

**Center for Policy, Planning and Evaluation Administration
Division of Epidemiology–Disease Surveillance and Investigation**

January 13th, 2020

**Health Notice for District of Columbia Health Care Providers
Reporting and Containment of Emerging Multidrug-Resistant Organisms in Healthcare Settings**

Summary

Antimicrobial resistance (AR) is a critical public health threat and patient care and safety issue. The Centers for Disease Control and Prevention (CDC) recently released an updated report, *Antibiotic Resistance Threats in the United States, 2019* (2019 AR Threats Report)¹ that underscores the continued threat of antimicrobial resistance in the United States (U.S.). More than 2.8 million infections and 35,000 deaths caused by AR bacteria and fungi occur in the U.S. each year. The report categorized 18 pathogens into one of three categories: urgent, serious, and concerning. Of critical importance are extremely drug-resistant Gram-negative bacteria such as Carbapenem-resistant *Enterobacteriaceae* (CRE), which have spread widely across the U.S. In some cases, these emerging multidrug-resistant organisms (MDROs) have become pan-resistant, essentially making them untreatable. CDC has developed guidelines for the aggressive infection prevention and control efforts necessary to halt the emergence and spread of these new forms of AR pathogens. The purpose of this Health Notice is to increase awareness of the burden of AR and emphasize the additional actions needed to address these threats to prevent further spread in the District of Columbia (DC).

Background

Pathogens have continually evolved to develop mechanisms that confer antimicrobial resistance. AR is complex and can arise through multiple mechanisms including intrinsic resistance, genetic mutation, or acquisition of foreign DNA that codes for resistance through horizontal gene transfer (HGT). HGT is of particular concern because resistance can easily be transferred between organisms within the same species or between different species by mobile genetic elements such as transposons, plasmids, and bacteriophages, thereby increasing the potential spread of resistance.

Patients may be colonized (i.e., the organism is living in the body or on the skin of the patient, but the patient exhibits no symptoms of infection) with MDROs for extended lengths of time. Undetected colonization may lead to transmission to more severely immunocompromised patients, who are at higher risk of developing infection. MDROs can also persist on uncleaned medical equipment that is shared between patients, and on uncleaned surfaces in healthcare environments for several months, thus facilitating the spread between patients.² As AR infections become more common, therapeutic options for the treatment of infections are increasingly limited, expensive, and often more toxic. Early detection and prevention of these pathogens is essential to combat their spread and the only way to ensure patients are not harmed by these AR threats. Thus prevention, containment, and antibiotic stewardship are vital.

In 2019, healthcare facilities in DC were involved in regional outbreaks of *Candida auris* and New Delhi metallo-beta-lactamase (NDM)–producing *Acinetobacter*. These outbreaks were identified through case report and laboratory surveillance. DC Health worked closely with the involved facilities to respond to and contain the spread of these organisms. As we anticipate that these responses will continue to increase in number, additional infection control resources are required from both healthcare facilities and public health to ensure MDROs are contained and risks to patients are minimized.

Updated Recommendations and Reminders for Healthcare Facilities

- Certain emerging MDROs, as specified by the HAI Program, are reportable to DC Health under the [District of Columbia Municipal Regulations Title 22-B 208.1.g](#) as an infection of public health concern, and [Title 22-B 208.2](#) as a healthcare-associated infection (HAI) outbreak.
- Hospital laboratories should participate in routine surveillance through regular submission of clinical isolates to the DC Public Health Laboratory (PHL) to increase identification. Specific details can be found on the DC PHL website as well as online here: https://dfs.dc.gov/sites/default/files/dc/sites/dfs/page_content/attachments/DC%20ARLN%20Summary%20Table%20-%202018.09.24.pdf.
- Suspected and confirmed cases of emerging MDROs should be reported to DC Health immediately online or by phone by submitting a [Notifiable Disease and Condition Case Report Form](#) (<https://dchealth.dc.gov/node/143092>) through the [DC Reporting and Surveillance Center \(DCRC\)](#) (<https://redcap.doh.dc.gov/surveys/index.php/surveys/?s=DHNA4X8LJC>).
- Suspected and confirmed cases of emerging MDROs should be placed on contact precautions until recommendations have been provided from DC Health.
- As each emerging AR threat requires a tailored response, DC Health will work with the facility and provide recommendations regarding procedures for containment, including infection prevention measures, exposure screening recommendations, and laboratory testing support, after reported cases have been investigated.

Please contact the DC Health HAI team at DOH.HAI@dc.gov for additional guidance regarding HAI surveillance including DCRC reporting, specimen collection, specimen submission to the DC PHL, and infection control.

References

1. <https://www.cdc.gov/drugresistance/pdf/threats-report/2019-ar-threats-report-508.pdf>
2. <https://www.cdc.gov/hai/organisms/acinetobacter.html>

Resources/Additional information

3. <https://www.cdc.gov/drugresistance/pdf/threats-report/2019-ar-threats-report-508.pdf>
4. <https://www.cdc.gov/fungal/candida-auris/index.html>
5. <https://www.cdc.gov/hai/organisms/acinetobacter.html>
6. DC Health ARLN resources and guidance: <https://dchealth.dc.gov/service/antimicrobial-resistance-laboratory-network-arln>
7. DC PHL ARLN resources and guidance: <https://dfs.dc.gov/page/antimicrobial-resistance-laboratory-network-arln>
8. CDC: [Interim Guidance for a Public Health Response to Contain Novel or Targeted Multidrug-resistant Organisms \(MDROs\)](#).
9. CDC's fungal disease webpage: <https://www.cdc.gov/fungal/index.html>

**Please contact the DC Health Division of Epidemiology–Disease Surveillance and Investigation at:
Phone: 202-442-8141 (8:15am-4:45pm) | 844-493-2652 (after-hours calls)**

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