

## MC 6.011 *Stenotrophomonas maltophilia* Susceptibility Reporting

**Purpose** This procedure provides instruction and guidance for routine testing and susceptibility reporting on *Stenotrophomonas maltophilia*.

**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.

**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. Antibiotics appropriate for routine testing and reporting for *Stenotrophomonas maltophilia* include:
    - Trimethoprim-Sulfamethoxazole
    - Levofloxacin
    - Minocycline
    - Cefiderocol
  2. Perform susceptibilities using Vitek cards N806 and XN30, MicroScan NUC101 or Kirby Bauer Method.
    - Both Vitek cards N806 and XN30 will need to be tested for *Stenotrophomonas maltophilia* isolates.
    - Minocycline is not approved for testing *Stenotrophomonas maltophilia* on the MicroScan NUC101 panel and will not be reported.
    - Cefiderocol is not available in house and would need to be sent out if requested.
  3. **Vitek Method:** Vitek results will be accepted under the Online Tab. Modifications will be under the **VITMIC** keyboard under the Susceptibility tab.

Drug Code	Drug Name	SUP	Result	Interpretation	Comment	Descript
TS	TRIMETH/SULFA	<input type="checkbox"/>	<=20	SUSCEPTIBLE		
LEVO	LEVOFLOXACIN	<input type="checkbox"/>	2	SUSCEPTIBLE		
MINO	MINOCYCLINE	<input type="checkbox"/>	1	SUSCEPTIBLE		

Figure 1 Vitek entry

- MicroScan Method:** Manually enter results into Sunquest under the **MMIC** keyboard under the Susceptibility tab.

Figure 2 MicroScan entry

- Kirby Bauer method:** Manually enter results into Sunquest under the KB keyboard under the Susceptibility tab.

Figure 3 KB entry

**Selective and Cascade Reporting**

- No selective or cascade reporting rules apply since there are only three antibiotics.
- All three antibiotics can be reported for all sources.
- Three antibiotics will be reported from the Vitek and two antibiotics from MicroScan or KB methods.

**Method Performance Specifications**

- Be aware when reading the TS well on the MicroScan NUC101 panel that a trailing effect may be present. Growth should be cloudy throughout the well for a resistant result. Growth only in the bottom of the well or approximately 80% reduction of growth should be considered susceptible.
- Resistant Trimethoprim Sulfa is an unexpected result. Review and/or verify the result. Confirm resistance with Kirby Bauer first time per patient.

**Appendix**

Additional Tables

Table 1 Antibiotics available on the Vitek cards-run both cards for *Stenotrophomonas maltophilia* isolates.

N806	XN30
Ampicillin	Amikacin
Ampicillin Sulbactam	Amoxicillin Clavulanic Acid
Cefazolin	Aztreonam
Cefepime	Cefotaxime
Ceftazidime	Cefpodoxime
Ceftriaxone	Ceftazidime/Avibactam
Ciprofloxacin	Ceftolozane/Tazobactam

Ertapenem	Doxycycline
ESBL	Imipenem
Gentamicin	Imipenem/Relebactam
Levofloxacin	Meropenem/Vaborbactam
Meropenem	Minocycline
Nitrofurantoin	Tigecycline
Piperacillin/Tazobactam	Tobramycin
Trimethoprim/Sulfa	

Table Antibiotics reportable per CLSI for *Stenotrophomonas maltophilia*

Antibiotics on <i>Stenotrophomonas maltophilia</i> per CLSI	
Sunquest code	Antibiotic name
LEVO	Levofloxacin
TS	Trimethoprim Sulfa
MINO	Minocycline

Table 3 Antibiotics reported

Drugs reported on all sources
Trimethoprim Sulfa
Levofloxacin
Minocycline

Table 4 KBS Antibiotic and codes

NF KBS		
Disc (Abbrev.)	Sunquest Code	Drug Name (Trade Name)
LVX	LEVO	LEVOFLOXACIN
SXT	TS	TRIMETHOPRIM/SULFA

Table 5 MicroScan antibiotics and codes

MicroScan MIC Neg Urine Combo (NUC) 101		
MSCN (Abbrev.)	Sunquest Code	Drug Name (Trade Name)
Lvx	LEVO	LEVOFLOXACIN
T/S	TS	TRIMETHOPRIM/SULFA

**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

**Training Plan/  
Competency  
Assessment**

Training Plan	Initial Competency Assessment
<ol style="list-style-type: none"> <li>1. Employee must read the procedure.</li> <li>2. Employee will observe trainer performing the procedure.</li> <li>3. Employee will demonstrate the ability to perform procedure, record results and document corrective action after instruction by the trainer.</li> </ol>	<ol style="list-style-type: none"> <li>1. Direct observation.</li> </ol>

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**Historical Record**

Version	Written/Revised by:	Effective Date:	Summary of Revisions
1	Susan DeMeyere	7/30/2024	Initial version