




Meritus Medical Laboratory, LLC

11110 Medical Campus Road, Suite 230
Hagerstown, MD 21742

Telephone 301.665.4LAB (4522)
Toll-free 800.428.2105
meritusmedlab.com

Director: John G. Newby, M.D., F.C.A.P. **Associate Directors:** Gary M Mire, M.D., F.C.A.P. Michael J. O'Donoghue, M.D., F.C.A.P.

Date: February 4, 2014
To: Medical Staff, Laboratory, and Key Personnel
From: John G. Newby, M.D. Director 
Subject: Rapid Identification of Positive Blood Culture

Effective February 10, 2014 Meritus Medical Laboratory will discontinue PNA FISH (Peptide Nucleic Acid Fluorescence In Situ Hybridization) probe testing for the identification of certain organisms directly from positive blood cultures. These include *Escherichia coli*, *Klebsiella pneumoniae*, and *Pseudomonas aeruginosa*.

PNA FISH is being replaced by a new microarray technology (Verigene®-NANOSPHERE). This is a qualitative test system for simultaneous detection and identification of potentially pathogenic gram-negative bacteria directly from positive blood cultures. The assay expands the detection of organisms with higher quality result than PNA FISH. NANOSPHERE uses a fully automated polymerase chain reaction multiplexed microarray technology. The system is able to detect and identify the following bacterial species and genera:

<i>Acinetobacter spp.</i>	<i>Citrobacter spp.</i>	<i>Enterobacter spp.</i>
<i>Escherichia coli</i>	<i>Klebsiella pneumoniae</i>	<i>Klebsiella oxytoca</i>
<i>Pseudomonas aeruginosa</i>	<i>Serratia marcescens</i>	

In addition, the assay is able to detect the following resistance markers:

- CTX-M Extended spectrum beta-lactamase
- KPC- *Klebsiella pneumoniae* carbapenemase
- NDM- New Delhi Metallo-beta-lactamase
- VIM – Verona integrin-encoded carbapenem-resistant Metallo-beta-lactamase
- IMP- Imipenem-resistant Metallo-beta-lactamase
- OXA- Oxacillin-resistant beta-lactamase

Our goal is to provide identification within four hours of the blood culture becoming positive. The complete culture identification and susceptibility testing will be completed and finalized within seventy-two hours.

The laboratory is continuously striving to utilize our available resources to provide you and your patients with the most up to date clinically relevant and cost-effective test methods available.

We welcome your comments on this change and other laboratory issues. Please feel free to contact me at (301) 665-4900 or Chanhpheng Phengvath, Microbiology Technical Specialist at (301) 665- 4936 with any microbiology questions or comments.