

Leukocyte esterase urine strips for the screening of men with urethritis--use in developing countries

Tyndall, MW; Nasio, J; Maitha, G; Ndinya-Achola, JO; Plummer, FA; Sellors, JW; Luinstra, KE; Jang, D; Mahony, JB; Chernesky, MA

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Abstract:

The leukocyte esterase (LE) strip is a useful tool for the screening of men with urethritis. In developing countries, where laboratory facilities are limited, and sexually transmitted diseases endemic, simple and inexpensive diagnostic tests which perform well, would be of great value. **METHODS:** Men presenting with urethritis to a referral clinic for sexually transmitted diseases in Nairobi, Kenya participated in this cohort analytical study. First-void urine was collected for LE dipstick testing as part of the diagnostic work-up. The results of the dipstick measurement were compared with the laboratory detection of *Chlamydia trachomatis* and *Neisseria gonorrhoeae*. **RESULTS:** Of 200 men with symptoms of urethritis, 33 (17%) had a pathogen detected from the urethra or the urine. *Chlamydia* was detected in urine by PCR in 22 (11%), and gonorrhoea was cultured from the urethra in 11 (6%). Esterase activity (trace or greater) had a sensitivity of 76%, a specificity of 80%, a positive predictive value of 42% and a negative predictive value of 94% for the presence of chlamydia or gonorrhoea. **CONCLUSIONS:** The use of the LE dipstick for the screening of men with symptomatic urethritis can improve diagnostic accuracy and reduce the amount of empiric antimicrobial therapy. The low detection rate of chlamydia in these men with a clinical diagnosis of nongonococcal urethritis needs further study.