

Health Need: Despite long-standing global public-health efforts to control sexually transmitted diseases (STDs), *Chlamydia trachomatis* infections still occur in epidemic proportions in the developing world and in parts of the United States. For more effective control, STD-control programs must offer early and accurate diagnosis of symptomatic infection and identification of invasive, complicated, or asymptomatic infections. The World Health Organization estimates there are 333 million new STD infections every year. Control of STDs is also considered to be an essential component in control of HIV/AIDS transmission.

Technology: The immunochromatographic (IC) strip test for chlamydia utilizes relatively inexpensive, off-the-shelf components, and can identify specific chlamydial antigens using cervical swabs and concentrated male urine. After an extraction step is performed on the specimen, the test can be completed in 15 to 20 minutes by technicians with minimal training. The strips are stable for months at ambient temperatures, if packaged appropriately.

Specific Applications: The simple, rapid IC strip for chlamydia will allow testing to be performed on direct clinical samples from patients in rural or smaller clinics. Accurate results can be returned within minutes, thereby allowing effective patient follow-up, additional counseling, and prescription of therapeutic drugs, if needed. The tests may also be used by epidemiological surveillance teams to gather baseline data, or to assess the effect of public-health interventions. A secondary application would be for case-finding and identification of persons with asymptomatic infections; this would be valuable, for example, for use in maternal and child health/family practice clinics in addition to STD clinics. The tests could also be used for confirmation of chlamydial infection at central reference facilities.

Current Status: This test is not yet commercially available. Research and product development is proceeding. Laboratory evaluations of the IC strip test for chlamydia indicate the test reacts with all chlamydia serovars, and is as sensitive as other commercial tests using a limited panel of clinical specimens. Verification of the test design with retrospectively collected clinical specimens is being conducted. Funding for the development of the chlamydia test has been provided by USAID under the HealthTech project as well as by UNFPA and the Bill & Melinda Gates Foundation under the Affordable Technologies for Health program.



IC Strip Test for Chlamydia

A rapid, easy-to-read, low-cost test for chlamydial infection

About the Test:

For further information, contact Program for Appropriate Technology in Health (PATH), Seattle, WA, USA (Roger Peck, telephone 206-285-3500, fax 206-285-6619, e-mail rpeck@path.org).

About HealthTech:

Technologies to meet the health care needs of women and children in developing countries are developed, adapted, or assisted by PATH with support from the United States Agency for International Development (USAID) under the Technologies for Health (HealthTech) Project.

About PATH:

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