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Bold = members present
T&T Agenda

1. Inducible clindamycin resistance testing language
2. Addition of text surrounding 0.125 vs 0.12 reporting - from Methods Application & Interpretation WG
3. Clarification of beta-hemolytic strep/tetracycline comment?
4. *Staphylococcus* Table 2C options
"Inducible clindamycin resistance can be detected by disk diffusion using the D-zone test or by broth microdilution (see Table 3G, Subchapter 3.9 in M02, and Subchapter 3.12 in M07)."

Comment update – language adapted from “Supplemental Tests – Required”
For isolates that test erythromycin resistant and clindamycin susceptible or intermediate, testing for inducible clindamycin resistance is required before reporting clindamycin. See Table 3G, Subchapter 3.9 in M02, and Subchapter 3.12 in M07.¹

Update will apply to Table 2 comments where ICR is mentioned:
Table 2C, comment (29), Table 2G, comment (23), and Table 2H-1 – comment (14)
T&T Item 1:

<table>
<thead>
<tr>
<th></th>
<th>Melissa Jones-UNC Healthcare</th>
<th>Ed</th>
<th>Table 2C; comment 29</th>
<th>Does CLSI have a position on recommending the D-test? If so, suggest stronger encouragement to test in every section where ICR is discussed. For example:</th>
<th>Suggest wording change: Detection of inducible clindamycin resistance (ICR) should be performed on all staphylococci. ICR can be detected by</th>
</tr>
</thead>
</table>

Discussions around confusion or lack of understanding by docs that a lab has tested erythromycin to determine need for ICR testing and also around soft language in Table 3G for optional reporting comments

**ICR Ad Hoc:** Review language around ICR testing/reporting comments to help convey this information

**Outreach WG:** Suggestion that this is a good topic to include in an ORWG newsletter
T&T Item 2:
Additional text for reporting 0.125μg/mL as 0.12μg/mL

From Methods Application WG call:

It would be helpful to have the comment regarding reporting 0.125 as 0.12 in other places in the document – particularly other strep tables and other organisms that are mentioned in the endocarditis guidelines...should it be added in all places we have 0.12 as a breakpoint since it also applies to other drugs?

Additional comments from Dr. Samir Patel:

“This confusion arises from European endocarditis guidelines, which suggest 0.125 rather than 0.12. The IDSA/AHA states 0.12. As some labs are doing E-test which has 0.125, the confusion arises when they get 0.125. I found this paper that shows that reporting 0.125 instead of 0.12 does affect on choice of antibiotics. So I would recommend having a stronger statement.”
T&T Item 2: Additional text for reporting 0.125μg/mL as 0.12μg/mL

Table 7 language

When serial twofold dilution minimal inhibitory concentrations are being prepared and tested, the actual dilution scheme is:

128, 64, 32, 16, 8, 4, 2, 1, 0.5, 0.25, 0.125, 0.0625, 0.03125, 0.015625, 0.0078125, 0.0039063, 0.0019531 μg/mL, etc.

For convenience only, and not because these are the actual concentrations tested, it was decided to use the following values in these tables:

128, 64, 32, 16, 8, 4, 2, 1, 0.5, 0.25, 0.12, 0.06, 0.03, 0.016, 0.008, 0.004, 0.002 μg/mL, etc.

The values that appear in the tables are equivalent to the actual values tested, eg, 0.12 μg/mL = 0.125 μg/mL, 0.016 μg/mL = 0.015625 μg/mL.
D. MIC Reporting Concentrations

When serial twofold dilution minimal inhibitory concentrations are being prepared and tested, the actual dilution scheme is, for example:

16, 8, 4, 2, 1, 0.5, 0.25, 0.125, 0.0625, 0.03125 µg/mL, etc. (See Table 7 for additional dilutions)

For convenience only, and not because these are the actual concentrations tested, it was decided to use the following values in these tables:

16, 8, 4, 2, 1, 0.5, 0.25, 0.12, 0.06, 0.03 µg/mL, etc.

The values that appear in the tables are equivalent to the actual values tested, e.g., 0.12 µg/mL = 0.125 µg/mL, and laboratories should report an MIC of ≤0.125 µg/mL as ≤0.12 µg/mL.
T&T Item 3: Tetracycline comment clarification

Comment from DivC forwarded to T&T:

For beta hemolytic strep and tetracyclines comment 13 (Table 2H-1), we have a physician requesting doxycycline sensitivities on a beta strep isolate. Tetracycline is on our panel and tested “R”. So does that mean you can interpret isolates “R” to tetracycline to also be “R” to doxycycline? Or this only works for “S” results?

Current Table 2H-1, comment (13):
“Organisms that are susceptible to tetracycline are also considered susceptible to doxycycline and minocycline.”

Is additional wording recommended to clarify that resistance to tetracycline does not imply resistance to doxycycline or minocycline?

Caveat: no testing recommendations for doxycycline or minocycline for β-hemolytic strep or Viridans strep
T&T Item 3: Tetracycline comment clarification

Comment from DivC forwarded to T&T:

For beta hemolytic strep and tetracyclines comment 13 (Table 2H-1), we have a physician requesting doxycycline sensitivities on a beta strep isolate. Tetracycline is on our panel and tested “R”. So does that mean you can interpret isolates “R” to tetracycline to also be “R” to doxycycline? Or this only works for “S” results?

Optional additional text:
“Organisms that are susceptible to tetracycline are also considered susceptible to doxycycline and minocycline. However, resistance to doxycycline and minocycline cannot be inferred from tetracycline resistance.”

Is additional wording recommended to clarify that resistance to tetracycline does not imply resistance to doxycycline or minocycline?

Caveat: no testing recommendations for doxycycline or minocycline for β-hemolytic strep or Viridans strep
T&T Item 4: Table 2C *Staphylococcus* options

Goal is to improve the table formatting as testing recommendations continue to get more complicated, particularly with oxacillin and non-*S. aureus* species
**Version 1**
Table 2C-1 *S. aureus* only
Table 2C-2 Other staphylococci with option to group species based on testing recommendations

**Version 2**
Table 2C: Column added for specific indications

**Version 3**
Table 2C-1 Oxacillin/cefoxitin and vancomycin only
Table 2C-2 All other antimicrobials
### Table 2C-1. Zone Diameter and MIC Breakpoints for *Staphylococcus aureus*

<table>
<thead>
<tr>
<th>Test/Report Group</th>
<th>Antimicrobial Agent</th>
<th>Disk Content</th>
<th>Interpretable Categories and Zone Diameter Breakpoints, nearest whole mm</th>
<th>Interpretable Categories and MIC Breakpoints, µg/mL</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>PENICILLINASE-STABLE PENICILLINS (Continued)</td>
<td>A</td>
<td>Oxacillin</td>
<td>–</td>
<td>≤ 2 (oxacillin)</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>≥ 22</td>
<td>≤ 21</td>
<td>≤ 21</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 2C-2. Zone Diameter and MIC Breakpoints for *Staphylococcus* spp., other than *S. aureus*

<table>
<thead>
<tr>
<th>Test/Report Group</th>
<th>Antimicrobial Agent</th>
<th>Disk Content</th>
<th>Interpretable Categories and Zone Diameter Breakpoints, nearest whole mm</th>
<th>Interpretable Categories and MIC Breakpoints, µg/mL</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>PENICILLINASE-STABLE PENICILLINS (Continued)</td>
<td>A</td>
<td>Oxacillin</td>
<td>–</td>
<td>≤ 2 (oxacillin)</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>≥ 22</td>
<td>≤ 21</td>
<td>≤ 21</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>Oxacillin</td>
<td>1 µg oxacillin</td>
<td>≥ 18</td>
<td>≤ 17</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>Oxacillin</td>
<td>1 µg oxacillin</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

In General Comments section of Table 2C-2, include grouping designations:

<table>
<thead>
<tr>
<th>Groups</th>
<th>Staphylococcus spp.</th>
<th>Acceptable Methods</th>
</tr>
</thead>
</table>
| Group 1 | *S. lugdunensis* | • Cefoxitin MIC  
• Cefoxitin disk diffusion  
• Oxacillin MIC |
| Group 2 | *S. pseudintermedius* and *S. schleiferi* | • Oxacillin MIC  
• Oxacillin disk diffusion |
| Group 3 | Other *Staphylococcus* spp. (except *S. lugdunensis* and *S. pseudintermedius*, *S. schleiferi*, and *S. epidermidis*) | • Cefoxitin disk diffusion  
• Oxacillin MIC |
Table 2C. Zone Diameter and MIC Breakpoints for *Staphylococcus* spp.

<table>
<thead>
<tr>
<th>Test/Report Group</th>
<th>Antimicrobial Agent</th>
<th><em>Staphylococcus</em> species interpretation restrictions</th>
<th>Disk Content</th>
<th>Interpretive Categories and Zone Diameter Breakpoints, mm (nearest whole mm)</th>
<th>Interpretive Categories and MIC Breakpoints, μg/mL</th>
<th>Comments (Removed for brevity)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PENCILLINASE-STABLE PENICILLIN</strong> (Continued)</td>
<td>A</td>
<td>Oxacillin</td>
<td>For reporting of <em>S. aureus</em> and <em>S. lugdunensis</em></td>
<td>30 μg oxacillin (surrogate test for oxacillin)</td>
<td>≥ 22</td>
<td>≤ 21</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>Oxacillin</td>
<td>For reporting of <em>S. epidermidis</em> and <em>S. schleiferi</em></td>
<td>1 μg oxacillin</td>
<td>≥ 18</td>
<td>≤ 17</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>Oxacillin</td>
<td>For reporting of <em>CoNS</em> except <em>S. lugdunensis</em>, <em>S. epidermidis</em> and <em>S. schlieferi</em></td>
<td>30 μg oxacillin (surrogate test for oxacillin)</td>
<td>≥ 25</td>
<td>≤ 24</td>
</tr>
<tr>
<td><strong>CEPHIEMS (PARENTERAL)</strong></td>
<td>B</td>
<td>Cefazolin</td>
<td>Only, for reporting against <em>S. aureus</em> only, including Methicillin Resistant <em>S. aureus</em> (MRSA)</td>
<td>30 μg</td>
<td>≥ 24</td>
<td>≥ 21–25</td>
</tr>
<tr>
<td><strong>GLYCOPEPTIDES</strong></td>
<td>B</td>
<td>Vancomycin</td>
<td>For reporting against <em>S. aureus</em> only</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Vancomycin</td>
<td>CoNS</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Inv</td>
<td>Teicoplanin</td>
<td>none</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>LIPOGLYCOPEPTIDES</strong></td>
<td>C</td>
<td>Dalbavancin</td>
<td>For reporting against <em>S. aureus</em> only, including Methicillin Resistant <em>S. aureus</em> (MRSA)</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>Oritavancin</td>
<td>none</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>Telavancin</td>
<td>none</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>LIPOEPTIDES</strong></td>
<td>B</td>
<td>Daflonycin</td>
<td>none</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

**Notes:**

- For *S. aureus*, vancomycin-susceptible isolates may become vancomycin intermediate during the course of prolonged therapy.
<table>
<thead>
<tr>
<th>Test Report Group</th>
<th>Antimicrobial Agent</th>
<th>Staphylococcus species indications</th>
<th>Disc Content</th>
<th>Interpretive Categories and Zone Diameter Breakpoints (μg/mL)</th>
<th>Interpretive Categories and MIC Breakpoints (μg/mL)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penicillin Nase Stable Penicillin (Continued)</td>
<td>A</td>
<td>Oxacillin</td>
<td>S. aureus and S. epidermidis</td>
<td>30 μg oxacillin</td>
<td>≥ 22</td>
<td>≤ 24 (oxacillin)</td>
</tr>
<tr>
<td>Penicillin Nase Stable Penicillin (Continued)</td>
<td>A</td>
<td>Oxacillin</td>
<td>S. pseudointermedius and S. haemolyticus</td>
<td>1 μg oxacillin</td>
<td>≥ 16</td>
<td>&lt; 17</td>
</tr>
<tr>
<td>Penicillin Nase Stable Penicillin (Continued)</td>
<td>A</td>
<td>Oxacillin</td>
<td>S. staphylococci</td>
<td>1 μg oxacillin</td>
<td>≤ 16</td>
<td>≤ 17</td>
</tr>
<tr>
<td>Penicillin Nase Stable Penicillin (Continued)</td>
<td>A</td>
<td>Oxacillin</td>
<td>Other Staphylococcus spp.</td>
<td>30 μg cefoxitin (kryptonate test set oxacillin)</td>
<td>≥ 26</td>
<td>≤ 24</td>
</tr>
<tr>
<td>Glycopeptides</td>
<td></td>
<td>Vancomycin</td>
<td>S. aureus</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Glycopeptides</td>
<td></td>
<td>Other Staphylococcus spp.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>≤ 4</td>
</tr>
</tbody>
</table>

**Option 1**

- New column for species indications
**Version 3**

- **Option 2**
  - Separate MIC/DD
  - List species indications