Syndromic management of sexually-transmitted infections and the threat of untreatable *Mycoplasma genitalium*

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Takashi Deguchi describes issues in syndromic management of sexually-transmitted infections (STIs) and in particular treatment of *Mycoplasma genitalium*, which shows increasing drug resistance, especially in Asia-Pacific, and may become the first untreatable STI. Widespread syndromic use of azithromycin has increased macrolide resistance in several bacterial STIs, and the evidence that macrolide resistance is less likely to develop with an “extended” azithromycin regimen as suggested by Deguchi is not strong. We clearly need to replace syndromic approaches with aetiologic management, which will be facilitated by point-of-care tests, which also need to determine drug-resistance profiles for STIs such as *M. genitalium* and *N.gonorrhoeae*.

However, there is an urgent need to establish guidelines for testing, to avoid widespread asymptomatic screening for *M. genitalium*. Although *M. genitalium* has similar prevalence to *C.trachomatis*, screening cannot currently be recommended, due to uncertainty in *M. genitalium*’s natural history causing large uncertainty in the potential benefits and concern about selection for antimicrobial resistance, and drug toxicity. Treatment of *M. genitalium* is becoming increasingly challenging with resistant cases requiring costly drugs, which often have limited availability and are associated with rare but serious side effects.

Until more-effective and tolerable regimens exist we recommend that sexual health services should avoid unnecessarily identifying asymptomatic infections, due to the consequent imperative to treat. The only patients where testing for *M. genitalium* is clearly indicated are (i) those with symptoms (urethritis, cervicitis, pelvic inflammatory disease), and (ii) current partners of index patients infected with *M. genitalium* (even if asymptomatic), to prevent potential reinfection. Multiplex tests detecting *M. genitalium* should not be routinely used for sexual health patients without disease since this would create a de facto screening programme. However, more information is needed to better-understand *M. genitalium*’s natural history, and unlinked anonymous monitoring of samples from asymptomatic patients tested for other STIs would provide valuable information, including rates of *M. genitalium* co-infection with *C. trachomatis* and *N. gonorrhoeae* to inform treatment guidelines. Treatment of *C. trachomatis* and *N. gonorrhoeae* with azithromycin will select for resistance in patients co-infected with *M. genitalium* and this use needs to be reviewed.

To manage *M. genitalium* effectively, testing should always include the antimicrobial resistance profile: antimicrobial resistance is the primary cause of treatment failure with azithromycin and quinolones. Treatment should always be followed by test-of-cure: treatment failures may have a reduced bacterial load and mild/unnoticed symptoms, creating an opportunity for propagation of resistance.

3. Horner P, Ingle SM, Garrett F, Blee K, Kong F, Muir P, et al. Which azithromycin regimen should be used for treating *Mycoplasma genitalium*? A meta-analysis. Sex Transm Infect 2017; Epub ahead of print [https://doi.org/10.1136/sxtrans-2016-053060](https://doi.org/10.1136/sxtrans-2016-053060)


Catriona S Bradshaw¹², Patrick J Horner³⁴⁵, Jørgen S Jensen⁶, Peter J White⁷⁸*

*Corresponding author: p.white@imperial.ac.uk

¹Central Clinical School, Monash University, Melbourne, Australia
²Melbourne Sexual Health Centre, Alfred Hospital, Melbourne, Australia
³Population Health Sciences, University of Bristol, Bristol, UK
⁴Unity Sexual Health, University Hospitals Bristol NHS Trust, Bristol, UK
⁵National Institute for Health Research Health Protection Research Unit in Evaluation of Interventions, University of Bristol, Bristol, UK
⁶Research Unit for Reproductive Microbiology, Statens Serum Institut, DK-2300 Copenhagen S, Denmark
⁷MRC Centre for Outbreak Analysis and Modelling and NIHR Health Protection Research Unit in Modelling Methodology, Imperial College London, London, UK

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