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CLIENT-CENTERED COUNSELING

Client-Centered Counseling

- Client-centered counseling allows the client to take responsibility and to set goals that she/he can embrace
- Client-centered counseling involves:
 - Attending to the client by listening to and affirming the client’s feelings, concerns, and needs
 - Asking the client open-ended questions to elicit information about her/his needs
 - Offering options not directives about her/his choices for healthier behaviors
 - Giving information simply that is related to the client’s needs and concerns

The shift from information-based client education to client-centered care can be summarized by the statement, “Listen. Don’t explain or justify.”

- STD prevention messages must be client-centered; i.e., tailored to the behaviors, circumstances, and special needs of the person being served. Risk-reduction messages must be personalized and realistic. Counseling should be:
 - Culturally competent (i.e., program services provided in a style and format sensitive to cultural norms, values, and traditions that are endorsed by cultural leaders and accepted by the target population)
 - Sensitive to issues of sexual identity
 - Developmentally appropriate (i.e., information and services provided at a level of comprehension that is consistent with the age and learning skills of the person being served)
 - Linguistically specific (i.e., information is presented in dialect and terminology consistent with the client’s language and style of communication)

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- Client-centered care supports a client-centered value-neutral and non-directive counseling approach. This demands a personal awareness of one's own values and beliefs. A client's values may not mirror your own. By being aware of, and managing your personal and professional biases, you will be in a better position to reap the benefits of client-centered counseling strategies, as will your client.
 - Resources for more training on Client-Centered Counseling and Care:
 - Taking a Sexual History Video: available from Center for Health Training. This emphasizes a client-centered approach to gathering a client's sexual history.
 - Contraceptive Technology, 17th Edition: particularly chapter 10 on Education and Counseling
 - Writings on Behavior Change Theories, especially the Trans-theoretical model of Prochaska and DiClemente
 - Request training from Center for Health Training

KEY COUNSELING POINTS FOR CLIENTS DIAGNOSED WITH CHLAMYDIA

1. Communication
 - culturally appropriate
 - language and reading level
 - client-centered education and counseling; use of open-ended questions
2. Introduction
 - clinician's name and role
 - purpose of session
 - discussion of confidentiality
 - provide client with test results
3. Address Client's Concerns
 - What questions can I answer for you at this time?
 - How can I help you at this time?
4. Chlamydia Information
 - sexual transmission of chlamydia
 - asymptomatic nature of disease
 - testing and meaning of results
 - complications and consequences
 - risk of reinfection
5. Disease Management
 - treatment plan
 - side effects and drug interactions
 - abstinence (or alternatives) for duration of treatment
 - risk of other STDs
6. Risk Reduction Counseling
 - limiting number of sexual partners
 - consistent use of condoms
 - limiting use of alcohol, drugs, intravenous exposures
 - assessing client's safety or risk for relationship violence
7. Sex Partner Management
 - sexual history: # of sex partners last 60 days, date of last sex, protection
 - assessing client's ability to effectively refer her/his sexual partner(s)
 - enhancing client's ability to effectively refer partners by: modeling, role-play, providing strategies for partner notification and management
8. Closure
 - Any questions or other concerns?
 - medication
 - partner(s) management
 - safer sex/condoms
 - counseling
 - referrals
 - handouts and sources of further information
 - follow-up

INFERTILITY PREVENTION PROJECT ADVISORY COMMITTEE

VOTING MEMBERS

	ALASKA	IDAHO	OREGON	WASHINGTON
STD	Susan Jones	Anne Williamson	Doug Harger	Larry Klopfenstein
Family Planning	Cathy Feaster	Susan Ault	Carol Elliott	Jane Wilson
Lab	Shellie Smith	Sadika Kobic	Ed Schulmerich	Karen Crouse
Other	Anita Roth	Ella Gordon	Cate Wilcox	Katherine Gudgel

NON VOTING MEMBERS

REGION X INFRASTRUCTURE	
Project Coordinator	Elizabeth Patrick
Data Analyst	Nancy Palmer

COMMITTEE CHAIRS	
Lab	Karen Crouse
Data	Doug Harger
Clinical Services	Chris Knutson

CDC PROGRAM STAFF	
National IPP Coordinator	Dorothy Gunter
National IPP Coordinator for Lab & Technology	Jim Newhall
National IPP Surveillance Coordinator	Debra Mosure
Program Consultant	Jan Hiland
Indian Health Services	Lori de Ravello

INFERTILITY PREVENTION PROJECT SUBCOMMITTEES

LABORATORY	DATA	CLINICAL SERVICES
Karen Crouse Chair – Spokane Lab	Doug Harger Chair – CHT	Chris Knutson Chair – AK
AK: Shellie Smith	Susan Jones Kathy Feaster	Anita Roth
ID: Sadika Kobic	Anne Williamson Susan Ault	Ella Gordon Annabeth Elliott Brenda VandenBeld
OR: Ed Schulmerich	Doug Harger	Margaret Lentell
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Project Partners		Marjorie Witman – FP Nurse Consultant Public Health Region X Anne Meegan, Program Manager Seattle STD/HIV Prevention Training Center

REGION X INFERTILITY PREVENTION PROJECT
SPECIMEN ADEQUACY PROGRAM

Registration Form

Purpose: This is a Quality Assurance process to help assess the quality of Chlamydia (CT) specimen collection. It is not meant as an immediate correlation of your current testing method results with the specimen adequacy result. It is offered to facilities participating in the Region X Project.

Registration:

1. Complete the following information and send it to your CT testing laboratory.

2. Clinician name: _____

Clinician identifier that will be used throughout the specimen adequacy process:

(name, initial, clinician number or other)

Facility: _____

Address: _____

Telephone: _____

Contact person to receive results: _____

(supervisor or other)

Date request submitted: _____

3. Copy this completed page and mail/FAX it to your CT testing Lab. The original is for your reference. If you choose to call the Lab, they will fill out the form from the information you give over the phone and send a copy to the contact person.

Your testing Laboratory is: _____

Address: _____

Phone: _____

FAX: _____

REGION X INFERTILITY PREVENTION PROJECT

Specimen Adequacy - Procedure Information:

1. Enclosed are a set of 10 routine CT sample collection swabs AND 10 specimen adequacy swab/slides/slide-holder units.
2. The clinician collects all other specimens first then the CT samples as follows:
 - Routine CT swab: Collect sample and place the swab in the tube as indicated on the swab package.
 - Specimen Adequacy swab: Using the swab from the swab/slide/slide-holder set, collect the sample as done for the routine CT, then roll the swab over the circled area only on the slide. Do not drag or push the swab. Ensure that all surfaces of the swab come into contact within the circle and that the entire circled area is covered evenly with specimen. The result should be a thin even smear.
3. Label the slide. Using a pencil, write the patient's and clinician's identifier on the frosted area of the slide. Allow the sample on the slide to air dry completely before placing it inoculated side up into the slide holder.
4. Label the routine CT sample by your normal method plus add the clinician identifier to the bottom left area of the label.

***The collector's (clinician's) identifier needs to be consistent for all 10 patients.**
5. Rubber band the CT swab tube and the slide-holder (containing the slide) together. Ship these along with the regular Region X Chlamydia form to your testing lab as normally done.
6. The routine CT sample will be tested and the result returned to your facility in the normal manner.
7. A "Chlamydia Specimen Adequacy Report" will be sent to your supervisor. A Training Fact/Reference sheet will be included with results that do not meet the stated acceptable performance.
 - For training follow up, please call the contacts noted on the Training Fact/Reference Sheet.
 - To evaluate training needs, a copy of the clinician's results will be sent to your State's CT Infertility Prevention Project Coordinator.
 - For statistical purposes, non-identifiable data will be shared with the Region X Project Office at the Center of Health Training.

For questions or concerns regarding outcomes please call _____ ,
 your testing laboratory at _____ (phone).

**REGION X CHLAMYDIA PROJECT
Specimen Adequacy Program**

Evaluating Laboratory			
Submitter		Site Number	
Site Supervisor			
Clinician ID			
Date Started		Date Completed	

# Specs	Lab Number	Patient ID	Prove NAT EIA	Columnar Cells (adeq 10/slide)		Comments	Tech ID
				Adeq	Inadeq		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
			Total:				

Scoring Criteria:

- 8 – 10 adequate slides is considered to be acceptable performance.
- 0 – 7 adequate slides indicates that additional training is necessary to ensure high quality specimens in the future.

The purpose of the proficiency testing is to improve the quality of specimens. Clinicians who score less than 80% are requested to repeat the proficiency testing until a satisfactory score is achieved. A Training Fact/Reference Sheet is attached for your use.

FOR HEALTHCARE PROVIDER USE

Comments _____

Supervisor: _____ Date Reviewed: _____

Employee: _____ Date Reviewed: _____

SELECTIVE SCREENING CRITERIA FOR FP & EXPANSION SITES

1. Women 24 and under
2. A woman with any of these findings:
 - Cervical Findings of:
 - Mucopurulence
 - Friability
 - Ectopy with inflammation/edema
 - PID
 - Exposure to chlamydia (in last 60 days)
 - Positive for CT in last 12 months
 - Symptomatic sexual partner [past 60 days]
 - Pregnant
 - Pre-IUD insertion

SELECTED REPRODUCTIVE HEALTH WEBSITES & LINKS

<http://www.cdc.gov/nchstp/od/nchstp.html>

The Centers for Disease Control and Prevention, the National Center for HIV, STD, and TB Prevention (NCHSTP) is responsible for public health surveillance, prevention research, and programs to prevent and control human immunodeficiency virus (HIV), infection and acquired immunodeficiency syndrome (AIDS), other sexually transmitted diseases (STDs), and tuberculosis (TB).

<http://www.plannedparenthood.org/STI/chlamydia.htm>

Planned Parenthood Federation of America.

<http://www.ucsf.edu/castd/>

Information on chlamydia and a variety of other Sexually Transmitted Diseases (STDs).

<http://www.afraidtoask.com>

Information on a variety of health information, including sexually transmitted disease (STD) photos.

<http://www.hopkins-id.edu/isstdr/isstdr.html>

The Johns Hopkins University STD Research Group. Research focus is on the epidemiology, prevention, and behavioral aspects of Sexually Transmitted Diseases (STDs).

<http://www.kff.org/>

The Henry J. Kaiser Foundation. The Foundation's work is focused on four main areas: health policy, reproductive health, HIV policy, and health and development in South Africa.

<http://www.aphl.org>

Association of Public Health Laboratories (APHL)

<http://www.4girls.gov>

HHS Office on Women's Health new website targets girls 10-16 years old with reliable health information to help them make healthy choices as they grow into adulthood.

<http://www.4women.gov>

This site is part of the National Women's Health Information Center. The gateway to Federal women's health information resources in the Department of Health and Human Services.

http://www.maq.org/content_homepage/homepage_in-the-news_hipaa.html

The Medical Association of Georgia website contains useful information and links to other websites with useful information on HIPAA (Health Insurance Portability and Accountability Act).

<http://www.vawnet.org>

The Violence Against Women Electronic Network (VAWnet) is an online resource for organizations and individuals working to end violence in the lives of women and their children. Started in 1995 through a cooperative agreement from the National Center for Injury Prevention and Control, VAWnet offers a wealth of online resources to enhance local, state and national prevention and intervention efforts.

NATIONAL PUBLIC HEALTH LINKS

<http://www.jsi.com>

JSI provides an extensive range of research and consulting services in the health care and service sectors by bringing creativity and innovation to all its endeavors. Assets include strong working teams on all projects; easy access to a broad range of disciplines; and flexibility and responsiveness to client needs.

<http://www.cdc.gov/nchstp/od/nchstp.html>

As part of the Centers for Disease Control and Prevention (CDC), the National Center for HIV, STD, and TB Prevention (NCHSTP) is responsible for public health surveillance, prevention research, and programs to prevent and control human immunodeficiency virus (HIV), infection and acquired immunodeficiency syndrome (AIDS), other sexually transmitted diseases (STDs), and tuberculosis (TB)

<http://www2a.cdc.gov/std101>

STD 101 In-a-Box: Includes nine ready-to-use and customizable presentations, a users guide with suggested agendas, discussion questions, and a script for an interactive group exercise. Useful for individuals in need of a basic presentation on STD prevention. New users must register before using.

<http://www.plannedparenthood.org/STI/chlamydia.htm>

Planned Parenthood Federation of America

<http://www.ippf.org>

International Planned Parenthood Federation

<http://www.afraidtoask.com>

Information on a variety of health information, including photos of sexually transmitted diseases (STDs).

<http://www.4women.org>

National Women's Health Information Center

<http://www.aphl.org>

Association of Public Health Laboratories (APHL)

http://www.aphl.org/chlamydia_lab.cfm

National Chlamydia Laboratory Committee Recommendations

<http://www.hipaadvisory.com>

Health Insurance Portability and Accountability Act (HIPAA). It mandates administrative simplification of several areas of health insurance, including the adoption of standard electronic transactions for basic business processes.

<http://www.ihs.gov>

The Indian Health Service (IHS), an agency within the Department of Health and Human Services, is responsible for providing federal health services to American Indians and Alaska Natives.

<http://www.stdhivtraining.org>

Find the ultimate online Chlamydia Course! The California STD/HIV Prevention Training Center is an integral part of a national network of training centers that offer dynamic continuing education courses. Clinical, behavioral interventions, partner services and program support courses are designed to enhance the STD/HIV knowledge and skills of medical, health, and community professionals. Browse through our course descriptions and register on-line!

<http://www.cdc.gov/std/gisp>

A website for the Gonococcal Isolate Surveillance Project (GISP). Includes information on the GISP sentinel surveillance system (protocol, data elements, among others).

Here are the web addresses for CDC's updated fact sheets:

- **BV** – <http://www.cdc.gov/std/BV/STDFact-Bacterial-Vaginosis.htm>
- **Chlamydia** – <http://www.cdc.gov/std/Chlamydia/STDFact-Chlamydia.htm>
- **Gonorrhea** – <http://www.cdc.gov/std/Gonorrhea/STDFact-gonorrhea.htm>
- **Herpes** – <http://www.cdc.gov/std/Herpes/STDFact-Herpes.htm>
- **HPV** – <http://www.cdc.gov/std/HPV/STDFact-HPV.htm>
- **PID** – <http://www.cdc.gov/std/PID/STDFact-PID.htm>
- **Syphilis** – <http://www.cdc.gov/std/Syphilis/STDFact-Syphilis.htm>
- **Trichomoniasis** – <http://www.cdc.gov/std/Trichomonas/STDFact-Trichomoniasis.htm>
- **STDs & Pregnancy** – <http://www.cdc.gov/std/STDFact-STDs&Pregnancy.htm>
- **MSM & Syphilis** – <http://www.cdc.gov/std/STDFact-MSM%26Syphilis.htm>
- **Sexually Transmitted Diseases & HIV Prevention** (in an updated format) – <http://www.cdc.gov/std/STDFact-STD&HIV.htm>.

QUICK REFERENCE TO ACRONYMS & ABBREVIATIONS

APC – Accelerated Prevention Campaign

ASTPHLD – The Association of State & Territorial Public Health Laboratory Directors

BID – Twice a day

CAP – College of American Pathology

CLIA – Clinical Laboratory Improvement Act

CMT – Cervical Motion Tenderness

CO – Cutoff

CSTE – Coalition of State and Territorial Epidemiologists

CT – Chlamydia Trachomatis

DFA – Direct Fluorescent Antibody Test

DIS – Disease Intervention Specialist

EIA – Enzyme Immunoassay

FP – Family Planning

GC – Gonococcus

GZ – Gray Zone

HCFA – Health Care Financing Administration

IM – Intramuscular

LCR – Ligase Chain Reaction

LPS – Lipopolysaccharide

MOA – Memorandum of Agreement

MOMP – Major Outer Membrane Protein

MPC – Mucopurulent Cervicitis

NCSD – National Council of STD Directors

NFPRHA – National Family Planning Reproductive Health Association

NGA – Notice of Grant Award

NGU – Non-gonococcal Urethritis

OPA – Office of Population Affairs

PCA – Probe Competition Assay

PID – Pelvic Inflammatory Disease

PCR – Polymerase Chain Reaction

PM – Partner Management

PN – Partner Notification

PO – Per os, i.e., by mouth

PT – Proficiency Testing

QA – Quality Assurance

QC – Quality Control

QD – Every day

QID – Four time a day

Rx – Prescription

STD – Sexually Transmitted Disease

TID – Three times a day

TMA – Transcription Mediated Amplification

TAT – Turnaround Time

Tx – Treatment and/or Therapy

TX – Title X

GLOSSARY OF TERMS

The terms below are defined in the context of the Region X Chlamydia Project. Some of these terms may be used in other settings, with different meanings.

Accuracy – The extent to which a measurement is close to the true value.

Amplification Test – A test which replicates the genetic material (DNA or RNA) of a microorganism such as Chlamydia from a few copies to millions within a few hours. These amplified (replicated) copies can then be detected, usually by photometry or fluorimetry.

Analytical Range – The range of accuracy of a test, e.g. the values (results) of a glucose blood test may range from 0 to 10,000 units, however test A used to detect glucose is only capable of detecting from 100 to 1,000 units, therefore the analytical range of this test is 100 to 1,000 units.

Antibiotics – A chemical substance capable of destroying microorganisms, specifically bacteria.

Antibody – A type of serum protein that is produced by the body in response to invasion by foreign proteins, e.g. viruses or bacteria, called antigens. Antibodies assist the body in removing or destroying foreign antigens.

Antigen – Foreign substances that stimulate the body to produce antibodies. Such substances may be used to detect antibodies in the blood serum.

Asymptomatic – A state where a person is infected with chlamydia but has no clinical symptoms (e.g. friable cervix and/or mucopurulence) of active disease.

ASTPHLD – The Association of State and Territorial Public Health Laboratory Directors. The national organization of public health laboratory directors working in state or territorial health departments.

Azithromycin – An antibiotic used to treat chlamydial infections that can be given in a single dose.

Bacteria – Any small one-celled (unicellular) microorganism. Bacteria vary in shape (morphologically), being spheric (cocci), rod-shaped (bacilli), spiral (spirochetes), or comma-shaped (vibrios).

Batch – A set of specimens, e.g. endocervical swabs, processed and tested during a single run (diagnostic test).

Cervical Motion Tenderness (CMT) – Moderate to severe tenderness elicited when the cervix is palpated or manipulated.

Cervicitis – Infection and/or inflammation of the cervix. Can be a sign of chlamydial infection.

Cervix – The narrow neck of the uterus, which extends into and can be partially visualized in the vagina. The cervix is a primary site of chlamydia infection and testing in females.

Chlamydia trachomatis – Chlamydia trachomatis is the bacterial agent which causes chlamydial infections, the most common sexually transmitted bacterial infection in the United States. While chlamydiae are classified as bacteria, they share some properties of both bacteria and viruses.

CLIA – Clinical Laboratory Improvement Act of 1967 (and amendments of 1988) which sets the guidelines for any clinical laboratory testing material obtained from human patients, i.e. blood, tissue, discharge, etc. CLIA is administered through the U.S. Health Care Financing Administration (HCFA).

Clinical Laboratory – A laboratory in which tests directly related to the care of patients are performed. Such laboratories use material obtained from patients for testing, as compared with research laboratories, where animal and other sources of test material are also used. Laboratories that accept specimens for testing by referral from separate medical facilities are often called reference laboratories.

Clinical Laboratory Procedure – Analytical procedure (test) performed on any specimens (samples) taken from humans and used to diagnose disease or infection.

Collection Sites – Locations in the body from which a chlamydia specimen may be taken. These sites include: cervix, urethra, rectum, throat, conjunctiva (eye). Different laboratory tests are sometimes indicated for use on different collection sites.

Confirmatory Test – A test which is used to confirm positive screening results thereby eliminating false positive results, improving test specificity. This test employs a different target molecule than screening tests, e.g. *C. trachomatis* enzyme immunoassays (EIA) typically detect specific lipopolysaccharide (LPS); while direct fluorescent antibody (DFA) test, used to confirm a positive EIA test, targets the major outer membrane (MOMP) of *C. trachomatis*. This method is preferred to using a supplemental test (see Supplemental Test).

Contact – A person who has had sexual contact with an individual having a confirmed sexually transmitted disease; often synonymous with “partner.”

Control – An artificial specimen with a known value (i.e. positive or negative) which is included in every test run in order to monitor the performance of the test. For example, if your positive control was negative it would invalidate the results of that particular test run and specimens would have to be re-tested.

CSTE – Council of State and Territorial Epidemiologist. This is the national organization for epidemiologists working in state or territorial health departments.

Culture – A laboratory test involving the cultivation of microorganisms or cells in a special growth medium.

Cutoff (CO) – A mathematically derived calculation in any given immunoassay which is used to determine which specimens are positive (reactive) or negative (unreactive), e.g. generally specimens with values above the CO are positive and those below are negative.

Detection Limit – The range (limits) of detection of any test methodology, e.g. *C. trachomatis* amplification test needs only 1-10 organisms to be presented in order to detect CT, whereas an enzyme immunoassay (EIA) needs 100,000 (10⁵) organisms to be present in order to detect CT.

Diagnostic Test – A test designed to detect chlamydia in a patient presenting with symptoms or history of exposure, as distinguished from a screening test.

Direct Fluorescent Antibody Test (DFA) – The direct detection of chlamydia (antigen) from a specimen (e.g. endocervical swab, etc.) which is placed on a microscope slide and stained using fluorescently labeled chlamydia specific antibody. After proper staining, the slide is viewed under a fluorescent microscope. Chlamydia positive specimens show apple-green elementary bodies in contrast to red background of counterstained cells.

Disease Intervention Specialist (DIS) – A trained individual working with test-positive patients and their partners to confirm treatment and identify all other potentially infected individuals. Usually employed by a health department.

DNA Probe – See Nucleic Acid Hybridization Test.

Doxycycline – An antibiotic used to treat chlamydial infections. The standard dosage is 100 mg, twice a day, for 7 days.

Ectopic Pregnancy – A pregnancy occurring anywhere except in the uterus, usually in the fallopian tubes. A serious, potentially fatal consequence of tubal damage from chlamydial infection.

Ectopy – Visible columnar epithelial cells that extend onto the outer surface of the cervix. In pregnant women, younger women or women using hormonal contraceptives, ectopy is considered normal. Ectopy increases the risk of acquiring chlamydia by exposing the more vulnerable columnar epithelial cells.

Enzyme Immunoassay (EIA) – A laboratory test that detects specific antigens or antibodies rather than the organism, e.g. chlamydia itself.

Erythromycin – An antibiotic used to treat chlamydial infection, especially for pregnant women. The standard dosage is 500 mg orally 4 times a day for 7 days.

Etiologic Agent – An agent, e.g., a bacteria or virus that causes disease.

External Quality Control – An external control (see control) specimen which is generally shared between multiple laboratories and the results compared for quality control purposes.

False Negative (Result) – A test result that indicates the absence of a condition when the condition is actually present (group “C” in Table I). The rate of occurrence of false negative results varies with the diagnostic accuracy and the specificity of the test or procedure. As the accuracy and specificity of a test increases, the rate of false negatives decreases. Certain tests are known to yield false negative results at a certain rate; in all tests, a small number of false negatives will occur by chance alone.

False Negative (Rate) – The rate of occurrence of negative test results in subjects known to have the disease or behavior for which the individual is being tested (see Table I).

False Positive (Result) – A test result that wrongly indicates the presence of a condition when the condition is not present (group “B” in Table I).

False Positive (Rate) – The rate of occurrence of positive test results in tests of individuals known to be free of a disease or disorder for which the individual is being tested (see Table I).

Friability – Fragile, easily irritated, especially prone to bleeding; for example, cervical surface tissue in some chlamydial infections.

Gonorrhea – A common sexually transmitted disease most often affecting the genitourinary tract and, occasionally, the pharynx, conjunctiva, or rectum. Infection results from contact with an infected person or by contact with secretions containing the causative organism *Neisseria gonorrhoea*. Sometimes referred to as GC (gonococcus).

Gray Zone (GZ) – An artificially established range (zone) below a diagnostic test’s cutoff (CO) value. The GZ generally ranges from 30-70% below the CO. Specimens in the established GZ are then re-tested by another methodology in order to increase the test sensitivity, i.e. to detect additional positive specimens.

Immunoassay – An assay (test) which detects antigens or antibodies.

Infertility – The inability to conceive or carry a fetus to term. Chlamydia related infertility is most often caused by scarring in the fallopian tubes.

Inhibitor – A substance that interferes with the test’s ability to detect the presence or absence of disease. Blood and mucous are examples of potential inhibitors for chlamydia testing.

Internal Quality Control – An internal control specimen made up and used by a particular laboratory (see control).

Kit – A package of test reagents, package insert, etc. which enable a laboratory to perform a particular test, i.e. a chlamydia kit would enable a laboratory to test for chlamydia.

Ligase Chain Reaction (LCR) – An amplification test for chlamydia and/or gonorrhea. A process whereby a strand of DNA can be cloned (replicated) millions of times within a few hours.

LPS – The lipopolysaccharide in the Chlamydia organism, a part of the organism. The same LPS is present in all chlamydia species, e.g. *C. trachomatis*, *C. psittaci*, *C. pneumonia*, and etc. Any test which detects chlamydia LPS would cross react with all chlamydia organisms.

Lot – Diagnostic kits are manufactured in large quantities (lots). As part of quality control, laboratories record all results from each kit and lot in order to monitor for any variations which may occur between lots.

Mean – The average of the numerical results obtained from a series of analyses.

Major Outer Membrane Protein (MOMP) – The major outer membrane protein on the Chlamydia organism. The MOMP is species specific, i.e. *C. trachomatis* is different from *C. psittaci*, etc. Any test which detects MOMP will only react with each separate species, i.e. *C. trachomatis* MOMP will not react with *C. psittaci*.

Mucopurulence – Bodily discharge composed of mucous, cellular debris and white blood cells as a result of an infection process such as chlamydia. Mucopurulent appears to have a green or yellow color when viewed on a white cotton swab that has been inserted into the cervical os. Slang: mucopus.

Mucopurulent Cervicitis (MPC) – Cervical infection/inflammation characterized by a mucoidpurulent (pus) discharge and friability. Often caused by chlamydia infection but may also occur with many other organisms.

Nucleic Acid Hybridization Test (DNA Probe) – Commercial name: Gen-Probe Pace 2 assay. A laboratory test which detects *C. trachomatis* ribosomal RNA.

Office of Population Affairs (OPA) – This is the federal office which administers the Title X family planning program. Part of the Department of Health and Human Services, US Public Health Service.

Package Insert – The written pamphlet in every diagnostic test kit which includes instructions for proper use (kit directions) of the kit. In addition, the package insert contains some or all of the following: information on intended use; summary and explanation of the test; principles of the procedure; reagents provided; special precautions; specimen collections, storage and transport; materials provided/not provided with kit; procedural limitations; performance characteristics; results; and quality control.

Partner Elicitation – Obtaining the names and means of contacting the sexual partners of an individual with a reportable, laboratory-positive sexually transmitted disease, usually by interviewing the diagnosed client.

Partner Management (PM) – A set of activities undertaken by a medical provider and patient aimed at ensuring appropriate clinical disposition of all possible contacts to a sexually transmitted disease. PM may include partner elicitation, notification, referral, treatment and tracking.

Partner Notification – The medical care provider advises the sexual partner of an individual with an STD of his/her contact status, usually providing anonymity for the patient.

Partner Referral – The provision of written or oral information on the sexual partner of an individual with a reportable, laboratory-positive sexually transmitted disease, about where to obtain medical care for the evaluation or treatment of the disease. Referral can be done by the provider, or, in the case of self-referral, the patient may provide the information to his/her partner.

Partner Tracking – The medical care provider provides and documents follow-up of the named sexual contacts of an STD patient (elicitation, notification, referral and/or treatment).

Partner Treatment – The sexual partner of an individual with an STD is given indicated treatment for the STD, with or without examination.

Pelvic Inflammatory Disease (PID) – A clinical syndrome identified by a range of symptoms including lower abdominal pain and tenderness, bilateral adnexal tenderness, low-grade fever, and cervical motion tenderness. Serious sequelae (consequences) can include infertility, ectopic pregnancy, and chronic pelvic pain. PID can be one of the serious consequences of chlamydial infection.

Polymerase Chain Reaction (PCR) – An amplification test for chlamydia. A process whereby a strand of DNA can be cloned (replicated) millions of times within a few hours.

Predictive Value Negative – The likelihood that a person with a negative test does not have the disease. See Table I.

Predictive Value Positive – The likelihood that a person with a positive test does, in fact, have the disease. See Table I.

Presumptive Treatment – Also known as epidemiologic treatment. The treatment of patients suspected of having a disease based on identified risk factors and/or clinical findings, without the confirmation of a positive test result.

Prevalence – the percentage of people in a given population that have a given disease, e.g. the prevalence of chlamydia in Clinic A is 5%, that is 5 out of 100 individuals in Clinic A are infected with chlamydia. See Table I.

Proficiency Testing (PT) – A process in which samples (artificial patient specimens) are sent from a quality assurance or certification organization to participating laboratories for analysis. The true value (results) of the samples are unknown to the participating laboratories. The results are tabulated and compared to all participating laboratories and reported to the enrolling laboratory. PT specimens are an indicator of laboratory performance. PT is a required quality assurance process under laboratory licensing law.

Qualitative – A test that is qualitative determines the presence or absence of a substance (antibody/antigen), e.g. an EIA detects the presence or absence of chlamydia.

Quantitative – A test that is quantitative determines the amount of a substance per unit volume or unit weight, e.g. blood glucose normal range 70-115 mg/dl-milligrams per deciliter.

Quality Assurance Program (QAP) – A comprehensive set of policies, procedures, and practices used to monitor the services provided in a clinical or laboratory setting. These plans should include protocols for proper record keeping, calibration and maintenance of equipment, monitoring of quality controls and proficiency testing results, and training.

Quality Control (QC) – The set of laboratory or clinical procedures designed to ensure the a test is working properly, e.g. test controls, monitor lot-to-lot variation, monitor/run CO values, and etc.

Reagent – A substance that produces a chemical reaction in a sample that allows an analyte (the substance being measured) to be detected and measured.

Reference Laboratory – See Clinical Laboratories, page 2.

Screening Criteria – A set of characteristics used to determine which patients in an asymptomatic population should receive a test for chlamydia.

Screening Test – A test performed to detect chlamydia in a patient presenting for a routine exam, with no symptoms or known exposure indicating chlamydia infection is likely, as distinguished from a diagnostic test.

Selective Screening – Testing for chlamydia in a population using screening criteria, as opposed to universal screening of an entire patient population, or diagnostic testing of patients with symptoms.

Sensitivity – The ability of a test to detect patients who have the disease or condition for which they are being tested. Expressed as the percent of positive cases where disease is correctly identified as present. See Table I.

Specificity – The ability of a test to accurately identify patients who do not have the disease or condition for which they are being tested. Expressed as the percent of negative cases correctly identified. See Table I.

Specimen – A small sample of something, intended to show the nature of the whole, such as a blood or urine specimen.

Specimen Adequacy – The quality of the specimen obtained from the patient judged by the number and type of cells sampled, e.g. in chlamydia testing, an endocervical specimen which contains any endocervical columnar/cuboidal epithelial cells or metaplastic cells (or greater than 100 erythrocytes (RBC's) per field at 200X).

Supplemental Test – A test which is used to confirm positive screening results.

This test employs the same target molecule as the original screening test, e.g. *C. trachomatis* enzyme immunoassays (EIA) typically detect specific lipopolysaccharide (LPS); the EIA blocking or neutralization assay also target this same molecule (LPS). As a general rule, results obtained from using one test should be confirmed using an alternate technology (see Confirmatory Test) in order to best decrease the incidence of false positive test results thereby increasing specificity.

Symptomatic – Presenting with clinical signs of disease.

Title X – The Federal legislation which supports federally funded family planning clinics; Title X of the Public Health Services.

Transcription Mediated Amplification (TMA) – An amplification test for the detection of chlamydia. A process whereby a strand of RNA can be cloned (replicated) millions of times within a few hours.

Turnaround Time (TAT) – The amount of time it takes to produce a test result from the time a specimen is received in the laboratory until it is reported out.

Universal Screening – Testing for chlamydia in an entire population, regardless of symptoms, risk history, or other factors.

Urethritis – Inflammation of the urethra.

CALCULATING DISEASE DISTRIBUTION BASED ON GOLD STANDARD TEST RESULTS

	DISEASE PRESENT	DISEASE ABSENT	TOTAL
Positive Test Result	A	B	A+B
Negative Test Result	C	D	C+D
	A+C	B+D	A+B+C+D

Prevalence: $(A+C)/(A+B+C+D)$

Sensitivity: $A/(A+C)$

Specificity: $D/(B+D)$

Positive Predictive Value: $A/(A+B)$

Negative Predictive Value: $D/(C+D)$

False Negative Rate: $C/(A+C)$

False Positive Rate: $B/(B+D)$

REGION X INFERTILITY PREVENTION PROJECT

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