Chlamydia trachomatis is the most prevalent sexually transmitted bacterial infection, with an estimated annual worldwide incidence of 50 million cases. A large proportion of those infected, particularly women, are asymptomatic, and these individuals serve as a major reservoir of infection. Women are also at risk for serious reproductive tract complications with significant morbidity. In an effort to prevent spread of these infections, increased attention is being paid to early diagnosis and treatment. The introduction of sensitive and highly specific nucleic acid amplification tests for detection of C. trachomatis has made the use of noninvasive testing feasible in women. Recent studies have found that nucleic acid amplification tests are sufficiently sensitive to detect C. trachomatis in first-void urine in women. Sensitivities have exceeded 95% in most studies when compared to detection with non-culture tests of endocervical specimens as a standard, while at the same time preserving high specificities.