Abstract title (max 150 characters):

VANISHING UNDIAGNOSED GONOCOCCAL INFECTIONS IN AN URBAN AMERICAN COMMUNITY

Abstract text (max 2000 characters):

Objective: The Monitoring STIs Survey Program (MSSP) monitors trends in undiagnosed STIs among adolescents and young adults in an urban community in Maryland, US with historically high incidence of diagnosed STIs and high prevalence of undiagnosed STIs. We estimated the prevalence of undiagnosed gonococcal (GC) and chlamydial (CT) infections in 2006-2008 and compared these figures with data from a similar population survey conducted in the same community nearly a decade earlier (JAMA 2002 287:726). Methods: From a probability sample of persons 15-35 years of age residing in community households with landline telephones, urine specimens were sent to the laboratory by mail with informed consent for STI testing. We used APTIMA Combo2 (Gen-Probe, Inc.) for GC/CT testing. Samples with initial positive results were retested and considered positive if both tests were positive. To assess effects of specimen collection and transport, negative urines were spiked with known concentrations of GC, mailed to the laboratory and tested. In the prior survey, urine collected at the household was kept chilled until laboratory testing by ligase chain reaction (LCx, Abbott). Results: Among 1712 urines tested, median volume was 60 mL (range, 10-100 mL). Samples were processed a median of 4 days after collection (range, 1-203 days). Under similar conditions, urines spiked with > 250 cfu GC/mL (limit of detection for the assay) and mailed into the laboratory uniformly tested positive. Preliminary estimates show lower rates of undiagnosed GC and similar CT infection rates in the MSSP compared to the prior survey (Table).

Survey period (reference)	Estimated % GC Prevalence	Estimated % CT Prevalence

1997-1998 (JAMA 2002 287:726)*	5.3 (SE, 1.4)	3.0 (SE, 0.8)
2006-2007 (current study)	0.1 (95% CI, 0.0 - 0.7)	4.6 (95% CI, 2.8 - 6.5)
2007-2008 (current study)	0.1 (95% CI, 0.0 - 0.6)	2.9 (95% CI, 1.3 - 4.4)
*Previous study population included ages 18-35.		

Conclusions: The diagnostic test had expected analytical sensitivity, even with specimens that exceeded recommended limits for urine volume and storage time. Alternate explanations for the observed decline in prevalence of untreated GC in this urban US community (e.g. variation in specimen collection and testing, decline in population prevalence of treated and untreated infection) are explored.

Mode of presentation (Abstract topics)

14 Track C: 21-STI surveillance, monitoring & evaluation

05 Track A: 05-STI / HIV diagnostics

Presentation method

No preference (oral or poster)

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