MYCOPLASMA GENITALIUM

Background

M genitalium is now recognized as a significant cause of male urethritis, and has a probable role in pelvic infection, cervicitis and possibly proctitis. There is a high level of resistance to macrolides globally. The key challenge for Sandyford is that we have limited access to testing and there is also a lot of asymptomatic carriage. Most people infected will come to no harm and screening and testing people with no symptoms is not helpful. We have a selective testing policy and use resistance markers to guide treatment.

Diagnosis

Due to limited lab resource we can only test for *M.genitalium* in selected situations.

Indications for testing:

First return for microscopy proven, persistent or recurrent NGU
Contacts of M gen

How to test

Men -

- First void urine (pipette into Abbott sample tube)
- Rectal testing only if contact of confirmed *M.genitalium*

Women -

- Vulvo-vaginal swab (self taken or clinician taken) into Abbott sample tube

Transgender men, non binary (AFAB) post gender reassignment surgery (GRS):

- Little data means no firm recommendations. Specimen type should be guided by sexual history and symptoms

Transport

- Send Abbott tube (orange top) with TWO forms: culture form and MG PCR request form (for STI Ref Lab Edinburgh). MG request forms are kept in clinic base and the lab.

- The sample should be taken to Sandyford lab for numbering before it is sent away.

All *M genitalium* samples are tested for macrolide resistance as part of the diagnostic test, and then a further sequence done for quinolone resistance. These resistance markers are guides only. Some patients may not get better even if resistance is not predicted, and some may recover even if they apparently have resistant infection

Please ensure to select the appropriate NaSH test from the Patient Order.

Window period:
Unfortunately there are no data on the incubation period for *M genitalium*, nor on the likely window period before a laboratory test becomes reliably positive.

Seeing the results

Results including resistance are returned to the NaSH Results Reporting area direct from the Lothian reference lab, usually within 7 days. At present, testing is done once a week, on a Tuesday, with results reported that afternoon. Please check these carefully before prescribing.

Results Reporting

Top

Department

NASH

Test Name	Oct 15, 2018 10:33	Aug 27, 2018 13:22	Aug 27, 2018 13:22	Aug 27, 2018 00:00	Aug 27, 2018 00:00	Aug 27, 2018 00:00	Aug 27, 2018 00:00	Apr 14, 2010 00:00	Jul 22, 2009 00:00
M.genitalium result [RIELAB] ( )	Negative	POSITIVE	POSITIVE						
M genitalium resistance [RIELAB] ( )		Negative							
Urine Culture [MSGN] ( )				***See comments***					
C. trachomatis : [NaSH] ( )					Not detected by PCR				
N. gonorrhoeae : [NaSH] ( )					Not detected by PCR				
Routine Culture [MSGN] ( )						Negative			
HIV antibody/antigen [NaSH] ( )							Not detected by Architect		
TP-syphilis antibody [NaSH] ( )							Not detected by Architect		
Ct Polymerase Chain Reaction [RVD] ( )								Negative	Negative
GC Polymerase Chain Reaction [RVD] ( )								NOT detected	NOT detected

M genitalium resistance [RIELAB]

Results Reporting Details

Requestor	Consultant, Laboratory
Requesting Location	(GRIMICRO) Microbiology Glasgow RI
Specimen Type	Urine
Comments	YOUR LABORATORY NO. 18.1802730.M
Test Name	ZMGENR [RIELAB] - M genitalium resistance [RIELAB]
Result	Negative
Range	
Units	
Notes	Mycoplasma genitalium resistance detection by sequencing||Macrolide resistance:|No

Treatment

Macrolide (e.g azithromycin) resistance in UK is estimated at around 40%. Recent data supports use of doxycycline to lower bacterial load followed by multiday azithromycin. We should reserve moxifloxacin for confirmed resistance.

Uncomplicated infection, no prior treatment: (urethritis,cervicitis or contact)

Doxycycline 100mg two times daily for 7 days
followed by
Azithromycin 1g orally as a single dose then 500mg orally once daily for 2 days

Practice point: give two packs of azithromycin along with doxycycline

Uncomplicated infection, previous blind treatment which included azithromycin:

Moxifloxacin 400mg orally once daily for 10 days (NB not in pregnancy)

Complicated infection (eg epididymoorchitis or PID in M.gen contact or proven case)

Moxifloxacin 400mg orally once daily for 14 days (NB not in pregnancy)

Macrolide-resistance predicted by MRAM mutation

Moxifloxacin 400mg orally once daily for 10 days (NB not in pregnancy)

Macrolide-resistance and quinolone resistance predicted:
Refer to GUM consultant for expert assistance before prescribing

Doxycycline 100mg orally twice daily for seven days
THEN
Pristinamycin 1g orally four times daily for 10 days (needs pharmacy liaison to obtain) **

** Need to fill out an unlicensed medicine request form (ULM1)

Rectal infection:

Should be managed in the same way as urethral infection. For severe proctitis, a longer course of moxifloxacin (14 days) may be considered.

Treatment failure
Refer to GUM consultant for expert assistance

Pregnancy & breast feeding:
Please discuss with senior clinician.

- Azithromycin use during pregnancy is unlikely to increase the risk of birth defects or adverse pregnancy outcomes. 3 day azithromycin course can be used.
- Moxifloxacin is contraindicated.
- Doxycycline is considered safe for the use in the first trimester.

Breast feeding

- Low levels of azithromycin, and risk is considered low. Infant should be monitored for possible side effects due to effects on gastrointestinal flora, including diarrhoea and candidiasis. Doxycycline is excreted in milk and is contraindicated in breast feeding mothers.

HIV:
Treatment in people living with HIV is the same as above.

Adverse events:
Azithromycin, doxycycline, moxifloxacin, and pristinamcyin can all cause gastro-intestinal problems including: nausea, but symptoms are most commonly reported with azithromycin and doxycycline.
The only contra-indication to moxifloxacin is hypersensitivity to this class of drugs.
Hepatotoxicity, with raised transaminases has been reported as common (>1/100- <1/10) . Tendon rupture has been reported very rarely (<1/10,000). Patients reporting symptoms consistent with hepatitis side effects must be medically reviewed, and LFTs checked.

Partner notification

Only **current** partner(s) (including non-regular partners where there is likely to be further sexual contact should be tested. This is primarily to reduce the risk of re-infection to the index patient. There is no clear merit in 'look-backs'. Epidemiological treatment, without results, has a high risk of treatment failure, and further antibiotic resistance. If this is required, then, where possible, check for the index case's resistance markers and use this to guide treatment choice. This might involve contacting another clinic and deferring treatment in someone with no symptoms. If not possible partners should be tested and treated with the same antibiotic as the index patient.

General advice:

M. genitalium can cause considerable anxiety. A patient information leaflet about *Mycoplasma genitalium* can be found on the guidelines page of the IUSTI Europe website. (NB. This resource recommends TOC at 3 weeks, and partner look back of 6 months).

https://www.iusti.org/regions/Europe/PatientInfo/2017/MycoplasmaLeaflet2017.pdf

Patients should be advised to abstain from sexual intercourse until they and their partner(s) have completed treatment or, in patients with PID, until 14 days after the start of treatment, and until symptoms have resolved.

Follow up:

All patients should attend for a TOC ideally at 5 weeks after start of treatment, and no sooner than three weeks after the start of treatment to ensure microbiological cure.

Treatment failures should be managed by a consultant GUM physician, and reported.

References

DRAFT 2018 BASHH UK National guideline for the management of infection with mycoplasma genitalium. Soni, S; Horner, P; Rayment, M; et al. accessed July 2018

2016 European guideline on Mycoplasma genitalium
Infections J.S. Jensen,1,* M. Cusini,2 M. Gomberg,3 H. Moi4,†
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