



Microorganisms

Chlamydia trachomatis

Features	Practical consequences
Strictly intracellular bacterium	- Does not grow on standard laboratory media - Detection via NAAT*
Lack a cell wall	- Does not take the GRAM stain - Naturally resistant to antibiotics targeting the cell wall, particularly β-lactams

* NAAT = nucleic acid amplification test (e.g., PCR, TMA)

Neisseria gonorrhoeae (Gonococcus)

Features	Practical consequences
Gram-negative culturable cocci	Although detection is primarily via NAAT, culture allows for antibiotic susceptibility testing
Fragile microorganism	Requires transport media for culture and rapid transport to the laboratory

Pathologies and Complications

- Chlamydia* and gonococcal infections are often mildly symptomatic or asymptomatic.
- In men, gonococcal urethritis is typically symptomatic, while chlamydial urethritis is often asymptomatic or mildly symptomatic. Pharyngeal and anal infections are usually mildly symptomatic.
- The infection site depends on sexual practices.

Women	- Urogenital infection: cervicitis, endometritis, salpingitis - Anal infection: proctitis - ENT infection: pharyngitis - Complications: infertility, ectopic pregnancy, reactive arthritis, pelvic inflammatory disease
Man	- Urogenital infection: urethritis, epididymo-orchitis - Anal infection: proctitis - ENT infection: pharyngitis - Complications: urethral stricture
Newborn	During vaginal delivery, the newborn can be contaminated by <i>Chlamydia trachomatis</i> which can cause conjunctivitis or pneumonia



Chlamydia trachomatis - Gonococcus



Diagnosis

The type of sample and diagnostic method depend on the infection site and type.

Location	Gender	Levy	Method
Genital	♀	Vaginal* or cervical swab	• NAAT • If symptomatic: culture for gonococcus
	♂	First-void urine	• NAAT • If symptomatic: culture for gonococcus
Anal	♀ and ♂	Anal swab*	• NAAT
Pharyngeal	♀ and ♂	Throat swab	• NAAT

* self-collection is possible

→ **Comprehensive screening for bacterial and viral STIs is recommended:** HIV, hepatitis B, syphilis, etc.

Antibiotic susceptibility

Microorganisms	Active antibiotics	Acquired resistance
<i>Chlamydia trachomatis</i>	• Cyclines • Fluoroquinolones • Macrolides • Rifampicin	• No acquired resistance
Gonococcus	• β-lactams • Macrolides • Fluoroquinolones • Cyclines	• Ceftriaxone ≈ 0% • Azithromycin < 10% • Fluoroquinolones ≈ 70% • Cyclines > 90%

Treatment

<i>Chlamydia trachomatis</i>	• First-line ^a : doxycycline 100 mg PO ^b twice daily → 7 days • Second-line: azithromycin 1g POs → 1 dose • Pregnant women: Erythromycin 500 mg PO twice daily → 10 days
Gonococcus	• Ceftriaxone 1 g IM single dose

^a Doxycycline is preferred to limit the emergence of resistance in urogenital mycoplasmas, particularly *M. genitalium*. Azithromycin remains an option in cases of contraindications to tetracyclines or concerns about adherence.

^b Per os

Screening

Target population

Systematic screening	Risk factors
• All sexually active women aged 15 to 25, including pregnant women	• Multiple partners (≥ 2 partners/year) • Recent change of partner • Partner diagnosed with an STI • History of STIs • Sexually active men who have sex with men • Sex workers • Rape victims
Target screening	
• All sexually active individuals with at least one risk factor • Women seeking abortion services	

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Screening methods

