

Screening Test Information For Primary Care Providers

Nucleic acid amplification technology (NAAT) tests are the most appropriate technology for screening younger females in California. The combination of their significantly greater sensitivity and specificity and their ability to use non invasive urine samples in an environment like California, where the majority of infections are asymptomatic, make **NAAT tests the best choice for widespread detection of infections. The resulting increase in detection of infections will result in significant reductions in pelvic inflammatory disease and other sequelae, which more than offsets their higher cost.**

The sensitivity of NAAT tests (90-95%) is substantially higher than other classes of tests and so is their specificity (98-100%). NAAT tests can be performed on urine specimens, allowing for screening without a pelvic examination.

Several different testing technologies and a number of different commercial kits are currently available for screening asymptomatic patients for genital tract chlamydia infection. Screening tests should have both high sensitivity (limiting the number of infections that the test fails to detect, i.e. false negatives) and high specificity (limiting the number of uninfected patients labeled as positive, i.e. false positives). Four different classes of chlamydia tests are currently available for screening, including:

- **Nucleic acid amplification technology (NAAT)** (polymerase chain reaction [Roche *Amplicor CT*], ligase chain reaction [Abbott *LCx CT*], transcription mediated amplification [Gen-Probe *Amp CT* and *APTIMA*], and strand displacement amplification [Becton-Dickinson *BD Probe-Tec*])
- **Culture**
- **Antigen Detection:** DFA (e.g. *Microtrak*) and EIA (e.g. *Syva EIA*)
- **Nucleic acid probes** (Gen-Probe *PACE 2*)

Additional information is available at <http://www.ucsf.edu/castd>.

Although not a true NAAT, the Digene *Hybrid Capture 2* utilizes signal amplification and has similar performance characteristics.