Chlamydia

MANAGEMENT SUMMARY

TEST IF:

- Sexually active under 25 years
  - OR more than 2 partners in last year
  - OR has had an STI in past 12 months
  - OR has a sexual partner with an STI
- Pregnant
- Increased risk of complications of an STI, e.g. pre-termination of pregnancy (TOP) / intrauterine device (IUD) insertion
- Signs or symptoms suggestive of chlamydia
  - **Females:** Vaginal discharge / dysuria / pelvic pain / intermenstrual bleeding (IMB) / post-coital bleeding (PCB)
  - **Males:** Dysuria (urethritis) / urethral discharge / testicular pain / anal pain or discharge
- Requesting a sexual health check

Note: Most laboratories are automatically performing dual NAAT testing for chlamydia and gonorrhoea. False positive gonorrhoea results are possible in low prevalence populations – see NZSHS Management of Gonorrhoea 2014, and Response to the Threat of Antimicrobial Resistance.

RECOMMENDED TESTS by NAAT (e.g. PCR or SDA)

- It is recommended to test for co-existing STIs (see Sexual Health Check guideline www.nzshs.org/guidelines)
- **Females:**
  - A vulvovaginal NAAT swab prior to a speculum examination if symptomatic or needs examination
  - A self-collected vulvovaginal NAAT swab if asymptomatic, examination declined and no other tests required
  - Additional anorectal NAAT swab as indicated based on sexual history
  - **Note:** A first void urine has lower sensitivity in females than cervical or vaginal swabs so is not specimen of choice
- **Males:**
  - A first void urine (first 30ml of stream), preferably at least 1 hour after last passed urine
- **Men who have Sex with Men:**
  - **Additional anorectal and pharyngeal NAAT swabs** regardless of sexual practices as asymptomatic rectal and pharyngeal infection is common

Treat immediately if high index of suspicion, e.g. symptoms and/or signs, or contact of index case.

- Start treatment for patient and sexual partner(s) without waiting for lab results

MANAGEMENT

- Azithromycin 1g po stat (pregnancy category B1) – for uncomplicated urethral, cervical, pharyngeal infection and conjunctivitis
- Doxycycline 100mg po twice daily for 7 days **(NOT in pregnancy)** – for rectal infection, or as an alternative to azithromycin or highly symptomatic or on SSRI or QT-prolonging medication
- Amoxicillin 500mg po 3 times daily for 7 days (pregnancy category A) – alternative regimen in pregnancy if azithromycin contraindicated
- Advise to use condoms or abstain from sex for 7 days after initiation of treatment and until 7 days after all sexual contacts have been treated

PARTNER NOTIFICATION

- Be clear about language: 'partner' implies relationship – all sexual contacts in the last 2 months should be advised so they can have a sexual health check and treatment
- Contact(s) should have a sexual health check and if asymptomatic treat empirically for chlamydia with azithromycin 1g stat
- Contacts should be treated without waiting for their test results and advised to use condoms or abstain from sex for 7 days; if positive for an STI, refer to specific guideline
- Most choose to tell contacts themselves, giving written information is helpful
- Notifying all contacts may not be possible e.g. if there insufficient information or a threat of violence

FOLLOW-UP

- By phone or in person, 1 week later
- No unprotected sex in the week post-treatment?
- Completed/tolerated medication?
- Notifiable contacts informed?
- Any risk of re-infection?
- Test of cure only needed if pregnant, or if a second line treatment has been used, or if pharyngeal or rectal (extragenital) infection
- Diagnostic tests can detect traces of dead organisms – wait at least 5 weeks before retesting
- Re-infection is very common; offer repeat sexual health check in 3 months

Further guideline information – www.nzshs.org or phone local sexual health service.

This Best Practice Guide has been produced by NZSHS. Every effort has been taken to ensure that the information in this guideline is correct at the time of publishing (February 2015).

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Introduction

- **Causative agent** is *Chlamydia trachomatis*.
- Infects endocervix, urethra, rectum and occasionally pharynx and eye.
- **Transmission** is through
  - Contact with infected genital secretions
  - Sexual practices such as fingering which allow inoculation of infected secretions onto mucous membranes
  - From mother to baby at delivery
- Approximately 70% of women and 50% of men are asymptomatic.
- **Chlamydia is most commonly diagnosed in**
  - Adolescents and young sexually active adults aged < 25
  - People who have multiple sexual partners or a new sexual partner
  - People who have not consistently used condoms

Test

- Patient with possible signs or symptoms of a chlamydia infection.
- Sexual contacts of chlamydia or other STIs.
- Women having antenatal screening for STIs.
- Pre-TOP and IUD insertion.
- Men with epididymo-orchitis.
- Women with a presumptive diagnosis of pelvic inflammatory disease (PID).
- Sexually active patients aged < 25 years old opportunistically when accessing healthcare.
- Men who have sex with men (MSM)
- Patients outside this age-group should be offered testing according to assessment of risk, presence of ano-genital symptoms, or if the patient requests a sexual health check.

Note: If patient is asymptomatic and is concerned about a specific recent sexual event the recommended testing interval is 2 weeks from time of last unprotected sexual intercourse. If the patient is unlikely to return and has not been previously tested then test opportunistically at the time of presentation and offer a re-test in 2 weeks time.

Symptoms and signs

Chlamydia infection commonly has no signs or symptoms. Symptoms are non-specific.

Females

- Vaginal discharge, dysuria, lower abdominal pain, abnormal or inter-menstrual bleeding.
- Mucopurulent cervicitis with easily induced bleeding and/or signs of PID.
- Urinalysis may show sterile pyuria.

Males

- Urethral discharge, dysuria, urethral irritation, testicular pain/swelling.
- On examination, urethral discharge (clear, milky or mucopurulent) may be visible.
- Signs of epididymo-orchitis.

Note: Rectal infections in both sexes are usually asymptomatic, but may present with anal discharge, anal bleeding or proctitis.

Complications

- PID (and subsequent infertility, pelvic pain, ectopic pregnancy).
- Epididymo-orchitis.
- Sexually acquired reactive arthritis and/or conjunctivitis.
- Fitz-Hugh Curtis syndrome (peri-hepatitis).

Diagnostic tests

Nucleic acid amplification tests (NAATS)

- New Zealand laboratories use mainly PCR (polymerase chain reaction) and SDA (strand displacement amplification) NAATs.
  - These tests are highly sensitive and specific for chlamydia
  - Suitable for samples from endocervix, vagina, urethra, and first void urine (early morning urine not required)
  - NAATs can be used for testing the eye, pharynx and rectum

Note: Most New Zealand laboratories are now automatically performing dual testing for chlamydia and gonorrhoea on received samples. Beware of possible false positive gonorrhoea tests in low prevalence populations. Discuss any unexpected positive gonorrhoea results with a sexual health clinic or specialist.

Recommended specimens

Females

- **A vulvovaginal swab is the recommended specimen as it has the highest sensitivity for chlamydia testing in women.** This can be either clinician-collected or self-collected as follows: Remove the swab from the container, wipe the swab around the vaginal entrance, then insert the swab 4cm (thumb's length) into the vagina, count slowly to 5 and replace in the swab container.
- Symptomatic women should always be examined if possible:
  - external ano-genital examination is required for women with ano-genital skin symptoms (e.g. warts, herpes, candidiasis, dermatological conditions)
  - speculum examination is required for proper clinical assessment of women complaining of vaginal discharge, abnormal bleeding and pelvic pain
- If doing a speculum examination – do the vulvovaginal swab prior to speculum insertion.
- If the patient is asymptomatic, or if an examination is not required or is declined, then a self-collected vulvovaginal swab should be taken – instruct the woman as above.
- PLUS additional testing (see Sexual Health Check guideline www.nzshs.org/guidelines).
- **First void urine samples are less sensitive than vulvovaginal swabs in females and are therefore not the specimen of choice, but can be used if an asymptomatic patient declines examination and declines to do a self-collected vulvovaginal swab.**

Males

Asymptomatic

- First void urine (first 30ml of urinary stream).
- Preferably at least 1 hour after patient has last passed urine, but if the patient is unlikely to come back then it is still worthwhile to obtain a sample at the time of presentation.

Symptomatic

e.g. dysuria, urethral discharge or testicular pain
(see Urethritis in Men guideline www.nzshs.org/guidelines and/or Epididymo-orchitis guideline www.nzshs.org/guidelines).

Females who have receptive anal sex and MSM

- Anorectal swab – swabs for males and females can be collected by gently inserting the swab 4cm into the anal canal, rotating, and then replacing into the swab container.
- All MSM being screened for sexually transmitted infections should be offered anorectal swabs for chlamydia testing regardless of stated sexual practices because:
  - Anorectal chlamydia is usually asymptomatic
  - Anorectal infection may result from oro-genital contact, fingering or anal-oral contact (see Sexual Health Check guideline www.nzshs.org/guidelines).
- **MSM with anorectal symptoms such as bleeding, discharge and tenesmus require anoscopy and further testing and should be referred or discussed with a specialist sexual health clinic.**

Management

Treatment regimens

Uncomplicated chlamydial infections (excluding pregnancy)

- **Azithromycin 1g po stat** for urethral, cervical, pharyngeal infection or conjunctivitis.
- **Doxycycline 100mg po twice daily for 7 days** for rectal infection or as an alternative to the above regimen.
- Advise to use condoms or abstain from sex for 7 days after initiation of treatment and/or until 7 days after all sexual contacts have been treated.

Pregnant or breastfeeding

- **Azithromycin 1g po** stat (pregnancy category B1).

Alternative regimen:

- **Amoxycillin 500mg po 3 times daily for 7 days** (pregnancy category A).

Complicated chlamydial infections (i.e. PID and epididymo-orchitis)

For further detail see PID guideline www.nzshs.org/guidelines and/or Epididymo-orchitis guideline www.nzshs.org/guidelines.

Partner notification and management of sexual partners

Partner notification

- Be clear about language: 'partner' implies relationship – all sexual contacts in the last 2 months should be advised so they can have a sexual health check and treatment.
- Contacts should be treated without waiting for their test results; if positive, then their recent contacts need to be informed.
- Most choose to tell contacts themselves.
- Giving written information is helpful.
- Notifying all contacts may not be possible, e.g. if there insufficient information or a threat of violence.

Management of sexual partners/contacts

- Perform a full sexual health check.
- Do not wait for test results – treat empirically for chlamydia.
- Advise them to use condoms or abstain from sex for 7 days until results of tests are available.
- If chlamydia positive – partner notification as above.

Follow-up

- The index case should be followed up by phone or in person 7 days after treatment to ensure symptom resolution, give results, check that all partners/contacts have been notified and to check compliance with treatment.
- All patients should be asked to re-attend for a sexual health check in 3 months (test of re-infection).
- Re-treatment is required if there has been any unprotected sex with untreated sexual contacts/partners during the follow-up interval.

Test of cure

- **Not routinely required** for patients who are asymptomatic after completion of a first-line treatment course – i.e. azithromycin or doxycycline.
- **Required in those treated with a second–line regimen – e.g. amoxycillin**, and should be done at least 5 weeks after initiation of treatment.
- **Pregnant women should have a test of cure (TOC) 5 weeks after initiation of treatment** and should be retested at the beginning of the third trimester as a test of re-infection.
  - Pregnant women who are < 25 years and those at risk for chlamydia (a new or > 1 sexual partner during their pregnancy) are at increased risk of re-infection with chlamydia.

Referral guidelines

Referral to or discussion with a specialist sexual health service is recommended for:

- Screening and treatment of sexual partners if clinician wishes.
- Allergy to standard treatment options.
- Complicated clinical situations for further management.

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