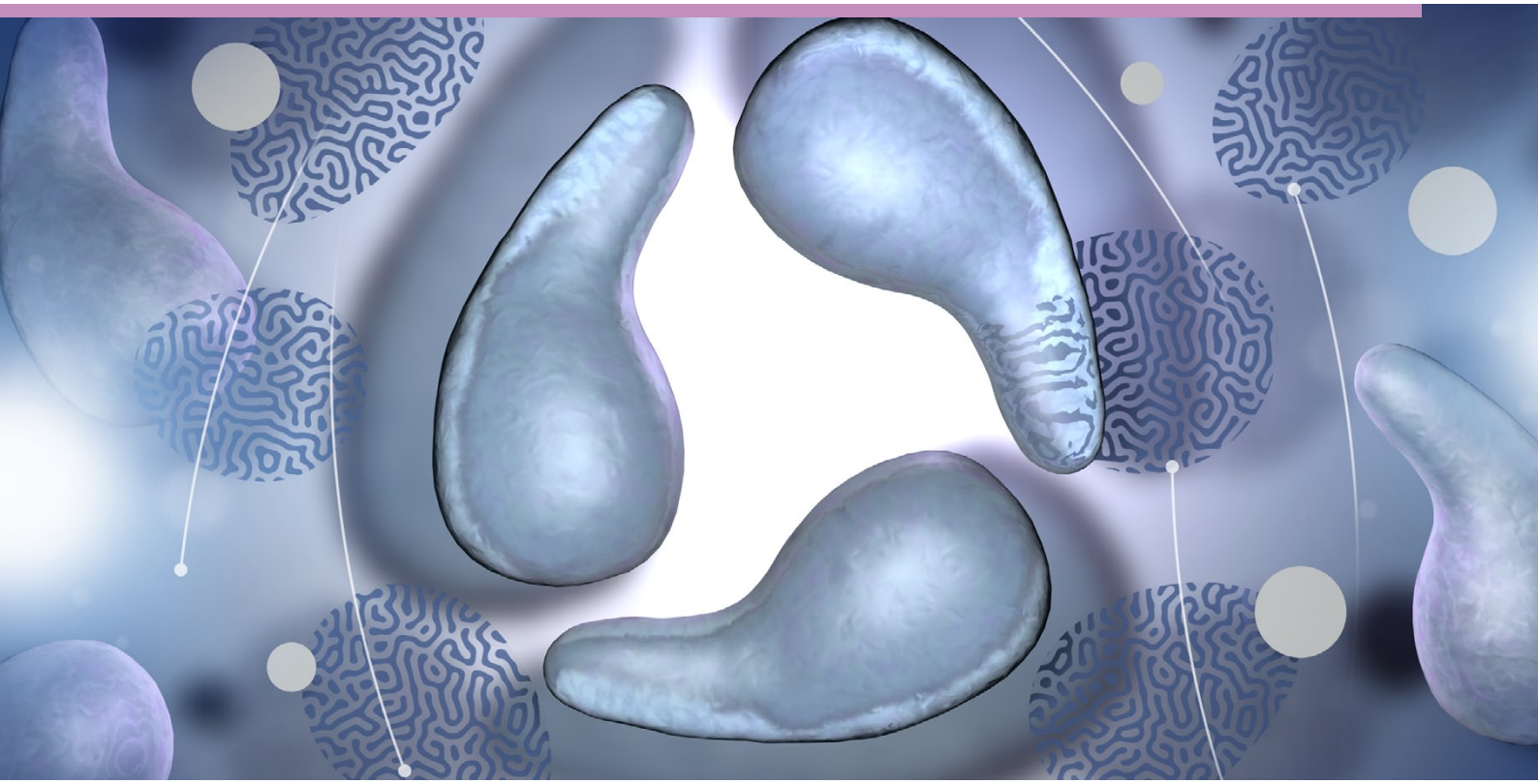

Mycoplasma genitalium: considerations for testing and treatment in primary care

Mycoplasma genitalium infection is a potential cause of urethritis in males and cervicitis and pelvic inflammatory disease in females. Population prevalence rates of *M. genitalium* infection in New Zealand are unknown, however, there is evidence that rates may be as high as that of chlamydia in some groups. Routine investigation for *M. genitalium* infection is not recommended, however, testing may be indicated for patients with persistent urethritis or cervicitis, or severe pelvic inflammatory disease. Antibiotic treatment of *M. genitalium* infection depends on macrolide susceptibility and any previous treatments.

Mycoplasma genitalium infection can cause urethritis, cervicitis and pelvic inflammatory disease

M. genitalium was first identified in the 1980s and has been increasingly recognised as an important cause of sexually transmitted urogenital and rectal infections.[1] *M. genitalium* is extremely difficult to culture, taking weeks or months, which has limited its detection in diagnostic settings. It can now be detected using nucleic acid amplification testing (NAAT), which has become more widely available in diagnostic laboratories in New Zealand.

The natural history of *M. genitalium* infection is not well understood, but it is estimated to cause 15–30% cases of urethritis in males and less commonly, cervicitis and pelvic inflammatory disease in females.[1, 2] *M. genitalium* often co-exists with other bacterial STIs, such as chlamydia or trichomoniasis.[1,3]

The population prevalence of *M. genitalium* infection is unknown in New Zealand as the Institute of Environmental Sciences and Research (ESR) does not collect data on this STI. Studies in Auckland and Northland have detected *M. genitalium* in up to 10% of patients with urethritis or pelvic inflammatory disease.[3–5]

There is no current national *M. genitalium* infection management guideline as laboratory confirmation and resistance testing varies by region, however, it is expected that testing and treatment recommendations will be included in the next update of the New Zealand Sexual Health Society guidelines.

Routine testing for *Mycoplasma genitalium* infection in asymptomatic people is not recommended

Although *M. genitalium* can cause urethritis, cervicitis or pelvic inflammatory disease, evidence suggests that most people with *M. genitalium* infection are asymptomatic and do not develop

complications.[6] Therefore, routine testing of asymptomatic people for *M. genitalium* infection is not recommended in international guidelines.[1, 6]

Patients with persistent urethritis or cervicitis, or severe pelvic inflammatory disease, i.e. those who have been treated for these conditions and have not responded despite adherence to the prescribed regimen, should be discussed with or referred to a sexual health physician, or discussed with a clinical microbiologist, to advise on whether testing for *M. genitalium* infection is appropriate. Sexual contacts of a person with confirmed *M. genitalium* infection will also need to be treated and may need to be tested.

NAAT is the preferred method for detection of *M. genitalium* from either a first void urine sample (males), a vulvovaginal swab (females) or a rectal swab. If available, additional testing for macrolide resistance can be used to guide the appropriate antimicrobial treatment.

Treatment of *M. genitalium* infection

Macrolide resistance is common

M. genitalium does not have a cell wall, therefore, penicillins or cephalosporins, which target cell wall synthesis, are not effective treatments.[7] Macrolides, e.g. azithromycin, are generally very effective for the treatment of *M. genitalium* infection, however, resistance is common. Studies in New Zealand have found that 72–77% of *M. genitalium* samples were resistant to macrolides and 23% resistant to fluoroquinolones.[8, 9] In addition, treatment of a macrolide susceptible *M. genitalium* infection with azithromycin results in treatment failure and development of macrolide resistance in approximately 10% of cases.[6]

Treatment regimen

Patients with confirmed *M. genitalium* infection, or those who are a sexual contact of someone with a confirmed *M. genitalium* infection, should be discussed with or referred to a sexual health physician or discussed with a clinical microbiologist before initiating treatment.

The treatment regimen recommended for people with confirmed *M. genitalium* infection depends on the presenting condition, whether the infection is macrolide susceptible and any previous antibiotic treatments that have been given for the infection.

Persistent urethritis is likely to be the most common presentation of *M. genitalium* infection seen in primary care. The recommended treatment regimen in Australian and British guidelines is:[1, 6]

- Doxycycline (to reduce bacterial load); followed by **either**:
- Azithromycin (if macrolide susceptible or resistance unknown) **OR**
- Moxifloxacin* (if macrolide resistant or treatment with azithromycin has failed)

N.B. If *M. genitalium* infection has been confirmed and it has been less than two weeks since the patient completed a course of doxycycline, a repeat course is not necessary.[1] Doxycycline alone only cures one-third of *M. genitalium* infections.[6]

A similar regimen is likely to be appropriate for patients presenting with persistent cervicitis or severe pelvic inflammatory disease.[1, 6]

A test of cure at least two weeks after completing treatment is recommended.[6]

* Unapproved indication. Moxifloxacin can be prescribed fully subsidised with Special Authority approval for the treatment of *M. genitalium* infection. Applications are to be made by a sexual health specialist or on their recommendation. The application form is available here: **www.pharmac.govt.nz/latest/SA1740.pdf**

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