

## Abstract

**BACKGROUND:** Sexually transmitted infections (STIs) continue to exert a tremendous health burden on women in developing countries. Poor socioeconomic status, inadequate knowledge, lack of diagnostic facilities, and shortages of effective treatment all contribute to the high incidence of STIs. The use of clinical algorithms for the detection and management of STIs has gained widespread acceptance in settings where there are limited resources. Evaluation of these algorithms have been few, especially in women who are not recognized as members of high-risk groups. **OBJECTIVES:** To develop a simple scoring system based on historical and demographic data, physical findings, microscopy, and leukocyte esterase (LE) urine dipsticks to predict cervical gonococcal and chlamydial infection among asymptomatic women. **METHODS:** One thousand and forty-eight women attending an urban family planning clinic in Nairobi were randomly selected to participate. After the identification of factors that were associated with infection, we assigned one point each for: age 25 or younger, single status, two or more sex partners in the past year, cervical discharge, cervical swab leukocytes, and a positive LE urine dipstick. Identification of any one of these six factors gave a sensitivity of 85% and a specificity of 30% for the detection of cervical infections. A positive LE urine dipstick had a sensitivity of 63% and a specificity of 47% when used alone and did not contribute to the identification of infection if a physical examination was performed. The application of existing clinical algorithms to this population performed poorly. **CONCLUSIONS:** The use of risk scores, physical examination, microscopy, and the urine LE dipstick, used alone or in combination, as predictors of gonococcal or chlamydial cervical infection was of limited utility in low-risk, asymptomatic women. Accurate diagnostic testing is necessary to optimize treatment. **PIP:** This cross sectional study presents a risk scoring system that would identify women at highest risk for sexually transmitted infections (STIs). 1058 randomly selected women participated in the study in Nairobi, Kenya; of these, 1048 participants were included in the analysis. The study was conducted from May 1994 to July 1995 at a clinic sponsored by the Family Planning Association of Kenya. Information pertaining to the demographic, behavioral and social characteristics of the participants was gathered. In addition, a clinical algorithm, which includes physical examination, microscopy, and leukocyte esterase (LE) urine dipsticks, was employed to detect gonorrhea and chlamydia infections among asymptomatic women. The results revealed that the prevalence of STIs, including HIV-1, was high among women attending this urban family planning clinic. Standard demographic, behavioral, and clinical characteristics were only weakly associated with infection, resulting in poor sensitivity and specificity calculations in the risk scores. Detection of cervical infections gave a sensitivity of 85% and a specificity of 30%. A positive LE urine dipstick had a sensitivity of 63% and a specificity of 47%. Although the addition of physical examination and LE dipstick to the work-up improved the sensitivity of case detection, it did not improve the overall validity of the scoring system.