

Screening of Chlamydia trachomatis urogenital infections among the male and female population of the Republic of Macedonia.

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ABSTRACT: Noninvasive urine screening for Chlamydia trachomatis infections offers a valuable public health tool, that could be of vast importance in Chlamydia control programs. The goal was to determine the prevalence of C. trachomatis infections among a sexually active population, to define the epidemiological factors associated with it, and to develop potential selective screening strategies among asymptomatic individuals in the Republic of Macedonia, using a highly sensitive and specific DNA amplification method for C. trachomatis. A total of 1435 urine samples, divided into two main groups: asymptomatic individuals (n = 1210) and symptomatic patients (n = 225), were tested. Samples from the asymptomatic group were collected during routine screening programs, while the symptomatic group consisted of patients with symptoms of urogenital tract infection, attending sexually transmitted diseases (STD) clinics. The presence of C. trachomatis was determined using commercial AMPLICOR C. trachomatis Assay (Roche Diagnostic Systems, Inc., Branchburg, NJ, USA). The prevalence of C. trachomatis infections among different groups was: recruits 0%, soldiers 0.4%, policemen 3.5%, clerks 4.6%, pregnant women 4%, and students 4.4%. The average prevalence for both groups (asymptomatic and symptomatic) was 2.3%[95% confidence interval (CI): 1.5-3.1%]. The average prevalence for the asymptomatic group was 1.6% (95% CI: 0.8-2.4%), while the average prevalence for the symptomatic group was 6.2% (95% CI: 3.1-9.3%) which were significantly different (P = 0.00003). Testing first void urine specimens by AMPLICOR C. trachomatis assay is a highly sensitive and specific method for diagnosing C. trachomatis infections in men and women. This method provides health care workers and public health officials with a new molecular amplification assay that uses noninvasive urine specimens for population-based screening purposes. The prevalence of C. trachomatis was relatively low among asymptomatic individuals. However, selective screening strategies are highly recommended for testing the student population in the Republic of Macedonia.

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