CLSI Meeting - January 2017, Tempe AZ

Reports of the AST Subcommittee and the Subcommittee on Antifungal Susceptibility Tests

CLSI – AST Subcommittee Meeting Update

General Updates
The passing of Paul Schreckenberger was noted. FDA preparing for implementation of the 21st Century Cures Act; presentations planned

Methods Application and Interpretation
Developments for carbapenemase detection – (1) For the Modified Carbapenemase Inactivation Method (mCIM) method which was previously approved by CLSI for use with Enterobacteriaceae, use of 10 µL loop was accepted for P. aeruginosa but not for Acinetobacter; mCIM should not be used for Acinetobacter at this point (2) inhibitor-enhanced modified CIM (imCIM) which uses EDTA as the inhibitor, works well for the detection of metallo-carbapenemases; multi-center study planned; (3) Modified Hodge Test will be deleted from document; and (4) CarbaNP test will be reevaluated for Acinetobacter using a more recent organism set.

Intrinsic Resistance – (1) Comment accepted for describing members of E. cloacae complex that have intrinsic resistance versus other members; (2) working group will look into definitions for “group” versus “complex” designations, and whether to recommend suppressing vs reporting resistance for drug/organism combinations exhibiting intrinsic resistance.

Anaerobes – (1) working on ECV for rifampin and vancomycin for anaerobic gram positive organisms; (2) working on ECV for C. difficile for vancomycin and metronidazole; (3) defining the members of the Bacteroides fragilis group; and (4) re-evaluating breakpoints for piperacillin-tazobactam and metronidazole for B. fragilis (due to differences with CLSI breakpoints)

Linezolid/Tedizolid – breakpoints and MIC/Disk diffusion correlates to be reevaluated for S. aureus

Outreach
Newsletter – spring & fall issue; links & features
Webinars with ASM – beginner educational information geared for bench technologists with intermediate and advanced courses planned for later this year
Workshops planned – One Medicine One Health at Jan 2017 meeting; Antibiotic Stewardship is a potential topic for June 2017
Orientation program for CLSI – how does it work, etc.; draft nearing completion; will be distributed on CLSI website
Antimicrobial Compendium will be ready this spring
CLSI website is undergoing a redesign and will be ready this spring

Text & Tables
Consolidation of all ECVs and background on ECVs to Appendix G in M100; removed from other places
ESBL terminology – what testing is required to meet the definition and thus reporting of an isolate as an ESBL; referred to Outreach working group as an educational item.
Comment added to Table 2A-1 for gemifloxacin stating that data submitted by the sponsor and
reviewed by CLSI is for testing and reporting of *K. pneumoniae* only. Changes coming to M2/M7 include updating of agent classes, revising the staphylococcal section, updating the gram-negative bacilli section with respect to carbapenemases, and removal of Appendix D (list of QC organisms).

**Breakpoints**

- FDA MIC and disk diffusion breakpoints for ceftazidime-avibactam against *Enterobacteriaceae* & *P. aeruginosa* will be published in M100. Ceftazidime-avibactam will be listed in Group B of Table1A of M100 (Optional Primary Test, Report Selectively)
- Daptomycin MIC breakpoints for *Enterococcus* will be reevaluated
- Working group established to study the possibility of modifying M23 to include a periodic review process of established MIC breakpoints for accuracy and relevancy.
- Ciprofloxacin and levofloxacin MIC breakpoints for *Enterobacteriaceae* will be lowered 2 dilutions to be congruent with EUCAST breakpoints pending review of disk diffusion/MIC correlates in June 2017.
- FDA disk diffusion breakpoints for ceftolozane-tazobactam against *Enterobacteriaceae* will be published.

**Methods Development & Standardization**

- Wording changes for M7 were reviewed concerning a warning about the variability of MIC testing for broth microdilution. No final wording agreed on as to the true range. Work continues.
- Wording changes and pictures for M7 approved to address skipped wells for the reference broth microdilution method.
- Pilot study on feasibility of direct disk diffusion susceptibility testing for gram-negative bacilli in seeded blood culture looks promising. Clinical, multi-center study to follow.
- Review of study looking at testing methods and breakpoints for oxacillin resistance in *S. schleiferi* suggests use of oxacillin instead of cefoxitin and use of *S. pseudintermedius* MIC and disk diffusion breakpoints. Further study recommended.
- Quality control study of CF-301 (lysin) broth microdilution (BMD) testing as modified by adding serum and dithiothreitol demonstrated no significant variability with horse serum lots, sources, season, gender, and feed. Studies continue.
- Wording approved to caution against using anything other than broth microdilution for colistin testing due to the inaccuracies of other methods. Agar dilution, broth macrodilution, and agar screen method to be studied.
- Working group established to develop strategies for the co-development of antimicrobials and susceptibility test methods, so that testing may be available sooner after FDA approval of new drugs.

**Quality Control**

- Modified/New QC ranges for several antibiotic/organism combinations including cefepime/zidebactam, cefiderocol, CF-301, imipenem/relebactam, meropenem/vaborbactam, and sulbactam-ETX2514
- Proposal for combination agent quality control to move to separate table being considered.
CLSI Subcommittee on Antifungal Susceptibility Tests Meeting Update

Zone diameter breakpoints were approved for *C. glabrata* and micafungin (S≥30 mm, I 28-29 mm, R≤27 mm)


Reviewed new ECV documents published in 2016: M59 and M57

Discussed that there will be educational efforts to explain adoption and reporting of ECVs

2017 document updates: M27S (broth dilution clinical breakpoints for yeasts) and M44S (disk diffusion breakpoints for yeasts) will be updated and combined into a new document M60. Also, M51S (disk diffusion breakpoints for filamentous fungi) and M38 (outline of broth dilution testing method for filamentous fungi) will be updated and combined into a new document called M61. M27-A (description of broth dilution testing for yeasts) is also in revision.

Respectfully submitted on behalf of the Laboratory Practice Committee,

*By Audrey Schuetz and Stephen Cavalieri*

*January 23, 2017*