

18 June 2018

To: Recipients of M02, 13th ed. and/or M07, 11th ed.  
From: Jennifer K. Adams, MT(ASCP), MSHA  
Vice President, Standards and Quality  
Subject: Correction

This notification is to inform you of corrections made to CLSI documents M02, *Performance Standards for Antimicrobial Disk Susceptibility Tests*, 13th ed. and M07, *Methods for Dilution Antimicrobial Susceptibility Tests for Bacteria That Grow Aerobically*, 11th ed. The corrections are described below and shown as highlighted and/or stricken text in the text excerpt.

In Subchapters 3.9.4.3 (M02) and 3.12.4.3 (M07), Carbapenemases (Carbapenem-Resistant Gram-Negative Bacilli), the third and fourth paragraphs currently state:

“Carbapenemase activity in *Enterobacteriaceae* can be confirmed using the CarbaNP colorimetric microtube assay described in M100 Tables 3B and 3B-1 or the modified carbapenem inactivation method (mCIM) test described in M100 Tables 3C and 3C-1. Carbapenemase activity can also be detected in *P. aeruginosa* using the CarbaNP test. Both the CarbaNP and mCIM tests may detect carbapenemase production, but neither of these tests can identify which carbapenemase is present.

There is no CLSI-validated phenotypic test to confirm the presence of metallo- $\beta$ -lactamases in patient isolates. Current breakpoints for antimicrobial agents affected by these carbapenemases are the recommended approach for providing guidance for treating infections by *Enterobacteriaceae* containing OXA-, KPC-, and NDM-type enzymes. To confirm carbapenemase activity in *P. aeruginosa*, performing the CarbaNP or a molecular test is the recommended approach. Refer to M100 Tables 3B, 3B-1, 3C, and 3C-1 for the most current recommendations for testing and reporting.”

This information is not consistent with that provided in CLSI document M100, *Performance Standards for Antimicrobial Susceptibility Testing*, 28th ed., Tables 3B, 3B-1, 3C, and 3C-1.

In Subchapters 3.9.4.3 (M02) and 3.12.4.3 (M07), Carbapenemases (Carbapenem-Resistant Gram-Negative Bacilli), the third and fourth paragraphs have been corrected to read:

“Carbapenemase activity in *Enterobacteriaceae* and *P. aeruginosa* can be confirmed using the CarbaNP colorimetric microtube assay described in M100 Tables 3B and 3B-1 or the modified carbapenem inactivation method (mCIM) test described in M100 Tables 3C and 3C-1. ~~Carbapenemase activity can also be detected in *P. aeruginosa* using the CarbaNP test.~~ Both the CarbaNP and mCIM tests may detect carbapenemase production, but neither of these tests can identify which carbapenemase is present. There is no CLSI-validated phenotypic test to confirm the presence of carbapenemase activity in *Acinetobacter*; therefore, a molecular test is the recommended method.

Metallo- $\beta$ -lactamase activity can be detected in *Enterobacteriaceae* by using the EDTA-modified carbapenem inactivation method (eCIM) test in combination with the mCIM test as described in M100 Tables 3C and 3C-1. The eCIM test enables differentiation of metallo- $\beta$ -lactamases from serine carbapenemases in *Enterobacteriaceae* isolates that are positive for mCIM. ~~There is no CLSI validated phenotypic test to confirm the presence of metallo- $\beta$ -lactamases in patient isolates.~~ Using ~~C~~ current breakpoints for antimicrobial agents affected by these carbapenemases ~~are~~ is the recommended approach for providing guidance for treating infections by *Enterobacteriaceae* containing both serine and metallo- $\beta$ -lactamases, including KPC-, OXA-, and NDM-type enzymes. ~~To confirm carbapenemase activity in *P. aeruginosa*, performing the CarbaNP or a molecular test is the recommended approach.~~ Refer to M100 Tables 3B, 3B-1, 3C, and 3C-1 for the most current recommendations for testing and reporting.”

In addition, because the modified Hodge test is no longer recommended and has been deleted from M100, the following related references were deleted from M02 and M07:

- Girlich D, Poirel L, Nordmann P. Value of the modified Hodge test for detection of emerging carbapenemases in *Enterobacteriaceae*. *J Clin Microbiol*. 2012;50(2):477-479.
- Carvalhaes CG, Picão RC, Nicoletti AG, Xavier DE, Gales AC. Cloverleaf test (modified Hodge test) for detecting carbapenemase production in *Klebsiella pneumoniae*: be aware of false positive results. *J Antimicrob Chemother*. 2010;65(2):249-251.

If you require any additional clarification regarding these corrections, please contact CLSI Customer Service ([customerservice@clsi.org](mailto:customerservice@clsi.org)).

We appreciate your commitment to CLSI and regret any inconvenience.