

SCOPE OF PRACTICE

TARGET POPULATION

- Clients with confirmed uncomplicated *C.trachomatis*
- Clients with a presumptive clinical diagnosis of uncomplicated *C.trachomatis* from clinical presentation, history, sexual risk assessment and clinical examination
- Clients who present as a contact of *C.trachomatis* infection

EXCLUSION CRITERIA

- Clients with ongoing urological issues
- Clients with complications of infection including symptoms of Pelvic Inflammatory Disease (PID), proctitis, conjunctivitis, Reiter's syndrome.
- 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, presumptive treatment for symptomatic clients, presumptive treatment for contacts of infection
- 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

C.trachomatis is a gram negative obligate intracellular bacterium. ¹ *C.trachomatis* is transmitted perinatally⁵ and through sexual contact. ^{1,2} *C.trachomatis* causes mucosal infection of columnar epithelial cells ^{1,2,3} Infections can occur in the urogenital tract, rectum, oropharynx and conjunctivae; it may occur at more than one site simultaneously and have systemic complications. ^{1,2,3} There is high probability of co-infection with another STI. ¹ The incubation period from time of exposure to *C.trachomatis* and manifestations of urogenital symptoms is between 7-21 days. ⁴ Undiagnosed and untreated *C.trachomatis* is a co-factor for acquisition and transmission of HIV. ²

CHLAMYDIA IN MEN

Over 50% of men are asymptomatic. ⁶ In men urethritis is marked by scant, watery (later mucous) discharge from the urethra. Other symptoms include testicular pain and dysuria ^{2,4}
In men *C.trachomatis* infection is an important cause of epididymitis and proctitis ^{2,4}

CHLAMYDIA IN WOMEN

Seventy-five percent of women with genital chlamydial infection remain asymptomatic.⁵ In women, there may be dysuria, increased frequency and discharge (leucorrhoea) with associated post coital and intramenstrual bleeding. Lower abdominal pain may be present.^{1,2,4,5} In women prolonged *C.trachomatis* infection can result in endometritis and salpingitis. Pelvic inflammatory disease is an important complication of *C.trachomatis* infection.^{4,5,7} Late complications of extensive and reoccurring *C.trachomatis* infection may contribute to tubal damage, which in turn causes infertility and increased risk of ectopic pregnancies.^{1,5,8}

OTHER CONSIDERATIONS

Conjunctivitis results from autoinoculation from infected genitalia

C.trachomatis infection can trigger the development of reactive arthritis in men and women (Reiter's disease, arthritis).⁵

- Chlamydial pharyngeal infection is mostly transient and not routinely screened for²
- Chlamydial rectal infection is mostly asymptomatic but may cause rectal pain and discharge⁵
- Chlamydial rectal infection in MSM requires further evaluation for LGV⁹

EPIDEMIOLOGY

- Among sexually active women in Victoria aged 18-24 years during 2005 *C.trachomatis* prevalence was 3.7% and 0.2% amongst women aged 25-35 years.³
- Chlamydia is the most commonly notified STI in Victoria with an incidence of 178 per 100,000 in 2005.^{3,5,11}

SEQUELAE

	LOCAL INFECTIONS	COMPLICATIONS	SEQUELAE
Women	Cervicitis	<ul style="list-style-type: none"> • PID • Endometritis • Salpingitis • Perihepatitis 	<ul style="list-style-type: none"> • Infertility • Ectopic pregnancy • Chronic pelvic pain • Altered pregnancy outcomes
	Urethritis		
	Pharyngeal		
	Disseminated infection	<ul style="list-style-type: none"> • Reiter's syndrome 	<ul style="list-style-type: none"> • Chronic Arthritis
	Proctitis		
	Conjunctivitis		
Men	Urethritis	<ul style="list-style-type: none"> • Epididymitis • Prostatitis • LGV 	<ul style="list-style-type: none"> • Infertility
	Proctitis		
	Pharyngeal		
	Disseminated infection	<ul style="list-style-type: none"> • Reiter's syndrome • Corneal scarring 	<ul style="list-style-type: none"> • Chronic Arthritis • Impaired vision
	Conjunctivitis		

Table C1.1: Sequelae of *C.trachomatis* infection^{1,2,3}

INVESTIGATIONS AND DIAGNOSIS

- Strand Displacement Amplification (SDA) and Polymerase Chain Reaction (PCR) can be used for screening of cervical, urethral, anal and urine samples. (SDA; sensitivity >90%, specificity 99%).^{9,10}
- First void urine; samples should be taken 24-48 hours post potential time of acquisition of infection.^{3,4,9}
- Patients should refrain from voiding for 1 hour before sampling.⁸
- Male urethral exudate >5 PMN's/oif in the absence of GNDC may have predictive value¹⁰

	WOMEN	MEN (MSM)	MEN (NON MSM)
Indications	Asymptomatic and Symptomatic	Asymptomatic and Symptomatic	Asymptomatic and Symptomatic
Investigations	<ul style="list-style-type: none"> • FPU or • Vaginal swab • Cervical swab • Cervical microscopy (Symptomatic only) 	<ul style="list-style-type: none"> • FPU • Rectal swab • Urethral microscopy (Symptomatic only) 	<ul style="list-style-type: none"> • FPU • Urethral microscopy (Symptomatic only)

Table C1.2: Investigations for Chlamydia^{9,10}

TREATMENT AND MANAGEMENT

TREATMENT INDICATORS

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

GENITAL AND RECTAL CHLAMYDIA INFECTION

C. trachomatis is sensitive to macrolides and tetracyclines¹² Clindamycin is also relatively effective against the infection. Cephalosporins, penicillins, fluoroquinolones have poor efficacy.^{1,2,9,10} Azithromycin is the preferred pharmacological treatment for uncomplicated genital and rectal infection. Single dose azithromycin and seven days of doxycycline have been shown to be equally effective (96%) in a meta analysis of randomised trials in microbiological elimination of Chlamydia.^{9,10}

TREATMENT

- **Azithromycin 1 gm single dose**

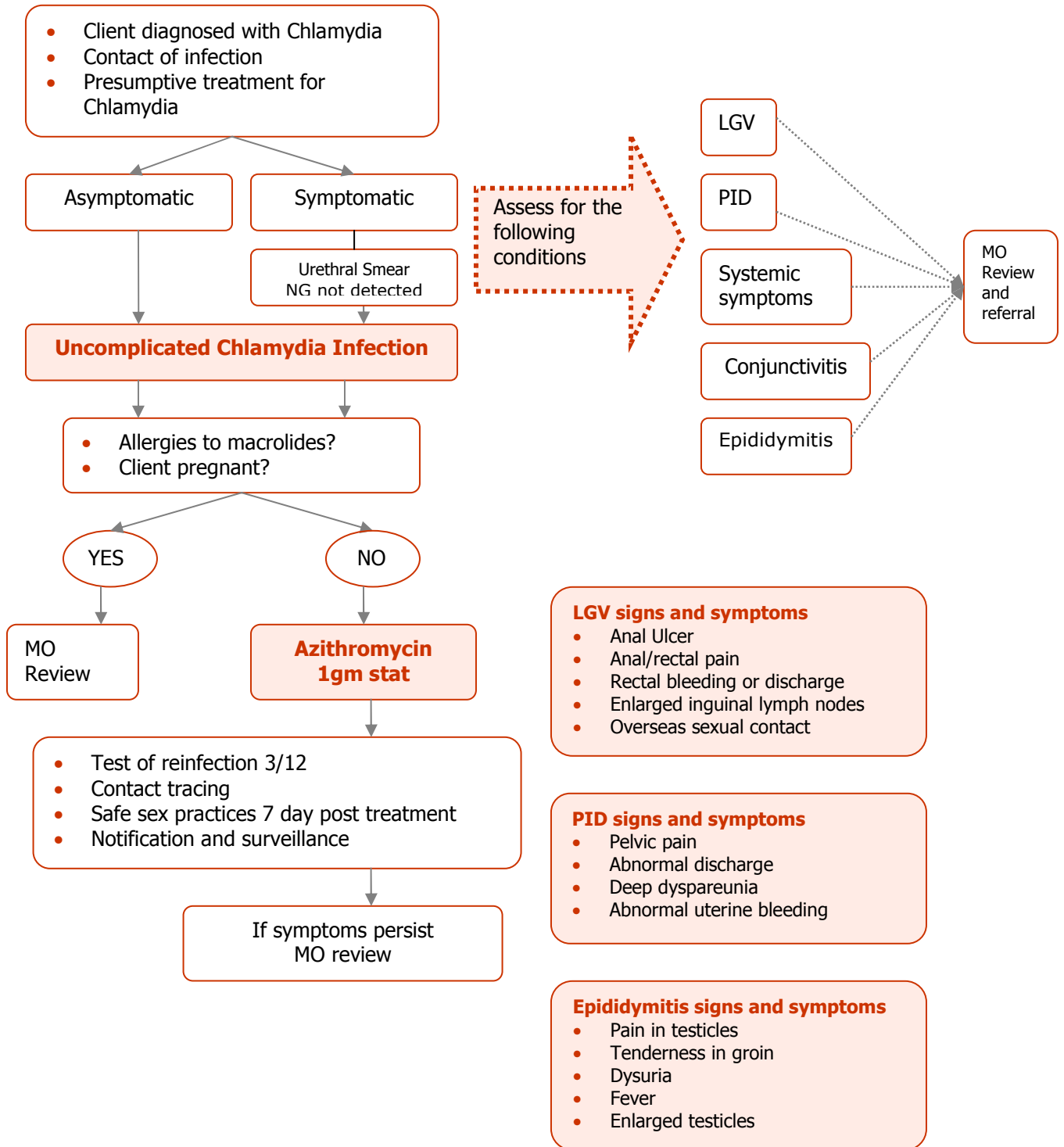
MANAGEMENT

- 10% of clients may experience mild gastric side effects from Azithromycin.^{9,13}
- No clinically significant emergence of drug resistance among Chlamydia strains has been thus far recorded.²
- Refer to MO for review if symptomatic post treatment, consider test of cure if compliance or reinfection is suspected.

PUBLIC HEALTH CONSIDERATIONS - FOLLOW UP AND REVIEW

- Clients are advised to contact trace all sexual contacts for past 6 months.
- Protected sex is recommended for a minimum of seven days following treatment
- Reinfection is common and retesting is advised at three months
- 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 ¹³

DRUG	INDICATIONS	ROUTE	DOSE	FREQUENCY	THERAPEUTIC CLASS/ Poisons Schedule	CONTRAINDICATIONS/ INTERACTIONS	PRECAUTIONS/ ADVERSE EFFECTS
Azithromycin	Uncomplicated Chlamydia infection	oral	1 gm	Single dose	Macrolides (B1) S4	Macrolide, ketolide hypersensitivity	Pneumonia, renal and hepatic impairment, lactation. Children <16 years
						Ergot derivatives, cyclosporine, digoxin, antacids, terfenadine, coumarins	GI upset Superinfection, colitis, vaginitis

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