CLINICAL PRACTICE GUIDELINE

Chlamydia

This document should be read in conjunction with the Disclaimer

AIM

The appropriate screening, detection and management of chalymdia in pregnancy

Background Information

Genital chlamydia infection is caused by the *Chlamydia trachomatis* organism, and can be found within the endothelium and epithelium of the endocervix, rectum, peritoneal cavity, fallopian tubes, oropharynx and conjunctiva in an infected person.[1] The incubation period is 7-21 days with a growth cycle of approximately 48 hours. In 60% of women, and at least 25% of men, chlamydia infection is asymptomatic.[1]

Genital chlamydia infection is the most common notifiable disease in Western Australia (WA) and Australia.[2, 3] Since national notification began in 1994, the reported infection rate to the Department of Health has increased five-fold,[4] with 80% of the notifications in 2014 occurring in people under 30 years of age[5], more in female than males[5]. Of the cases reported in Australia in 2012, 14% have been acquired in WA, with only the Northern Territory having a higher rate per population than WA.[3] The Kimberly region has 3 times higher age-standardised rate of infection (per 100,000 population) compared to any other region in the State.[3]

Evidence is conflicting regarding adverse outcomes of untreated chlamydia infection in pregnancy, however is has been linked in some studies to miscarriage, premature rupture of the membranes, pre-term labour,[6-8] and postpartum endometritis in up to 30% of women.[9] Neonates of infected mothers have been associated with intrauterine growth restriction,[7] low birth weight[7], infant mortality[7], and infection at birth, with transmission rates from vaginal secretions as high as 50-70%. Approximately 30-50% of neonates will develop chlamydial conjunctivitis 5-7days following birth, and half of these cases will then develop nasopharyngeal infection which can develop into chlamydial pneumonia.[9]

Key Points

1. Chlamydia screening should be offered to all women at their first antenatal visit.[10]
2. Women at high risk for acquiring sexually transmitted infections (STI) should be retested for chlamydia in the third trimester.[10]
3. Chlamydia is a Notifiable Infectious Disease requiring mandatory reporting to Health Department of WA
4. For asymptomatic screening collect first void urine sample **plus** a self-obtained low vaginal swab (SOLVS).[1] An endocervical swab should be collected in if clinically indicated and appropriate. Please note that gel swabs are not suitable for Chlamydia PCR.

5. The preferred tests for chlamydia detection are nucleic acid amplification tests (NAAT). [1, 2]
6. Antibiotics are the treatment of choice. Directly observed single dose therapy is preferred,[1] improving treatment compliance and success. Repeat testing at least one month after treatment is recommended for all pregnant women, to ensure treatment success and to exclude re-infection[1]
7. Contract tracing and follow-up treatment should be arranged for sexual partners.[1]
8. All women should be counselled regarding the infection, transmission modes and management if detected[1]

Clinical Features[1]

Chlamydia is asymptomatic in 60% of women

Clinical symptoms of infection may include:

- vaginal discharge or abnormal bleeding due to cervicitis
- abdominal pain and fever due to pelvic inflammatory disease (PID), or infection of the fallopian tubes or uterus
- infertility or ectopic pregnancy due to PID, which may or may not be symptomatic
- dysuria
- less commonly e.g. peri-hepatitis, conjunctivitis, proctitis, reactive arthritis.[1]

Screening and Investigations

1. Offer chlamydia screening to all pregnant women at the first antenatal visit if screening has not been performed by their GP.[10]
2. Chlamydia is common among sexually active adolescent girls and young women, accounting for 90% of health department notifications in 15-24 year olds.[4] Screening should be offered at the time of gynaecological examination, even when symptoms are absent.[1] The highest risk is in those not consistently using barrier contraception or who have a new or multiple partners.[1]
3. Obtaining a specimen:
    - obtain a self-obtained low vaginal swab (SOLVS) **plus** a first void urine (FVU) specimen[1]
    - Collection of a FVU specimen alone is acceptable only if a woman declines to give either a ECV or SOLVS.[1] Mid-stream urine (MSU) samples are not recommended.
    - If symptoms and collection is appropriate an endocervical swab is the optimal specimen.
    - Collect two swabs (PCR for chlamydia and MC&S for gonorrhoea) if there is a history of anal receptive sex (2xanal swabs), or oral receptive sex (2x throat swabs).[1]
4. The preferred specimen tests are nucleic acid amplification tests (NAAT)[1] for detection of Chlamydia DNA. The swab is collected from the endocervix on the dry swab or cytobrush. No transport medium is required. The swab for SOLVS is collected on the dry swab and requires no transport medium. See Clinical

Guideline Specimen Collection: Low Vaginal, High Vaginal, Endocervical and Rectal Swabs for instructions on how to collect an ECS specimen.

5. Collection of the first void urine: at least 1 hour since last void collect and at least 20mL of urine.[11, 12]
6. All women living in STI endemic regions of Western Australia e.g. the Kimberly, Pilbara and Goldfields, should have testing for gonorrhoea included when specimens are collected for chlamydia.[10]
7. Retest all women in the STI endemic areas at 36 weeks gestation for chlamydia and gonorrhoea.[10]

Management

Management of positive results for chlamydia includes[1]:

- antibiotic administration
- completion of the mandatory Notifiable Infectious Diseases form for the Health Department of WA
- counselling
- contact notification and tracing
- Ensure a full STI screen as co-infections may occur

Antibiotic Treatment[1]

- Azithromycin 1 g orally, as a single dose. This is the preferred option (Category B1 in pregnancy)

Note – the following antibiotics should not be used in pregnancy:

Tetracycline antibiotics, including doxycycline, should never be used in women who are pregnant or breastfeeding. Erythromycin Estolate is contraindicated in pregnancy due to increased risk of hepatotoxicity.[1]

Counselling

Counselling should include discussion about confidentiality of the results, benefits of testing and contact tracing, infection transmission, treatment and management of positive results, awareness of risk behaviours and prevention strategies.[1] Emotional reactions can accompany positive STI results.[1]

The woman should be counselled regarding the reasons for the mandatory requirement by the Health Department of WA, where all infectious cases are notified to them, and that contact tracing will be initiated. Undertake partner management with careful consideration of the risk for violence (for the woman and/ or partners).[1]

Women should be advised that a partner who is not tested and who is positive for chlamydia may re-infect her if the partner is not treated.

Written information

Provide women positive for chlamydia with written information, and internet sites to access further knowledge:

- WA Health Department web site - http://silverbook.health.wa.gov.au
- WA Health Department web site - http://www.couldihaveit.com.au/

- Government of WA Department of Health Fact Sheet – Chlamydia
- Sexual & Reproductive Health (formerly Family Planning of Western Australia) "STI - Why should I care? (2014)"; Chlamydia- patient brochure (2012)

Documentation and Contact Tracing

The Health Department of WA Notifiable Infectious Diseases form MUST be completed. This assists in contact tracing and maintenance of confidentiality.

After counselling, women may also elect to advise their sexual contact/s of a positive result to enable them to seek screening and treatment. Refer sexual contact/s to their GP or Sexual Health Clinic for treatment and education. The website Let Them Know can provide patients with ways to inform sex partners, including anonymously. All sex partners from the previous 6 months (and longer if the history of the index case indicates they are likely to have been infected prior to this) should be tested. If testing is not possible, consider treating for chlamydia and gonorrhoea.[1]

Women should be instructed to abstain from sexual intercourse until they and their sex partners have completed treatment. Abstinence should be continued until 7 days after a single-dose regimen or after completion of a multiple-dose regimen.[1, 13] Timely treatment of sex partners is essential for decreasing the risk for re-infecting the index patient.

If a child is diagnosed with genital chlamydia consider sexual abuse/assault and Mandatory Reporting of Child Sexual Abuse requirements.[1] See also OD 0296/10: Interagency Management of Children Under 14 Years who are Diagnosed with a Sexually Transmitted Infection (STI) (2010) & OD 0344/11: Mandatory Reporting of Sexual Abuse of Children Under 18 Years (2011);

Follow up

As **NAAT** can remain positive for three to four weeks after treatment by detection of non-viable Chlamydia DNA, repeat sampling for test of cure and to exclude re-infection should be undertaken if possible at least one month after the end of the treatment course irrespective of whether an azithromycin or erythromycin course has been given.[1] Test of cure is recommended only in pregnancy and where non azithromycin treatments are used, or if clinically indicated. Retesting ensures therapeutic cure, considering the severe sequelae that might occur in mothers and neonates if the infection persists. Test of cure is not recommended for non-pregnant patients unless there is doubt about compliance, symptoms persist, if PID is present or if high re-infection risk.[1]

Retest all women in the STI endemic areas (e.g. the Kimberly, Pilbara and Goldfields) at 36 weeks gestation for chlamydia and gonorrhoea.[10] Consider retesting at 36 weeks gestation for women not living in STI endemic areas if at increased risk for chlamydial reinfection. Increased risk includes new or multiple partners or when partner has other partners. This occasion (or 3 months after exposure) also provides an opportunity to repeat blood tests for syphilis, HIV and HBV.[1]

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Related policies

OD 0296/10 Interagency Management of Children under 14 Years who are Diagnosed with a Sexually Transmitted Infection (STI)

OD0344/11 Mandatory Reprting Of Sexual Abuse of Children under 18 Years

Related WNHS policies, procedures and guidelines

Specimen Collection

Keywords:	chlamydia, trachomatis, sexually transmitted infection, STI, chlamydia in pregnancy		
Document owner:	OGID		
Author / Reviewer:	Evidence Based Clinical Guidelines Co-ordinator		
Date first issued:	August 2008		
Last reviewed:	March 2015	Next review date:	March 2018
Endorsed by:	OGCCU Management Committee	Date:	
Standards Applicable:	NSQHS Standards: 1 Clinical Care is Guided by Current Best Practice 4- Medication Safety;		
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