

| <b>PROGRAM Standard Operating Procedure – Laboratory Services</b> |                   |
|---|-------------------|
| Title: MIC70200 –<br>Dispensette Sterility Test                   | Policy Number:    |
| Program Name: Laboratory Services                                 |                   |
| Applicable Domain: Lab, DI and Pharmacy Services                  |                   |
| Additional Domain(s):   |                   |
| Effective Date:   | Next Review Date: |
| Issuing Authority:<br>Director of Health Services                 | Date Approved:    |
| Accreditation Canada Applicable Standard:                         |                   |

**GUIDING PRINCIPLE:**

The dispensette and saline used to perform testing with the Vitek 2 instrument and manual susceptibility testing are prone to contamination and need to be checked weekly to ensure accurate patient results are obtained.

**PURPOSE/RATIONALE:**

To check the sterility of the saline used to prepare organisms for Vitek 2 and manual susceptibility testing.

**SCOPE/APPLICABILITY:**

This procedure applies to Medical Laboratory Technologists (MLTs) and Medical Laboratory Assistants (MLAs) using the saline dispensette for Vitek 2 and manual susceptibility testing.

**REAGENTS and/or MEDIA:**

- Thioglycolate broth (THIO)
- Sterile saline (0.45%)

**SUPPLIES:**

- Dispensette mounting tool
- Sterile water
- Sterile swabs
- Towel

**EQUIPMENT**

- Dispensette
- Steris steam autoclave and supplies

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**SPECIAL SAFETY PRECAUTIONS:**

Containment Level 2 facilities, equipment, and operational practices for work involving infectious or potential infectious materials or cultures.

- Ensure that appropriate hand hygiene practices be used.
- Lab gown must be worn when performing activities with potential pathogens.
- Gloves must be worn when direct skin contact with infected materials is unavoidable.
- Eye protection must be used when there is a known or potential risk of exposure of splashes.
- All procedures that may produce aerosols, or involve high concentrations or large volumes should be conducted in a biological safety cabinet (BSC).
- The use of needles, syringes and other sharp objects should be strictly limited.

All patient specimens are assumed to be potentially infectious. Routine Practices must be followed. Since viable micro-organisms are used, all cultures must be handled with appropriate precautions. All equipment in contact with cultures should be decontaminated by appropriate methods.

**PROCEDURE INSTRUCTIONS:**

| Step                                     | Action   |
|--|--|
| <b>Weekly dispensette sterility test</b> |  |
| 1  | A standing order has been set up in the LIS: <ul style="list-style-type: none"> <li>• Patient last name: <b>TEST</b></li> <li>• Patient first name: <b>MICRO STERILITY</b></li> <li>• <b>CXENV</b> will be automatically ordered</li> <li>• Collect, receive and plate order</li> <li>• In Micro OE comment, state source of saline-Vitek Dispensette</li> </ul> |
| 2  | Label 1 Thioglycolate broth tube and dispense 3mL of saline into the tube.   |
| 3  | Place broth in the Saline Sterility rack in the O <sub>2</sub> incubator.  |
| 4  | Read broth daily for 3 days and observe for signs of growth.   |

**INTERPRETATION OF RESULTS:**

| Step | Action  |
|------|---|
| 1    | <b>If THIO broth remains clear (no growth):</b> <ul style="list-style-type: none"> <li>• Record "No Growth" results daily in LIS</li> <li>• After 3 days, report "No Growth After 3 Days" and finalize</li> </ul>   |
| 2    | <b>If THIO broth turns cloudy (growth):</b> <ul style="list-style-type: none"> <li>• Record "Cloudy-AUTOCLAVE dispenser ^CLAVE"</li> <li>• Result ^CLAVE with date dispensette was autoclaved and initials</li> <li>• Report "Cloudy-AUTOCLAVE dispenser" and finalize</li> <li>• Discard saline bottle and follow instructions below to clean the dispensette</li> <li>• Assemble new dispensette, which are stored under the Vitek 2</li> </ul> |

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### SALINE DISPENSETTE PARTS:




**1. Piston**

**2. Volume adjustment knob**



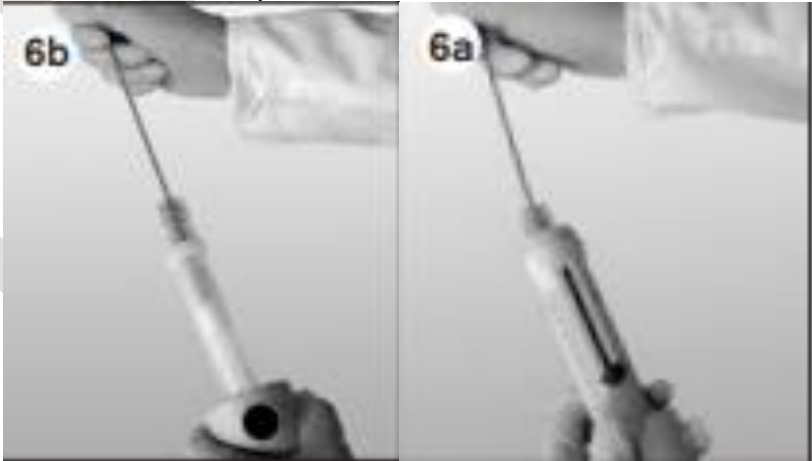
**3. Discharge tube**

**4. Discharge tube screw cap**


### CLEANING THE DISPENSETTE:

| Step | Action   |
|------|--|
| 1    | It is important that the dispensette is cleaned before it is autoclaved to prevent damage from occurring.  |
| 2    | Remove the dispensette from saline bottle and screw onto a bottle of sterile water. Rinse the dispensette several times by completely filling and emptying it. |
| 3    | Remove dispensette from sterile water and discharge any remaining liquid.  |
| 4    | Pull out the telescopic filling tube:<br>                                  |

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|   |  |
|---|--|
| 5 | <p>Use mounting tool to unscrew the filing valve:</p>    |
| 6 | <p>Loosen piston. Hold the housing securely and unscrew the piston completely by turning it to the right. Carefully pull out the piston.<br/><b>Do not remove the housing!</b></p>        |
| 7 | <p>Clean piston and cylinder with a gauze and sterile swab. If necessary remove deposits at the edge of the glass cylinder taking care not to scratch the interior of the cylinder.</p>  |
| 8 | <p>Flush all parts with sterile water and allow parts to dry.</p>  |
| 9 | <p>Insert the piston completely into the cylinder.</p>   |

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|           |  |
|-----------|--|
| <b>10</b> | <p>Check that the filling valve is securely seated and tightened using the mounting tool.</p>  |
| <b>11</b> | Reassemble the dispensette.  |
| <b>12</b> | Place dispensette and mounting tool on a towel. Ensure parts do not come into contact with metallic surfaces.  |
| <b>13</b> | Autoclave in the Steris steam autoclave at 250°F for 50 minutes.   |
| <b>14</b> | After cycle is complete, allow dispensette to cool for approximately 2 hours.  |
| <b>15</b> | Inspect all parts for any damage.  |
| <b>16</b> | Once dispensette is cooled and inspected for damage, place back into box.  |

**REFERENCES:**

1. Brand. (2016-02). *Dispensette User Manual*, 9974 90

**APPROVAL:**

\_\_\_\_\_  
 Date

**REVISION HISTORY:**

| REVISION | DATE      | Description of Change                                  | REQUESTED BY |
|----------|-----------|--|--------------|
| 1.0      | 22 Nov 17 | Initial Release  | L. Steven    |
| 2.0      | 06 Oct 19 | Updated to reflect new steam autoclave                 | L. Steven    |
| 3.0      | 18 May 21 | Procedure reviewed and added to NTHSSA policy template | L. Steven    |
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