Management of NGU

(Non-gonococcal urethritis)

First line

Doxycycline 100mg po bd for 7 days

(contra-indicated in pregnancy)

Alternative regimens

Azithromycin 500mg po stat, then 250mg po once daily for 4 days

if unable to use either of these, please discuss with senior GUM clinician

Practice points:

- Doxycycline:
  - > 95% effective in men with Chlamydia trachomatis.
  - <50% effective with M.genitalium.
  - No evidence that it induces resistance, so if fails can then use prolonged azithromycin regimen.
- Azithromycin:
  - Risk of developing M.genitalium resistance such that multiday regimen will be ineffective.
- Convention: hold urine 2 - 4hrs before making Gram-film; however, this should be reviewed on an individual client basis.
- No Gram-stained urethral smears in asymptomatic men.
- No smears in men with balanitis unless obvious urethral discharge.
- Think before doing smear in men with obvious genital ulcer disease.
- You can only exclude NGU if patient has not passed urine for at least 4 hours.
- Early morning smear (EMS): In symptomatic patients who have voided recently and/or who have normal findings on microscopy, ask patient to return to a booked urgent care appointment on the next convenient morning, having held their urine overnight or for a minimum of 6 hours.
- In confirmed NSU, patients should abstain from sexual contact for the duration of treatment (one week for doxycyline or for one week after stat azithromycin treatment).

Diagnosis of NGU

Gram-stained urethral smear: where there are symptoms or signs suggestive of urethritis (urethral discharge, dysuria, penile irritation).

Use a 5mm plastic loop (swab within a hub setting), introduced to at least 1cm, to collect urethral specimen for smear preparation. The result depends on the quality of the smear – do not place a thick clump of discharge in the middle of the slide – evenly spread it across centre of slide.

If loop/swab insertion not possible, then first pass urine can be examined for threads and spun in centrifuge for subsequent microscopy

>= 5 polys / HPF averaged over 5 most populated fields. (++/+++ PC)

Microscopy should only be done by BMS/MLSO as lab is subject to CPA process of accreditation.

Dipstick leukocyte tests are of inadequate sensitivity to be of use routinely; however, where clinical suspicion of NGU in symptomatic male but smear negative, leukocyte esterase remains useful when done on remains of first pass urine (if >1+ then a diagnosis of NGU can be made and should prompt a review of slide preparation technique).

STI NAAT on urine for GC/CT should always be done in addition to GC culture.

(MSSU – if urinary tract infection is suspected: haematuria, frequency, urgency. Urine dipstick should be done and recorded in near-patient testing section of NASH)

In a **HUB** take a:

1. Urethral swab (dry the slide on a hotplate in preparation for transport to Sandyford Central or local lab as per protocol for Gram-stain and microscopy) and send charcoal swab for culture (please send two client labels with specimen so that the culture plates can be labelled accurately at Sandyford Central).
2. First catch urine for Chlamydia/GC dual NAAT.

In a hub, interim management whilst awaiting microscopy results:

1. In heterosexual men with obvious meatitis or discharge treat as NGU (on the basis that they are more likely only to have chlamydia as a cause of NGU than MSM)
2. In MSM, wait for microscopy given higher likelihood of gonorrhoea
3. If no obvious signs wait for the microscopy
4. Check permissions and contact details (preferred method of contact for Sandyford is **mobile phone)** to recall patient if positive microscopy.

Discussion

- All patients diagnosed with NGU should have the following discussed and documented:
    1. Explanation of causes of NGU
    2. Information on how to access BASHH NSU patient information leaflet and Sandyford website.

3. Side-effects of treatment and importance of adherence
4. Abstain sexual intercourse/effective condom use if unable to adhere

- Patients should be clearly advised to contact the SHA office if symptoms have not resolved in 3 weeks
  - If CT/GC are identified, partner notification will be arranged via the SHA office.

Management of Sexual Contacts:

- Clients should be encouraged to inform any sexual contacts that testing and treatment may be required and documented in clinical notes.
- All recent partners within 4 weeks should be screened and treated epidemiologically, irrespective of their test results.

Although there is no direct evidence of treatment benefit to partners of men with Chlamydia negative NGU, it is prudent to treat partners potentially to reduce female morbidity and risk of recurrent and or persistent NGU in male index cases.

- It is important to not delay treatment whilst waiting for STI NAAT results.
- It is important that treatment course is completed even if STI NAAT results are negative.
- Practitioners can decide not to encourage clients to inform any sexual contacts for NSU if it is likely to be non-sexually acquired. Reasons for this should be documented.
- If subsequently there is a laboratory diagnosed STI, PN will be organised by the SHA office.
- Practitioners may still want to refer to SHA if there is anxiety or undue concern

Follow up

- All patients treated for NGU should NOT be followed up unless Chlamydia is confirmed or the index male has persistent symptoms.

Refractory or Relapsing NGU

Recurrent NGU is defined as the recurrence of symptomatic urethritis 30-90 days following treatment of acute NGU.

- Refer into GUM Complex clinic with access to microscopy or consultant-led urgent care session.
- Confirm urethritis on gram stain
- Consider re-infection from same or new partner
- Aetiology:
  - 50%cases – no infectious cause found
  - Mycoplasma genitalium in 20-40%
  - Chlamydia trachomatis in 10-20% when azithromycin has been used.
  - T.vaginalis (up to 10% where endemic)

Investigations

1. Urethral gram stain.

2. Urethral swab in Feinberg's medium for TV culture (Sandyford Lab).

3. First void urine for CT/GC NAAT and for TV centrifugation and culture (Sandyford Lab).

4. Urine sample for mycoplasma genitalium testing. Send first void urine sample in the Abbott orange topped NAAT bottle, along with MG PCR request form (for STI Ref Lab, Edinburgh), along with a culture form. Mycoplasma genitalium PCR request forms are kept in staff base (ground floor), and in the 1st floor lab. Sample should be taken to Sandyford lab for numbering before it is sent away.

5. MSSU (red top universal) for C&S.

Management

If no lab evidence of urethritis, strongly reassure.

If persistent microscopic evidence of NGU:

Consider waiting for M. genitalium tests. If treatment required immediately:

Azithromycin 500mg stat then 250mg x 4 days*

PLUS

Metronidazole 400mg BD for 5 days

***If treated with azithromycin during 1st line treatment, then strongly consider awaiting Mycoplasma genitalium test results consider**:

Doxycycline 100mg BD for 7 days
Plus
Metronidazole 400mg BD for 5 days

Retreatment of partners should be considered with the above regime.

References

2015: BASHH Clinical Effectiveness Group. **UK National Guideline on the Management of Non-gonoccocal urethritis** Horner PJ, Blee K, Falk L, van der Meijden W, Moi H. [accessed 10/09/2018]

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2016 European guideline on the management of non-gonococcal urethritis. Int J STD AIDS. 2016 Vol. 27(11) 928–937 [accessed 10/09/2018]