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| **Stomacher Tissue Homogenization** | | | | | |
| **Purpose** | This procedure provides instructions for using the Stomacher for Homogenizing Tissue Specimens for culture. | | | | |
| **Principle and Clinical Significance** | Pounding of the sample by the Stomacher’s steel paddles removes bacteria partly by violent  shearing forces as the liquid moves from side to side and partly by the actual compression of the  sample itself as it becomes trapped under the Stomacher paddles. | | | | |
| **Materials** | **Supplies** | | | | |
|  | • Stomacher  • Stomacher Bag | | | | |
| **Sample** | **TISC**: Tissue specimens submitted to the microbiology laboratory for bacterial culture.  **VIRC:** Tissue specimens submitted to the microbiology laboratory for viral culture. | | | | |
| **Procedure** | **Bacterial:**   1. In the hood, place tissue to be homogenized into a sterile stomacher bag. 2. Add 1 mL sterile saline. 3. Power the Stomacher on. (Green switch to I) 4. Lift handle, slot opens. 5. Place bag into slot. Hold bag by top edge and lower the handle to shut with 1 inch showing above the door. 6. Press 120 second button to start the homogenization process. 7. After stomacher stops, hold the top of the bag and lift the handle to open. 8. Remove the bag and power the Stomacher OFF. (Green switch to O) 9. Aspirate fluid for culture with a sterile pipette.   **Viral:**   1. Follow instructions above 1-8, using 3 mL VTM instead of saline. 2. **Do not stomach the glass beads from the VTM tube!!**. 3. Return the contents of the stomacher bag to the VTM tube, including the remaining tissue. 4. Aspirate fluid for culture with a sterile pipette according to the viral culture inoculation procedure. | | | | |
| **Limitations** | Tissues for Fungal (FUNG) and Mycobacterial Culture (CUTB) should not be homogenized. | | | | |
| **References** | 1. Usefulness of the Stomacher in a Microbiological Regulatory Laboratory. W. H. ANDREWS, C. R. WILSON, P. L. POELMA, A. ROMERO, R. A. RUDE, A. P. DURAN, F.D. McCLURE, AND D. E. GENTILE  Division of Microbiology' and Division of Mathematics, Food and Drug Administration, Washington, D.C. 20204.  Minneapolis Center for Microbiological Investigations, Minneapolis, Minnesota 55401. ASM January 1978 | | | | |
| **Alternate Methods** | **Tissue samples must be screened for any sharp objects (e.g. BONE)** that may puncture the stomacher bag. If so, the homogenization process should be performed with a disposable tissue grinder. | | | | |
| **Training Plan/ Competency Assessment** | **Training Plan** | | | **Initial Competency Assessment** | |
| 1. Employee must read the procedure 2. Employee will observe trainer performing the procedure. | | | Employee will demonstrate the ability to perform procedure, record results and document corrective action after instruction by the trainer. | |
| **Historical Record** | **Version** | **Written/Revised by:** | **Effective Date:** | | **Summary of Revisions** |
| 1.1 | Jessica Craig | 5/3/2013 | | Reformatted procedure |
| 2 | Becky Carlson | 4/4/2015 | | Re-numbered from MC 808 |
|  | 2 | Susan DeMeyere | 8/8/2017 | | Changed AFBC to CUTB |