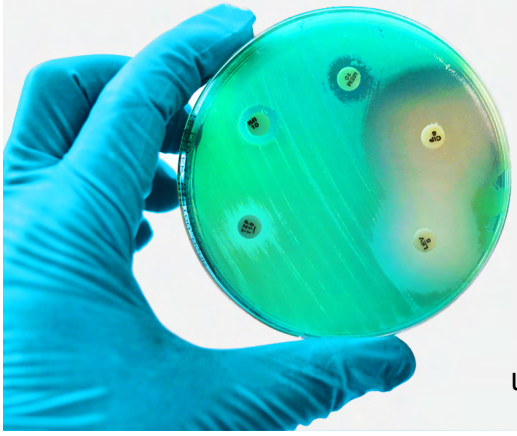
Introduction to the

CRO BREAKPOINT IMPLEMENTATION TOOLKIT



The Antimicrobial Resistance (AR) Laboratory Workgroup is a collaboration between public health and clinical laboratories whose goal is to identify and develop initiatives to improve the detection and reporting of AR while fostering the relationship between clinical and public health laboratories.

An important area that has been identified is assisting laboratories with the implementation of updated carbapenem susceptibility breakpoints.

Carbapenem-resistant organisms (CROs) include strains of *Enterobacterales*, *Pseudomonas aeruginosa* and *Acinetobacter baumanii* that have high levels of resistance to antibiotics, including carbapenems. The US Food and Drug Administration and the Clinical Laboratory Standards Institute recommend decreasing carbapenem susceptibility testing breakpoints for these organisms in order to avoid mischaracterizing potentially-resistant organisims as susceptible. Failure to adopt updated breakpoints can lead to discrepancies in the interpretation of susceptibility testing, allowing for the administration of inappropriate antibiotics and subsequent poor patient outcomes, as well as the undetected spread of multidrug-resistant organisms.

However, adoption of the updated minimum inhibitory concentration (MIC) breakpoints has proved challenging for clinical microbiology laboratories using commercial MIC susceptibility testing systems, due to a verification study that must be completed according to CLIA requirements.

The AR Laboratory Workgroup has developed a toolkit to assist laboratories with this task, which contains:

- Breakpoint implementation instructions
- A verification template
- Worksheets to record consensus result for each antimicrobial agent/ organism combination generated
- Instructions on accessing isolates.

The toolkit was developed through joint collaboration between members of the Association of Public Health Laboratories and the American Society for Microbiology.

The AR LAB NETWORK

The AR Lab Network supports nationwide laboratory capacity to rapidly detect and respond to AR threats, like CROs, by identifying how transmission may be occurring, and informing local responses to prevent its spread and protect people. The AR Lab Network includes labs in 50 states, four cities and Puerto Rico, seven of which are designated as regional labs, and relies on partnership with the clinical lab community.

ARLABnetwork

The best way to detect CROs is to use the current breakpoints.

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