Laboratory News

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Changes to Urine Culture Reporting

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Effective March 20, Marshfield Labs will make several changes to the urine culture available in our system. These changes will: a) lower the interpretive cut points for which uropathogens are worked up in adults other than women of child bearing age; b) add more interpretive commentary to the culture report.

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Current Testing Options

There are currently three options for urine culture in our system:

- 1. <u>Urine Culture with Susceptibilities</u>
 The standard diagnostic test for acute cystitis, and for assessing other urological abnormalities.
- 2. <u>Culture, Urine Urology Workup</u> This test features a higher level of workup than the standard urine culture. It is intended for patients with serious urological abnormalities managed by urology or are scheduled for certain urological procedures, or both.
- 3. <u>Urinalysis with Culture if Indicated</u> With this test, every specimen receives a complete urinalysis. Specimens meeting criteria both predictive of UTI and without skin contamination (i.e. greater than 10 leukocytes/high power field AND less than 10 SECs per high power field respectively) will proceed to the standard urine culture (#1, above).



Modifications to Workup and Reporting

These urine culture choices will not change. However, there will be several modifications made to the workup and reporting of the standard urine culture. A summary of these changes are as follows:

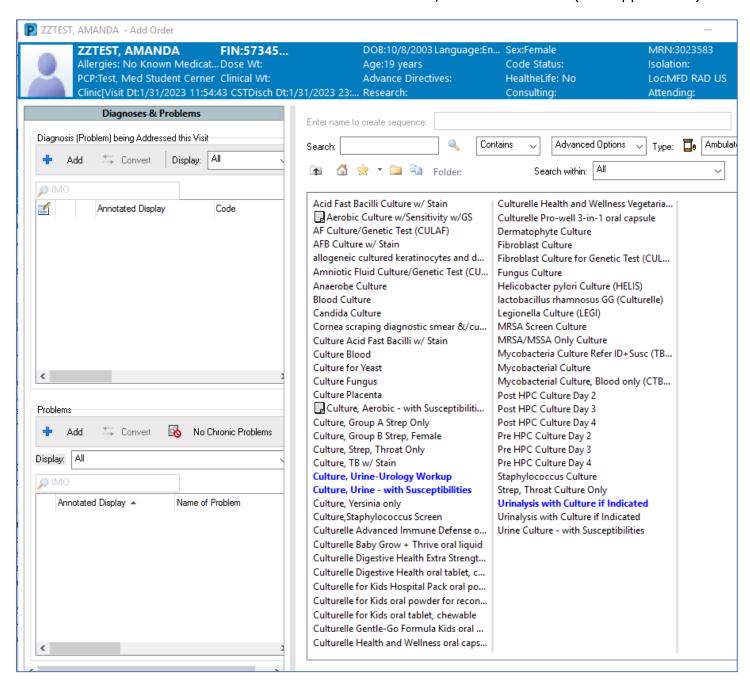
- 1. Level of significance. The cut point for working up 1-2 uropathogens in adults other than women of childbearing age will be lowered one range, from greater than or equal to 100k CFU/mL to 50-100k CFU/mL. This change will both improve sensitivity & negative predictive value and lower specificity & positive predictive values.
 - The cut points for pediatric patients and women of childbearing age will remain unchanged at greater than 50k & greater than 1k CFU/mL respectively.
- 2. Reporting commentary will be updated to better assist the clinician with the interpretation of results. A summary of these changes are as follows:
 - a. "Organism(s) present with a low colony count. The significance of this count should be correlated with clinical signs and symptoms. No further work will be performed." This comment will be used when there are 1-2 uropathogens present below the relevant cut point.
 - b. "Growth of additional organism(s) in lower quantity suggests a contaminated specimen." This comment will appear when 1-2 organisms have been reported, but a lesser amount of skin and/or urogenital flora suggestive of a contaminated specimen is present.
 - c. "This organism is not typically considered a uropathogen. Significance should be correlated with clinical signs and symptoms. No further work will be performed." This comment applies to cultures that have 1-2 organisms above the applicable cut point but are not considered a uropathogen.
 - d. "The presence of mixed microbiota can be due to contamination at the time of specimen collection." This comment is applied when the culture consists solely of a mix of skin and/or urogenital flora.

When choosing a urine culture in the ambulatory setting the antimicrobial stewardship program highly recommends <u>Urinalysis with Culture if Indicated</u>. (See also <u>Diagnostic and Treatment</u> <u>Guidelines</u>, Outpatient Treatment, Urinary Tract Infection.)



Cerner Instructions

To find these tests in the Add Orders view in PowerChart, search "culture". (See appendix A).



Definitions

- CFU: colony forming units (generally correlating with individual bacterial or yeast cells)

- SEC: squamous epithelial cells

- Uropathogens

Gram negative rods Staphylococcus aureus

Aerococcus sanguinicola Staphylococcus saprophyticus

Aerococcus urinae Staphylococcus lugdunensis

Enterococcus spp. Staphylococcus intermedius group

Beta-hemolytic streptococcus Staphylococcus schleiferi

Streptococcus pneumoniae Yeasts

Questions

Calls to the microbiology lab (ext. 16141) to discuss culture workup or results are always welcome.

