Approaches to Chlamydia Screening

One Size Does Not Fit All

IN THIS ISSUE OF THE *ARCHIVES*, TEBB ET AL[1] describe a strategy for increasing *Chlamydia trachomatis* (CT) screening rates among adolescent girls who make urgent care visits to a large health maintenance organization (HMO). Why is such a study important? *C trachomatis*, the most common bacterial sexually transmitted infection in the United States, disproportionately affects sexually active women between the ages of 15 and 24 years.[2] The vast majority of CT infections are asymptomatic[3]; therefore, most infections will be detected only through systematic screening efforts. Left untreated, CT may progress to pelvic inflammatory disease with possible sequelae of infertility and ectopic pregnancy.[3]

Many organizations, including the Centers for Disease Control and Prevention[3] and the US Preventive Services Task Force,[4] have written guidelines recommending annual CT screening in sexually active females aged 25 years and younger. However, many eligible adolescent girls and young adult women are not screened.[5] There are many reasons for this, including but not limited to perceived lack of privacy at the testing site, fear of finding out that one has a sexually transmitted disease or AIDS, denial of personal risk, the testing experience being too embarrassing, lack of health insurance, or no identified source of regular health care.[6]

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Several investigators have explored novel ways to expand CT screening outside of clinical settings. Many of these strategies were inspired in part by the development of highly accurate, urine-based, nucleic acid amplification tests that are stable at room temperature. This advance in testing technology simplified the collection of specimens, their storage, and their transport to the laboratory. Effective approaches have ranged from screening in mobile vans[7] to home sampling,[8] collecting samples in parks[9] and in schools,[10-12] screening on admission to residential settings such as detention facilities, job training programs, and the military,[13-18] and screening with home sampling kits obtained via the Internet.[19]

But what about opportunities to screen adolescents who do seek care at their primary care provider's office, even if not for a health maintenance visit when screening would most logically be performed (a situation analogous to immunizing children during sick visits)? Tebb and colleagues describe an HMO-based clinical practice improvement (CPI) intervention to increase CT screening during urgent care visits to pediatric clinics. This strategy was adapted from a similar CPI intervention that successfully increased CT screening among adolescent girls during routine health maintenance visits.[20]

The results of this study are very promising in that over time, the predicted proportion of eligible teens who were screened for CT increased substantially in the intervention group (15.93%) while decreasing slightly in the control group (−2.13%). These results suggest that it is possible to implement an intervention that leads to increased CT screening of sexually active teens during urgent care visits.

An important feature of the CPI was identifying as many steps of the screening process that could be redirected from the clinician to other clinic staff and to the patient as possible. With this type of teamwork, screening could be implemented in an efficient way with a minimal effect on the amount of time needed by the clinician to complete the urgent care visit. The investigators also developed and made available many tools to assist clinics in implementing the screening intervention. These key features could be used by health care providers in a variety of practice settings.

As noted by Tebb and colleagues, the generalizability of the findings may be limited to similar HMOs with adolescent medicine providers in positions of leadership within the organization. Implementation of CT testing during urgent care visits has a better chance of success when the organization's administration values CT screening enough to invest in staff resources, free CT testing, and methods to protect confidentiality. Other practice settings may not have the same infrastructure or resources as this HMO, which could lessen the effect of the Adolescent Care Team. Non-HMO settings often have difficulty providing completely confidential CT testing because laboratory bills or explanation-of-benefits forms may be sent to the adolescents' parents. Finally, urgent care providers whose patients' ages cover the lifespan (eg, internists, family medicine, or emergency medicine) may not be as amenable to this type of CPI as those who care for pediatric patients only. It would be important to test this model in non-HMO settings, with particular attention directed toward these challenging issues.

As with any intervention, the robustness of the CPI's effects may decline after the intervention comes to a close. Follow-up data from these clinics to evaluate whether the effects are durable after the intervention concludes will be important. If indeed the effects continue beyond the active intervention, with or without periodic booster doses, implementation of this type of model may be more financially feasible and appealing to decision makers in

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other clinical settings. Pediatric care providers can examine their own practices to determine whether lessons from the study by Tebb and colleagues can be applied to their systems of care.

New approaches to CT screening are needed given that many adolescents have CT infections that are not detected in a timely fashion. Although the CPI intervention discussed by Tebb and colleagues resulted in a substantial increase in CT screening, 58% of sexually active adolescents receiving urgent care at the intervention clinics were not screened. Because adolescents are a heterogeneous group, multiple systems for CT screening will likely be needed. For example, a clinician who feels that he or she cannot provide screening in his or her practice setting or at an acute care visit might provide sexually active adolescents with a list of local clinics or other sites that do provide free and confidential screening; alternatively, the clinician or staff could make certain that the adolescent schedules a health maintenance visit before leaving the office. A Web site address for obtaining CT screening kits via the Internet could be provided if this service is available in the local community.[19] Social marketing could be used to stimulate adolescent interest in various screening options. Ongoing access to CT screening in nonclinical settings with proven success as well as further exploration of novel settings for screening will also be important. The more possibilities there are for an adolescent to "bump into" a screening opportunity, the fewer holes there will be in the patchwork of screening options, which will increase the probability of approaching 100% CT screening of sexually active adolescents. This is a lofty goal, but one well worth pursuing. The study by Tebb and colleagues moves us a step closer to this goal.

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