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Upcoming events



Please send questions and feedback to ARLN@doh.wa.gov

Antibiotic Resistance Lab Network (ARLN)
Washington State Department of Health
Public Health Laboratories



Washington Public Health Laboratories Welcomes ARLN

A new chapter in the Washington State Public Health Laboratories



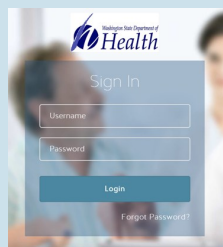
Washington State Public Health Laboratories (PHL) welcomed the new west regional Antibiotic Resistant Lab Network (ARLN) facility at a June 27 open house event. Dr. Romesh Gautom, director of the Public Health Laboratories led the ribbon cutting ceremony. The event was to celebrate the collective efforts of those that made this new lab possible including Epidemiology, Health Information Technology Solutions and Operations & Support Services partners. Participants toured the new facility and observed presentations and demonstrations on some of the cutting edge technology utilized by this new lab to combat antibiotic resistant threats.

The opening of this new laboratory marks a new chapter for the PHL serving as a regional testing facility. The West ARLN regional lab works to meet the challenges laid out by the CDC with the goal of achieving 50% reduction of antibiotic resistance by 2020.



Future Actions and Updates

- Increase laboratory testing personnel (ARLN lead, antimicrobial susceptibility microbiologist, and a mycologist).
- Acquire laboratory equipment required for new additional testing capabilities.
- Update West Region on current status of ARLN and initiate partnerships.
- Develop and validate test methods to begin patient testing early 2017.
- Electronic Test Ordering and Reporting (ETOR) has gone live as of Friday June 30th, 2017 for CRE Colonization.



- Ten laboratory testing and data entry modules have been created within our laboratory information management system, StarLIMS and four are currently active.

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ARLN West Regional Training May 18 - 19th, 2017

On May 18-19, 2017 our West Regional Antibiotic Resistant Lab Network (ARLN) hosted its first Annual Laboratory & Epidemiology Training and Regional Meeting. We welcomed laboratorians and epidemiologists from nine west regional states and jurisdictions including Alaska, Hawaii, Nevada, Oregon, Washington, California Public Health, California Los Angeles County, Guam and Montana. There were four subject matters experts serving as faculty from CDC and the Association of Public Health Laboratories. Lab attendees received coursework related to identifying antibiotic

resistant bacteria. Epidemiologists learned about essential activities for investigating and responding to cases of highly antibiotic resistant bacteria. Our West Regional ARLN lab has been the only regional lab (out of seven nationwide) to provide training combining epidemiologists and laboratorians. We incorporated hands-on laboratory exercises, an all-state regional meeting and a training program that closely coupled epidemiologists with laboratorians. The result of this was a better understanding of how both disciplines interconnect in combating antibiotic resistance.



ARLN West Regional Training March 18-19th, 2017 Washington State Public Health Lab Shoreline, Washington

Deepen the collaboration of the west regional laboratorians and epidemiologists to combat antibiotic resistant bacteria and prevent new antibiotic resistant threats

Left to right: Check In on Day 1 ARLN West Lab Training March 18th, 2017

Dr. Romesh Gautam greets all participants on the opening morning of the West Regional Training. March 18th, 2017.

Laboratory students sit in rapt attention during lectures and practical demonstrations.





Goals of ARLN

- **Detect:** Detect resistance, track trends, create pathogen-specific testing solutions.
- **Respond:** Coordinate with state and CDC labs when threats are reported, inform outbreak response.
- **Prevent:** Combat future antibiotic threats by creating stronger data.
- **Innovate:** Send regional sample collections to the CDC AR Isolate bank. Support researchers in developing effective treatment options.

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Announcements

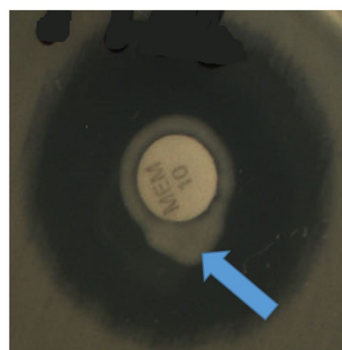
Phenotypic Carbapenemase Production Screening Testing Requirement of all West Regional States

All west regional states performing CRE testing and screening must include a phenotypic screening methodology. These can include the Modified Carbapenem Inactivation Method (mCIM), the CarbaNP assay or an alternative phenotypic-specific screening method.

Modified Carbapenemase Inactivation Method

The modified Carbapenemase inactivation method is an inexpensive and simple phenotypic methods for the detection of Carbapenemase production by bacteria. A paper disk with a carbapenem antimicrobial is incubated in liquid growth media containing a suspension of Carbapenemase producing bac-

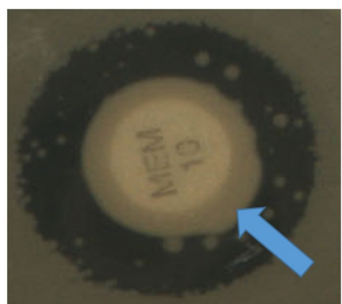
teria which quickly degrades the antimicrobial agent. Inactivation is analyzed by placing the disk on a lawn of *E. coli* ATCC 25922 which results in no zone (or very small zone) of inhibition around the disk after 18-24 hours incubation.



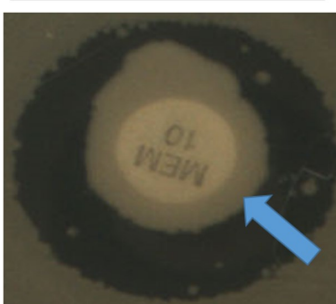
Negative mCIM (≥ 19 mm zone)



Positive mCIM (6-15 mm zone)



Positive mCIM (colonies in 16-18 mm)



Indeterminant mCIM (colonies in ≥ 19)

Quality Control Organisms

K. pneumoniae ATCC BAA-1705
K. pneumoniae ATCC BAA-1706
E. coli ATCC 25922

Growth indicated by the blue arrows should be ignored; it is carryover of the isolate's inoculum from the TSB and MEM disk incubation mixture.

Indeterminants are rare with *Enterobacteriaceae* and *Pseudomonas aeruginosa*; if in doubt, repeat the mCIM.



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Team Engagements

Celebrating Lab Week and all the work performed
by laboratory scientists



March for Science Seattle, Washington
April 22, 2017



Council of State and Territorial Epidemiologists
Conference Boise, Idaho June 8th, 2017



Infectious Disease Genomic Epidemiology
Canadian Bioinformatics Workshop
Vancouver, BC May 1-3, 2017



WA PHL Kickball Game June 30, 2017

ARLN West Region

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