MC 6.016 *Burkholderia cepacia* Complex Susceptibility Reporting

Purpose	This procedure provides instruction and guidance for routine testing and selective and cascade susceptibility reporting on *Burkholderia cepacia* complex.
Principal and Clinical Significance	The decisions for the most appropriate antimicrobial agents to test and report are made with input from Pharmacy, Infectious Disease and the Clinical Laboratory. The goal is to provide clinically relevant information that will decrease the chance of developing antibiotic resistance, harmful effects of inappropriate antimicrobial use and avoid reporting results that could adversely affect patient care using selective and cascade reporting rules.
Policy Statements	This procedure applies to Microbiologists who perform susceptibility testing.
Special Safety Precautions	Microbiologists are subject to occupational risks associated with specimen handling. • *Biohazard Containment* • *Biohazardous Spills* • *Safety in the Microbiology Laboratory*

Procedure

1. *Burkholderia cepacia* complex include:
   - *Burkholderia cepacia*
   - *Burkholderia cenocepacia*
   - *Burkholderia contaminans*
   - *Burkholderia fungorum*
   - *Burkholderia multivorans*
   - *Burkholderia vietnamiensis*

2. Antibiotics appropriate for routine testing and reporting for *Burkholderia cepacia* complex.
   - Trimethoprim Sulfamethoxazole
   - Levofloxacin
   - Meropenem
   - Ceftazidime
   - Minocycline

3. Perform susceptibilities using MicroScan NUC101. MicroScan will be the only method of testing.

4. MicroScan results will be entered manually under the **MMIC** keyboards under the Susceptibility tab, for the antibiotics listed.

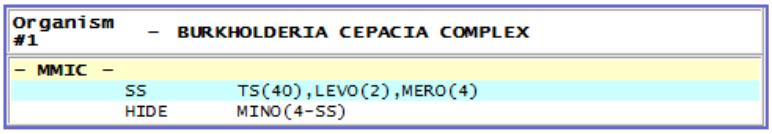
5. There are no Kirby Bauer interpretations as disk diffusion is unreliable.

Selective Reporting

1. Antibiotics will be reported in a specific order indicating the first and subsequent preferences of the Antimicrobial Stewardship Committee and Infectious Disease physicians

2. These 3 antibiotics will be reported routinely, in this order.
    1. Trimethoprim Sulfamethoxazole
    2. Levofloxacin
    3. Meropenem

Figure 1 All 3 antibiotics reported



3. There are no cascade reporting rules as all 3 antibiotics will be reported.

4. Hidden antibiotics include: Minocycline

Method Performance Specifications

1. Ceftazidime is a product limitation on the MicroScan NUC101 panel and will not be reported.
2. Minocycline will be hidden, unless requested.

References

1. bioMerieux Vitek 2 AST-N806 Gram Negative Susceptibility Card 424709 2023-07
2. bioMerieux Vitek 2 AST-XN30 Gram Negative Susceptibility Card 424639 20235-04
3. Beckman Coulter Diagnostics. 250 South Kraemer Boulevard. Brea, CA 92821-6232 USA, MicroScan® Dried Gram Negative (8/2022).
4. CLSI M100 edition 34 Performance Standards for Antimicrobial Susceptibility Testing 2024

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Training Plan/ Competency Assessment

Training Plan	Initial Competency Assessment
1. Employee must read the procedure. 2. Employee will observe trainer performing the procedure. 3. Employee will demonstrate the ability to perform procedure, record results and document corrective action after instruction by the trainer.	1. Direct observation.

Historical Record

Version	Written/Revised by:	Effective Date:	Summary of Revisions
1	Susan DeMeyere	12/17/2024	Initial version