



Chlamydia screening: How we can better serve patients

Consider adding automatic prompts to your electronic health record system or partnering with your local health department.

Detection of *Chlamydia trachomatis* infection—the most commonly reported bacterial infection in the United States—falls primarily to patients' personal physicians, not to sexually transmitted disease (STD) clinics or local health departments, as we'll describe in a bit. And yet, fewer than half of personal physicians routinely screen for it.¹

Left untreated or allowed to recur, chlamydial infections are significant causes of pelvic inflammatory disease, chronic pelvic pain, ectopic pregnancy, and infertility. Chlamydia cases reported to the Centers for Disease Control and Prevention (CDC) exceeded 1 million for the first time in 2006, and the CDC estimates that more than 2 million Americans between the ages of 14 and 39 years are infected.² Most, if not all, of this increase is likely due to increased test sensitivity, expanded screening services and opportunities, and improved reporting, as well as the continuing high disease burden. Recent work suggests there may also be an increase in prevalence in the Pacific Northwest.3

The CDC established screening guidelines for chlamydial infection more than 10 years ago. However, despite long-standing and widely published screening guidelines, most young women who should receive this service do not. This fact has led the US Preventive Services Task Force (USPSTF) to identify chlamydia screening as one of the most important underused clinical preventive services.^{4,5}

USPSTF screening guidelines for chlamydia infection⁶

- Screen for chlamydial infection in all sexually active nonpregnant women ages 24 and younger, and in older nonpregnant women who are at increased risk. (Grade A recommendation)
- Screen for chlamydial infection in all pregnant women ages 24 and younger, and in older pregnant women who are at increased risk. (Grade **B** recommendation)
- Routinely screening for chlamydial infection in women ages 25 and older is not recommended, whether or not they are pregnant, if they are not at increased risk. (Grade **C** recommendation)
- Current evidence is insufficient to assess the balance of benefits and harms of screening for chlamydial infection in men. (Grade I statement)

(See http://www.ahrq.gov/clinic/uspstf/ grades.htm for details on the USPSTF's grading system.)

Most patients are screened by their personal physicians

To help improve screening rates, we must understand the status of screening site availability as well as usage patterns. Using state case and Infertility Prevention Program data, we examined screening sites in Illinois counties (defined as urban or rural) for women who tested positive for chlamydia in the period 2002 through 2006. For both urban and rural

Wiley D. Jenkins, PhD, MPH; Jerry Kruse, MD, MSPH

Department of Family and Community Medicine, Southern Illinois University School of Medicine

wjenkins@siumed.edu

The authors reported no potential conflict of interest relevant to this article.

Screen for chlamydial infection in all sexually active women ages 24 and younger and all older women at increased risk. counties, more cases were identified by personal physicians than any other site or provider type (39% of all urban cases; 58% of all rural cases). Personal physicians and hospitals, combined, accounted for more than 53% of reported cases in each group. This is important because most chlamydia cases were identified at health care sites other than those that usually receive federal and state funding for chlamydia screening—local health departments and STD clinics. Reliance on these institutions to significantly reduce the chlamydia epidemic is unrealistic.

To address the issue of screening by personal physicians, the CDC's Division of STD Prevention collaborated with the National Committee for Quality Assurance to develop the "Chlamydia Screening in Women" measure for the Health Care Effectiveness Data and Information Set (HEDIS). Chlamydia screening is now a covered benefit in many managed care plans, but actual screening rates in physician offices are still only approximately 37%.¹ What are the barriers that contribute to such a low rate?

Barriers to chlamydia screening

There are many reasons for inconsistent screening, including flaws in training and practice at the individual level and flaws in regional and national health system design and implementation. Following are several barriers that we must overcome to optimize screening:

1. Lack of awareness by physicians. The extent of chlamydial infections, locally and nationally, may not be sufficiently understood. Likewise, physicians may lack awareness of screening guidelines and not appreciate their role in detecting infection. Every medical school and training program (even postgraduate) should use the guidelines to reinforce the critical role personal physicians have in addressing this national epidemic. Without consistent and widespread compliance with screening guidelines by physicians, reductions in chlamydia rates are unlikely.

2. Uneasy patient-physician relationships. Many patients and their physicians lack relationships that foster open discussions of sexual issues. Adolescents and young adults are notoriously reticent about discussing sexual behavior, and approximately 70% of chlamydial infections in females are asymptomatic.⁷ Therefore, physicians cannot rely solely on suggestive health histories and clinical presentations to prompt a discussion of chlamydia.

3. Wide prevalence of chlamydial infection. While there are significant correlations between minority and socioeconomic status and infection rates, chlamydial infection is too widespread to base screening decisions on these criteria alone. A particularly important factor contributing to the chain of infection is local social-sexual networks. Perpetuation of these networks contributes to sustaining endemic disease levels through infection and reinfection. Interrupting these networks can directly affect the health of a wide circle of individuals.

4. Insufficient time and reimbursement. Primary care physicians report significant dissatisfaction with the short time allocated for individual visits and a relative decline in reimbursement. Such time pressure often leads to a focus on chief complaints; health maintenance and screening discussions are often omitted. Future payment mechanisms for care coordination and performance may remedy this problem.

5. Inadequate health information technology. The promises of health information technology are often unfulfilled, and office-based electronic health records (EHRs) frequently do not provide point-of-service information that would improve screening compliance. Lack of efficient interfaces for electronic records and databases makes regional health information exchange difficult. Improving electronic communication among health care professionals will likely improve primary and secondary prevention measures.

6. Generally poor integration of public health and medicine. The United States spends a smaller portion of its health care budget on public health than most other industrialized nations. Academically, a vast divide exists between most institutions of public health and medicine. And at the community level, there is a lack of integration of public health services and physician practices. The example of chlamydia screening underscores the need for reform of the US health care

It's unrealistic to rely on local health departments and STD clinics to significantly reduce the chlamydia epidemic. system to include greater emphasis on, and integration with, public health, preventive medicine, and primary care.

7. Deficient access to health care. One-sixth of the US population is without health insurance,⁸ and many who have insurance lack benefits that fully cover preventive medicine and screening. Reform of the US health care system to provide easy access to care is more likely to improve a broad range of health outcomes than the development of smaller, fragmented programs focused on specific conditions. This, again, has direct implications for chlamydia control and spread via social-sexual networks.

Our recommendations

1. Reacquaint yourself with the USPSTF screening guidelines and commit to following them rigorously in practice. This will necessitate examining your relationship with eligible patients, developing mechanisms to regularly discuss sexual health and STD issues, and consistently providing screening.

2. Make screening a routine part of care at recommended opportunities. If you use an EHR, consider working with the vendor to construct appropriate automatic prompts. Those with traditional systems may want to include a systematic chart addition and audit.

3. Consider becoming a policy advocate. There are serious health system flaws that hinder efforts to stem the chlamydia epidemic. Many of these system flaws are best addressed by state or national policy change and through new incentives for financial rewards for physicians.

4. Actively partner with local public health departments to expand screening services to those at risk. A study by Ward demonstrated that increasing screening in communities with endemic disease might have the greatest effect on the local population and its sexual networks.⁹ JFP

CORRESPONDENCE

Wiley D. Jenkins, Department of Family and Community Medicine, Southern Illinois University School of Medicine, 913 N. Rutledge Street, P.O. Box 19671, Springfield, IL 62794-9671; wjenkins@siumed.edu

References

- National Center for Quality Assurance. Improving Chlamydia Screening: Strategies From Top Performing Health Plans. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; December 2007.
- Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2006 Supplement, Chlamydia Prevalence Monitoring Project Annual Report 2006. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; December 2007.
- Fine D, Dicker L, Mosure D, et al. Increasing chlamydia positivity in women screened in family planning clinics: do we know why. *Sex Transm Dis*. 2008;35:47-52.
- Coffield AB, Maciosek MV, McGinnis JM, et al. Priorities among recommended clinical preventive services. Am J Prev Med. 2001;21:1-9.
- Maciosek MV, Coffield AB, Edwards NM, et al. Priorities among effective clinical preventive services: results of a systematic review and analysis. *Am J Prev Med.* 2006;31:52-61.
- US Preventive Services Task Force. Screening for chlamydial infection: US Preventive Services Task Force Recommendation Statement. Ann Intern Med. 2007;147:128-133.
- Centers for Disease Control and Prevention. Chlamydia-CDC fact sheet. Available at: http://www.cdc.gov/std/chlamydia/ STDFact-Chlamydia.htm. Accessed January 1, 2010.
- US Census Bureau. Income, poverty, and health insurance coverage in the United States: 2008. Available at: http://www.census. gov/prod/2009pubs/p60-236.pdf. Accessed: December 15, 2009.
- Ward H. Prevention strategies for sexually transmitted infections: importance of sexual network structure and epidemic phase. Sex Transm Infect. 2007;83(suppl 1):i43-i49.

Your EHR vendor should be able to add automatic prompts to your system to remind you to screen appropriate patients.