Chlamydia

Chlamydia trachomatis

What is Chlamydia?

- Most common sexually transmitted infection caused by the bacterium Chlamydia trachomatis.
- While symptoms may be mild or even absent, this infection can lead to serious complications if left untreated. Among these complications are:
  - Pelvic Inflammatory Disease (PID)
  - Chronic pelvic pain
  - Infertility in both women and men
  - Potentially fatal ectopic pregnancy
  - Serious eye infections or pneumonia in newborns
  - Premature delivery and low birth weight babies
  - Increased chance of becoming infected with HIV

Just how common is Chlamydia?

- Chlamydia is the most commonly reported communicable disease in Minnesota.
  - 70% of all the diseases reported to MN Department of Health are STDs.
- The lowest rate in MN was in 1996 at 115 cases per 100,000 people.
- In 2010, incidences more than doubled to 311 per 100,000 people.
  - These increases were seen across all gender, age, race, and geographical groups.
- While adolescents and young adults (those ≤ 25 years of age) have the highest rates and comprise the majority of cases, rates among males increased the most for those over the age of 50 years (40%) and among females for those 40-44 years (19%).
- HealthPartners (including Regions) reports an average of 100 cases per month.
How is Chlamydia spread?

- The most common method of transmission is by vaginal, anal, or oral sex.
- This bacterium can be transmitted from mother to baby during vaginal childbirth.
- Because the cervix of teenage girls and young women is not fully matured, it may be more susceptible to infection placing this group at higher risk of infection when sexually active.
- Since Chlamydia can be transmitted by oral or anal sex, men who have sex with men are also at risk for Chlamydia infection.

What are the symptoms?

- This disease is often considered to be “silent” because the majority of those infected have no symptoms.
- Symptoms can appear 7 to 21 days after exposure.
  - For Women:
    - Abnormal vaginal bleeding or discharge
    - Burning or pain during urination
    - Pain in the lower abdomen or lower back
    - Anal discomfort (Chlamydial infection of the cervix and spread to the rectum)
    - Nausea, fever and pain during intercourse
  - For Men:
    - Watery or thin white penile discharge
    - Burning or pain during urination
    - Burning or itching around the opening of the penis
    - Anal discomfort

What are the current screening recommendations?

- During routine health maintenance visits, assess for infection with Chlamydia in women who:
  - Are sexually active and are 25 years of age or younger
  - Have new or multiple sexual partners, regardless of age
  - Have a history of sexually transmitted disease within the last year, regardless of age
  - Have partners who have had multiple partners within the last year, regardless of age.
- Test all pregnant women at least once, regardless of age, including those who plan to terminate the pregnancy.
- Re-screen all women who tested positive, especially adolescents, 3-4 months after treatment due to the high incidence of re-infection.
- When it comes to the question of screening sexually active young men, there is insufficient evidence to recommend routine screening. However, it should be considered in clinical settings with a high prevalence of Chlamydia such as adolescent clinics, correctional facilities, and STD clinics.
How do we test for Chlamydia?

- Urogenital infections can be diagnosed by testing urine or by collecting swab specimens from the endocervix or vagina in women and the urethra in men.
- In persons who engage in receptive anal intercourse, testing can be done by obtaining a specimen via rectal swab.
- When collecting samples some key points to remember are:
  - For urine samples and male urethral swabs it is important that:
    - Patients should not have urinated for at least 1 hour prior to specimen collection.
  - For urine samples, patients should be directed to provide a first-catch urine sample, as sample of about 20-30 cc of initial urine stream). NOT a mid-stream collection that is used for urine cultures.

What is the treatment for Chlamydia?

- Treatment should be provided promptly for all persons testing positive for infection.
  - Delays in receiving treatment have been associated with complications.

<table>
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<tr>
<th>CDC Chlamydia Treatment Recommendations</th>
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<tr>
<td><strong>Adolescents and Adults</strong></td>
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<tr>
<td><strong>Recommended Regimens</strong></td>
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<tr>
<td>Azithromycin 1 gm PO x 1</td>
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<tr>
<td>OR</td>
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<tr>
<td>Doxycycline 100mg PO BID x 7 days</td>
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<td>No &quot;test of cure&quot;</td>
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A meta-analysis of 12 randomized clinical trials of Azithromycin versus Doxycycline for the treatment of genital Chlamydial infection demonstrated that the treatments were equally efficacious, with microbial cure rates of 97% and 98% respectfully.

Azithromycin should always be available to treat patients for whom compliance with multiday dosing is uncertain.

Azithromycin can easily be dispensed and given in the clinic under direct observed therapy making it a more cost effective treatment.

Erythromycin might be less efficacious than either Azithromycin or Doxycycline because of the frequent occurrence of gastrointestinal side effects leading to non-compliance.

Levofloxacin and Ofloxacin are effective treatment alternatives but are more expensive and offer no advantage in the dosage regimen.

To minimize disease transmission to sex partners, persons treated for Chlamydia should be instructed to:
- Take all medication as directed,
- Abstain from sexual intercourse for 7 days after single-dose regimens, or
- Abstain from sexual intercourse until completion of a 7-day regimen.

Either way, it’s only 7 days!

To minimize the risk of re-infection, patients should be instructed to abstain from sexual intercourse until all of their sexual partners have completed treatment.

What about follow-up?

Test-of-cure:
- Is not advised for persons treated with the recommended or alternative regimens, unless....
  - The patient is pregnant. Testing should be repeated no sooner than 3 to 4 weeks after completion of therapy.
  - Therapeutic compliance is in question.
  - Symptoms persist.
  - Re-infection is suspected.

The validity of Chlamydial diagnostic testing at less than 3 weeks has not been established.
- False-negative results might occur in the presence of persistent infections involving limited numbers of Chlamydial organisms.
- False-positive results might occur in the presence of non-viable organisms.
  - In other words, the test can result positive in the presence of both living and dead Chlamydia bacteria.

That said, most post-treatment infections result from re-infection caused by failure of sex partners to receive treatment or the initiation of sexual activity with a new infected partner.
Management of Sex Partners:

- Patients should be instructed to refer their sex partners for evaluation, testing, and treatment if they had sexual contact during the 60 days preceding onset of symptoms or diagnosis.
- If patients are hesitant or not willing to do this they can be directed to the following website where they can notify them anonymously:
  - www.inSPOT.org

Pregnancy Considerations:

- Clinical experience and published studies suggest that Azithromycin is safe and effective for treating pregnant women.
- Doxycycline, Ofloxacin, and Levofloxacin are contraindicated in pregnant women.
- Repeat testing to document Chlamydial eradication at least 3 weeks after completion of therapy is recommended for all pregnant women.
- Women ≤ 25 years of age and those at increased risk for Chlamydia should be retested during the third trimester to prevent maternal postnatal complications and Chlamydial infection in the infant.
- Pregnant women diagnosed with a Chlamydial infection during the first trimester should not only receive a test to document Chlamydial eradication, but be retested 3 months after treatment.

Resources:

1. CDC: http://www.cdc.gov/std/treatment/default.htm
2. MDH: http://www.health.state.mn.us/divs/idepc/diseases/chlamydia/index.html
3. inSPOT: www.inspot.org
4. ICSI Guideline, Preventive Services for Adults: http://www.icsi.org/guidelines_and_more/gl_os_prot/preventive_health_maintenance/preventive_services_for_adults/preventive_services_for_adults__11.html

Questions: Please reply to this e-mail, and your questions(s) will be directed to the author of this Pearl, Tom Michels, RN.

Pearl Archive: http://www.healthpartnersime.com

All Pearl recommendations are consistent with professional society guidelines, and reviewed by HealthPartners Physician Leadership.