10X Essentials

Infectious Disease Diagnostics in the Geisinger Health System

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SUMMARY
New interpretive guidelines for antifungal susceptibility testing.

Please seek pharmacy consult if SDD isolates are reported.

Dose Dependent Drugs
fluconazole
voriconazole

Antifungals Currently Tested
fluconazole
voriconazole
caspofungin
amphoteracin B

"The Clinical and Laboratory Standards Institute (CLSI) is a not-for-profit organization that brings the varied perspectives and expertise of the worldwide laboratory community together to foster excellence in laboratory medicine. CLSI develops and clinical laboratory standards and guidelines that help laboratories fulfill their responsibilities with efficiency, effectiveness, and global applicability. For additional information, visit the CLSI website at www.clsi.org or call 610.688.0100."

10X Essentials: Change to Antimicrobial Susceptibility Test Results

Susceptible- Dose Dependent (SDD):

The 2014 Clinical Laboratory Standards Institue (CLSI) updated the interpretive guidelines for *in vitro* susceptibility testing of *Candida* species for selected azoles (fluconazole and voriconazole). SDD interpretation is a new category for antimicrobial susceptibility testing. The SDD category implies that susceptibility of an isolate is dependent on the dosing regimen that is used for that patient.

The fluconazole guidelines are based on extensive data with mucosal and invasive infections due to *Candida* spp. For fluconazole, doses higher than the standard dosing (6mg/kg/d) amount may be required in adults with normal renal function and body habitus. Please consult ID Pharmacy for dosing recommendations.

FACTS: Fluconazole Resistance

Candida albicans: the laboratory does not provide susceptibility results for this organism because *C. albicans* is generally susceptible to fluconazole. Fluconazole is the drug of choice for treating *C. albicans* infections.

Candida glabrata: fluconazole resistance rates are increasing, and as such, SDD *C. glabrata* isolates require special consideration to determine if fluconazole is appropriate in the specific clinical context. If so, then patients should receive a maximum dosage regimen. Consult pharmacy.

Candida krusei: is intrinsically resistant to fluconazole, therefore this drug/bug combo is not reported.

Effective August 6, 2014: Susceptibility reports will display a new comment in EPIC regarding the SDD interpretation. Another comment suggesting a pharmacy consult will be added.

If you have any questions, please contact the Doctoral Directors, Donna Wolk, Ph.D., D(ABMM) at 570-271-7467 or Raquel Martinez Ph.D., D(ABMM) at 570-214-6587.

For newsletter questions, contact Christy Attinger at (570) 271-6338.

"Make it the best." - *A. Geisinger*

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10X Essentials: GML routinely identifies Listeria from routine Blood and CSF

Exposures: *Listeria spp.* are commonly found in the environment; people are exposed regularly. There is **NO clinical value in performing laboratory testing on asymptomatic patients**.

Differential diagnosis: Consider listeriosis during outbreaks for symptomatic at risk patients with: *Fever, chills and muscle aches or stiff neck, especially in the immunocompromised and pregnant*

Specimens: Blood cultures, for symptomatic patients
Spinal fluid culture in the setting of nervous system involvement
Amniotic fluid/placenta in the setting of pregnancy

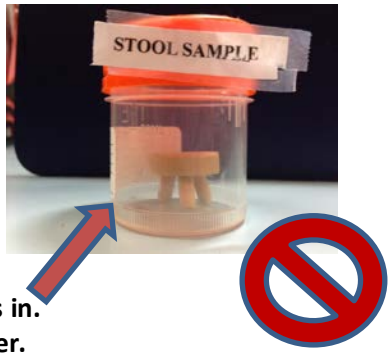
Not recommended: Serological tests , stool culture

Note: A negative culture does not rule out infection in the presence of strong clinical suspicion.

Listeria: LOW YIELD
Do NOT submit, stool or serology

10X Essentials: No More Formed Stools Without a Waiver

While the *C. difficile* PCR is one of the most accurate methods for detection of *C. difficile* infection (95% sensitivity and specificity for liquid stools), **it is NOT recommended for testing formed stool**, in which carriers may be detected and represent false positive cases, putting your patients at risk for treatment they may not need. Infection Control reviews each positive case of *C. difficile* PCR.
Submission of formed stool specimens for *C. difficile* will increase the numbers of false positives at GHS and confounds the system-wide investigations of hospital transmission and community acquisition.



Therefore, effective immediately:
Acceptable stool consistency for the CDIFP assay will include only stool specimen Types 5, 6, and 7 on the Bristol stool scale.
- Type 5 = Soft blobs with clear-cut edges and would be described as "Semi-Formed"
- Type 6 = Some liquid and some fluffy pieces with ragged edges/mushy stool; would be described as "Semi-Liquid"
- Type 7 = Watery/almost completely liquid and would be described as "Liquid"

< **Type 5 = Will be rejected; formed or solid stool does NOT take the shape of the cup it's in.**
In case of suspected ileus, please call the Microbiology laboratory directors for a waiver.

Do not submit solid objects without a waiver

The laboratory will record this information in the patient record to assist with clinical and preventive assessment of true disease in the presence of a positive PCR reaction.