

BASHH CLINICAL FFFFCTIVENESS GROUP

Update on the treatment of Chlamydia trachomatis (CT) infection

September 2018

The majority of sexually transmitted infection (STI) guidelines have until recently recommended a 1g single dose of azithromycin (SDA) or 7 days of doxycycline as standard treatment for uncomplicated urogenital and oral chlamydia infection. *Mycoplasma genitalium* (MGen) is emerging as a significant sexually transmitted pathogen and coinfection rates of 3%-15% with chlamydia have been reported (1-4). Recent data demonstrate an increasing prevalence of macrolide resistance in MGen, likely due to the widespread use of SDA to treat STIs, and the limited availability of diagnostic tests for MGen (5).

In addition, SDA has also been shown to be less effective than doxycycline for rectal CT in MSM (6), and a meta-analysis of rectal specimens in women showed significant rates of concomitant rectal infections in women with urogenital infection, with no association between reported anal intercourse and rectal infection (7). This has important implications for treatment, as undertreated rectal chlamydia infection may potentially contribute to re-infection rates.

As a consequence of its potential to select for macrolide resistance in MGen and its inadequacy as a treatment for rectal CT, the British Association for Sexual Health and HIV (BASHH) no longer recommends SDA for treatment of uncomplicated chlamydia infection at any site, regardless of the gender of the infected individual.

Doxycycline 100mg bd for 7 days is now recommended as first line treatment for uncomplicated urogenital, pharyngeal and rectal chlamydia infections, with test of cure (TOC) for diagnosed rectal infections as recommended in the BASHH Chlamydia 2015 guidelines (8).

Individuals who are allergic to, or intolerant of tetracyclines, and pregnant women, should be treated with azithromycin 1g orally as a single dose followed by 500mg daily for 2 days. This regimen will cover MGen if present [9]. While adverse pregnancy outcomes are unlikely with the 2g total azithromycin dose, women should be advised of the lack of data. As there are no data on the effectiveness of extended course azithromycin in the treatment of rectal chlamydia, in individuals with rectal infection, a TOC is recommended no earlier than 3 weeks after completion of treatment. TOC continues to be recommended in pregnant women.

References:

- 1. Svenstrup HF, Dave SS, Carder C, et al. A cross-sectional study of *Mycoplasma genitalium* infection and correlates in women undergoing population-based screening or clinic-based testing for Chlamydia infection in London. BMJ Open, 2014. 4(2):p.e003947
- 2. Moi H, Reinton N, Moghaddam A. *Mycoplasma genitalium* is associated with symptomatic and asymptomatic non-gonococcal urethritis in men. Sex Transm Infect. 2009;85:15–8.
- 3. Getman D, Jiang A, O'Donell M, Cohen. *Mycoplasma genitalium* prevalence, coinfection, and macrolide antibiotic resistance frequency in a multicenter clinical study cohort in the United States. J Clin Microbiol. 2016 Sep; 54 (9):2278-2283.
- 4. Gaydos C, Maldeis N, Hardick A, et al. *Mycoplasma genitalium* Compared to Chlamydia, Gonorrhea and Trichomonas as an Etiologic Agent of Urethritis in Men Attending STD Clinics. Sexually transmitted infections, 2009.85(6): p. 438-440
- 5. Jensen JS, Cusini M, Gomberg M, Moi H. 2016 European guideline on *Mycoplasma genitalium* infections. Journal of the European Academy of Dermatology and Venereology 2016; 30(10): 1650-6.
- 6. Kong Fy, Tabrizi SN, Fairley CK, et al. The efficacy of Azithromycin and doxycycline for the treatment of rectal chlamydia infection; a systematic review and meta-analysis. J Antimicrob Chemotherapy. 2015;70:1290-7
- 7. Chandra N, Broad C, Folkard K, et al. Detection of *Chlamydia trachomatis* in rectal specimens in women and its association with anal intercourse: a systematic review and meta-analysis. Sexually transmitted infections. 2018 Aug;94(5):320-326.
- 8. Nwokolo NC, Dragovic B, Patel S, et al. UK national guidelines for the management of infection with *Chlamydia trachomatis*. 2015
- 9. Personal communication Helen Fifer, PHE, Colindale, London, UK; Suneeta Soni, Royal Sussex County Hospital, Brighton, UK; Paddy Horner, University of Bristol, Bristol, UK

Bojana Dragovic, St George's Hospital, London, UK Nneka Nwokolo, Chelsea and Westminster Hospital, London, UK September 2018