CHLAMYDIA

Key words: STI, sexually transmitted infection, chlamydia, communicable disease

AIM

- To provide information on the diagnostic investigations and subsequent management of women (and their sexual partners) with chlamydia, including contact tracing, and follow up.

BACKGROUND

Genital chlamydia infection is caused by some of the subtypes of Chlamydia trachomatis. Other subtypes cause trachoma and lymphogranuloma venereum (LGV). Like all chlamydial species, the organism has to grow within cells, and so it is found within the endothelium and epithelium of the endocervix, rectum, peritoneal cavity, fallopian tubes, oropharynx and conjunctiva. Genital chlamydia is the most commonly notified sexually transmitted infection (STI) in Australia, rising five fold since national notification began in 1994, and accounting for 90% of notifications in adolescents and young adults (15-24 year olds).

CLINICAL PRESENTATION

Asymptomatic infection is common. Chlamydia is asymptomatic in at least 70 per cent of women and 25 per cent of men. Genital chlamydia infection may be manifested by:

- Vaginal discharge or abnormal bleeding due to cervicitis.
- Abdominal pain and fever due to pelvic inflammatory disease (PID), infection of the fallopian tubes or uterus, urethritis, bartholinitis, or salpingitis.
- Infertility or ectopic pregnancy due to previous PID, which may or may not have been symptomatic. Patients may have persisting chlamydia infection.
- Dysuria (pain on passing urine).

and less commonly as:

- Peri-hepatitis (abdominal pain, fever, tender liver)
- Conjunctivitis in adults or newborns (>60% of exposed neonates acquire chlamydia infection)
- Proctitis (anal irritation and discharge)
- Pneumonia of newborns
- Reactive arthritis (Reiter's syndrome).

INVESTIGATIONS

Chlamydia infection is diagnosed by detecting Chlamydia trachomatis in appropriate specimens. Serology is not helpful in the diagnosis of sexually transmitted chlamydial infection.

- The preferred tests are nucleic acid amplification tests (NAAT)- polymerase chain reaction (PCR). Culture is now used only in special circumstances.
- In women who decline to be examined or it is not indicated, self obtained lower vaginal swabs (SOLVS) are the preferred specimen. Add a first void urine specimen where possible. If the patient is examined take an endocervical swab only. A urine specimen only, is acceptable if a woman declines to give either a vaginal or endocervical swab.
- Diagnosis and treatment of infected patients prevents ongoing/further transmission to sex partners and, for infected pregnant women, may prevent transmission of chlamydia to infants during birth.
SPECIMEN COLLECTION AND HANDLING

- Take an endocervical swab or cytobrush or SOLVS and/or a first void urine for NAAT. The handling of the swab or cytobrush depends on the test used. Follow the instructions provided by the laboratory.

- Ask the woman to collect a first void urine sample in a sterile yellow specimen jar. Pass a speculum and take a high vaginal swab (HVS) and smear (to exclude other pathogens), a vaginal pH, and a Pap smear if required. Clean the mucous away from the cervix and then take an endocervical swab (ECS) for PCR. If there is pus present, collect an ECS for microscopy, culture and sensitivity (MC&S).

- Collect two swabs (PCR for chlamydia and MC&S for gonorrhoea) if there is a history of anal receptive sex (2x anal swabs), or oral receptive sex (2x throat swabs).

- Specimens should reach the laboratory as quickly as possible.

- All specimens must be clearly labelled with the patient's identifier (name or code), date of birth or medical record number, the site, date and time of collection.

- During storage and transport, keep the sample as close as possible to 4°C as unrefrigerated transport time can affect test sensitivity. Avoid temperature extremes, this includes NOT placing samples in the freezer section of a refrigerator nor transporting samples in direct contact with freezer blocks.

MANAGEMENT

Management includes antibiotic treatment, partner testing and treatment, contact tracing and providing safe sex and health education. Inform the patient to wait 7 days after both the patient and partner have completed treatment to decrease chances of re-infection.

N.B. In addition to the Communicable Disease Notification, further reporting is required dependent on individual situation. See also OD 0344/11: Mandatory Reporting of Sexual Abuse of Children Under 18 Years and OD 0296/10: Interagency Management of Children Under 14 Years who are Diagnosed with a Sexually Transmitted Infection (STI).

TREATMENT

Directly observed single dose therapy is preferred.

Treating uncomplicated chlamydia

- Adults:
  - Azithromycin 1 g orally, as a single dose (preferred treatment)
  - Doxycycline 100 mg orally, every 12 hours for 7 days

- Pregnant women: (See also KEMH Clinical Guideline Chlamydia in pregnancy)
  - Azithromycin 1 g orally, as a single dose (category B1) (preferred option)
  - Erythromycin ethyl succinate 800mg oral suspension (400mg/5ml is equivalent to 250mg erythromycin base) four times a day for 10 days (category A)
  - Erythromycin base 250 mg orally, four times a day for 14 days (category A)

Special Considerations:

Tetracycline antibiotics, including doxycycline, should never be used in:

- Women who are pregnant or possibly pregnant, or breast feeding (Category D)
- Children under nine years old.

Erythromycin estolate is contraindicated in pregnancy due to increased risk of hepatotoxicity.
MANAGEMENT OF PARTNERS

- This involves counselling to ensure that the patient understands the implications of infection transmission.
- Managing sex partners may require referral to another practitioner. Partners are counselled appropriately, examined, tested and treated as required,\(^1,7\) preferably within 24 hours.\(^4\)
- All sex partners of the index patient from the preceding three months should be tested. In circumstances where testing is not possible, consider treatment for both chlamydia and gonorrhoea. If the history of the index case, or symptoms, suggests they are likely to have been infectious for longer than three months, then reasonable efforts should be made to screen earlier contacts, usually back six months.\(^7,8\)
- Transmission of chlamydia by oral sex is low.

Contact tracing

- Contact tracing is mandatory. The mandatory Health Department of Western Australia Notification form must be completed\(^8\) as soon as possible after confirmed diagnosis.\(^4\) Only confirmed cases (with laboratory evidence) should be notified.\(^4\) This notification may also assist in contact tracing while maintaining confidentiality.
- The patient may elect to advise of her/his sexual contact/s to enable them to seek screening and treatment. The contacts can also be referred to the GP, Sexual Health Clinic, and other services. The patient can utilise the "Let Them Know" website for information and assistance with informing sex partners.
- It is the responsibility of all health care providers, including doctors, to begin tracing sex partners so that they can be assessed and treated.
- Contact tracing in cases of chlamydia infection is important. Untreated chlamydia can lead to PID, infertility, ectopic pregnancy, chronic pelvic infection, neonatal pneumonia, pre-term delivery and neonatal conjunctivitis.\(^1\)
- The duration of potential infectivity is unknown and may be months to years.\(^1\)

FOLLOW UP

1. To ensure continuity of care, record follow-up instructions in the patient's medical record.
2. Consider the need to review symptomatic patients\(^4\) in approximately one week. This is an opportunity for further education and counselling.\(^3\)
3. As NAAT can remain positive for three to four weeks after treatment, repeat sampling to exclude re-infection should be undertaken if possible at least one month after treatment\(^1,4\) in the following circumstances:
   - Where regimens other than azithromycin are used
   - In children
   - In pregnant women
   - Where there is doubt about compliance with treatment and advice
   - Where symptoms persist
   - Where there appear to be complicated infections such as PID or epididymitis
   - Where there is a high risk of re-infection.
4. If possible, review patients three months after exposure as this provides an opportunity to repeat blood tests for syphilis, HIV and HBV.\(^4\) Patients should be retested at the initial site of infection at 3 months for chlamydia\(^4\) as repeat infections are common.\(^1\) Some infections have a window period where initial tests can be negative even though the patient is infected.\(^4\) Repeat testing also provides an opportunity to check for new symptoms, risks and provide additional health education.\(^4\)
REFERENCES (STANDARDS)


RESPECTIBILITY

Policy Sponsor
Nursing & Midwifery Director OGCCU
Initial Endorsement
August 2010
Last Reviewed
September 2014
Last Amended

Do not keep printed versions of guidelines as currency of information cannot be guaranteed. Access the current version from the WNHS website.