

SCOPE OF PRACTICE

TARGET POPULATION

- Clients with confirmed uncomplicated *N. gonorrhoeae* (GC)
- Clients with a presumptive clinical diagnosis of uncomplicated *N. gonorrhoeae* from clinical presentation, history, sexual risk assessment and clinical examination
- Clients who present as sexual contacts of *N. gonorrhoeae*

EXCLUSION CRITERIA

- Clients with ongoing urological issues
- Clients with complications of infection including post-inflammatory urethral strictures, peri-urethral abscesses, pelvic inflammatory disease (PID) and other upper genital tract complications.
- Clients presenting with persistent symptoms post treatment
- Clients who are pregnant or breast feeding

GUIDELINE OBJECTIVES AND ANTICIPATED OUTCOMES

- Provide treatment for clients with a confirmed diagnosed infection or presumptive treatment for symptomatic clients
- Identification of individual STI risk and provision of appropriate screening
- Identify public health risks to control infections by:
 - Provision of STI education and information
 - Identification and exploration of sexual risk taking behaviours
 - Partner notification and treatment
 - Test of reinfection/test of cure where appropriate
 - Monitoring antimicrobial resistance

BACKGROUND

CONDITION DESCRIPTION

N. gonorrhoeae is a gram negative, non-motile, non spore forming diplococci. ^{1,2}GC is transmitted perinatally and through sexual contact. GC affects columnar, cuboidal, non-cornified epithelial cells, commonly mucous membranes. ³ Infections can occur in the urogenital tract, rectum, oropharynx and conjunctivae, it can occur at more than one site simultaneously. ^{2,4} There is a high probability of co-infection with another STI. ³ Undiagnosed and untreated GC is a co-factor for acquisition and transmission of HIV. ^{2,5} Undiagnosed and untreated GC has a well established link to Pelvic Inflammatory Disease (PID) and epididymo-orchitis. ^{1,2,5,6} The incubation period from time of exposure to GC and manifestations of urogenital symptoms is between 2-14 days. ^{1,7} Clients with certain strains of gonococci are at greater risk of developing disseminated infection. ⁸

GC in Men ^{1,2,3,4,6,8}

- The most common manifestations of CG in men will be an acute anterior purulent urethritis and dysuria
- Urethral symptoms in men commonly includes a relatively profuse purulent discharge within 2-5 days of exposure
- Men are almost always symptomatic when the site of infection occurs in the urethra; however if mild infection occurs or antibiotic therapy has commenced this may remain sub-clinical in presentation
- GC infection of the throat and rectum in homosexually active men may remain asymptomatic
- Rectal infection may cause discharge, tenesmus and or rectal bleeding

GC in Women ^{1,2,3,4,6,8}

- The most common site of infection is in the endocervical canal. In women post hysterectomy, the site of infection is mainly the urethra
- Incubation period of GC in women is unknown; most who have local symptoms will develop these within 10 days
- Common symptoms in women include vaginal discharge, dysuria, bleeding post sexual contact, intra menstrual bleeding and or menorrhagia
- Symptoms may occur alone or in combination; severity ranges from minimal to severe. Women may present as asymptotically
- Rectal infection may occur in women as a result of local spread of infective through vaginal discharge


URETHRAL GONORRHOEAE	SYMPTOMS
 A clinical photograph showing a close-up of the urethral opening. A small, bright yellow-green discharge is visible emerging from the urethra. The surrounding tissue appears slightly red and inflamed.	<ul style="list-style-type: none">• Purulent discharge• Yellow - green in colour• Dysuria• Urethral discomfort• Associated with unprotect sex

Table C2.1: Gonorrhoeae urithritis (Clinical photo courtesy of MSHC)

EPIDEMIOLOGY

- 41 cases per 100,00 men and 6 cases per 100,00 women in Victoria in 2005 ¹¹
- High rates of gonorrhoea in men aged 20-45 years, most commonly found in MSM and in men who had unprotected sex in a high prevalence country. ¹¹

SEQUELAE

	LOCAL INFECTION	COMPLICATIONS	SEQUELAE
Women	Cervicitis Urethritis Proctitis	Pelvic Inflammatory disease	Infertility Chronic pelvic pain Ectopic pregnancy
Men	Urethritis Proctitis	Epididymo-orchitis Tenesmus, rectal bleeding	Anal fistulae Perianal abscesses
Other considerations	Disseminated infection Pharyngitis	Septic arthritis Skin lesions Meningitis endocarditis	

Table C2.2: Sequelae of gonorrhoea infection ^{5,6,13}

INVESTIGATIONS AND DIAGNOSIS

A smear of secretion or discharge is prepared and Gram stained. A typical positive gram-stained smear of urethral discharge usually shows a large number of characteristic kidney shaped Gram-negative diplococci (GNDC). This enables presumptive diagnosis at point of presentation. ^{9,10}

- Gram stain urethral smears from symptomatic men sensitivity 83%-96% and specificity from 95% to 99%. ^{2,6}
- Gram stain cervical smears sensitivity ranges from 23% to 65% sensitivity and 88%-100% specificity. ^{2,6}
- PCR is available for specific circumstances (e.g. Recent antibiotic use)
- Culture for *N. gonorrhoeae*

Refer to CPG M1 Clinical Management of Urithritis in Men

	WOMEN	MEN (MSM)	MEN (NON MSM)
Asymptomatic	Cervical/ vaginal culture*	Throat culture Anal culture	Urethral smear*
Symptomatic	Vaginal/cervical smear and culture	Urethral smear Urethral culture Anal culture Throat culture	Urethral smear Urethral culture

Table C2.3: Investigations for gonorrhoea ^{9,10,13}

*if indicated by sexual history

TREATMENT AND MANAGEMENT

TREATMENT INDICATORS

- Clinical diagnosis based on examination findings
- Laboratory confirmed diagnosis
- Contact of sexual partners who are positive for Gonorrhoea

TREATMENT

- **Ceftriaxone 250mg IM**
- **Lignocaine 1% for injection dilution**

ANO-GENITAL AND PHARANGIAL GONOCOCCAL INFECTION

Ceftriaxone is the preferred pharmacological treatment for uncomplicated genital, rectal and pharyngeal infection. ^{10,11,12,13} Gonorrhoeae is becoming increasingly resistant to ciprofloxacin and should be treated with ceftriaxone. ^{9,10}

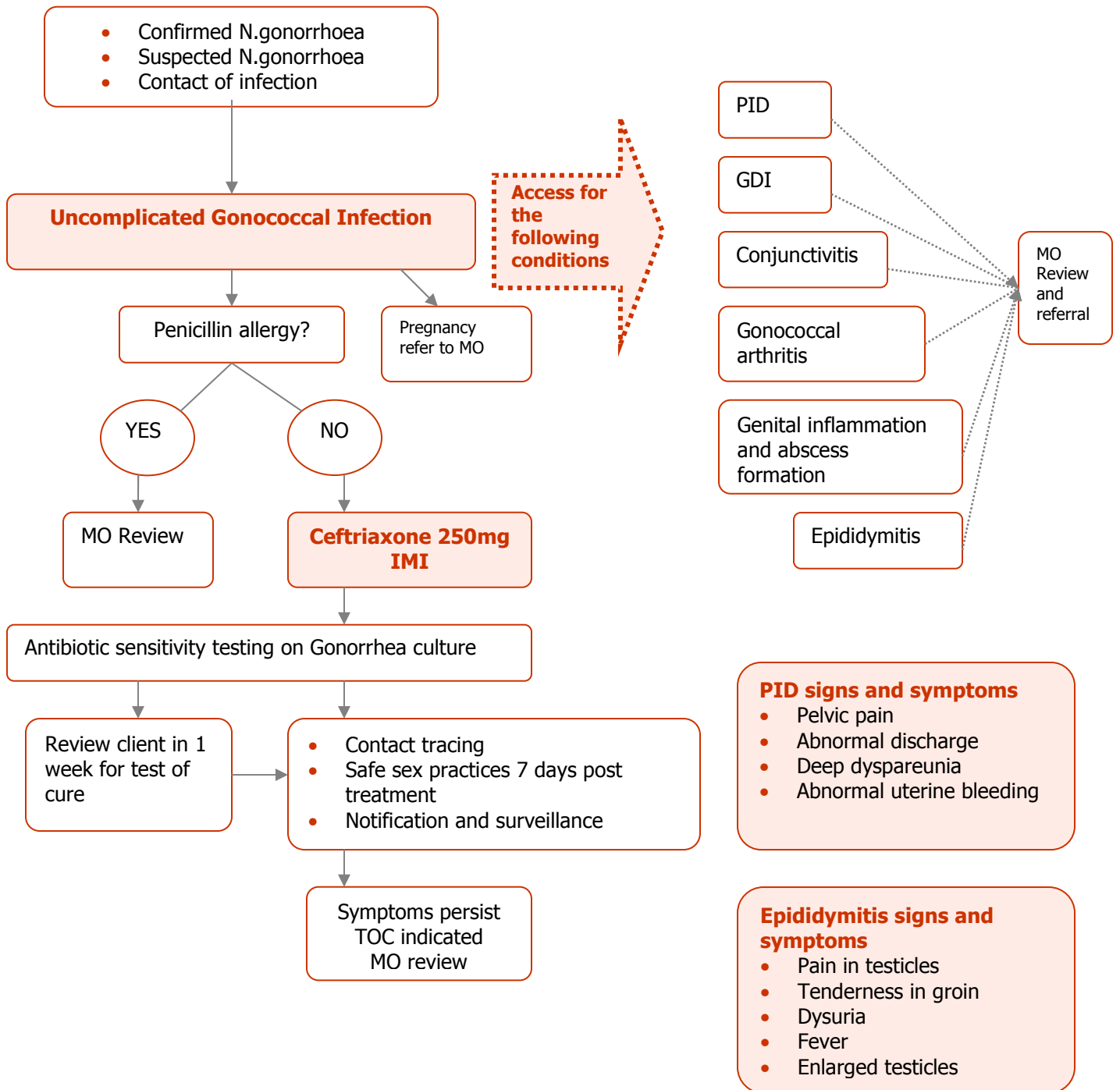
MANAGEMENT

- Ceftriaxone is administered with 2mls 1% lignocaine
- Adverse effects are mild and transient
- Pain or discomfort at injection site may occur ^{9,10}
- Clients are asked to wait for 15 minutes post injection before leaving the clinic
- Re-infection is common if sexual partners are not treated
- Refer to MO for review if symptomatic post treatment, consider test of cure if compliance or re-infection is suspected

PUBLIC HEALTH CONSIDERATIONS - FOLLOW UP AND REVIEW

- Clients are advised to contact trace all sexual contacts for past 6 months.
- MSM should be encouraged to screen frequently based on rates of partner change and levels of condom use.
- Protected sex is recommended for a minimum of seven days following treatment and until all sexual contacts are treated.
- All clients with positive results will undergo follow up according to MSHC follow up procedures including recall for treatment and results, serological monitoring, test of reinfection, test of cure, Department of Human Services (DHS) notification and surveillance forms, partner notification and assistance in contact tracing.

CLINICAL ALGORITHM



MEDICATION FORMULARY ¹⁴

DRUG	INDICATIONS	ROUTE	DOSE	FREQUENCY	THERAPEUTIC CLASS/ Poisons Schedule	CONTRAINDICATIONS/ INTERACTIONS	PRECAUTIONS/ ADVERSE EFFECTS
Ceftriaxone	Uncomplicated Gonococcal infection (Penicillinase and non penicillinase producing strains)	IMI	250mg	stat	Cephalosporins (B1) S4	Known allergy to cephalosporin major allergy to penicillian aphyllaxis, urticaria, angio oedema	Hypersensitivity to penicillins/cephalosporins Antibiotic associated pseudomembranous colitis Gastrointestinal disease Hepatic and renal dysfunction Pregnancy/lactation
							Pain at site of injection occasional candidiasis Hypersensitivity rash Occasional diarrhoea Occasional head ache and dizziness,
Lignocaine 1%	Anaesthesia at injection site	IMI	1ml	stat	Local anaesthetic (A)	Known sensitivity or allergy	Pregnancy
						Cimetidine, beta blockers	

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