



Clinical Practice Change: Clinical Microbiology

Date: April 17, 2014

To: All Manitoba Physicians and Healthcare Staff served by DSM Microbiology Laboratories

From: Dr. James Karlowsky, Medical Director, and Shirley Hoban, Technical Director, Clinical Microbiology Discipline, Diagnostic Services Manitoba

Jon Karlowsky *Shirley Hoban*

Re: An improved laboratory testing process for detection of Vancomycin-Resistant *Enterococcus* (VRE) from surveillance/screening cultures (e.g., rectal swabs)

TAKE HOME MESSAGE:

Effective April 20th, 2014, DSM Clinical Microbiology laboratories will implement a streamlined process for the culture and identification of VRE from surveillance/screening specimens (e.g., rectal swabs). This improved culture process will decrease the turnaround-time for VRE culture-positive reporting and provide an increase in sensitivity (i.e., improved detection of VRE for colonized patients).

Implementation of a '1-step' laboratory testing process to screen for VRE

DSM Clinical Microbiology laboratories previously used a 2-step approach to detect and confirm VRE from surveillance/screening specimens. The 2-step approach resulted in a time to reporting for a confirmed VRE of 48-72 hours.

The initiation of the new 1-step testing approach will result in **superior sensitivity and reduced time to reporting for positive VRE specimens**. In our internal validation study, the 1-step approach had a specificity of 97% compared to the 2-step approach, and notably, the 1-step approach detected 48% more confirmed VRE positive cultures during the evaluation period. The average time to reporting of VRE for the 1-step approach was 27 hours compared to 66 hours for the 2-step approach.

Clinical Impact

For Infection Prevention & Control purposes, this new testing process will result in the improved identification of patients with VRE with respect to both sensitivity and time to reporting.

If you have any questions or require further information, please contact Dr. James Karlowsky at 204-237-2105 or Shirley Hoban at 204-237-2073.