

DATE:	2021 November 29
TO:	Infectious Disease physicians, Cystic Fibrosis Patient physicians, Antimicrobial Stewardship
FROM:	Alberta Precision Laboratories (APL)
RE:	Updated Colistin Susceptibility Testing Interpretive Criteria

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Key Message

- Colistin is a last line agent for the treatment of some multi-drug resistant Gram negative infections.
- Colistin may have limited clinical efficacy and is associated with substantial risk of nephrotoxicity.
- Alternative Gram-negative antimicrobial agents are preferred when active *in vitro*. If colistin is used, it should be in combination with other antimicrobials where possible.
- Infectious Diseases consultation is strongly recommended if colistin use is considered.
- APL routinely tests colistin for multi-drug resistant *Pseudomonas aeruginosa* isolated from clinical specimens.
- New colistin susceptibility interpretive criteria defined by the Clinical and Laboratory Standards Institute (CLSI) are being introduced by APL on November 22, 2021. Notably, there is no longer a “susceptible” category for colistin.

Organisms	Updated Colistin (IV) Interpretive Categories*
<i>Pseudomonas aeruginosa</i> <i>Enterobacterales</i> <i>Acinetobacter species</i>	<p>≤2 µg/mL: Intermediate = Colistin (IV) may have limited clinical efficacy and should be used in combination with other antimicrobial agents where possible. ID consult recommended.</p> <p>≥ 4µg/mL: Resistant = do not use colistin (IV)</p>

*These breakpoints **do not** apply to inhaled formulations of colistin

- The following comment will be added to all intermediate colistin results: “Colistin is not a first line agent. Infectious Diseases consultation is strongly recommended if use is being considered.”

Why this is important

- Colistin will no longer be reported as susceptible on lab reports. Only intermediate and resistant results are possible.
- If colistin is being considered for use in a patient, Infectious Disease consultation is strongly recommended.

Inquiries and feedback may be directed to

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This bulletin has been reviewed and approved by

- Dr. Thomas Griener, Medical Microbiology Section Chief, South Zone, APL
- Dr. Greg Tyrrell, Medical Microbiology Section Chief, North Zone, APL