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**BOSCH**

## Vivalytic STI

**Multiplex PCR test for the detection of sexually transmitted infections at the Point of Care**

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The universal diagnostic platform.  
**Universal, intuitive, fast.**



✓ivalytic

# Vivalytic STI

## Multiplex PCR test for the detection of sexually transmitted infections at the Point of Care

According to the World Health Organization (WHO), over 30 different bacterial species, viruses, and parasites have been identified as being involved in the spread of sexually transmitted infections (STIs). More than one million STIs are acquired worldwide every day, the majority of which are asymptomatic.<sup>1</sup> In 2020, WHO reported approximately 374 million infections caused by one of the four most common curable sexually transmitted infections: chlamydia, gonorrhea, syphilis and trichomoniasis.<sup>1</sup>

The 2023 surveillance data from the European Union confirms the World Health Organizations estimates. Chlamydia remains the most commonly reported sexually transmitted disease, with a total of 230,199 cases, marking a 40% increase since 2018<sup>2</sup>. Gonorrhea follows in second place, with 90,969 cases, representing a staggering 148% rise since 2018.<sup>3</sup> Syphilis ranks third, with 41,051 cases and a 59% increase over the same period.

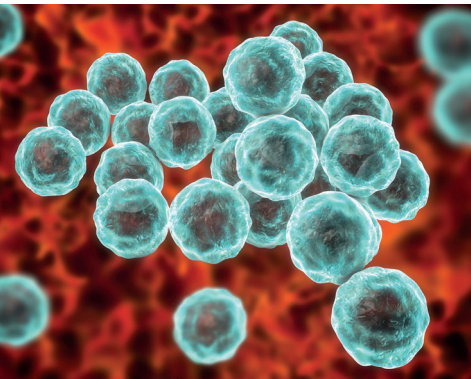
Women are disproportionately affected by STIs and often experience complications including infertility and chronic

pelvic pain that can have lifelong impacts. STIs can lead to fatal consequences in pregnancy e.g., ectopic pregnancy, peripartum morbidity and mortality.<sup>5</sup> While women generally experience higher prevalence of STIs, there has been a notable 72% surge in syphilis cases among men who have sex with men (MSM).<sup>4</sup>

The WHO's 2022–2030 global health sector strategies on STIs aim to end the health care issue of STIs by 2030. One of the recommended measures is to establish integrated testing as a key element of people-centered health services with multiplex testing and Point of Care testing playing a crucial role in the concept.<sup>6</sup>

### Vivalytic STI - Point of Care for containment of STIs

- Direct identification of ten STI pathogens that cause cervicitis, pelvic inflammatory disease, urethritis, infertility and syphilis, among others - directly at the point of care
- Only a few steps from sample to result
- No further laboratory equipment needed
- Treatment can be initiated on the same day of testing



#### Sample material

Swab (urethral, vaginal, cervical),  
First-void urine

#### Volume

300 µl

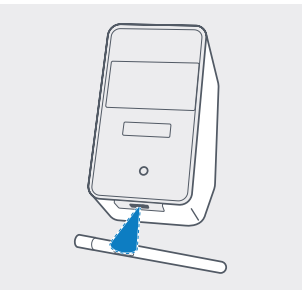
#### Detection method

Microarray-based PCR test in 141 minutes

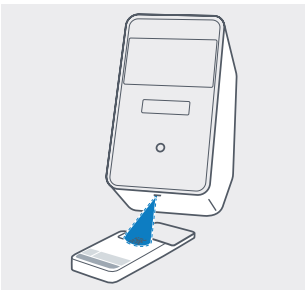
#### Detectable pathogens

- Herpes simplex virus I
- Herpes simplex virus II
- Chlamydia trachomatis
- Haemophilus ducreyi
- Mycoplasma genitalium
- Mycoplasma hominis
- Neisseria gonorrhoeae
- Treponema pallidum
- Ureaplasma urealyticum
- Trichomonas vaginalis

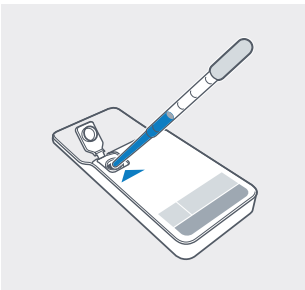
## Vivalytic workflow: Only a few steps from sample to result



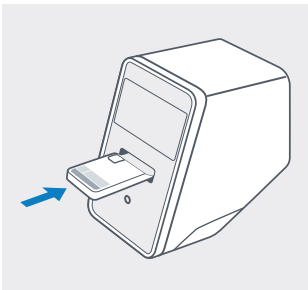
① Scan sample code.



② Scan cartridge code.



③ Insert the sample and close cartridge lid.



④ Insert cartridge. The test starts automatically.

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**RANDOX**

[www.bosch-vivalytic.com](http://www.bosch-vivalytic.com)

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<sup>1</sup> WHO, Sexually transmitted infections (STIs). [https://www.who.int/news-room/fact-sheets/detail/sexually-transmitted-infections-\(stis\)](https://www.who.int/news-room/fact-sheets/detail/sexually-transmitted-infections-(stis)), Date of query 25.07.2023

<sup>2</sup> European Centre for Disease Prevention and Control. Chlamydia - Annual Epidemiological Report for 2023 (<https://www.ecdc.europa.eu/en/chlamydia-infection>)

<sup>3</sup> European Centre for Disease Prevention and Control. Gonorrhoea - Annual Epidemiological Report for 2023 (<https://www.ecdc.europa.eu/en/gonorrhoea>)

<sup>4</sup> European Centre for Disease Prevention and Control. Syphilis - Annual Epidemiological Report for 2023 (<https://www.ecdc.europa.eu/en/syphilis>)

<sup>5</sup> Van Gerwen et al., Nat Microbiol. 2022 Aug;7(8):1116-1126

<sup>6</sup> Global health sector strategies on, respectively, HIV, viral hepatitis and sexually transmitted infections for the period 2022-2030. Geneva: World Health Organization; 2022