take action on HEDIS

Chlamydia Screening: A new HEDIS measure important to your members

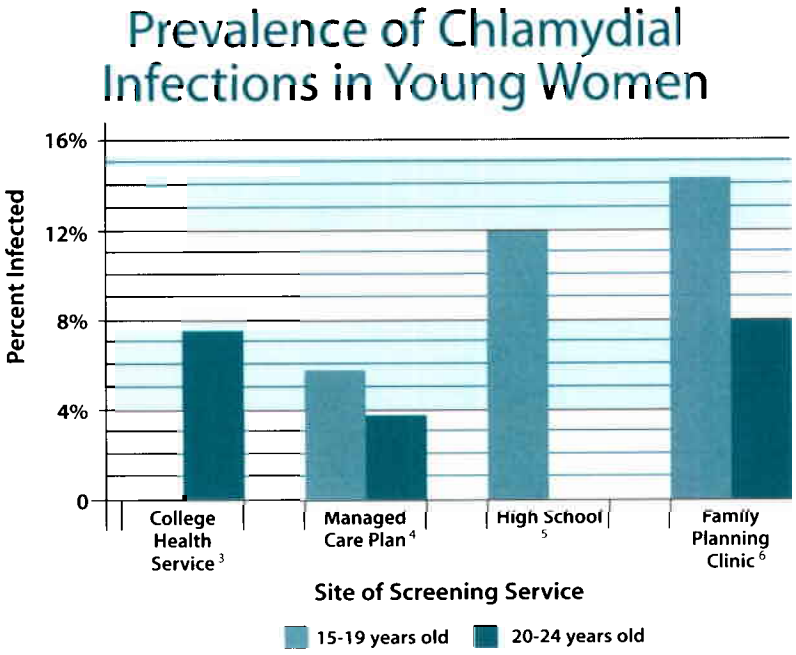
Screening for *Chlamydia trachomatis*, the most common bacterial sexually transmitted disease in the U.S., is included as a HEDIS (Health Plan Employer Data and Information Set) 2000 measure. This HEDIS indicator measures the proportion of sexually active females between the ages of 15 and 25 who were screened for chlamydial infection annually. Annual routine testing of sexually active women is the best way to identify and subsequently treat women, since up to 75% of women with chlamydia have no symptoms of disease. Untreated chlamydia can result in pelvic inflammatory disease (PID), leading to infertility or ectopic pregnancy. Inexpensive, highly sensitive and specific screening tests are now available and permit urine to be used as the test specimen. Chlamydia testing is important for managed care for several reasons:

Chlamydia screening dramatically reduces costs of care in MCO

- When left untreated, up to 40% of chlamydia cases will develop into pelvic inflammatory disease (PID) at a cost of at least $1,167 per patient[1]. The nation spends approximately $1.7 billion in direct and indirect costs for chlamydial infections each year.
- Seventy percent of the costs attributable to PID occur during the 12 months following infection.
- PID costs can be avoided — A randomized controlled trial of chlamydia screening and treatment in an HMO demonstrated a 56% reduction in the incidence of PID in the 12 months following the intervention[2].

Chlamydia is a problem in your population

- *Chlamydia trachomatis* is the most common bacterial STD in the U.S.; an estimated 3 million new cases of chlamydia occur each year.
- Multiple studies in health plans, OB/GYN offices, family medical practices, and other private practice settings have demonstrated 5% to 15% of women of reproductive age are infected with chlamydia.
- Based on reports to the federal Centers for Disease Control and Prevention, teenage girls are at greatest risk for chlamydial infection.
  - — 15- to 19-year-old females represent 46% of infections.
  - — 20- to 24-year-old females represent another 33%.



Avoid missed opportunities to identify and treat chlamydia

Most women infected with chlamydia trachomatis have no symptoms of disease, thereby minimizing the chances they will seek care. Therefore, it is critical that clinicians seize opportunities to test women at risk for chlamydia whenever possible. Any young woman under age 25 who is sexually active is at risk for chlamydial infection. In order to avoid missed opportunities to prevent the harmful consequences of untreated chlamydia and to increase compliance with the HEDIS chlamydia testing measure, routine testing for chlamydia should be provided for young women 15 to 25 years old who are seeking care for any of the following reasons:

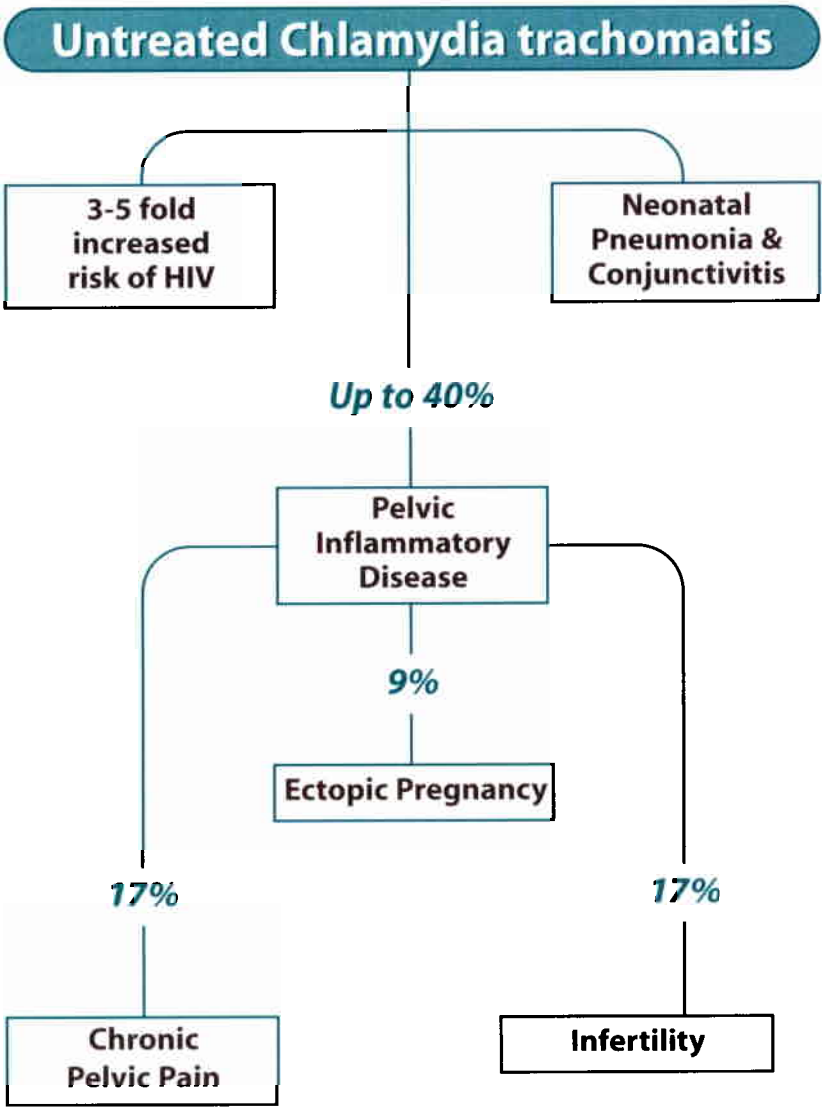
- she suspects she is pregnant
- she has a history of any sexually transmitted disease
- she is seeking contraceptive services
- she is seeking gynecological services
- she has indicated that she has been sexually assaulted or abused
- she indirectly indicates that she may have had sexual relations

Upon recognizing a young woman is at risk, clinicians should:

- provide appropriate STD prevention counseling, and
- set up a reminder system in the patient's chart to routinely test for chlamydia, as well as other common STDs.

Chlamydia screening results in healthier women and better pregnancy outcomes

- Of women with untreated chlamydia who develop PID, approximately 1 in 5 will become infertile, almost 1 in 5 will suffer from chronic pelvic pain, and nearly 1 in 10 will have an ectopic (tubal) pregnancy[7].
- A woman infected with chlamydia has a 3- to 5-fold increased risk of acquiring HIV infection[8]. The lifetime cost of HIV infection is estimated to be $195,188[9].
- Chlamydia is one of the most common causes of eye infections and pneumonia in young infants; more than 50% of pregnant women with chlamydial infection will deliver an infected baby.



Testing and treatment issues for Chlamydia trachomatis infections in women

Testing Issues

Many different screening tests for Chlamydia trachomatis are currently available. Commonly known tests are chlamydia culture, DNA probe, and enzyme immunoassay (EIA). New, highly sensitive and specific nucleic acid amplification tests are the current state-of-the-art in chlamydia test technology. Until recently, the only option for a woman who wished to be screened for chlamydial infection was to undergo a pelvic examination, during which the clinician would swab her cervix to obtain a sample of epithelial cells. The swab was then transported to a laboratory, where it was processed according to manufacturers' test specifications. Results are usually available within 48 hours of receipt by the laboratory. Nucleic acid amplification technology permits urine as a test specimen, thereby avoiding a clinical pelvic exam for the patient. A brief review of advantages and disadvantages follows:

Test	Advantages	Disadvantages
Culture	• Specificity[10] nears 100%, thereby reducing the potential for false positive results	• Requires a skilled laboratorian, is labor-intensive, and expensive. • Sensitivity[11] is about 80% • Cervical specimens only
DNA Probe	• More stable transport of specimens • Less expensive than culture.	• Cervical specimens only • Sensitivity is about 65%
EIA	• Less technically demanding than culture • Less expensive	• Cervical specimens only • Sensitivity is about 60%
Nucleic acid amplification	• 90% or greater sensitivity and specificity • Can use either urine or cervical swabs as specimens	• More expensive than DNA Probe or EIA

Tests with lower sensitivity may not identify those women who are actually infected, and who, if undetected, will progress to pelvic inflammatory disease without appropriate treatment. Tests with lower specificity will erroneously classify uninfected women as infected, often causing significant stress in relationships between a woman and her sex partner, as well as unnecessary treatment. Nucleic acid amplification tests combine high sensitivity and high specificity with the added ability to use urine or cervical swabs as specimens.

Treatment Issues

Once a woman is identified as infected, several challenges still remain. The first is the choice of treatment. The two first-choice treatment regimens are a single dose of azithromycin, or 7 days of doxycycline, twice a day. Azithromycin is more expensive than doxycycline, but compliance is assured because it is one-dose treatment. Providers must weigh the benefits of assurance that their patients are immediately treated with the downside of a more expensive medication.

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The final challenges are counseling the patient and treating all sex partners, so that reinfection does not occur. It is important that the patient understand the likelihood that she will be reinfected unless all of her sex partners are free of chlamydial infection. For an in-depth discussion of counseling, or other information on STD prevention, the American Social Health Association (ASHA) publishes a series of brochures on women's health, counseling and preventing STDs. These materials may be accessed at *www.ashastd.org*.

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[1]Rein D. Kassler W. Irwin K. Rabiee L. Direct medical cost of pelvic inflammatory disease and its sequelae: decreasing, but still substantial. Obstetrics & Gynecology. 95(3):397-402, 2000 March

[2]Scholes, D, et al. Selective screening for chlamydia reduces the incidence of pelvic inflammatory disease: results from a randomized intervention Trial. NEJM 1996; 334(21);1362-6

[3]Finelli L. Nakashima AK. Hillis S. Crayne E. Spitalny KC. Selective screening versus presumptive treatment criteria for identification of women with chlamydial infection in public clinics: New Jersey. American Journal of Obstetrics & Gynecology. 174(5):1527-33, 1996 May.

[4]Kaiser Permanente, Northern California. Preliminary data from June-December 1999.

[5]Burstein GR. Waterfield G. Joffe A. Zenilman JM. Quinn TC. Gaydos CA. Screening for gonorrhea and chlamydia by DNS amplification in adolescents attending middle school health centers. Opportunity for early intervention. Sexually Transmitted Diseases. 25(8):395-402, 1998 Sep.

[6]Han Y. Coles FB. Hipp S. Screening criteria for chlamydia trachomatis in family planning clinics: accounting for prevalence and clients' characteristics. Family Planning Perspectives. 29(4):163-6, 1997 Jul-Aug.

[7]Westrom L. Joesoef R. Reynolds G. Hadgu A. Thompson SE. Pelvic inflammatory disease and fertility: A cohort study of 1,844 women with laparoscopically verified disease and 657 women with normal laparoscopy. Sex Transm Dis 1992;19:185-192

[8]Fleming DT, Wasserheit JN. From Epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. Sex Transm Inf 1999;75:3-17

[9]Holtgrave DR, Pinkerton SD. Updates of cost of illness and quality of life estimates for use in economic evaluations of HIV prevention programs. J Acquir Immune Defic Syndr Humn Retrovirol 1997 16:54-62

[10]Specificity is defined as, "...the probability of testing negative if the disease is truly absent..." by Hennekens CH, Buring JE, Epidemiology in Medicine. Little, Brown & Company, 1987. p. 332

[11]Sensitivity is defined as, "the probability of testing positive if the disease is truly present...", ibid.

For more information, see
http://www.cdc.gov/nchstp/dstd/HEDIS.htm

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