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DIAGNOSTICS

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**INSIGHTS**



# Urine Multiplex

**For STD**

Serial number : 016 Edition : 1. 2022

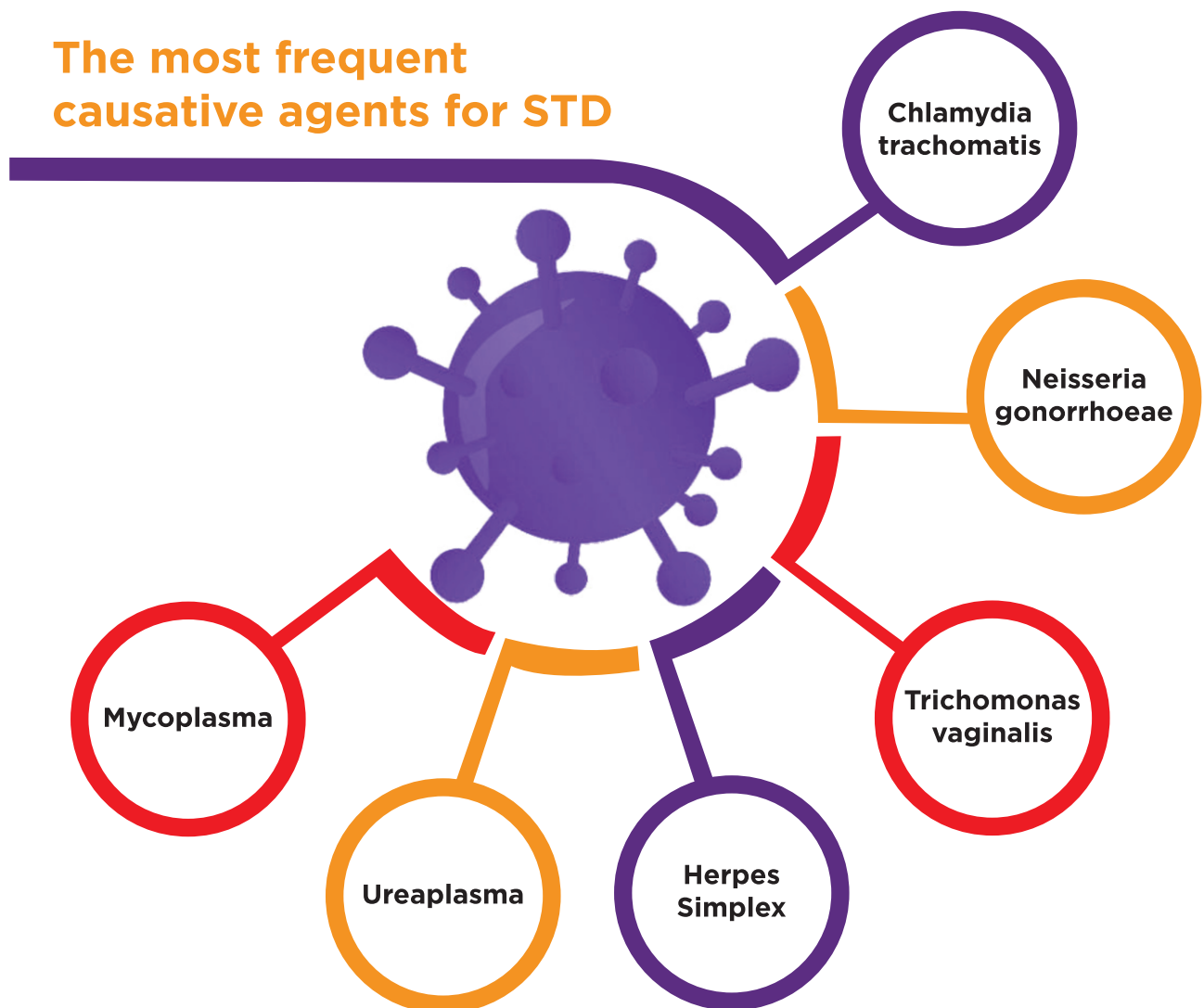
# Sexually transmitted Diseases



**World Health Organization** fact sheets say.....

- ▶ More than 1 million sexually transmitted infections (STI) are acquired every day worldwide  
Each year there are an estimated 374 million new infections
- ▶ INDIAN FACT sheets say.....  
In India, around 6% of the adult population has one or more STI which amounts to the occurrence of about 30-35 million episodes of STI every year.

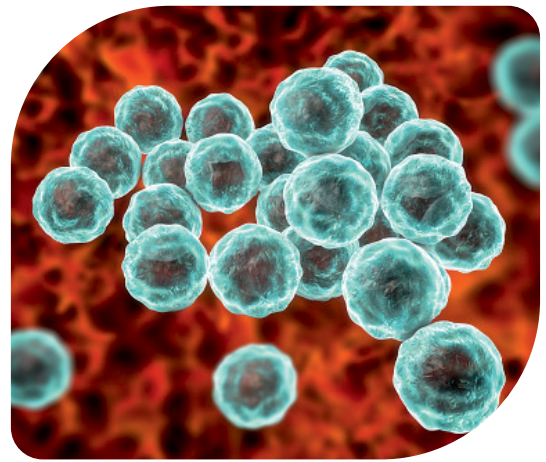
## The most frequent causative agents for STD





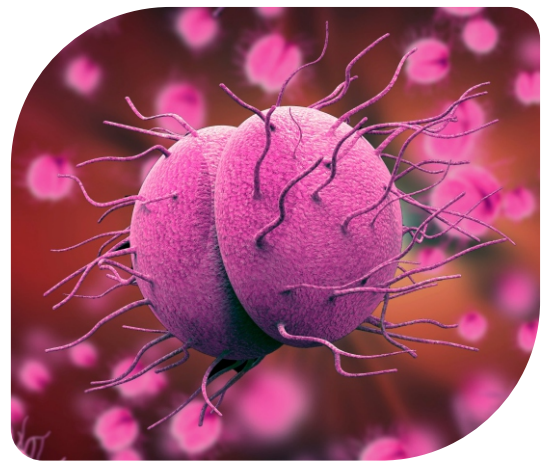
## Chlamydia trachomatis

- ▶ Chlamydia is often referred to as a “silent infection” because most people with a chlamydia infection don’t experience any symptoms.
- ▶ In women, the infection can cause vaginal discharge , lower abdominal pain and pelvic inflammatory disease (PID)
- ▶ The most effective diagnostic test for chlamydia is to swab the vagina or to test urine.



## Neisseria gonorrhoeae

- ▶ Gonorrhea can affect people of any age or gender, but it’s particularly common among teens and young adults
- ▶ Gonorrhea can affect the uterus, fallopian tubes, and ovaries. Untreated gonorrhea can lead to infertility.
- ▶ A urine or swab test can detect gonorrhea easily



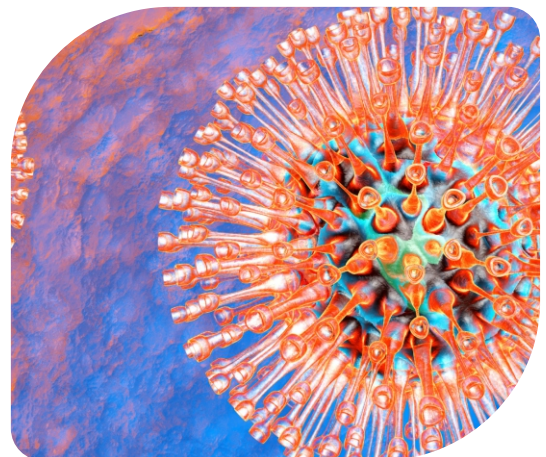
## Trichomonas vaginalis

- ▶ About 70% of infected people do not have any signs or symptoms.
- ▶ Older women are more likely than younger women to have been infected with trichomoniasis.
- ▶ Trichomoniasis can increase the risk of getting or spreading other sexually transmitted infections.
- ▶ Urine molecular assay or wet mount examination can diagnose trichomoniasis



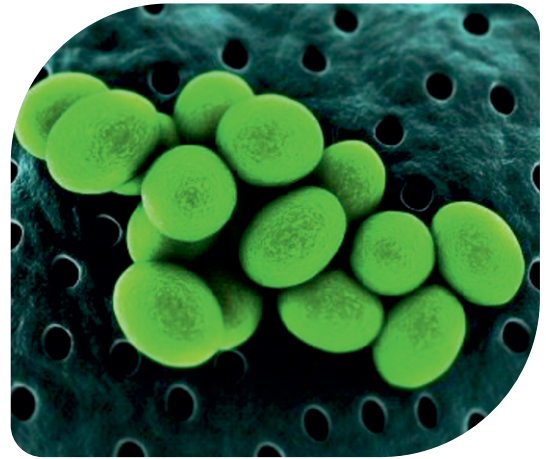
## Herpes Simplex

- ▶ HSV is a contagious virus that can be transmitted through direct contact with the infected part
- ▶ It’s often asymptomatic and plenty of people live with the virus until episodes of symptoms occur
- ▶ Painful blisters as one blister or a small cluster appear on the infected parts
- ▶ Fever with flu-like symptoms also can occur



## Ureaplasma

- ▶ Ureaplasma is very common among sexually active adults
- ▶ It can also be passed from mother to child.
- ▶ It may also increase your risk for other conditions, including kidney stone premature labor respiratory diseases in newborns
- ▶ Very difficult to diagnose using conventional techniques.



## Mycoplasma

- ▶ In males can cause persistent or recurrent urethritis
- ▶ In females can cause cervicitis, PID, preterm delivery, spontaneous abortion and infertility.



## When and whom to test ?

The CDC recommends that

- ▶ All sexually active men and women be tested for STI once a year.
- ▶ All pregnant women
- ▶ All HIV positive patients

## The problem with syndromic case management

- ▶ Syndromic management for STD is simple, assures rapid, same-day treatment, It relies on clinical algorithms to diagnose a specific infection.

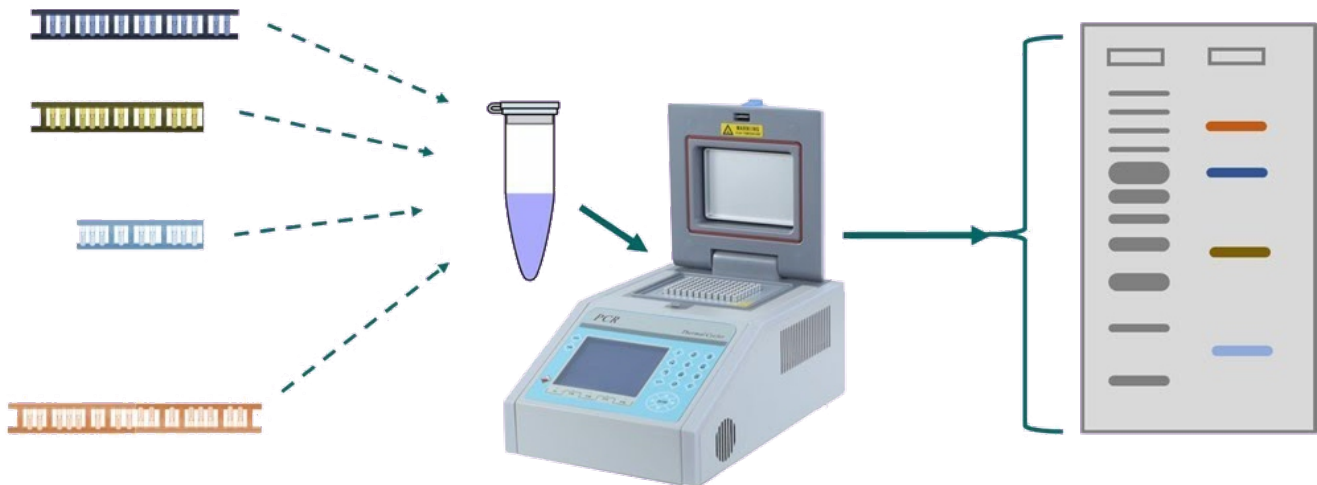
The problem is.....

- ▶ This approach results in over treatment or missed treatment as the majority of STDs are asymptomatic.
- ▶ Hence **WHO recommends** Enhanced syndromic management by incorporating Molecular assays in laboratory testing to support diagnosis.



<b>Symptoms</b>	<ul style="list-style-type: none"> <li>▶ Abnormal vaginal discharge</li> <li>▶ Vaginal itching</li> <li>▶ Painful urination</li> <li>▶ Painful sexual intercourse</li> </ul>		
<b>Signs</b>	<ul style="list-style-type: none"> <li>▶ Abnormal vaginal discharge</li> <li>▶ Cervical discharge (speculum exam)</li> </ul>		
<b>Possible Infections</b>	<table border="0"> <tr> <td> <b>Vaginitis:</b> <ul style="list-style-type: none"> <li>▶ Trichomoniasis</li> <li>▶ Bacterial vaginosis (non-STD)</li> <li>▶ Candidiasis (non-STD)</li> </ul> </td> <td> <b>Cervicitis:</b> <ul style="list-style-type: none"> <li>▶ Gonorrhea</li> <li>▶ Chlamydia</li> </ul> </td> </tr> </table>	<b>Vaginitis:</b> <ul style="list-style-type: none"> <li>▶ Trichomoniasis</li> <li>▶ Bacterial vaginosis (non-STD)</li> <li>▶ Candidiasis (non-STD)</li> </ul>	<b>Cervicitis:</b> <ul style="list-style-type: none"> <li>▶ Gonorrhea</li> <li>▶ Chlamydia</li> </ul>
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## Multiplex PCR methods as diagnostic tools for STDs



as if performing many separate PCR reactions all together in one reaction

PCR assay is the

- ▶ most sensitive test for screening STD in high risk patients.
- ▶ Diagnosing sexually transmitted infections in symptomatic patients.
- ▶ These assays simultaneously diagnose several STDs in a single reaction
- ▶ Same day results can be obtained
- ▶ Process is automated

### Advantage Of Urine Sample

- ▶ Non invasive
- ▶ they can be stored at 4-8°C up to 7 days prior to the processing.
- ▶ Cost-effectiveness
- ▶ Quicker results
- ▶ Better patient compliance





**Knock out** medical emergencies,  
**before it's too late!**

**HEALTH ko aasani se na lo,  
TEST aasani se karo**



**Blood Tests**



**Health Packages**



**ECG**



**ICMR Approved  
COVID Tests**

**“ Get your blood test done  
Anywhere, Anytime...  
Neuberg hain na ”**



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