



Breakpoints of the *Mycoplasma Hominis* and *Ureaplasma Urealyticum*

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Lee, et al.¹ reported the prevalence and antibiotic susceptibility of *Mycoplasma hominis* and *Ureaplasma urealyticum* in pregnant women. They used Mycoplasma IST-2 kit (bioMérieux, Marcy-l'Etoile, France) for the identification and antibiotics susceptibility testing. In the article, the breakpoints were defined as tetracycline S \leq 4, R \geq 8; doxycycline S \leq 4, R \geq 8; azithromycin S \leq 0.12, R \geq 4; clarithromycin S \leq 1, R \geq 4; erythromycin S \leq 1, R \geq 4; josamycin S \leq 2, R \geq 8; ciprofloxacin S \leq 1, R \geq 2; ofloxacin S \leq 1, R \geq 4; and pristinamycin R \geq 2. However, there was no reference attached to the paragraph. As *Mycoplasma hominis* is intrinsically resistant to the C14 and C15 macrolides and azalides such as erythromycin and azithromycin, and *Ureaplasma* species also have natural resistance to clindamycin and other lincosamides,² it is not rational to apply the same breakpoints for same antibiotics to each organism.

In October 2011, Clinical and Laboratory Standards Institute (CLSI) issued the document M43-A with the title of 'Methods for Antimicrobial Susceptibility Testing for Human Mycoplasmas; Approved Guideline'.³ In the document, guidelines for performance, interpretation, and quality control of *in vitro* broth microdilution and agar dilution susceptibility for antimicrobials against *Mycoplasma hominis* and *Ureaplasma urealyticum* were first described by CLSI. There are breakpoints for selected antibiotics such as quinolones, tetracyclines, lincosamides, macrolides, and ketolides. Each organism has unique

profiles of antibiotics susceptibilities which are different from those used in Mycoplasma IST-2 kit. We do not know how the manufacturer set up the breakpoints for the antimicrobial susceptibility test kit. However, as we now have criteria and methods proposed by CLSI, they should be used. It has been more than five years since CLSI issued the M43-A document. However, there still are many commercially available kits that do not comply with the CLSI minimal inhibitory concentration interpretive criteria for genital Mycoplasmas. As the test results using those kits may be misleading, they should not be used in clinical setting.

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