Text and Tables

January 11-12, 2015

Members present:

Maria Traczewski, Susan Munro, Dyan Luper, Mary York, Tom Thomson, Dale Schwab, Janet Hindler, Nancy Watz, Linda Mann and Flavia Rossi

Members absent:

Jana Swenson, Peggy Kohner, Melissa Miller and Jeff Shapiro

Items for Vote

- Item1 submitted by Janet concerns the Instructions for Use of Tables section V.
- UCLA microbiology lab reported three cases of persistent MRSA bacteremia in the manuscript below.
- The working group discussed the instruction in the sentence and decided to make some changes.

C. Giltner, T. Kelesidis, J.Hindler, April M. Bobenchik, R. Humphries **Frequency of Susceptibility Testing for Patients with Persistent Methicillin-Resistant *Staphylococcus aureus Bacteremia,*** JCM Vol. 52 No. 1 pp 357-361, January 2014

1 Instructions for Use of Tables

V. Development of Resistance and Testing of Repeat Isolates

Isolates that are initially susceptible may become intermediate or resistant after initiation of therapy. Therefore, subsequent isolates of the same species from a similar body site should be tested in order to detect resistance that may have developed. This can occur within as little as three to four days and has been noted most frequently in *Enterobacter, Citrobacter,* and *Serratia* spp. with third-generation cephalosporins; in *P. aeruginosa* with all antimicrobial agents; and in staphylococci with quinolones. For *S. aureus,* vancomycin-susceptible isolates may become vancomycin intermediate during the course of prolonged therapy.

Next Paragraph

In certain circumstances, testing of isolates to detect resistance that may have developed might be necessary earlier than three or four days. The decision to do so requires knowledge of the specific situation (eg, an *E. cloacae* from a blood culture of a premature infant). Laboratory guidelines on when to perform susceptibility testing on repeat isolates should be determined after consultation with medical staph

Revised wording

In certain circumstances, the decision to perform susceptibility tests on subsequent isolates requires knowledge of the specific situation and the severity of the patient's condition (eg, an isolate of *Enterobacter cloacae* from a blood culture on a premature infant or MRSA from a patient with prolonged bacteremia). Laboratory guidelines on when to perform susceptibility testing on subsequent isolates should be determined after consultation with the medical staff.

WG vote 9 yes and 1 abstain

Confusion over pefloxacin and naladixic acid disk tests for Salmonella Item 2

Based on recent CAP proficiency survey it appears that labs are confused about what to do with the results of pefloxacin and/or naladixic acid disk tests for fluoroquinolone resistance.

The text in Table 2A does not clearly state how to report pefloxacin and naladixic acid disk test results.

Tom suggested that we move both tests and associated comments from Table 2A to a new Table 3.

Comments in table 2A could be revised to direct the reader to the appropriate Table 3 which include interpretive criteria and reporting details.

WG vote 10 yes, 0 no

Cefazolin Table 1A and Table2A

Agenda items 5.1 and 5.2

Cefazolin

Vote 7 yes, 0 no

Item # 3

- Several items brought by Mary York from the Ad Hoc working group for clean up Tables 1 and 2.

#3 Table 2C comment 7

- **PENICILLINASE-LABILE PENICILLINS**

(7) Penicillin-susceptible staphylococci are also susceptible to other β-lactam agents with established clinical efficacy for staphylococcal infections. Penicillin-resistant staphylococci are resistant to penicillinase-labile penicillins, including ampicillin, amoxicillin, azlocillin, carbenicillin, mezlocillin, piperacillin, and ticarcillin.

Revised Comment 7

- (7) Penicillin should be used to test the susceptibility of staphylococci to all penicillins. Penicillin-susceptible staphylococci are susceptible to other β-lactam agents with established clinical efficacy for staphylococcal infections (including both penicillin-labile and penicillin-stable agents; see glossary 1) Penicillin-resistant staphylococci are resistant to penicillinase-labile penicillins.

WG vote 7 yes, 0 no

Table 2C comment 8

- (8) Penicillin should be used to test the susceptibility of all staphylococci to all penicillinase-labile penicillins. Penicillin-resistant strains of staphylococci produce β-lactamase. Perform test(s) to detect β-lactamase production on staphylococci for which the penicillin MICs are ≤ 0.12 μg/mL or zone diameters ≥ 29 mm before reporting the isolate as penicillin susceptible. Rare isolates of staphylococci that contain genes for β-lactamase production may appear negative by β-lactamase tests. Consequently, for serious infections requiring penicillin therapy, laboratories should perform MIC tests and β-lactamase testing on all subsequent isolates from the same patient. PCR testing of the isolate for the *bla*Z β-lactamase gene may be considered. See Tables 3D and 3E.

Revised Comment 8

- Penicillin should be used to test the susceptibility of all staphylococci to all penicillinase-labile penicillins. (**Please refer to glossary 1).** Penicillin-resistant strains of staphylococci produce beta-lactamase. Perform tests to detect……

WG vote 7 yes, 0 no

Table 2C comment 10

10) Oxacillin (or cefoxitin) results can be applied to the other penicillinase-stable penicillin (cloxacillin, dicloxacillin, flucloxacillin, methicillin, and nafcillin). For agents with established clinical efficacy and considering site of infection and appropriate dosing, oxacillin (cefoxitin)-susceptible staphylococci can be considered susceptible to:

- β-lactam/β-lactamase inhibitor combinations (~~amoxicillin-clavulanate, ampicillin-sulbactam, piperacillin-tazobactam, ticarcillin-clavulanate~~)
- Oral cephems (~~cefaclor, cefdinir, cefpodoxime, cefprozil, cefuroxime, loracarbef~~)
- Parenteral cephems including cephalosporins I, II, III, and IV (~~cefamandole, cefazolin, cefepime, cefmetazole, cefonicid, cefoperazone, cefotaxime, cefotetan, ceftizoxime, ceftriaxone, cefuroxime, cephalothin, ceftaroline, moxalactam~~)
- Carbapenems (~~doripenem, ertapenem, imipenem, meropenem~~)

Revised Table 2C comment 10

Revise by deleting drug names and adding sentence in **Bold**:

> Oxacillin (or cefoxitin) results can be applied to the other penicillinase-stable penicillins. For agents with established clinical efficacy and considering site of infection and appropriate dosing, oxacillin (cefoxitin) susceptible staphylococci can be considered susceptible to β-lactam/β-lactamase inhibitor combinations, oral cephems, parenteral cephems and carbapenems. **Please refer to glossary 1 for listing of drugs in each of these subclasses.**

WG vote

Table 2H-1 comment 5. See strikethrough

- (*5) ~~For the following organism groups,~~ An organism that is susceptible to penicillin can be considered susceptible to the listed antimicrobial agents when used for approved indications **and need not be tested against those agents**: for groups A, B, C, and G β-hemolytic streptococci, **penicillin is a surrogate for** ampicillin, amoxicillin, amoxicillin-clavulanate, ampicillin-sulbactam, cefazolin, cefepime, ceftaroline, cephradine, cephalothin, cefotaxime, ceftriaxone, ceftizoxime, imipenem, ertapenem, and meropenem, and **for** ~~In addition,beta-hemolytic streptococci~~ group A only **penicillin is a surrogate for** cefaclor, cefdinir, cefprozil, ceftibuten, cefuroxime, cefpodoxime and cephapirin.*

Items 4 – 4.4 M100-S20 Carbapenem Interpretive Criteria

- Current carbapenem interpretive criteria have been in the document for 5 years. AST manufacturers have all received FDA approvals for the current breakpoints so it was decided that it was time to remove all reference to usingM100-S20 breakpoints.
- Doing this would also require removal of tables 3B-1 and 3C-1 and removing the 100-S20 breakpoint wording in Tables 2A, 3B, and 3C
- WG voted 7 yes, 0 no

Items for Information

Pictures and labels for Carba-NP test

- The photographs in M100-S25 show tests with various colors of all the possible results one could see when doing the Carba-NP test however the tubes are not labeled with interpretations for the colors.
- It was felt by the WG members that there should be interpretation labels with these photographs. Interpretations of the 5 tests represented will be added and we will be looking to getting better quality photos for this test for the next edition of M100.
- We hope to have something to show the subcommittee in June.

6.1 and 6.2 After **discussion about "surrogate and screen tests" and tests using one agent to report the susceptibility of other agents a decision was made to pursue the following:**

1. Form an Ad Hoc working group to review agenda item 6.2 which is a list of all instances where one drug test can be used to report susceptibility of another drug including surrogates, screens and boxes with "or" listings.

2. Define "surrogate tests" (stand alone tests with no further testing required) and "screening tests" (may require additional testing) for the next issue of M100.

3. Possibly move surrogate and screen tests to Section 3 of M100.

4) Current accuracy of comments Some comments were added to M100 several years ago.

5) Consistency in wording to convey the same or similar instruction.

6) Positioning in respective table(s).

7) Possibility of consolidating one or more comments.

Ad Hoc Outreach WG (ORWG)

Reports to T&T

T&T Folder:

Section #11 in Agenda Book

ORWG Members

Janet Hindler co-chair
Audrey Schuetz co-chair

Director Level

- Marcelo Galas
- Romney Humphries
- Lars Westblade

Bench Tech / Supervisor

- Beth Prouse
- Violeta J. Rekasius

Industry (Pharma)

- Nicole. E. Scangarella-Oman

Charge / Objectives

Use various delivery systems to develop educational materials/ programs to help users navigate CLSI AST documents and CLSI website.

1. Review meeting minutes and recent versions of CLSI documents M02, M07, M100, and M11 to identify those topics that would benefit from educational or outreach endeavors.
2. Solicit feedback from users of CLSI documents to determine what additional educational materials would be useful.
3. Determine methods and venues for delivery of various types of educational needs identified in 1) and 2).
4. Develop materials for educational opportunities.

CLSI & Education

- Key element:
  - "Educating users through multimedia communication of standards and guidelines"
- Partner with other organizations who have delivery systems in place, when appropriate / possible