CLINICAL PRACTICE GUIDELINE

Sexually transmitted infections: Chlamydia in pregnancy

This document should be read in conjunction with this Disclaimer

Aim

- The appropriate screening, detection and management of chlamydia in pregnancy

Background

Genital chlamydia infection is caused by the *Chlamydia trachomatis* organism.[1] The incubation period is 7-21 days. Genital chlamydia infection is the most common notifiable disease in Western Australia (WA) and Australia. The Kimberley region has almost four times higher age-standardised rate of infection (per 100,000 population) compared to any other region in the State.[2]

Chlamydia in pregnancy has been associated with preterm birth, low birth weight and perinatal mortality[1] and may cause neonatal conjunctivitis and pneumonia[3, 4]

Clinical signs and symptoms

Note- Infection is frequently asymptomatic (70 % of infected women)[1]

Symptoms, when present, may include:

- vaginal discharge or abnormal bleeding due to cervicitis[5]
- abdominal pain and fever due to pelvic inflammatory disease (PID), or infection of the fallopian tubes or uterus[5]
- 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[5]

Key points

1. Chlamydia screening is offered to all women at their first antenatal visit
2. Treatment with azithromycin is standard
3. Proof of cure testing is recommended in pregnancy
4. Rescreening at 36 weeks gestation is recommended for high risk women
5. Chlamydia infections are notifiable to the WA Communicable Disease Control Directorate
6. Partners should be managed

Screening and investigations

1. Offer chlamydia and gonorrhoea screening to all pregnant women at the first antenatal visit if screening has not been performed by their GP.
    - Note: National Pregnancy Care Guidelines[1] are for universal screening of Australian women 30 years or younger, however KEMH practice is to screen all patients under KEMH care regardless of age.
    - Note: PathWest will routinely test for *N. gonorrhoeae* PCR when Chlamydia PCR is requested from genital swabs or urine samples.
2. Obtaining a specimen:
    - For routine antenatal asymptomatic screening obtain:
        - self-obtained low vaginal swab (SOLVS)
        - **Or** (if unable to obtain SOLVS) first void urine (FVU)[1]
    - For symptomatic women- obtain an
        - endocervical swab (preferred)
        - **Or** SOLVS **PLUS** a FVU specimen[6]
    - Collection of a FVU specimen alone is acceptable only if a woman declines to give either a ECV or SOLVS.[6] Mid-stream urine (MSU) samples are not recommended.
3. If symptoms and collection is appropriate an endocervical swab is the optimal specimen. In addition collect two swabs (PCR for chlamydia and MC&S for gonorrhoea) if there is a history of anal receptive sex (2 x anal swabs).
    - PCR (polymerase chain reaction) is also referred to as NAAT (nucleic acid amplification test).

    Use a dry swab or cytobrush for *C. trachomatis* PCR. No transport medium is required. See KEMH Clinical Guideline, Obstetrics & Gynaecology: 'Vaginal Procedures: Swabs- LVS, HVS, ECS and Rectal' for instructions on how to collect an ECS specimen.
4. Collection of the first void urine: the first part of the urine stream[6]; at least 1 hour since last void collect and at least 20mL of urine.

Management

Management of positive results for chlamydia includes:

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

Antibiotic treatment[6]

Azithromycin 1 g orally, as a single dose. This is the preferred option and is considered safe to use in pregnancy. Seek microbiology advice if azithromycin is not appropriate therapy.

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.[6] Emotional reactions can accompany positive STI results.[6]

The woman should be counselled regarding the reasons for the mandatory requirement by the Department of Health 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).[6]

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:

- Department of Health WA web sites:
  - http://silverbook.health.wa.gov.au
  - http://www.couldihaveit.com.au/ (external website)
  - https://ww2.health.wa.gov.au/Articles/A_E/Chlamydia
- Sexual Health Quarters (formerly Sexual and Reproductive Health / Family Planning of Western Australia): Sexually Transmitted Infections (external website)
- Better to Know (for Aboriginal and Torres Strait Islander people)

Documentation and contact tracing

The Department of Health WA Notifiable Infectious Diseases form (Metro or Rural) 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. There are websites such as Let Them Know (external website) and Better to Know (external website) (for Aboriginal and Torres Strait Islander people), that 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.[6]

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.[6] 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.[6] See also OD 0296/10 - Interagency Management of Children Under 14 Who are Diagnosed With a Sexually Transmitted Infection (STI) (2010)

Follow up

As NAAT (also known as PCR) 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.[6] Test of cure is recommended 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.

Retest

Retest all women in the STI endemic areas (e.g. the Kimberley, Pilbara and Goldfields) and other at-risk women at 36 weeks gestation for chlamydia and gonorrhoea.[6] Women with a diagnosis of chlamydia infection made at antenatal screening should be considered a higher risk group. 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.[6]

References

1. Department of Health. Clinical Practice Guidelines: Pregnancy Care. Canberra: Australian Government Department of Health; 2018 (last updated June 2019). Available from: https://beta.health.gov.au/resources/publications/pregnancy-care-guidelines
2. Department of Health WA. Epidemiology of STIs and BBVs in Western Australia: Public Health Unit; 2019. Available from: https://ww2.health.wa.gov.au/Articles/A_E/Epidemiology-of-STIs-and-BBVs-in-Western-Australia
3. Centers for Disease Control and Prevention [CDC]. Chlamydial infections: CDC; 2015 [cited 2019 Dec 10]. Available from: https://www.cdc.gov/std/tg2015/chlamydia.htm
4. Committee on Infectious Diseases, American Academy of Pediatrics, Kimberlin D, Brady M, Jackson M, Long S. **Red Book: 2018-2021 Report of the Committee on Infectious Diseases**. 31st ed. United States of America: American Academy of Pediatrics; 2018.
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6. Communicable Disease Control Directorate. Silver book - A guide for managing sexually transmitted infections and blood-borne viruses Department of Health Western Australia; 2019. Available from: https://ww2.health.wa.gov.au/~/media/Files/Corporate/general%20documents/Sexual%20Health/PDF/Silverbook.pdf

Related legislation and policies

Legislation-

- *Public Health Act 2016* (Part 9) (external site)
- *Public Health Regulations 2017* (external site)

Department of Health WA Policies-

- OD 0632/15 - Mandatory Testing of a Suspected Transferor for an Infectious Disease
- OD 0296/10 - Interagency Management of Children Under 14 Who are Diagnosed With a Sexually Transmitted Infection (STI)
- Adoption by WA Health of 'Series of National Guidelines' (SoNGS) produced by the Communicable Diseases Network Australia for public health management of communicable diseases - OD - 0660/16
- OD 0606/15: Guidelines for Protecting Children 2015

Related WNHS policies, procedures and guidelines

KEMH Clinical Guidelines:

Infection Prevention and Management:

- Measles
- Varicella Zoster

Obstetrics & Gynaecology:

- Infectious Diseases in Pregnancy: Congenital CMV
- Sexually Transmitted Infections (STI)
- Sexually Transmitted Infection in Pregnancy: Hepatitis B, Hepatitis C; Herpes; Syphilis
- Vaginal Procedures: Swabs- LVS, HVS, ECS and Rectal

Useful resources (including related forms)

Department of Health Western Australia web sites:

- About Child Abuse and Neglect
- Chlamydia
- Contacts for Patients - Where to Go
- Mandatory Reporting of Child Sexual Abuse
- Notification of Infectious Diseases and Related Conditions (notification forms, how to notify)

Let Them Know (external website)

Sexual Health Quarters (external website): Sexually Transmissible Infections and Blood-Borne Viruses (external website) (2016) (Guide for health promotion workers)

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