CLINICAL GUIDELINE

Gonorrhoea (Neisseria Gonorrhoeae) CEG

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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Lead Author:	Kay McAllister
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Important Note:

The online 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.

GONORRHOEA (*NEISSERIA GONORRHOEAE*)

Including NEISSERIA MENINGITIDIS

What's New

- **Pharyngeal sampling** is recommended for all contacts and any patients who have tested positive for anogenital gonorrhoea**.**
- Treatment of sexual contacts is **not** routinely recommended, except in some specific circumstances
- Routine test of cure is **not** necessary for anogenital infections treated with ceftriaxone 1g if infection if susceptible to ceftriaxone
- **Cefixime** dose increased

Key practice notes

- Antimicrobial resistance (AMR) in *N. gonorrhoeae* is an urgent global concern and varies widely between countries.
- Ciprofloxacin now restricted due to MHRA advice
- First line **empirical** therapy remains **monotherapy** with ceftriaxone **1g** intramuscularly. If injections are declined, recommended cefixime dose to 400 mg as two separate doses 6–12 h apart, due to rising antimicrobial resistance
- **Genotypic ciprofloxacin resistance testing** is available to help antibiotic choice but ciprofloxacin should only be used when other antibiotics are inappropriate and after full discussion with the patient about potential disabling, irreversible side effects.
- **Azithromycin co-treatment** is only used to support **less effective** antibiotic regimens (e.g. gentamicin, oral cefixime) at a dose of **2g.** It is not needed with ceftriaxone or ciprofloxacin
- It is more important than ever to take **cultures** before treatment for suspected gonorrhoea.
- **Pharyngeal sampling** is recommended for all contacts and any patients who have tested positive for urogenital gonorrhoea. This is irrespective of gender or sexual risk behaviour.
- Advise patients to avoid sexual intercourse (including oral and protected sex) until 7 days after they and their partner(s) have completed treatment
- Treatment of sexual contacts is **not** routinely recommended, except in some specific circumstances (see page 8). Ideally treatment should only be given to those partners who test positive for gonorrhoea. All contacts should have pharyngeal testing.
- Routine test of cure is not necessary for patients with anogenital infections treated with ceftriaxone 1g if infection is susceptible to ceftriaxone.
- Rarely, presumptive gonorrhoea seen on microscopy turns out to be due to **meningococcal** infection: meningococcal cases need senior GUM review to advise on best management
- Testing summary flow chart in Appendix 2

Diagnosis

1. Microscopy

Very useful for acutely symptomatic patients with urethral discharge, proctitis or cervicitis.

Gram negative intracellular diplococci (GNDC)

(*NB Microscopy provides a **provisional diagnosis** – always make this clear. Final diagnosis is the result of the NAAT +/- culture)*

Where on-site microscopy unavailable dry the slide on a hotplate for transport to your slide-reading lab as per protocol for gram-stain and microscopy

2. NAAT

NAAT testing is our primary method of excluding gonorrhoea from all anatomical sites. We use the Abbott RealTime Gonorrhoea/ *Chlamydia trachomatis* PCR test across the whole of NHSGGC. This test *always* tests for both gonorrhoea and chlamydia – do not request just a GC test alone on NaSH.

GC NAAT Abbott results are confirmed by a second test on a different assay in Glasgow before a final result is released.

There is a small risk of false positives with NAAT testing especially in very low prevalence populations so partner notification should take this into account, especially if the clinical likelihood is low. See the table below on how to manage results from both tests.

Urine samples should not be taken from cis-women as there is a lower sensitivity compared to vulvovaginal swabs.

3. Culture

Culture should be taken in the following situations:

- All **NAAT-positive cases:** strongly recommended to attempt culture isolation and to assess antibiotic sensitivity. This includes pharyngeal sampling unless pharyngeal NAAT know to be negative.
- **Contacts** of gonorrhoea eligible for empirical treatment
- Any genital or rectal discharge
- Suspected PID / cervicitis

Carefully plate each sample onto a selective plate. Cover one quarter of Petri dish. If you do not have local plating then transfer a charcoal swabs to your local lab as soon as possible.

NB: Take culture from all sites if NAAT results not known.

Consider window period of 14 days

Testing

(*consider anatomically appropriate tests with Gender patients)*

Site of tests for **NAAT testing**:

Ensure that you have requested the correct tests on NaSH.
Do not confuse GC NAAT with GC culture.
GC culture results are available in Results Reporting for sensitivities.

Male anatomy	**Female anatomy**
Urine	Vulvovaginal swab
Rectum (*Only in MSM who report receptive anal or oro-anal sex. Proctoscopy if symptoms, otherwise blind swabs)*	Rectum (*if high index of suspicion, e.g.: GC contact **or** sexual assault)*
Pharynx (*Only in MSM, genital gonorrhoea, known ceftriaxone resistance or contacts)*	Pharynx (*if high index of suspicion, e.g.: GC contact **or** sexual assault, or genital gonorrhoea, known ceftriaxone resistance or contacts)*
	NB urine is not ideal sample for GC exclusion in patients presenting with birth sex female anatomy. Consider anatomically appropriate tests with Gender patients

Site of swabs for **culture** *(selected patients)*

Male anatomy	**Female anatomy**
Urethra	Endocervical
*rectum	Urethra (**only** if urethral discharge)
**pharynx	rectum *(if high index of suspicion, e.g.GC contact **or** Sexual assault)*
	pharynx (*if high index of suspicion, e.g.GC contact **or** Sexual assault **or** genital gonorrhoea, known ceftriaxone resistance or contacts)*
MSM-receptive anal sex/oro-anal sex* * genital gonorrhoea, contacts or MSM-receptive oral sex*	

Examples of typical test sets:

A routine **asymptomatic** screen consists of:

Male anatomy	Urine for GC/Ct NAAT * *No exam needed*
MSM	Urine for GC/Ct NAAT **Rectal swab for GC/Ct NAAT **Pharyngeal swab for GC/Ct NAAT ***if indicated by sexual history* *No exam needed.*
Female anatomy	Vulvovaginal swab for GC/Ct NAAT * *No exam needed*.

Plus opt-out bloods for STS/HIV/Hep BcAb/HCV PCR as appropriate
* If contact of gonorrhoea, add pharyngeal swab for GC/Ct NAAT

A **symptomatic** screen consists of:

Urethral discharge	Urethral Gram stain and culture† Urine for GC/Ct NAAT
Rectal discharge / proctitis	Urine for GC/Ct NAAT Rectal swab for GC/Ct NAAT Rectal Gram stain and culture for GC† (*by proctoscopy*) *(plus HSV/syphilis PCR ; consider mpox PCR)*
Cervicitis **Proctitis**	Vulvovaginal swab for GC/Ct NAAT Endocervical Gram stain and culture† Rectal Gram stain (*if proctitis by proctoscopy*) and culture for GC† Rectal Chlamydia/GC NAAT

Plus opt-out bloods for STS/HIV/HepBcAb/ HCV PCR as appropriate

† if GC confirmed on microscopy, add pharyngeal sampling (NAAT and culture)

Genital swabs after Genital Reconstructive Surgery

With neovagina (sigmoid or penile skin): NAAT neovaginal swab + first pass urine
With neo-penis: first pass urine (plus vaginal swab if vagina still present)

Management

Indications for treatment

1. Presumptive diagnosis following identification of Gram-negative diplococci on microscopy

2. A positive culture for *N. gonorrhoeae*

3. A positive NAAT test for *N. gonorrhoeae*

4. A recent sexual partner of a confirmed case of gonorrhoea (within last 14 days) who is:

a) pregnant

b) contacts of individuals who are pregnant

c) living in geographically remote regions with limited access to clinics

d) experiencing psychosocial barriers which include but are not limited to those who: are homeless, sell sex, are experiencing mental ill-health, misuse substances, are employed on zero-hour contracts, are unable to access childcare or are currently victims or survivors of domestic abuse

STEP ONE: Is treatment required immediately or can it be safely deferred until more information is available?

STEP TWO: Choose your antibiotic regimen carefully

Consider whether this is uncomplicated or complicated infection, allergy history and contraindications (age, renal impairment etc).

Uncomplicated infection, presumptive treatment (with or without susceptibility testing)

Ceftriaxone 1 gram intramuscularly

Alternative if IM injection contra-indicated (eg bleeding disorder), patient requires remote treatment, or patient declines injectable therapy.
NB: Higher risk of treatment failure:

Cefixime 400mg po followed by another 400mg dose 6-12 hours later
PLUS
Azithromycin 2g po stat

Please prescribe on HBP5 pad

(see practice point – page 9)

Antibiotic allergy

Due to emerging resistance, reserve alternative treatments due to drug allergy to the following situations:

- known history of **true allergy** to cephalosporins
- known **immediate/severe hypersensitivity reaction** to penicillin or other beta-lactam

In these circumstances use:

Gentamicin* 240mg IM with **azithromycin 2g** po stat

OR

(only if IM injection refused as a last resort)

Azithromycin 2g stat orally

(see practice point – page 9)

*NB. Please discuss with GUM DoD if patient has known renal dysfunction or if weight < 50kg. Please see prescribing guidance in BNF.

In the interests of preserving antibiotic susceptibility, where drug reactions or allergies are unclear, attempts should be made to clarify (such as through Clinical Portal or discussion with GP, check ECS as well to verify). **Where the penicillin reaction is established to be mild or moderate, ceftriaxone may be used as in non-penicillin-allergic patients.**

Antibiotic allergy and decline/unavailable for injection

MHRA strengthened restrictions in January 2024 stating that fluoroquinolones should only be used when other recommended antibiotics are inappropriate. As at Feb 2024 this applies even to single-dose treatments. Until further information and reassurance is provided following these warnings we are restricting use of fluoro-quinolones even for stat doses within Sandyford.

For treatment of gonorrhoea a typical scenario would include

- history of cephalosporin or beta-lactam immediate hypersensitivity excluding cefixime use AND
- contraindication to or decline of gentamicin AND
- susceptibility predicted by culture

Contraindications include risk of pregnancy; previous fluoroquinolone side-effects, aged under 16 or over 60 years, on corticosteroids, known renal impairment, previous organ transplantation, previous convulsions.

If after discussion of the possibility of disabling and irreversible side-effects this remains the best antibiotic please send the patient the following patient information leaflet by SMS.

Complicated infection (suspected PID, epididymitis..)

Discuss with senior staff first. Admission to the local hospital may need to be considered for parenteral antibiotics (see below for treatment suggestion or contact your local microbiologist for advice):

Gonococcal PID: **Ceftriaxone 1g IM stat** in addition to the regimen chosen for PID

Gonococcal epididymorchitis: **Ceftriaxone 1g IM stat** in addition to the regimen chosen for epididymorchitis

Gonococcal conjunctivitis: **Ceftriaxone 1g IM stat + adjunctive cefuroxime 5% eye drops as per BASHH guidelines and refer to Ophthalmology**

Disseminated gonococcal infection: this requires senior GUM or ID advice as patient will require admission. See BASHH guidance for further discussion.

Advice

Avoid sexual intercourse (including oral and protected sex) until 7 days after they and their partner(s) have completed treatment.

GC vaccine

Consider Gc vaccine if not already vaccinated (see Meningococcal Group B vaccine (Bexsero®) for the prevention of gonorrhoea guideline).

NB Testing and treatment recommendations apply regardless of vaccination status

Partner Notification

- All patients found to have gonorrhoea should have partner notification documented at diagnosis and at each follow up visit, until partner notification is documented as complete.
- Look back period is 2 weeks for symptomatic penile infection, 3 months or to last partner for everyone else.
- Rectal gonorrhoea is an indicator to discuss and likely recommend PrEP.

Follow-up

There have been no reported cases of treatment failure when ceftriaxone has been used to treat a ceftriaxone susceptible **genital** infection. When antimicrobial susceptibility is known, routine test of cure (TOC) is not necessary for individuals with anogenital infection who have received ceftriaxone 1g IM.

NB Patients with pharyngeal gonorrhoea or those who are pregnant always requires a TOC

- If pharyngeal NAAT is not known or negative at time of treatment, do not arrange TOC and add to SC SHA Virtual at 2 weeks
  SHA to review **antibiotic sensitivities**, in Results Reporting section of NaSH. If cultures confirm sensitivities and throat swab negative, no TOC is required. If cultures negative and/or throat swab positive arrange TOC at 3 weeks.

- If positive pharyngeal NAAT/culture, treated with alternative regimen or patient pregnant, TOC is required at 3 weeks. Arrange same via postal kit or NAAT drop off and add to SC SHA Virtual diary at 3 weeks (4 weeks if returning postal kit)

- Offer final review at 3 months for repeat STS ± HIV test.

- If aged <25yrs encourage re-testing at three months (as 10-30% of young people are re-infected with Chlamydia within 3 months). Patients should be added to SC SHA Re-Test for an automated text reminder at 3 months.

- Referral should be made to the Sexual Health Advisers (as above) to check adherence to management of treatment, to complete partner notification and to determine whether further follow up is required.

NB:

- Check carefully the date of **specimen collection** on all reports – several laboratory reports may be sent on a single isolate. Be careful on NASH as sensitivities may relate to more than one organism if multiple pathogens identified.

- **Sequence types** are now imported into NaSH about a month behind: they can be useful e.g. in multiple anatomic sites (same or different infection?) and resolving issues about which partners are linked (should be same ST). Patients can have more than one strain of GC at the same time.

Treatment of established/occasional sexual partners

Epidemiological treatment is **no longer recommended** for all sexual contacts, and ideally treatment should only be given to those partners who test positive for gonorrhoea. However, an infection may be missed if a test is performed too soon after a potential exposure. There is a lack of evidence to support recommendations for the optimal time for testing. Therefore, in order to reduce the unnecessary use of antibiotics, the following pragmatic approach is recommended:

- Asymptomatic contacts presenting **after** 14 days of exposure should be offered Grab/postal kit/NAAT drop off. Treatment should only given following a positive result.
- Asymptomatic contacts presenting **within** 14 days of exposure should be offered Grab/postal kit/NAAT drop off and repeated after 2 weeks. Treatment should only be given following a positive result

- Epidemiological treatment could be considered based on a clinical and psychosocial risk assessment and in particular for the following individuals:

  a. Individuals who are pregnant
  b. Contacts of individuals who are pregnant
  c. Individuals living in geographically remote regions with limited access to
  d. Individuals experiencing psychosocial barriers which include but are not limited to those who: are homeless, sell sex, are experiencing mental ill-health, misuse substances, are employed on zero-hour contracts, are unable to access childcare or are currently victims or survivors of domestic abuse.

- All contacts should have pharyngeal testing.

- NB always offer opt-out bloods for STS/HIV/HepBcAb/ HCV PCR as appropriate

Other good practice points

Gonococcal antibiotic resistance:

Antimicrobial resistance (AMR) in *N. gonorrhoeae* is an urgent global concern and varies widely between countries. Gonorrhoeae has developed resistance to all drugs used to treat it including ceftriaxone, the most widely recommended first line empiric treatment globally. AMR surveillance is crucial to ensuring that guidelines are appropriate to the local setting and relies on samples for culture and antibiotic susceptibility testing. Cases of ceftriaxone resistance in the UK have been identified but number remain low and are usually associated with travel to or from the Asia Pacific region where ceftriaxone resistant strains are prevalent.

Usually we treat gonorrhoea before sensitivities are available –"blind" – and we should use a drug that will cure >95% of infections. **Parenteral ceftriaxone monotherapy** remains the preferred choice in 2025 as recommended by BASHH CEG as it continues to be highly effective with most gonococcal infections with ceftriaxone resistance still being cleared. Cefixime is a second-line therapy especially for extra-genital sites of infection. Both are considered safe in single dose in pregnancy

Co-treatment with azithromycin:

Alternative regimens have a higher rate of failure and azithromycin co-treatment 2g is recommended in these selected cases. Co-treatment with 2g azithromycin will usually cause gastrointestinal side-effects which can be reduced by dividing it into two 1g doses 6-12 hours apart.

If immediate microscopy not available.

Purulent urethral discharge does not guarantee a diagnosis of gonorrhoea. Practitioners will need to make individual judgements about need for syndromic treatment before results of microscopy and / or NAAT testing are available, based on risk, likelihood and ease of the patient returning for treatment. With increasing antibiotic resistance try wherever possible to await microscopy confirmation before treating. There is little harm in starting doxycycline for urethritis while awaiting results.

Community tests which are positive

All positive NAAT and culture tests are copied to our Shared Care service. If a GP/ hospital clinician contacts you about a NAAT positive GC result in the community the patient should be encouraged to attend Sandyford for management.

GENITAL INFECTION DUE TO *NEISSERIA MENINGITIDIS*

Introduction

Neisseria meningitidis (known as the meningococcus) is an obligate human commensal bacterium which frequently colonises the upper respiratory tract. Invasive variants are responsible for mengingococcal sepsis and meningococcal meningititis, outbreaks of which been well described in MSM in the last 20 years. Variants of this lineage are now known to have acquired some determinants of genital infection from *Nesseria gonorrhoeae* leading to increased incidence of genital meningococcal infection. As it is clinically and microscopically indistinguishable from *Neisseria gonorrhoeae,* patients have often been treated for gonorrhoea presumptively before the culture results reveal the true cause. The likely route of infection is oro-genital sex from asymptomatic pharyngeal carriage.

Symptoms

People with symptoms can present with:

- Vaginal discharge
- Acute cervicitis
- Salpingitis
- Purulent urethral discharge at the penis
- Dysuria at the penile urethra

Diagnosis

Neisseria meningitidis is diagnosed by a series of speciation tests from colonies grown on agar cultures intended for gonococcal isolation. It is deliberately not detected on the GC NAAT tests. You do not need to do any additional tests to look for meningococcal infection: the lab do this if the culture shows *Neisseria* species.

Management

Discuss all meningococcal cases with a consultant

It is not clear whether people without symptoms need treatment, this decision should be based on individual patient factors and the reason a culture swab was taken.

For symptomatic cases, treatment should be offered and UKHSA advise standard treatment for gonorrhoea or non-specific urethritis is expected to clear the meningococci. Antibiotic susceptibility should have been reported along with the culture result.

There is no need for any general public health action such as notification and chemoprophylaxis for household contacts as genital tract infection is not thought to lead to invasive disease. However treating current sexual contacts may reduce the chance of symptomatic reinfection.

References

Gonorrhoea management:

British Association for Sexual Health and HIV Clinical Effectiveness Group. (2025) UK National Guideline for the Management of infection with *Neisseria gonorrhoeae, 2025.* Available at: https://www.bashh.org/resources/136/gonorrhoea_2025_updated_guideline [accessed on 19/09/2025]

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Summary of Product Characteristics Gentamicin 40mgs/ml injection. Gentamicin 40mg/ml Solution for Injection or Infusion - Summary of Product Characteristics (SmPC) - (emc) (medicines.org.uk) [accessed 08/02/2024]

APPENDIX 1: PREPARATION OF PARENTERAL ANTIBIOTICS

Preparation and Administration of Ceftriaxone 1g deep intramuscular Injection

To reduce the pain experienced by patients receiving intramuscular ceftriaxone the drug is administered with 1% lidocaine (lignocaine)

1. Take **1 gram** vial of ceftriaxone powder

2. Draw up **3.5mls Lidocaine 1%** into a syringe.

3. Reconstitute the 1gm vial of ceftriaxone with 3.5mls of lidocaine 1%.

4. Draw up the reconstituted ceftriaxone solution from the vial into one syringe. This makes a total of **4.1mls**.

5. Administer the **4.1mls** solution of ceftriaxone 1gm by deep intramuscular injection. Well-developed muscles e.g. ventrogluteal, vastus lateralis and dorsogluteal can take up to 5mls volume.

NOTE: Lidocaine must be prescribed (or documented under PGD) on NaSH.

Preparation and Administration of Gentamicin 240mg Intramuscular Injection

Due to volume this dose requires to be split

Open up **3** vials of **80mgs/2mls gentamicin**, totalling **6mls (=240mg)**.

Take two 5ml syringes and draw **3ml solution** into each syringe.

Give by deep intramuscular injection, **3 mls per side**.

APPENDIX 2: GC FLOW CHART

BOX 1 – recommended tests

People with a penis: First void urine NAAT

People with a vagina: Vulvo-vaginal swab NAAT

Gender affirming surgery: NAAT from ano-genital sites of sexual exposure

GBMSM and sex workers: Add pharyngeal and rectal NAAT

BOX 2 – recommended tests prior to treatment

All individuals:

Add pharyngeal NAAT and culture (if not already done so)

Culture from NAAT positive sites (or all sites if NAAT results not known at time of treatment)