Thank you for your interest in being a part of the California Department of Public Health (CDPH) and the West Region Antibiotic Resistance Laboratory Network (ARLN) targeted antimicrobial-resistant (AR) organism surveillance. The West Regional ARLN is located in Washington State and part of the Centers for Disease Control and Prevention (CDC) nationwide strategy to rapidly detect antibiotic resistance and inform local responses to prevent spread and protect patients.

The goal of targeted surveillance is to:

1) Assist facilities to rapidly identify epidemiologically important AR pathogens and implement appropriate infection control measures.
2) Enable healthcare providers and public health departments to determine the epidemiology of AR pathogens in their facilities and jurisdictions.
3) Monitor the regional and national prevalence of multidrug-resistant organisms (MDRO)

There are several benefits provided to facilities participating in targeted surveillance:
- Access to advanced laboratory testing and further specimen work-up
- Free shipping (shipping labels and packaging)
- Contribution to state, regional, and national resistance data
- Certificate of participation
- Acknowledgment by CDC of sentinel laboratory status
- Receipt of statewide MDRO data reports and visualization

ARLN is offering enhanced testing for:

1) Carbapenemase-producing *Acinetobacter* species (spp)
2) Carbapenemase-producing *Pseudomonas* spp.
3) Antifungal resistance and confirmatory identification among *Candida* species.

Facilities may submit all categories or a subset, depending on resources and volume.

**Participation**

The names of clinical laboratories and associated healthcare facilities participating in targeted surveillance will not be made public by either ARLN or CDPH. All patient data from specimen submissions and test results will be kept confidential by public health agencies and will only be shared via secure communication systems.

Targeted surveillance initiatives are for public health purposes; if a project outside of ARLN surveillance were to be proposed for these data, express permission by the sentinel laboratory will be required. Participation in this surveillance is entirely voluntary and laboratories may stop participating at any time.

**Shipping Details**

If there are a large number of organisms, the submitting laboratory can submit a subset of specimens. ARLN and the CDPH HAI Program will work with laboratories to determine a
sampling strategy to reduce the burden on lab personnel, e.g., all targeted isolates identified on one specified day each week.

CDPH and the West Region ARLN laboratory located at Washington State Public Health Laboratory, will provide Microbiology Requisition Forms for each pathogen-type submitted. Information that needs to accompany each isolate submission includes:

- Patient identifiers (e.g., first and last name, date of birth)
- Healthcare Facility of Origin (if clinical lab serves multiple hospitals)
- Collection Date
- Specimen Source
- Organism identification (ID)
- Antibiotic susceptibility testing (AST) results (if applicable)

For submission of Candida isolates:

- Include specimens obtained from any patient site, sterile and non-sterile
- Weekly batching of specimens is appropriate, but we discourage longer batching intervals for infection control purposes
- If your lab decides to, high-volume isolates like C. glabrata can be submitted using a sampling strategy (e.g., all C. glabrata identified on a Monday)
- Use CHROMagar Candida media when plating out yeast isolates, as Candida infections are commonly polymicrobial
- Submit isolates on sealed fungal slants. The ARLN can provide slants for submission.
- Ship isolates as category B

Receiving Results

ARLN anticipates reporting positive results (e.g., carbapenemase-producing Acinetobacter) within 1 day of testing.

There are several ways laboratories can receive results. All positive results will be reported to the clinical laboratory and public health partners immediately. Aggregated results (both positive and negative) will be shared with the facility on an ongoing basis (e.g., quarterly).
# Antimicrobial Resistance Targeted Surveillance

<table>
<thead>
<tr>
<th>Testing</th>
<th>Organism</th>
<th>Antimicrobial Resistance Criteria</th>
<th>Testing Performed at Washington State PHL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbapenem-resistant <em>Acinetobacter</em> spp.</td>
<td><em>Acinetobacter</em> spp.</td>
<td>- Resistant to ≥1 carbapenem:</td>
<td>• ID (MALDI-TOF/Commercial methods) and AST</td>
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<tr>
<td></td>
<td></td>
<td>- MIC ≥8 μg/mL for any carbapenem</td>
<td>• PCR for resistance mechanisms, including OXA-23, OXA-24/40, and OXA-58</td>
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<tr>
<td></td>
<td></td>
<td>- Kirby-Bauer zone of inhibition diameter ≤14 mm for doripenem and meropenem</td>
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<tr>
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<td>- Kirby-Bauer zone of inhibition diameter ≤18 mm for imipenem</td>
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<td></td>
<td></td>
<td>- AND/OR-</td>
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<tr>
<td></td>
<td></td>
<td>- Resistant to colistin:</td>
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<td></td>
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<td>- MIC ≥4 μg/mL</td>
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<tr>
<td>Carbapenem-resistant <em>Pseudomonas</em> spp.</td>
<td><em>Pseudomonas</em> spp.</td>
<td>- Resistant to ≥1 carbapenem:</td>
<td>• ID (MALDI-TOF/Commercial methods) and AST</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- MIC ≥8 μg/mL for any carbapenem</td>
<td>• PCR for resistance mechanism</td>
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<td>- AND/OR-</td>
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<td></td>
<td></td>
<td>- Kirby-Bauer zone of inhibition diameter ≤15 mm</td>
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<td></td>
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<td>- Resistant to colistin:</td>
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<tr>
<td></td>
<td></td>
<td>- MIC ≥8 μg/mL</td>
<td></td>
</tr>
<tr>
<td><em>Candida</em> identification and antifungal susceptibility testing (AFST)</td>
<td>All <em>Candida</em> spp. EXCEPT <em>albicans</em></td>
<td>None</td>
<td>• AFST for: caspofungin, fluconazole, itraconazole, micafungin, posaconazole, voriconazole, anidulafungin, isavuconazole, amphotericin B</td>
</tr>
</tbody>
</table>