



University of Warwick Science Park, Venture Centre, Sir William Lyons Road, Coventry CV4 7EZ

Website: [www.micropathology.com](http://www.micropathology.com) E-mail: [info@micropathology.com](mailto:info@micropathology.com)

## ***Mycoplasma genitalium* testing at Micropathology Ltd**

*Mycoplasma genitalium* is one of the bacteria in the class of Mollicutes, which characteristically lack a cell wall therefore is not visible by Gram stain. *M. genitalium* was first identified in 1981 from two men presenting with nongonococcal urethritis (NGU)<sup>1</sup> but owing to the difficulties associated with culturing, there were few studies undertaken prior to the advent of PCR technology. It has been found in approximately 15 to 20% of women attending adolescent health centres, STI clinics, and emergency departments in the US<sup>2</sup>.

Whilst the majority of people with *M. genitalium* in the genital tract do not develop disease, *M. genitalium* is associated with urethritis in men, and cervicitis, pelvic inflammatory disease and infertility in women. It has been formally recognised as an independent aetiological agent of acute and persistent nongonococcal urethritis and is responsible for approximately 20-35% of non-chlamydial NGU cases<sup>3</sup>. Significant associations between *M. genitalium* and vaginal and cervical discharge have been demonstrated, though diagnosis is subjective and therefore comparing data can be difficult. There is also some evidence that *M. genitalium* can potentially cause proctitis<sup>4</sup> and has been associated with a small increased risk of preterm delivery and spontaneous abortion<sup>5</sup>.

Epidemiological studies have shown that sexual partners of individuals diagnosed with *M. genitalium* are more likely to also be infected than controls; and that partners tend to share a common strain. Thus, *M. genitalium* is characterised as a sexually transmitted disease<sup>6</sup>. The current treatment for *M. genitalium* infection is a single dose of azithromycin, though resistant bacteria are emerging and clinicians have been advised to prescribe an extended therapy.

At present, *M. genitalium* detection is performed exclusively by nucleic acid amplification techniques. In men first void urine (FVU) is thought to be the most sensitive specimen type (sensitivity 98-100%) having been shown to be more sensitive than urethral swabs. In women, clinical or self-taken vaginal swabs are the recommended specimen type. Additionally, the 2018 BASHH UK national guideline for the management of infection with *M. genitalium* recommend that patients should be given a test of cure (TOC) five weeks (no sooner than three weeks) after the start of treatment; and asymptomatic current partners of individuals with *M. genitalium* disease should be tested and/or offered epidemiological treatment to reduce the risk of reinfection of the index case<sup>7</sup>.

Micropathology Ltd uses semi-nested PCR to detect *M. genitalium* DNA and recommends sending a vaginal swab (females) or first catch urine (male only) for testing.

### **References**

1. Identification and Characterization of Immunogenic Proteins of *Mycoplasma genitalium*. (2006) Svenstrup, H. F. *et al.* Clin Vaccine Immunol.
2. *Mycoplasma genitalium*: An Overlooked Sexually Transmitted Pathogen in Women? (2016) Ona *et al.* Infect Dis Obstet Gynecol
3. Management of non-gonococcal urethritis (2015) Moi *et al.* BMC Infect Dis

4. The contribution of *Mycoplasma genitalium* to the aetiology of sexually acquired infectious proctitis in men who have sex with men (2016) Bissessor, M., et al.,. *Clinical Microbiology and Infection*
5. *Mycoplasma genitalium* infection and female reproductive tract disease: A meta-analysis (2015) Lis, R. *et al.* *Clinical Infectious Diseases*
6. *Mycoplasma genitalium*: prevalence, clinical significance, and transmission (2005) Anagnrius *et al.* *Sex Transm Infect*
7. 2018 BASHH UK national guideline for the management of infection with *Mycoplasma genitalium* (2018)
8. Soni, S *et al.* In draft.