7-Panel

INTRODUCTION:

Sexually Transmissible Diseases (STDs), also known as Sexually Transmitted Infections (STIs), are a group of infections that are mainly transmitted through unprotected sexual intercourse, whether vaginal, anal, or oral. They are caused by various pathogens, including bacteria, viruses, and protozoa, and can affect people of all ages and genders. STIs can also be transmitted via shared needles, from mother to child (perinatal), and blood transfusions (though less commonly today due to screening).

STIs represent a major public health problem globally, as they can have significant consequences for reproductive and general health, especially if not diagnosed and treated in a timely manner. Some infections may be asymptomatic for long periods, increasing the risk of unintentional transmission and long-term complications, such as infertility, chronic pelvic pain, or increased risk of contracting HIV.

The 7-Panel STD Test will test for the following most common infections:

- Chlamydia trachomatis
- Neisseria gonorrhoeae
- Mycoplasma genitalium
- Trichomonas vaginalis
- Ureaplasma urealyticum
- Ureaplasma parvum
- Mycoplasma hominis

Early diagnosis and appropriate treatment are key to preventing complications and breaking the chain of transmission. Condom use, regular screening, and awareness of one's sexual health status are key tools in STI prevention.

The information provided and any test results obtained should not be considered a substitute for professional medical advice. We strongly recommend that all results be reviewed and interpreted by a qualified specialist in the field of sexual health.

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MOLECULAR ANALYSIS REPORT - SEXUALLY TRANSMITTED DISEASES (STDS)

Patient:
Sex:
Date of sample collection:
Sample type: Urethral swab
Method of analysis: Real-Time PCR (gene amplification)

RESULTS

Pathogen	Result	Interpretation
Chlamydia trachomatis	**NEGATIVE**	No infection detected
Neisseria gonorrhoeae	**POSITIVE**	Presence of ongoing infection
Mycoplasma genitalium	**NEGATIVE**	No infection detected
Mycoplasma hominis	**NEGATIVE**	No infection detected
Trichomonas vaginalis	**NEGATIVE**	No infection detected
Ureaplasma urealyticum	**NEGATIVE**	No infection detected
Ureaplasma parvum	**NEGATIVE**	No infection detected

Clinical Notes:

The presence of *Neisseria gonorrhoeae* suggests an ongoing gonococcal infection. Treatment according to current guidelines and evaluation of any sexual partners is recommended. Post-treatment follow-up is also recommended.

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1. CHLAMYDIA TRACHOMATIS

Overview

Chlamydia trachomatis is a type of Gram-negative bacteria that must live inside human cells to survive and replicate, making it an obligate intracellular bacterium.

It has two main life cycle forms:
- Elementary body: infectious, resistant, enters cells
- Reticulate body: active, replicates within cells

What does it do?

- Genital infections (most common type)
- In women: Infects cervix and fallopian tubes; can cause PID, infertility, and ectopic pregnancy
- In men: Urethritis, epididymitis, sometimes prostatitis; often asymptomatic
- Eye infections: Neonatal conjunctivitis; trachoma (can cause blindness)

2. NEISSERIA GONORRHOEAE

Overview

Neisseria gonorrhoeae is a Gram-negative bacterium that causes gonorrhoea, a common STI. It infects mucosal surfaces (genitals, rectum, throat, eyes). Facultative intracellular, thrives in mucosal environments; primarily aerobic but can survive anaerobically.

What does it do?

- Genital infections: In women - cervicitis, urethritis, PID; in men - urethritis, epididymitis
- Neonatal infections: Ophthalmia neonatorum (can cause blindness)
- Other sites: Pharynx (asymptomatic), rectum (proctitis), joints (septic arthritis)

3. MYCOPLASMA GENITALIUM

Overview

Mycoplasma genitalium is a very small, slow-growing bacterium that infects genital and urinary tracts. It lacks a cell wall and is resistant to many common antibiotics. It is sexually transmitted and hard to detect in labs. This is increasingly recognized as a significant cause of persistent urethritis and cervicitis, often resistant to first-line antibiotics.

What does it do?

- In women: Cervicitis, endometritis, PID; infertility and ectopic pregnancy
- In men: Non-gonococcal urethritis; symptoms include burning, discharge, itching
- Often asymptomatic but can cause persistent infections

4. TRICHOMONAS VAGINALIS

Overview

Trichomonas vaginalis is a single-celled parasite with a flagellum. It causes trichomoniasis, a common STI, and spreads mainly through vaginal sex.

What does it do?

- In women: Vaginitis, foamy discharge, itching, 'strawberry cervix'
- In men: Often asymptomatic; may cause urethritis, mild discharge, burning

5. UREAPLASMA UREALYTICUM

Overview

Ureaplasma urealyticum is a mycoplasma group bacterium. Its role in disease is debated due to frequent asymptomatic presence.

What does it do?

- In women: Cervicitis, bacterial vaginosis, PID, infertility, pregnancy complications
- In men: NGU, prostatitis, epididymitis
- In newborns: Respiratory infections, rare sepsis or meningitis

6. UREAPLASMA PARVUM

Overview

Ureaplasma parvum is related to U. urealyticum. It may become pathogenic under certain conditions such as pregnancy or immune suppression.

What does it do?

- In women: Bacterial vaginosis, cervicitis, PID, pregnancy complications
- In men: NGU, possible fertility impact
- In newborns: Pneumonia, rare sepsis or meningitis

7. MYCOPLASMA HOMINIS

Overview

Mycoplasma hominis is usually harmless but may cause illness during pregnancy, immune suppression, or with co-infections.

What does it do?

- In women: Bacterial vaginosis, cervicitis, PID, endometritis, pregnancy complications
- In men: Urethritis, prostatitis, possible fertility issues
- In newborns: Sepsis, meningitis, pneumonia (especially in preterm infants)