CLINICAL GUIDELINES

Non-Gonococcal Urethritis (NGU)

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

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Important Note:

The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

Management of NGU
(Non-gonococcal urethritis)

Summary

Testing for *M. genitalium* will be requested after microscopy on **all laboratory-proven cases of NGU** and is done at the West of Scotland Specialist Virology Centre.

We will adopt ‘**resistance-guided therapy’** if *M. genitalium* detected :see separate guideline

There is an option to defer treatment awaiting investigations.

Investigations in suspected 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 Connect 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.
- Urine should have been held for 4hrs before urethral sampling to exclude NGU, but all men with symptoms should have samples taken and testing rearranged if needed.
- If loop/swab insertion not possible, then first pass urine can be examined for threads and spun in centrifuge for subsequent microscopy
- Microscopy should only be done by BMS/MLSO as lab is subject to CPA process of accreditation.

GC culture (plated where possible)

Chlamydia trachomatis/ **Gonorrhoea NAAT** on first-pass urine. Please place sample in ‘suspected M.gen’ tray,

M. genitalium PCR test will be added on to the Ct/GC sample by the biomedical scientist if NGU confirmed: please explain this to the person when giving the initial results. Please do not request *M genitalium* directly just for symptoms.

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

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).

In a **CONNECT** 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 NAAT (*M. genitalium* testing will be arranged by the Sandyford lab if needed subsequently)

Who not to test

- Men with no relevant symptoms
- Men with balanitis only unless obvious urethral discharge.
- Men with obvious genital ulcer disease, such as HSV recurrence.

Management

Diagnosis

- NGU is confirmed when >= 5 polys / HPF averaged over 5 most populated fields. (++/+++ PC)
- In unusual circumstances (after senior discussion) NGU may be diagnosed on strength of leucocyte esterase dipstick, microscopy of centrifuged threads or clinically where microscopy is unavailable.

Immediate antibiotic treatment

- Most people will opt for immediate treatment, but with our reasonable test turnround times it is not unreasonable to await all results if symptoms are mild and follow up assured. This is especially important to consider before blind treatment with azithromycin

First line
Doxycycline 100mg orally, twice daily for 7 days

Alternative regimens
Azithromycin 1g orally stat,
then 500mg orally, once daily for 2 days
if unable to use any of these, please discuss with senior GUM clinician

Practice points:

- Doxycycline:
  - > 95% effective in men with *Chlamydia trachomatis*.
  - <50% effective for complete *M. genitalium* clearance but reduces bacterial load.

  - No evidence that it induces resistance, so if fails can then use resistance-guided treatment.
- Azithromycin:
  - Risk *M. genitalium* (if present) developing or already having macrolide resistance.

- QT PROLONGATION: Certain medications including fluconazole, macrolide and quinolone antibiotics cause QT prolongation and should not be prescribed with interacting medications. Please use BNF Interaction Checker to ensure these medications are safe to prescribe for your patient and discuss with a senior colleague if necessary.

In a Connect prior to results

In a Connect, 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 results
4. Check permissions and contact details (preferred method of contact for Sandyford is **mobile phone)** to recall patient if positive microscopy.

Symptoms with negative test results

- 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.

Sequential resistance-guided therapy

- If *M. genitalium* is detected the result will be reviewed for patient recall and further directed antibiotic management - please see the separate protocol for management of *M. genitalium*

Management of Sexual Contacts:

- In confirmed NGU, patients should abstain from sexual contact for SEVEN days from the start of treatment and ideally until all results have returned.
- At initial finding of NGU partner notification remains informal, and a judgement must be made whether to start this process or await more results. The sexual health advisers do not routinely support this initial process.
- Where NGU is likely to have been sexually acquired patients should consider informing partners with whom they have had sexual contact in the previous FOUR weeks. They may prefer to wait for full test information before doing so.
- It is important to document wishes about exact infection disclosure as this makes management of partners far easier

- If a specific pathogen is identified, formal partner notification will be arranged via the SHA office – see separate protocols for these conditions.
- Partners who attend should be evaluated and offered testing for Ct/GC. Testing for *M. genitalium* is only to be done **in an ongoing partner** of someone with proven *M. genitalium* (see *M genitalium* guideline). NGU can be seen in male partners of women with BV.
- There is no direct evidence of treatment benefit to male or female partners of men with chlamydia-negative NGU.
- Partner treatment may reduce risk of recurrent and or persistent NGU in male index cases
- Partners may wish to be treated epidemiologically using the same regimen if practical to reduce need to return to the clinic
- Practitioners can decide to omit partner notification if NGU is not thought to have been sexually acquired . Reasoning for this should be documented.
- NGU can cause considerable anxiety in relation to partners and transmission and support may be needed from the SHA team, with support of the GUM complex clinic if needed.

Patient Information and follow-up

- All patients diagnosed with NGU should have the following discussed and documented:
    1. Explanation of causes of NGU
    2. That we may contact them at the end of the week to arrange more treatment if *M. genitalium* is detected.
    3. Information on how to access BASHH NSU patient information leaflet and Sandyford website.
    4. Side-effects of treatment and importance of adherence
    5. Abstain sexual intercourse/effective condom use if unable to adhere

- Patients should be reminded that the results phone line may read out a series of negative reassuring results, but they have still been found to have NGU and should complete the antibiotic course.
- Patients should be advised to contact Sandyford if symptoms have not resolved by the end of **three** weeks.
- We do not offer routine test of cure.

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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 previous partner or re-exposure if a new partner
- Aetiology:
  - 50%cases – no infectious cause found
  - *Mycoplasma genitalium* in 20-40% (where M genitalium testing not done at initial presentation)
  - Chlamydia trachomatis in 10-20% when azithromycin has been used.
  - T.vaginalis (up to 10% where endemic)

Possible investigations

1. Urethral Gram stain. (important to document objective finding of NGU)
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 if not already excluded. (if NGU confirmed this will be done automatically; but a separate sample and form will be needed if Ct/GC sample not taken)
5. MSSU (red top universal) for C&S.

Management

If no lab evidence of urethritis, strongly reassure.

If persistent microscopic evidence of NGU:

Ideally wait for results of further investigation to guide management .

If treatment required immediately:

If doxycycline was used firstline:

Azithromycin 1g orally stat then 500mg x 2 days*

PLUS

Metronidazole 400mg BD for 5 days

***If azithromycin was used firstline:**

Doxycycline 100mg BD for 7 days

PLUS

Metronidazole 400mg BD for 5 days

If thirdline/ alternative treatment required please discuss with Consultant on call.

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. Available at Guidelines | British Association for Sexual Health and HIV (bashh.org) [accessed 08/06/2020]

Please ensure the published guideline is read with the Nov 2018 update here: https://www.bashhguidelines.org/media/1199/ngu-bashh-update-2018.pdf [accessed 08 Jun 2021]