

# OREGON PUBLIC HEALTH DIVISION REPORTING FOR MULTIDRUG-RESISTANT ORGANISMS (MDROs)

*Candida auris*, carbapenem-resistant *Acinetobacter* and *Enterobacterales*, and carbapenemase-producing organisms (CPOs)

## Local public health authority:

For a list of local public health authority phone numbers go to [www.oregon.gov/lpha-contact](http://www.oregon.gov/lpha-contact).

## Background

Infection with multidrug-resistant organisms (MDROs) is a growing health care challenge. MDROs including *Candida auris*, carbapenem-resistant pathogens, and carbapenemase-producing organisms (CPOs) have mainly caused health care-associated infections, usually affecting those with compromised immune systems, chronic medical conditions, frequent or prolonged stays in health care settings, invasive medical devices (e.g., ventilators or intravenous catheters), or a history of taking antibiotics for long periods. These pathogens can cause a wide variety of infections, including pneumonia, bacteremia, urinary tract and surgical-site infections. MDROs reportable in Oregon are resistant to most, and in some cases all, available antimicrobial drugs.

In the health care setting, patients may carry these pathogens on the skin or in body secretions such as sputum, urine or stool. Transmission to others may occur via the hands of health care workers, contaminated environmental surfaces and medical devices or equipment.

To spare patients from toxic antibiotics and untreatable infections, aggressive control measures must be taken before highly resistant MDROs become established in our hospitals and long-term care facilities.

## If your laboratory identifies any of the following organisms:

- *Candida auris*
- Carbapenemase-producing organisms (CPOs)
- Carbapenem-resistant *Acinetobacter* (CRA)
- Carbapenem-resistant *Enterobacterales* (CRE)

Submit a report to the local public health authority in the county of residence of the patient **within one working day**, either electronically or by calling or faxing the local public health authority (OAR 333-018-0015). Website link to phone and fax numbers for local health departments: [www.oregon.gov/lpha-contact](http://www.oregon.gov/lpha-contact).

Send all isolates to the Oregon State Public Health Laboratory (OSPHL; 503-693-4100) for further testing.

Alert infection prevention and clinical staff at the facility where the laboratory specimen was obtained.

## Oregon CRE case definition as of 7/1/2015

Bacteria of the *Enterobacterales* order<sup>1</sup> that are:

- Resistant to any carbapenem including doripenem, ertapenem, imipenem<sup>2</sup> or meropenem using the current CLSI breakpoints<sup>3</sup>; OR
- Positive for a carbapenemase<sup>4</sup> gene by molecular test such as PCR or next-generation sequencing (NGS); OR
- Positive for carbapenemase production by phenotypic test.

Carbapenems	Current breakpoints (µg/mL) (M100-ED34) <sup>3</sup>		
	Susceptible	Intermediate	Resistant
Doripenem	≤1	2	≥4
Ertapenem	≤0.5	1	≥2
Imipenem	≤1	2	≥4
Meropenem	≤1	2	≥4

Carbapenems	Current disk diffusion zone diameters (mm) (M100-ED34) <sup>3</sup>		
	Susceptible	Intermediate	Resistant
Doripenem	≥23	20–22	≤19
Ertapenem	≥22	19–21	≤18
Imipenem	≥23	20–22	≤19
Meropenem	≥23	20–22	≤19

## Oregon CRA case definition as of 10/26/2023

Bacteria of the *Acinetobacter* genus that are:

- Resistant to any carbapenem other than ertapenem using the current CLSI breakpoints<sup>3</sup>; OR
- Positive for a carbapenemase<sup>4</sup> gene by molecular test such as PCR or next-generation sequencing (NGS); OR
- Positive for carbapenemase production by phenotypic test.

Carbapenems	Current breakpoints (µg/mL) (M100-ED34) <sup>3</sup>		
	Susceptible	Intermediate	Resistant
Doripenem	≤2	4	≥8
Imipenem	≤2	4	≥8
Meropenem	≤2	4	≥8

Carbapenems	Current disk diffusion zone diameters (mm) (M100-ED34) <sup>3</sup>		
	Susceptible	Intermediate	Resistant
Doripenem	≥18	15–17	≤14
Imipenem	≥22	19–21	≤18
Meropenem	≥18	15–17	≤14

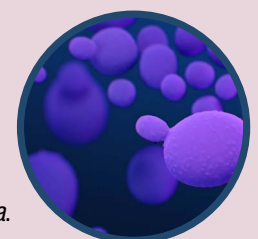
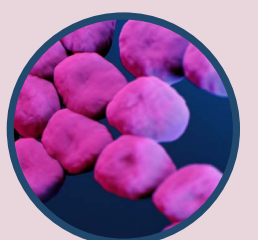
## Rare MDROs

Uncommon illnesses of public health significance are reportable **immediately**. These include, but are not limited to, rare MDROs such as:

- Vancomycin-intermediate *Staphylococcus aureus* (VISA)
- Vancomycin-resistant *Staphylococcus aureus* (VRSA)
- Pan-nonsusceptible organisms (i.e. organisms that are intermediate or resistant to all tested antimicrobials)

## FOOTNOTES

1. The *Enterobacterales* order includes but is not limited to the following genera: *Citrobacter*, *Enterobacter*, *Escherichia*, *Hafnia*, *Klebsiella*, *Morganella*, *Proteus*, *Providencia*, *Raoultella*, *Serratia*.
2. *Proteus* spp. *Providencia* spp. and *Morganella* spp. are excluded if isolates are resistant only to imipenem and no other carbapenem (e.g., isolate tests ertapenem-susceptible but imipenem-resistant).
3. Clinical and Laboratory Standards Institute (CLSI). Performance standards for antimicrobial susceptibility testing: Thirty-fourth edition. CLSI document M100-ED34. February 2024.
4. Examples are KPC, NDM, IMP, VIM, OXA-48, and other OXA variants.



Oregon Health Authority



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