLSI supplement M100. 30th ed. Wayne, PA.