# Cinsel Yolla Bulaşan Enfeksiyonlar Rehberi

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Başakşehir Çam ve Sakura Şehir Hastanesi

Enfeksiyon Hastalıkları Ve Klinik Mikrobiyoloji

**16 Mart 2023**

23. ULUSLARARASI TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI KONGRESİ

GLORIA GOLF RESORT BELEK / ANTALYA

# SUNUM PLANI

- Güncel Rehberler
- Etkenlere özgü tanı ve tedavi önerileri
- Korunmada yeni öneriler

# Güncel rehberler

World Health Organization

# GUIDELINES FOR THE MANAGEMENT OF SYMPTOMATIC SEXUALLY TRANSMITTED INFECTIONS

JUNE 2021

Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report
Recommendations and Reports / Vol. 70 / No. 4
July 23, 2021

# Sexually Transmitted Infections Treatment Guidelines, 2021

# Southern African HIV Clinicians Society 2022 guideline for the management of sexually transmitted infections: Moving towards best practice

TABLE 6: Recommended antimicrobial drugs for targeted treatment of uncomplicated sexually transmitted infections.

| Pathogen | First-line option | Effective substitutes |
|---|---|---|
| *Chlamydia trachomatis* | Doxycycline 100 mg orally, 2 times per day for 7 days | Azithromycin 1 g orally, single dose |
| *Neisseria gonorrhoeae* | Ceftriaxone 500 mg single intramuscular injection† | Cefixime 800 mg, orally, single dose |
| *Trichomonas vaginalis* (women) | Metronidazole 400 mg/500 mg, orally, 2 times per day for 7 days‡ | Metronidazole 2 g, orally, single dose<br>*OR*<br>Tinidazole, orally, 2 g single dose |
| *Trichomonas vaginalis* (men) | Metronidazole 2 g, orally, single dose | Metronidazole 400 mg/500 mg, orally, 2 times per day for 7 days‡ |
| *Mycoplasma genitalium* | Doxycycline 100 mg, orally, two times per day for 7 days followed by:<br>• Azithromycin 1 g initial dose followed by 500 mg, orally, daily for 3 additional days if unknown resistance profile or macrolide-susceptible<br>• Moxifloxacin, orally, 400 mg daily for 7 days if macrolide-resistant | To discuss with specialist |
| Herpes simplex | Primary infection: Acyclovir 400 mg, orally, 3 times per day for up to 10 days<br>Recurrent infection: Acyclovir 400 mg, orally, 3 times a day for 5 days OR 800 mg 3 times a day for 2 days | Primary infection: Valaciclovir 500 mg, orally, twice daily for up to 10 days<br>Recurrent ulcer: Valaciclovir 500 mg, orally, twice daily for 3 days |
| *Treponema pallidum* (syphilis) | Early syphilis§: Benzathine benzylpenicillin 2.4 million units, intramuscularly, single dose<br>Late syphilis: Benzathine benzylpenicillin 2.4 million units, intramuscularly, single dose, once weekly for three consecutive weeks | Early syphilis§: Doxycycline 100 mg, orally, twice per day for 14 days<br>OR<br>Late syphilis: Procaine penicillin 1.2 million units intramuscular injection once daily for 20 consecutive days<br>OR<br>Doxycycline 100 mg, orally, twice per day for 30 days |

†, Increase dose to 1 g intramuscular injection in case of confirmed oropharyngeal infection.

‡, 400 mg or 500 mg based on local availability.

§, Early syphilis: primary, secondary, or early latent (< 2 years ago); late syphilis does not include management of neurosyphilis.

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IUSTI


Mycoplasma genitalium (2021)
European guideline on the management of Mycoplasma genitalium infections. J.S. Jensen, M. Cusini, M. Gomberg, H. Moi, J. Wilson, M. Unemo.
First published: 19 February 2022
https://doi.org/10.1111/jdv.17972

*Mycoplasma*

Syphilis (2020) | Polish version (2015)

Syphilis

- CYBE sıklığında artış
  - CDC, ABD'de CYBE son 6 yılda tüm zamanların en yüksek seviyelerine ulaşmıştır.  Her beş kişiden biri CYBE geçiriyor
  - %50' si 15-24 yaş arası

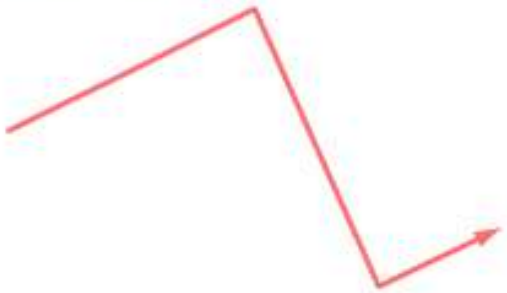
Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

# Sexually Transmitted Disease Surveillance

## Preliminary 2021 data

August 2022

## Chlamydia Cases



| 2017 | 2021 |
|---|---|
| 1,708,569 | 1,628,397 |

## Gonorrhea Cases

| 2017 | 2021 |
|---|---|
| 555,608 | 696,764 |

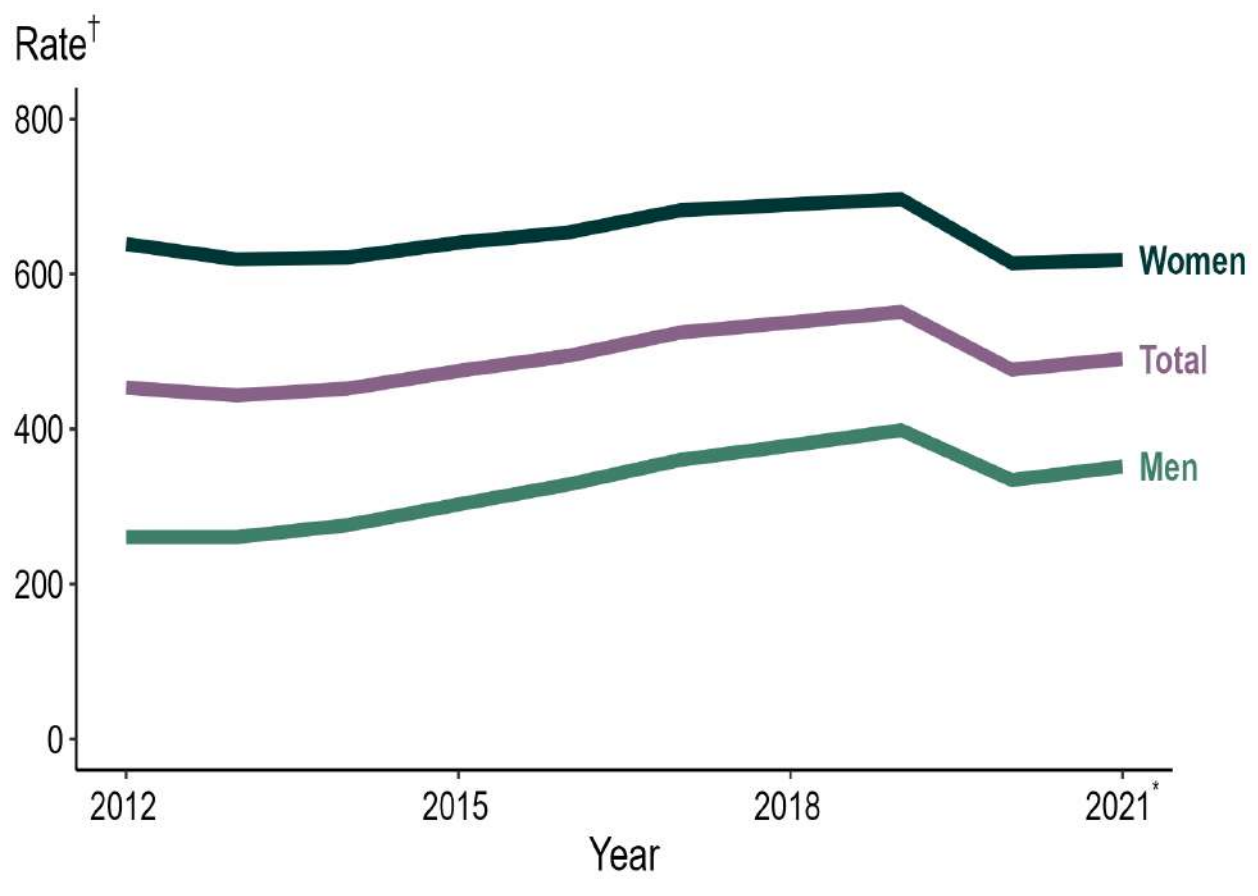
## Syphilis Cases

| 2017 | 2021 |
|---|---|
| 101,590 | 171,074 |

## Congenital Syphilis Cases

| 2017 | 2021 |
|---|---|
| 941 | 2,677 |

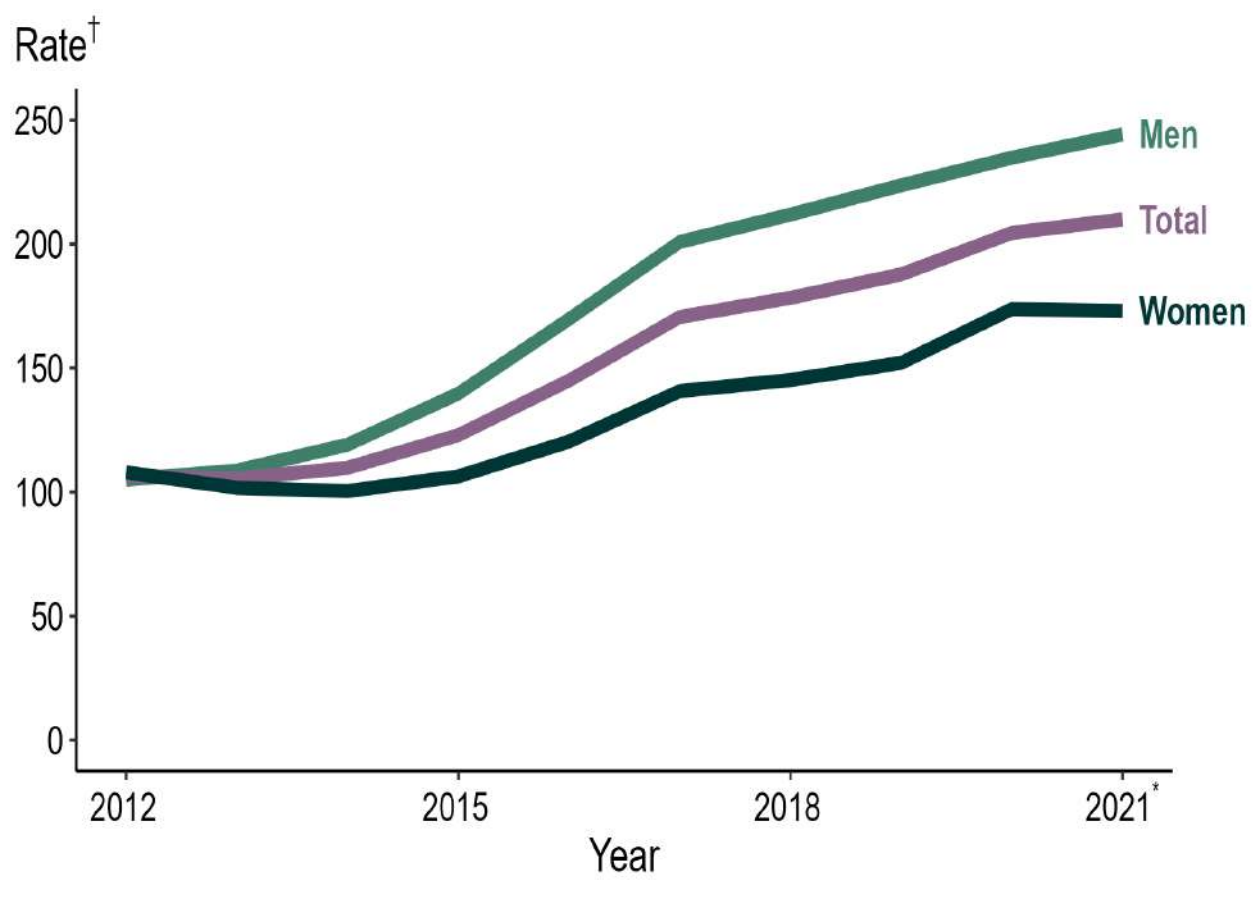
# Chlamydia — Rates of Reported Cases by Sex, United States, 2012–2021*




* Reported 2021 data are preliminary as of July 7, 2022

† Per 100,000

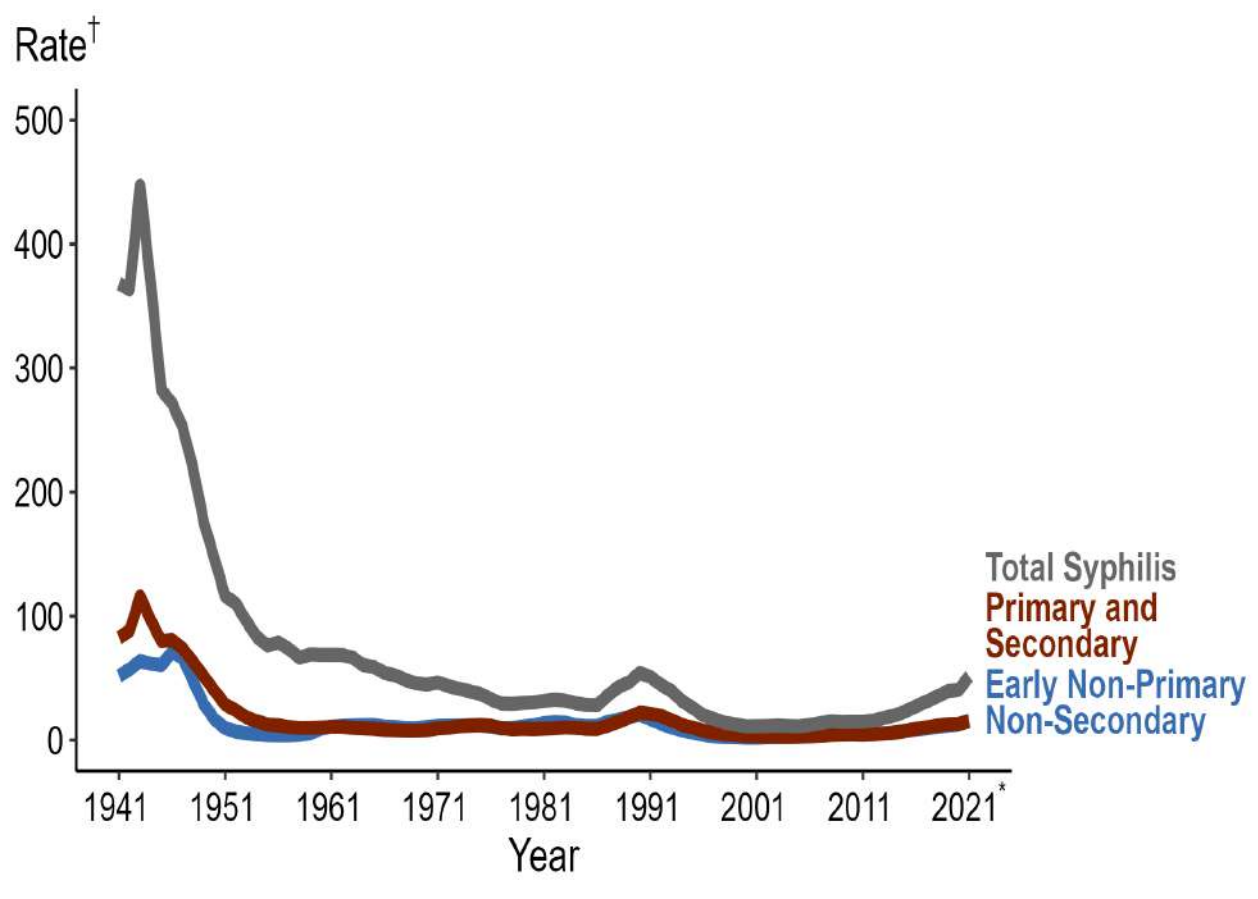
# Gonorrhea — Rates of Reported Cases by Sex, United States, 2012–2021*




* Reported 2021 data are preliminary as of July 7, 2022

† Per 100,000

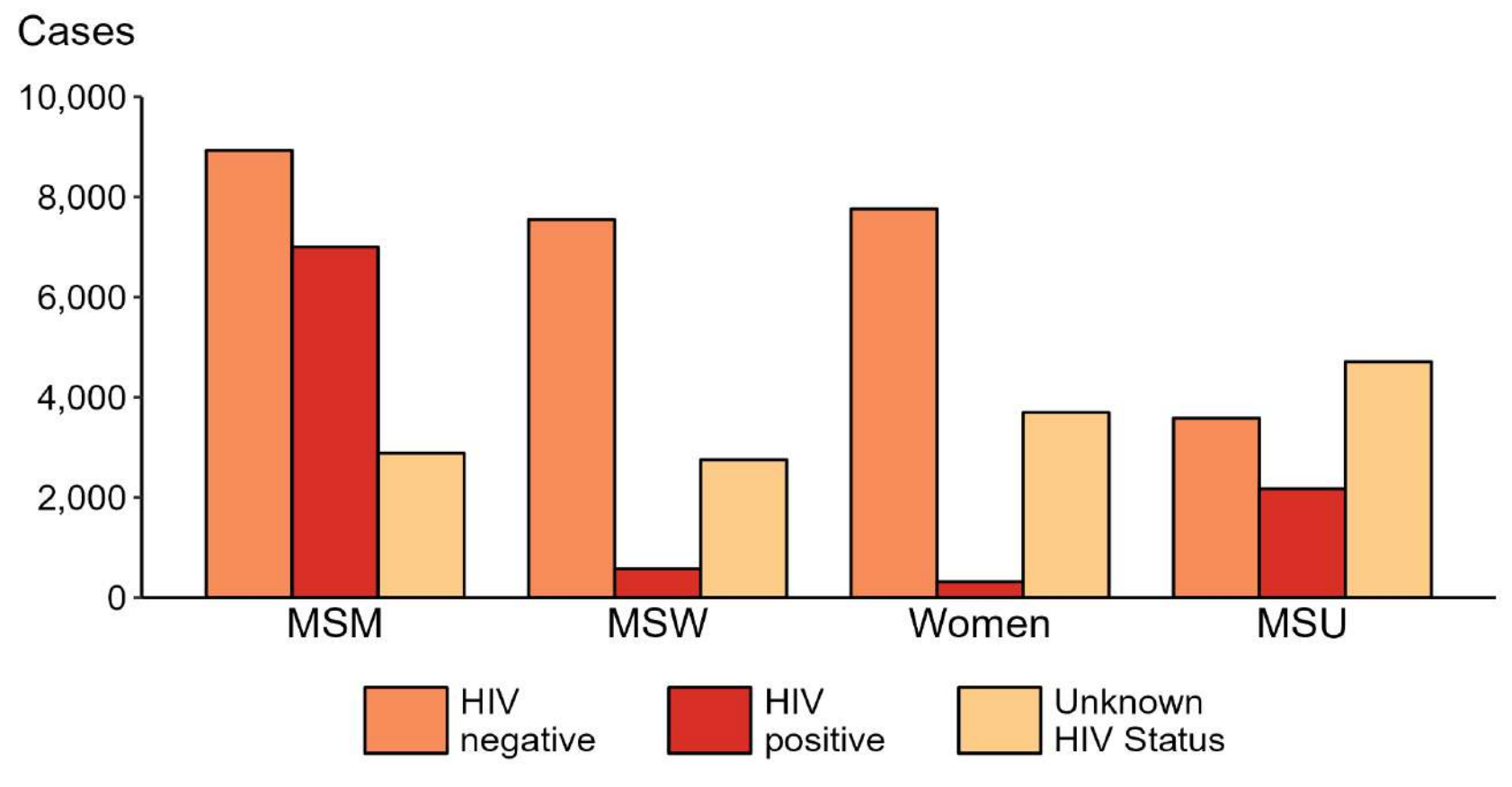
# Syphilis — Rates of Reported Cases by Stage of Infection, United States, 1941–2021*




* Reported 2021 data are preliminary as of July 7, 2022

† Per 100,000

# Primary and Secondary Syphilis — Reported Cases by Sex, Sex of Sex Partners, and HIV Status, United States, 2021*




* Reported 2021 data are preliminary as of July 7, 2022

**NOTE:** Of all reported cases of primary and secondary syphilis, 0.8% were cases with unknown sex.

**ACRONYMS:** MSM = Gay, bisexual, and other men who have sex with men; MSW = Men who have sex with women only; MSU = Men with unknown sex of sex partners

World Health Organization

**Global health sector strategies on, respectively, HIV, viral hepatitis and sexually transmitted infections for the period 2022–2030**

- Salgınla… …ğişimler: hastalık odaklı ortak eylem 3…


…ne

- Damgalama, ayrımcılık ve diğer yapısal engellerin ortadan kaldırılması

# Rehberlerdeki değişen öneriler

# Sexually Transmitted Infections Treatment Guidelines, 2021

Kimberly A. Workowski, MD[1,2]; Laura H. Bachmann, MD[1]; Philip A. Chan, MD[1,3]; Christine M. Johnston, MD[1,4]; Christina A. Muzny, MD[1,5]; Ina Park, MD[1,6]; Hilary Reno, MD[1,7]; Jonathan M. Zenilman, MD[1,8]; Gail A. Bolan, MD[1]

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1) Neisseria gonorrhoeae, Chlamydia trachomatis ve Trichomonas vaginalis'in tedavisi için güncellenmiş önerileri;
2) Pelvik inflamatuar hastalık için önerilen tedavi rejimine metronidazol eklenmesi;
3) Bakteriyel vajinoz için alternatif tedavi seçenekleri;
4) Mycoplasma genitalium'un yönetimi;
5) Genital herpes simpleks virüsünün serolojik teşhisi için iki aşamalı test.
6) Hamile kadınlar arasında sifiliz testi için genişletilmiş risk faktörleri;
7) Hepatit C enfeksiyonu için tek seferlik test;
8) Cinsel saldırıdan sonra erkeklerle cinsel ilişkiye giren erkeklerin değerlendirilmesi;
9)İnsan papilloma virüsü aşısı tavsiyeleri ve danışmanlık mesajları;

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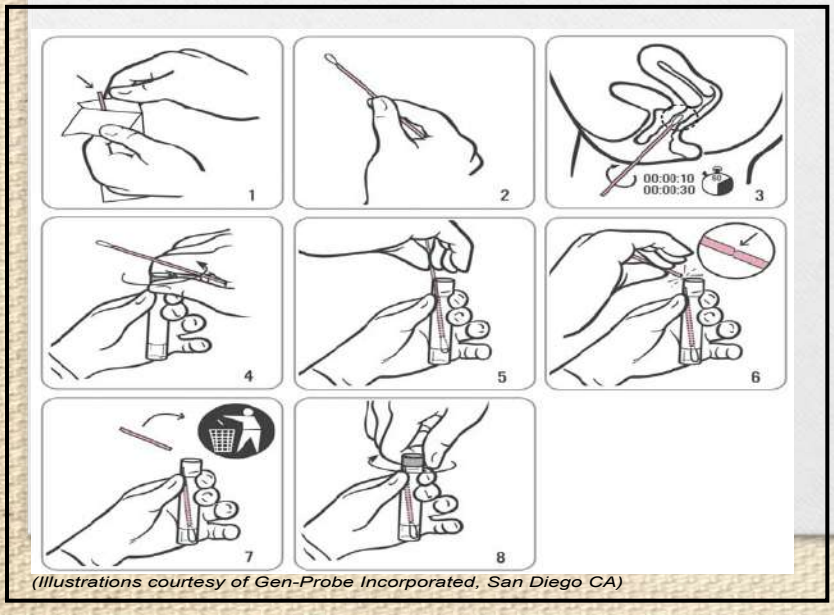
# Tarama örnekleri

## Genital Test

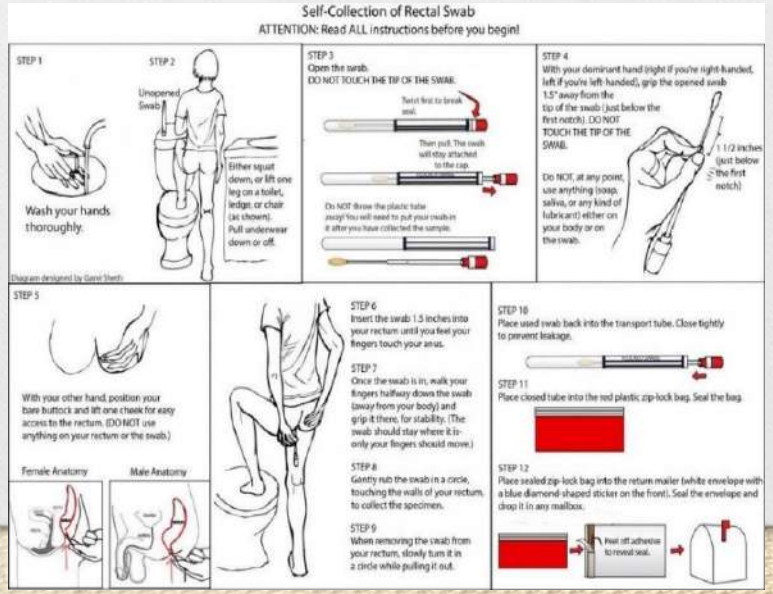
- Erkek
  - İdrar (ilk akım)= uretral
- Kadın
  - İdrar<< Vajinal, servikal



(Illustrations courtesy of Gen-Probe Incorporated, San Diego CA)

## Ekstragenital

- Farengeal
- Rektal



# KLİNİK TABLOLAR

1. Üretral akıntı sendromu;
2. Vajinal akıntı sendromu;
3. Anorektal enfeksiyon;
4. Genital ülser sendromu;
5. Alt karın ağrısı sendromu

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

# KLİNİK TABLOLAR

1. Üretrit ve servisit
2. Vajinal yanma, batma, irritasyon, koku, ya da akıntı
3. Pelvik inflamatuar hastalık (PID)
4. Genital , anal ya da perianal ülser
5. Genital siğil (HPV)
6. Epididimit
7. Proktit, proktokolit, enterit

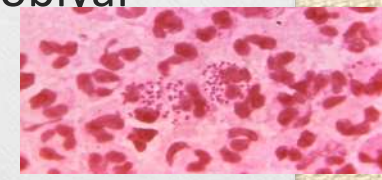
World Health Organization

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

# 1. ÜRETRİT ve SERVİSİT

# Üretrit ve Servisit - Tanı

- Önerilen örnekler;
  - Sabah ilk idrarı veya üretral sürüntü (hasta idrarını yaptıktan 1-4 saat sonra ve 2-4 cm derinden)
  - Servikal ya da vajinal sürüntü
  - Beraberinde faringeal ve rektal örnekler de alımalı
- Gram boyama; farinks dışı örneklerde önerilir
- Kültür (Thayer-Martin veya Newyork City); NG antimikrobival direnç açısından
- **Moleküler testler; altın standart**
- **NAAT**-İleri derecede hassas ve özgül
- **PZR-** C.trachomatis için duyarlılık %100, özgüllük %95



# Üreteral akıntı sendromunda DSÖ önerileri

World Health Organization

1. *Neisseria gonorrhoeae*(NG) ve *Chlamydia trachomatis*(CT)'i doğrulamak veya ekarte etmek için NAAT gibi moleküler testler kullanılmalı.
2. Test sonuçlarına göre aynı gün tedavi önerilir. Üretral akıntı varsa ancak testler negatifse, non-gonokokal ve klamidyal olmayan üretrit tedavisi verin(örn, *Mycoplasma genitalium veya Trichomonas vaginalis).*
3. Aynı günde moleküler testlere dayalı tedavi mümkün olmadığında, DSÖ, NG ve CT enfeksiyonunun tedavisine başlanmasını önerir. Testler partner tedavisinde kullanılabilir.
4. Tekrarlayan veya kalıcı üretral akıntısı olan kişileri 21 gün sonra tekrarlanan moleküler testlerin sonucuna göre tedavi edin ( N. gonorrhoeae, C. trachomatis ve ayrıca M. genitalium ve T. vaginalis için test ve N. gonorrhoeae için antimikrobiyal direnç testi).

World Health Organization

# WHO global antimicrobial resistance surveillance for *Neisseria gonorrhoeae* 2017–18: a retrospective observational study

*Magnus Unemo, Monica M Lahra, Martina Escher, Sergey Eremin, Michelle J Cole, Patricia Galarza, Francis Ndowa, Irene Martin, Jo-Anne R Dillon, Marcelo Galas, Pilar Ramon-Pardo, Hillard Weinstock, Teodora Wi*

## Summary

**Background** Gonorrhoea and antimicrobial resistance (AMR) in *Neisseria gonorrhoeae* are major health concerns globally. Increased global surveillance of gonococcal AMR is essential. We aimed to describe the 2017–18 data from WHO's global gonococcal AMR surveillance, and to discuss priorities essential for the effective management and control of gonorrhoea.

**Methods** We did a retrospective observational study of the AMR data of gonococcal isolates reported to WHO by 73 countries in 2017–18. WHO recommends that each country collects at least 100 gonococcal isolates per year, and that quantitative methods to determine the minimum inhibitory concentration of antimicrobials, interpreted by internationally standardised resistance breakpoints, are used.

**Findings** In 2017–18, 73 countries provided AMR data for one or more drug. Decreased susceptibility or resistance to ceftriaxone was reported by 21 (31%) of 68 reporting countries and to cefixime by 24 (47%) of 51 reporting countries. Resistance to azithromycin was reported by 51 (84%) of 61 reporting countries and to ciprofloxacin by all 70 (100%) reporting countries. The annual proportion of decreased susceptibility or resistance across countries was 0–21% to ceftriaxone and 0–22% to cefixime, and that of resistance was 0–60% to azithromycin and 0–100% to ciprofloxacin. The number of countries reporting gonococcal AMR and resistant isolates, and the number of examined isolates, have increased since 2015–16. Surveillance remains scarce in central America and the Caribbean and eastern Europe, and in the WHO African, Eastern Mediterranean, and South-East Asian regions.

**Interpretation** In many countries, ciprofloxacin resistance was exceedingly high, azithromycin resistance was increasing, and decreased susceptibility or resistance to ceftriaxone and cefixime continued to emerge. WHO's global surveillance of gonococcal AMR needs to expand internationally to provide imperative data for national and international management guidelines and public health policies. Improved prevention, early diagnosis, treatment of index patients and partners, enhanced surveillance (eg, infection, AMR, treatment failures, and antimicrobial use or misuse), and increased knowledge on antimicrobial selection, stewardship, and pharmacokinetics or pharmacodynamics are essential. The development of rapid, accurate, and affordable point-of-care gonococcal diagnostic tests, new antimicrobials, and gonococcal vaccines is imperative.

World Health Organization

# Recommended treatment options for urethral discharge syndrome[a]

- Therapy for uncomplicated *Neisseria gonorrhoeae (24)*

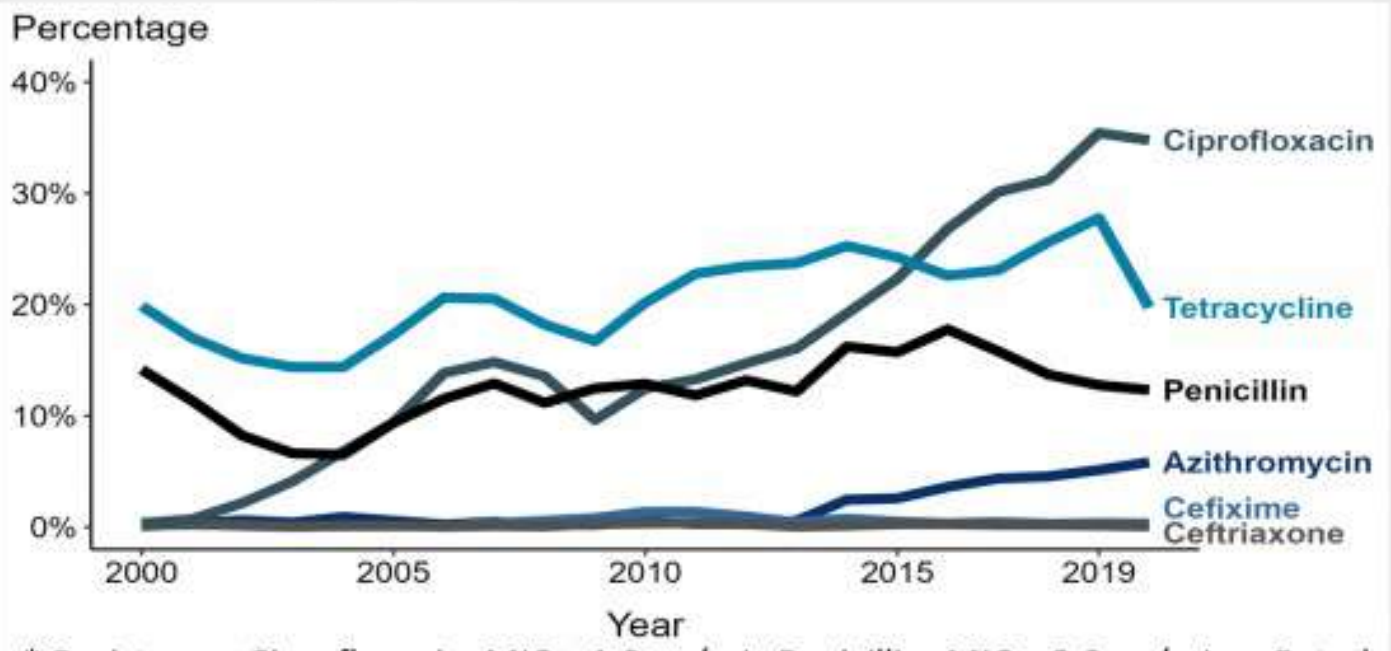
*Plus*

- Therapy for *Chlamydia trachomatis (25)*

| Infections covered | First-line options | Effective substitutes |
|---|---|---|
| In settings in which local antimicrobial resistance data are not available, the WHO STI guideline suggests dual therapy for gonorrhoea. | | |
| *N. gonorrhoeae*[a] | **Ceftriaxone 250 mg**, intramuscularly, single dose<br>*Plus*<br>**Azithromycin 1 gram**, orally, single dose | **Cefixime 400 mg**, orally, single dose<br>*Plus*<br>**Azithromycin 1 gram**, orally, single dose |

# Gonococcal Isolate Surveillance Project (GISP)

***Neisseria gonorrhoeae* — Prevalence of Tetracycline, Penicillin, or Ciprofloxacin Resistance* or Elevated Cefixime, Ceftriaxone, or Azithromycin Minimum Inhibitory Concentrations (MICs)†, by Year — Gonococcal Isolate Surveillance Project (GISP), 2000–2020**




* Resistance: Ciprofloxacin: MIC ≥ 1.0 µg/mL; Penicillin: MIC ≥ 2.0 µg/mL or Beta-lactamase positive; Tetracycline: MIC ≥ 2.0 µg/mL

† Elevated MICs: Azithromycin: MIC ≥ 1.0 µg/mL 29 (2000–2004); ≥ 2.0 µg/mL (2005–2020); Ceftriaxone: MIC ≥ 0.125 µg/mL; Cefixime: MIC ≥ 0.25 µg/mL

# Gonokokal enfeksiyonların tedavisi

## Recommended Regimen for Uncomplicated Gonococcal Infection of the Cervix, Urethra, or Rectum Among Adults and Adolescents

**Ceftriaxone** 500 mg* IM in a single dose for persons weighing <150 kg

If chlamydial infection has not been excluded, treat for chlamydia with doxycycline 100 mg orally 2 times/day for 7 days.

* For persons weighing ≥150 kg, 1 g ceftriaxone should be administered.

## Alternative Regimens if Ceftriaxone Is Not Available

**Gentamicin** 240 mg IM in a single dose
*plus*
**Azithromycin** 2 g orally in a single dose
*or*
**Cefixime*** 800 mg orally in a single dose

## Recommended Regimen for Uncomplicated Gonococcal Infection of the Pharynx Among Adolescents and Adults

**Ceftriaxone** 500 mg* IM in a single dose for persons weighing <150 kg

World Health Organization

# Gonokokal olmayan üretrit tedavisi

| Infections covered | First-line options | Effective substitutes |
|---|---|---|
| *C. trachomatis* | **Doxycycline 100 mg**, orally, twice daily for seven days<br>(to be given only if gonorrhoea therapy did not include azithromycin) | **Azithromycin 1 gram**, orally, single dose<br>*or*<br>**Erythromycin 500 mg**, orally, 4 times a day for 7 days<br>*or*<br>**Ofloxacin 200–400 mg**, orally, twice a day for 7 days.<br>(to be given only if gonorrhoea therapy did not include azithromycin) |
| Additional therapeutic options for recurrent or persistent infections | | |
| *T. vaginalis* | **Metronidazole 2 grams**, orally, single doses | **Metronidazole 400 or 500 mg**, twice daily for 7 days |
| *M. genitalium* | **Azithromycin 500 mg**, orally on day 1, 250 mg daily on days 2–5 | |

# Gonokokal olmayan üretrit tedavisi

| DISEASE | RECOMMENDED REGIMEN | ALTERNATIVE REGIMEN |
|---|---|---|
| **Nongonococcal Urethritis (NGU)** | doxycycline 100 mg orally 2x/day for 7 days | azithromycin 1 gm orally in a single dose<br>**OR** azithromycin 500 mg orally in a single dose, **THEN** 250 mg 1x/day for 4 days |
| Persistent or Recurrent NGU: test for *Mycoplasma genitalium*: | | |
| If *M. genitalium* resistance testing is unavailable but *M. genitalium* is detected by an FDA-cleared NAAT | doxycycline 100 mg orally 2x/day for 7 days, **FOLLOWED BY** moxifloxacin 400 mg 1x/day for 7 days | For settings without resistance testing and when moxifloxacin cannot be used: doxycycline 100 mg orally 2x/day for 7 days, **FOLLOWED BY** azithromycin 1 gm orally on first day, **FOLLOWED BY** azithromycin 500 mg orally 1x/day for 3 days and a test-of-cure 21 days after completion of therapy |
| If resistance testing is available, use resistance-guided therapy | **Macrolide sensitive**<br>doxycycline 100 mg orally 2x/day for 7 days, **FOLLOWED BY** azithromycin 1 gm orally initial dose, **FOLLOWED BY** azithromycin 500 mg orally 1x/day for 3 additional days (2.5 gm total)<br>**Macrolide resistance**<br>doxycycline 100 mg orally 2x/day for 7 days, **FOLLOWED BY** moxifloxacin 400 mg orally 1x/day for 7 days | |
| Test for *Trichomonas vaginalis* in heterosexual men in areas where infection is prevalent | metronidazole 2 gm orally in a single dose<br>**OR** tinidazole 2 gm orally in a single dose | |

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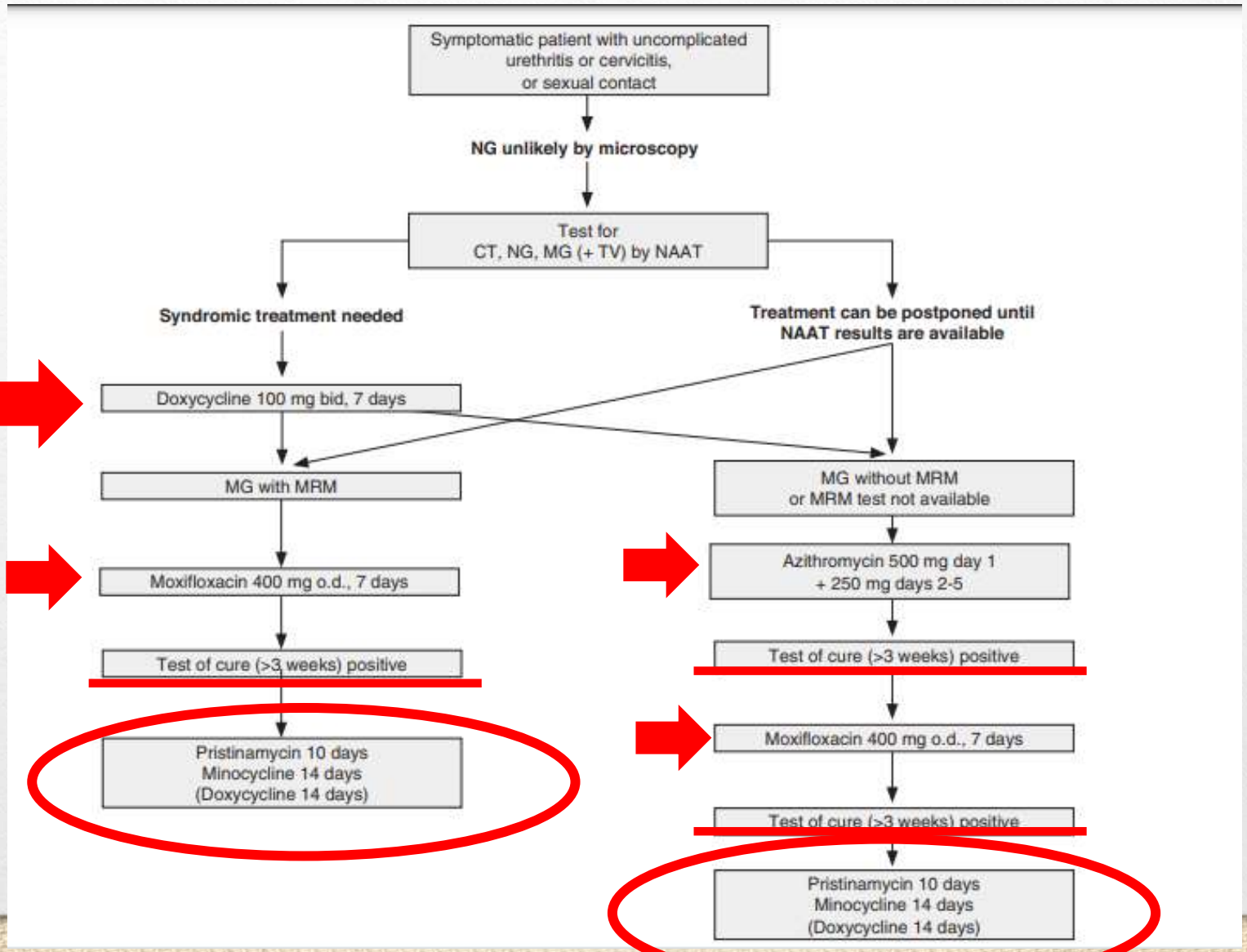
# 2021 European guideline on the management of *Mycoplasma genitalium* infections



World Health Organization

# Treatment options for cervical infection

- Therapy for uncomplicated *N. gonorrhoeae (24)*

*Plus*

- Therapy for *C. trachomatis (25)*

| Infections covered | First-line options | Effective substitutes | Options for pregnant women or during breastfeeding |
|---|---|---|---|
| In settings in which local antimicrobial resistance data are not available, the WHO STI guidelines suggest dual therapy for gonorrhoea. | | | |
| *N. gonorrhoeae*[a] | **Ceftriaxone 250 mg,** intramuscularly, single dose<br>*plus*<br>**Azithromycin 1 gram,** orally, single dose | Cefixime 400 mg, orally, single dose<br>*plus*<br>Azithromycin 1 gram, orally, single dose | **Ceftriaxone 250 mg,** intramuscularly, single dose<br>*plus*<br>**Azithromycin 1 gram,** orally, single dose<br>*or*<br>**Cefixime 400 mg,** orally, single dose<br>*plus*<br>**Azithromycin 1 gram,** orally, single dose |
| *C. trachomatis* | **Doxycycline 100 mg,** orally, twice daily for 7 days<br>(to be given only if gonorrhoea therapy did not include azithromycin) | **Azithromycin 1 gram,** orally, single dose<br>*or*<br>**Erythromycin 500 mg,** orally, 4 times a day for 7 days<br>*or*<br>**Ofloxacin 200–400 mg,** orally, twice daily for 7 days<br>(to be given only if gonorrhoea therapy did not include azithromycin) | **Erythromycin 500 mg,** orally, 4 times a day for 7 days<br>*or*<br>**Azithromycin 1 gram,** orally, single dose<br>(to be given only if gonorrhoea therapy did not include azithromycin) |
| *M. genitalium* | **Azithromycin 500 gram,** orally day 1, 250 mg daily, days 2–5 (absence of macrolide resistance) | | **Azithromycin 500 gram,** orally, day 1, 250 mg daily, days 2–5 (absence of macrolide resistance) |

# 2. VAJİNİT

# DSÖ,

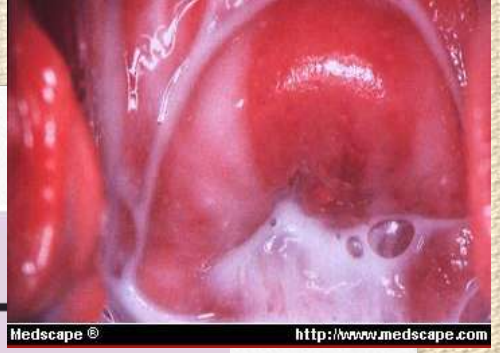
- 1. **N. gonorrhoeae ve/veya C. trachomatis ve/veya T. vaginalis'in**, vajinal sürüntü veya idrar örneğinde moleküler testlerin sonuçlarına göre tedavi edilmesini önermektedir.
  - Moleküler test ya da hızı antijen testi yapılamıyorsa spekulum muayenesinde gözle görülen akıntı veya servisit varsa NG ve CT için tedavi önerilmekte.
  - Bu da yapılamıyorsa yüksek riskli kişilere yine tedavi
- 2. İnatçı vajinal akıntı varsa mikroskopi sonuçlarına göre **bakteriyel vajinoz** tedavisini önerir.
- 3. Vajinal kaşıntılı lor benzeri akıntı varsa mikroskopi sonuçları ile **kandidiyaz** tedavisini önerir.

World Health Organization

# Treatment options for vaginal infections

| Infections covered | First-line options | Effective substitutes | Note: In pregnancy, metronidazole should, ideally, be avoided in the first trimester |
|---|---|---|---|
| Bacterial vaginosis | **Metronidazole**<br>**400 mg or 500 mg,** orally, twice daily for 7 days | **Clindamycin 300 mg,** orally, twice daily for 7 days<br>*or*<br>**Metronidazole 2 grams,** orally, single dose | **Metronidazole 200 mg or 250 mg,** orally, 3 times a day for 7 days<br>*or*<br>**Metronidazole gel** 0.75%, one full applicator (5 grams) intravaginally, twice a day for 7 days<br>*or*<br>**Clindamycin 300 mg,** orally, twice daily for 7 days |
| *T. vaginalis* | **Metronidazole 2 grams,** orally, in a single dose<br>*or*<br>**Metronidazole**<br>**400 mg or 500 mg,** orally, twice daily for 7 days | **Tinidazole 2 grams orally,** single dose<br>*or*<br>**Tinidazole 500 mg orally,** twice daily for 5 days | **Metronidazole 200 mg or 250 mg,** orally, 3 times a day for 7 days<br>*or*<br>**Metronidazole gel** 0.75%, one full applicator (5 grams) intravaginally, twice a day for 7 days |
| *C. albicans* (yeast infection) | **Miconazole vaginal pessaries, 200 mg** inserted at night for 3 nights<br>*or*<br>**Clotrimazole vaginal tablet, 100 mg,** inserted at night for 7 nights | **Fluconazole 150 mg (or 200mg),** orally, single dose<br>*OR*<br>**Nystatin, 200,000-unit vaginal tablet,** inserted at night for 7 nights | **Miconazole 200 mg vaginal pessaries** inserted once daily for 3 days<br>*or*<br>**Clotrimazole vaginal tablet 100 mg** inserted at night for 7 days<br>*or*<br>**Nystatin pessaries 200,000 units,** inserted at night for 7 nights |

# Bakteriyal vajinoz tedavisi




## Recommended Regimens for Bacterial Vaginosis

**Metronidazole** 500 mg orally 2 times/day for 7 days

*or*

**Metronidazole gel 0.75%** one full applicator (5 g) intravaginally, once daily for 5 days

*or*

**Clindamycin cream 2%** one full applicator (5 g) intravaginally at bedtime for 7 days

## Alternative Regimens

**Clindamycin** 300 mg orally 2 times/day for 7 days

*or*

**Clindamycin ovules** 100 mg intravaginally once at bedtime for 3 days*

*or*

**Secnidazole** 2 g oral granules in a single dose†

*or*

**Tinidazole** 2 g orally once daily for 2 days

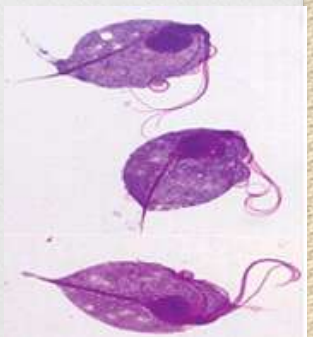
*or*

**Tinidazole** 1 g orally once daily for 5 days

# Trikomoniazis tedavisi

| Recommended Regimen for Trichomoniasis Among Women |
| --- |
| **Metronidazole** 500 mg orally 2 times/day for 7 days |
| **Recommended Regimen for Trichomoniasis Among Men** |
| **Metronidazole** 2 g orally in a single dose |
| **Alternative Regimen for Women and Men** |
| **Tinidazole** 2 g orally in a single dose |

- Tekrarlayan T.vaginalis;
  - Relaps (antibiyotik direnci (%4-10) ya da tedaviye uyumsuzluk)
  - Reinfeksiyon (Tedavi edilmemiş eş)



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# Candida Vajiniti Tedavisi

**Recommended Regimens for Vulvovaginal Candidiasis**

**Over-the-Counter Intravaginal Agents**

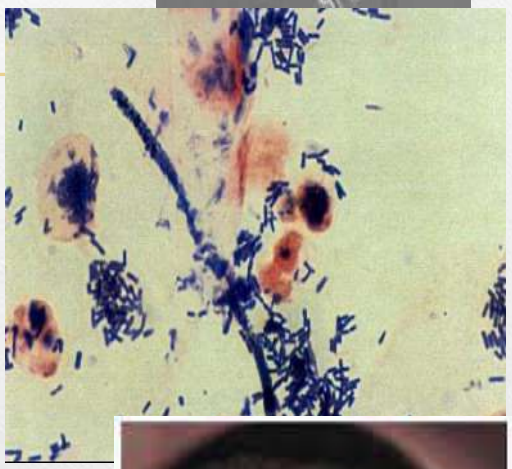
**Clotrimazole 1% cream** 5 g intravaginally daily for 7–14 days
*or*
**Clotrimazole 2% cream** 5 g intravaginally daily for 3 days
*or*
**Miconazole 2% cream** 5 g intravaginally daily for 7 days
*or*
**Miconazole 4% cream** 5 g intravaginally daily for 3 days
*or*
**Miconazole 100 mg vaginal suppository** one suppository daily for 7 days
*or*
**Miconazole 200 mg vaginal suppository** one suppository for 3 days
*or*
**Miconazole 1,200 mg vaginal suppository** one suppository for 1 day
*or*
**Tioconazole 6.5% ointment** 5 g intravaginally in a single application

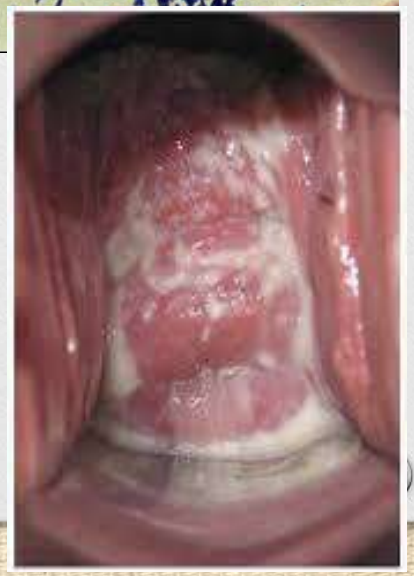
**Prescription Intravaginal Agents**

**Butoconazole 2% cream** (single-dose bioadhesive product) 5 g intravaginally in a single application
*or*
**Terconazole 0.4% cream** 5 g intravaginally daily for 7 days
*or*
**Terconazole 0.8% cream** 5 g intravaginally daily for 3 days
*or*
**Terconazole 80 mg vaginal suppository** one suppository daily for 3 days

**Oral Agent**

**Fluconazole** 150 mg orally in a single dose





- **Komplike vulvovajinal candidiyazis (VVC);**
  - 7–14 gün topikal tedavi  ya da
  - 1, 4, 7. günlerde 100-150-ya da 200-mg oral flukonazol 3 doz
  - Tekrarlıyorsa; Haftada bir oral flukanazol, 6 ay
- **Ciddi VVC;**
  - 7–14 days of topical azol ya da
  - 72 saat ara ile 2 kez oral 150 mg flukanazol
- **Non–*albicans VVC;***
  - *7-14 gün nonfluconazole azol (oral or topikal)*
  - *Tekrarlarsa; Günlük 600 mg of borik acid vaginal gelatin capsul, 3 hafta %70 başarılı)*

# 3. PELVİK İNFLAMATUVAR HASTALIK (PID)

World Health Organization

# Treatment options for pelvic inflammatory disease[a]

- Therapy for uncomplicated *N. gonorrhoeae (24)*

*plus*

- Therapy for *C. trachomatis (25)*

*plus*

- Therapy for anaerobic infections

| Infections covered | First-line options | Effective substitutes |
|---|---|---|
| In settings in which local antimicrobial resistance data are not available, the WHO STI guidelines suggest dual therapy for gonorrhoea. | | |
| *N. gonorrhoeae* | **Ceftriaxone 250 mg,** intramuscularly, single dose<br>*plus*<br>**Azithromycin 1 gram,** orally, single dose | **Cefixime 400 mg,** orally, single dose<br>*plus*<br>**Azithromycin 1 gram,** orally, single dose |
| *C. trachomatis* | **Doxycycline 100 mg,** orally, twice daily for 14 days | **Erythromycin 500 mg,** four times daily for 14 days<br>(to be given only if gonorrhoea therapy did not include azithromycin) |
| In settings in which local antimicrobial resistance data reliably confirm the susceptibility of *N. gonorrhoeae* to the antimicrobial agent, singe therapy may be given as below. | | |
| *N. gonorrhoeae* | **Ceftriaxone 250 mg,** intramuscularly, single dose | **Cefixime 400 mg,** orally, single dose |
| The treatment for anaerobes must be included in either treatment option above. | | |
| **Anaerobes** | **Metronidazole 400 mg or 500 mg**, orally, twice daily for 14 days | |

[a]Because of increasing antimicrobial resistance to azithromycin in *N. gonorrhoeae* and reduced susceptibility to cephalosporins, WHO is in the process of revising current treatment recommendations and dosages.

# PID TEDAVİSİ

## Recommended Parenteral Regimens for Pelvic Inflammatory Disease

Ceftriaxone 1 g by e
*plus*
Doxycycline 100 mg
*plus*
Metronidazole 500
*or*
Cefotetan 2 g IV eve
*plus*
Doxyc
*or*
Cefoxi
*plus*
Doxyc

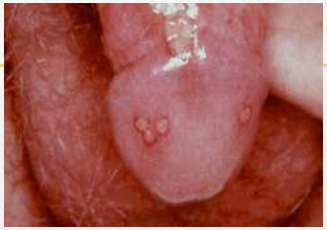
### Alternative Parenteral Regimens

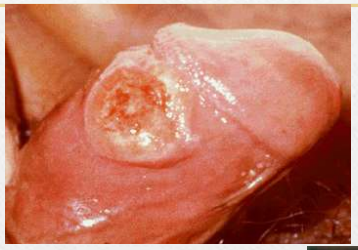
Ampicillin-sulbactam 3 g IV every 6 hours
*plus*
Doxycycline 100 mg orally or IV every 12 hours
*or*
Clindamycin 900 mg IV every 8 hours
*plus*
Gentamicin loading dose IV or IM (2 mg/kg body weight), followed by a maintenance dose (1.5 mg/kg body weight) every 8 hours; single daily dosing (3–5 mg/kg body weight) can be substituted

## Recommended Intramuscular or Oral Regimens for Pelvic Inflammatory Disease

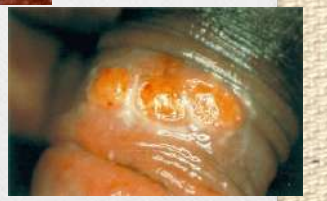
Ceftriaxone 500 mg* IM in a single dose
*plus*
Doxycycline 100 mg orally 2 times/day for 14 days with metronidazole 500 mg orally 2 times/day for 14 days
*or*

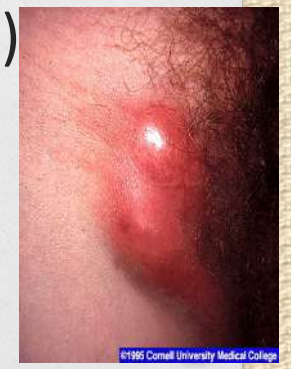
# 4. Genital, anal ya da perianal ülser etkenleri





- Genital Herpes
- Sifilis
- Şankroid (*H. ducrei*)
- Lymphogranuloma venereum (*C.trachomatis*)
- Granuloma inguinale (*Klebsiella granulomatosis* )





World Health Organization

# Recommended treatment options for genital ulcer disease

Tanı için NAAT testleri önerilir. Moleküler testlerin yapılmadığı durumlarda;

- 1. Genital ülser varlığında sifilis ve HSV için aynı gün tedavi
- 2. Tekrarlayan veya veziküler ülser varlığında HSV için tedavi edin ve kişinin son üç ay içinde sifiliz tedavisi görmemişse sifiliz tedavisi yapın.
- 3. Şankroid tedavisini yalnızca vakaların bildirildiği veya ortaya çıktığı coğrafi ortamlarda yapın.
- 4. İnatçı anogenital ülserlerlerde, herpes veya daha az yaygın patojenleri (lenfogranüloma venereum, donovanosis ve şankroid) teşhis için ileri tetkik

# Genital Herpes - Tanı

**NAAT….** En sensitif test (%90-100)…Genital ülser ve mukokutanöz lezyon olmadığında negatif olb

- PCR*…..sistemik enfeksiyon ya da SSS kull (kan veya BOS)
- Viral kültür…..sensitivitesi düşük (özl. Rekurrent lezyon ve lezyonun hızlı düzelmesi)
- NAAT, viral kültürün negatif olması tanıyı ekarte ettirmiyor…..(aktif lezyon yoksa, ya da lezyon eski ise)

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# Genital Herpes - Tanı

- Genital herpes uyumlu kliniği olanlar dışında rutin HSV 2 serolojisi taramada önerilmiyor.

**Tipe özgül serolojik testler (2 aşamalı test)**

- EIA…..spesifitesi %80-93 değişken
  - yalancı negatiflik yüksek özl. erken dönemde (12 hf sonra test tekrarı
  - düşük indekse sahip testlerde yanlış pozitiflik
- **Western Blot ya da Biokit**
  - EIA testlerinin doğruluğun arttırdığından beraber kullanımı önerilir

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World Health Organization

# Recommended treatment options for genital ulcer disease

| Infections covered | First-line options | Effective substitutes | For pregnant and breastfeeding women and people younger than 16 years |
|---|---|---|---|
| Genital herpes | **Primary infection**<br>**Acyclovir 400 mg,** orally, 3 times a day for 10 days<br>*or*<br>**Acyclovir 200 mg,** orally, 5 times a day for 10 days | **Primary infection**<br>**Valaciclovir 500 mg,** twice a day for 10 days<br>*or*<br>**Famciclovir 250 mg,** orally, 3 times a day for 10 days | **Primary infection**<br>Use acyclovir only when the benefit outweighs the risk. The dosage is the same as for primary infection in non-pregnancy. |
| | **Recurrent infection – episodic therapy**<br>**Acyclovir 400 mg,** orally, 3 times a day for 5 days<br>*or*<br>**Acyclovir 800 mg,** orally, twice daily for 5 days<br>*or*<br>**Acyclovir 800 mg,** 3 times a day for 2 days | **Recurrent infection – episodic**<br>**Valaciclovir 500 mg,** twice daily for 5 days<br>*or*<br>**Famciclovir 250 mg,** orally, twice daily for 5 days | **Recurrent infection – episodic therapy**<br>**Acyclovir 400 mg,** orally, 3 times a day for 5 days<br>*or*<br>**Acyclovir 800 mg,** orally, twice daily for 5 days<br>*or*<br>**Acyclovir 800 mg,** 3 times a day, for 2 days |
| | **Suppressive therapy for recurrent herpes**[a]<br>**Acyclovir 400 mg,** orally, twice daily<br>*or*<br>**Valaciclovir 500 mg,** once daily | **Suppressive therapy for recurrences**[a]<br>**Famciclovir 250 mg,** orally, twice daily | **Suppressive therapy for recurrent herpes**<br>**Acyclovir 400 mg,** orally, twice daily<br>*or*<br>**Valaciclovir 500 mg,** once daily |

# GENİTAL HERPES İLK ATAK TEDAVİSİ

| Recommended Regimens for First Clinical Episode of Genital Herpes* |
|---|
| **Acyclovir**† 400 mg orally 3 times/day for 7–10 days<br>*or*<br>**Famciclovir** 250 mg orally 3 times/day for 7–10 days<br>*or*<br>**Valacyclovir** 1 g orally 2 times/day for 7–10 days |

* Treatment can be extended if healing is incomplete after 10 days of therapy.
† Acyclovir 200 mg orally 5 times/day is also effective but is not recommended because of the frequency of dosing.

- Asiklovir dirençli olgularda (çoğunlukla Famsiklovir ve valasiklovir de dirençli)
  - Foscarnet (40-0mg/kg IV 8 saatte bir)
  - Cidofovir (5mg/kg haftada bir)

# Tekrarlayan Genital HSV Tedavisi

- **HSV-1** ise daha nadir rekürrens…**atak tdv,**
- **HSV2** de sık tekrarlar**….. sürekli baskılama tedavisi**

- **Baskılama tedavisi;**
  - yılda >6 atak
  - En az 1 yıl
  - %70-80 başarılı
  - Eşler arasında HSV geçişi önlediğine dair kanıt yok

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# Tekrarlayan Genital HSV Tedavisi

**Recommended Regimens for Episodic Therapy for Recurrent HSV-2 Genital Herpes***

**Acyclovir** 800 mg orally 2 times/day for 5 days
*or*
**Acyclovir** 800 mg orally 3 times/day for 2 days
*or*
**Famciclovir** 1 g orally 2 times/day for 1 day
*or*
**Famciclovir** 500 mg orally once, followed by 250 mg 2 times/day for 2 days
*or*
**Famciclovir** 125 mg orally 2 times/day for 5 days
*or*
**Valacyclovir** 500 mg orally 2 times/day for 3 days
*or*
**Valacyclovir** 1 g orally once daily for 5 days

* Acyclovir 400 mg orally 3 times/day for 5 da
recommended because of frequency of do

**Recommended Regimens for Suppression of Recurrent HSV-2 Genital Herpes**

**Acyclovir** 400 mg orally 2 times/day
*or*
**Valacyclovir** 500 mg orally once a day*
*or*
**Valacyclovir** 1 g orally once a day
*or*
**Famciclovir** 250 mg orally 2 times/day

* Valacyclovir 500 mg once a day might be less effective than other valacyclovir or acyclovir dosing regimens for persons who have frequent recurrences (i.e., ≥10 episodes/year).

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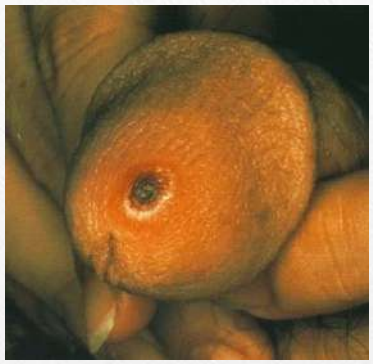
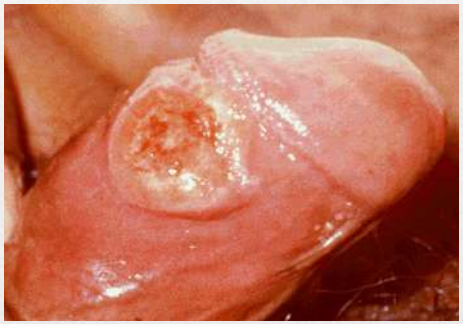
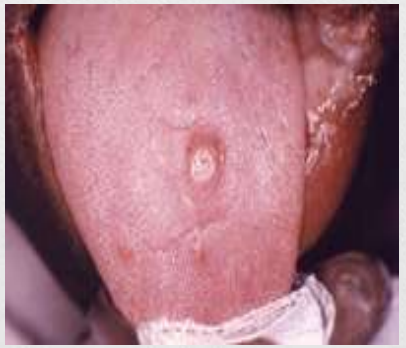
# Sifilis

1. **Erken Sifilis;**

- **Primer sifiliz**
  - **Şankr (tek ağrısız)**
  - **Bölgesel LAP**
- **Sekonder sifilis**
  - Döküntüler
  - Yaygın LAP
  - Condilama lata
  - Mukoza lezyonları
  - Ateş
  - Organ tutulumları (menenjit, hepatit, glomerulonerit vb)







# Sifiliz

## 2. Latent sifiliz

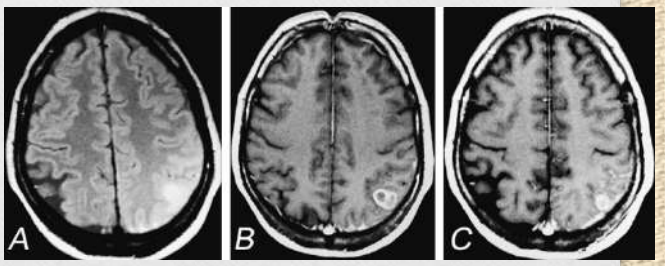
Klinik bulgu yok

Serolojik testler (+),

Erken (<1 yıl) Geç (>1 yıl)….ayrımı zor

## 3.Tersiyer ve geç sifiliz

- Gom (Sifilitik granülom)
- MSS ve KVS tutulumu

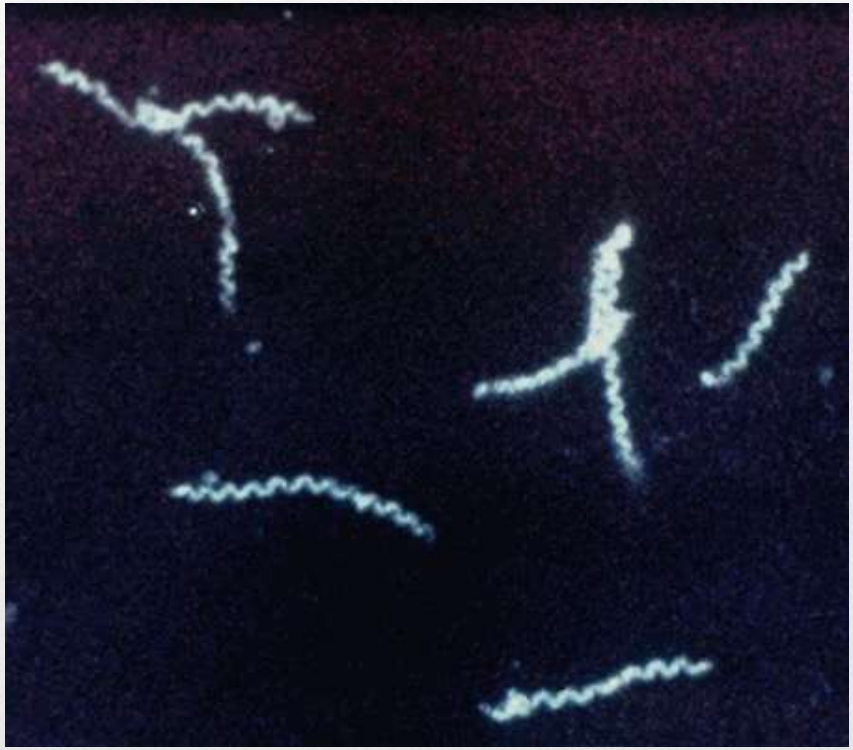


# SİFİLİS TANI

- Direkt Mikrobiyolojik Testler
  - Karanlık alan mikroskopisi
  - İmmunfloresan mikroskopi
- Moleküler Testler
  - NAAT*
  - PCR
- İndirekt (Serolojik) Mikrobiyolojik Testler
  - Non-treponemal testler
  - Treponemal testler

# SİFİLİZ TANI

- Erken dönem ve konjenitel sifilis;
  - Karanlık alan mikroskopisi
  - Immunfloresan mikroskopi
  - Moleküler testler



# Sifiliz Tanı – Serolojik testler


## Non-treponemal testler

- VDRL
- RPR

## Treponemal testler

- FTA-ABS
- TPHA
- MHA-TP
- ELISA

# Nontreponemal Testler

- Serokonversiyon;
  - bulaştan 4-6 hafta sonra
  - Şankırın çıkmasından 7-10 gün sonra
- **Yanlış negatiflik;**
  - Erken sifilis
  - Antikorların çok yüksek olup prozon oluşturması
  - HIV, nörosifilis
- **Yanlış pozitiflik;**
  - Diğer enfeksiyonların varlığı (HIV,t bc, lepra, sıtma vb)
  - Otoimmun hastalık
  - Aşılama
  - IV ilaç bağımlılığı
  - Hamilelik
  - İleri yaş
- Bu nedenlerle 2 test arasında 4 kat titre ya da iki dilüsyon artışı

# Treponemal Testler

- Hemaglütinasyontestleri
  - *T.pallidum* pasif parçacık hemaglütinasyon/**TP-PA**
  - *T.pallidum* hemaglütinasyon/**TPHA**
  - *T.pallidum* mikro hemaglutinasyon/**MHA-TP**
- Floresan treponemal antikor absorbsiyon/ **FTA-Abs**
- *T.pallidum* enzyme immunoassay/**TP-EIA**
- Chemiluminescence immunoassays/ **KIA**
- IgG immunoblot test

World Health Organization

# Sifiliz Tedavi Önerileri

| Infections covered | First-line options | Effective substitutes | For pregnant and breastfeeding women and people younger than 16 years |
|---|---|---|---|
| **Syphilis (early)** (treatment for primary, secondary and early latent [less than two years since infection] syphilis) | **Benzathine penicillin 2.4 million units,** intramuscularly in a single dose | **Doxycycline 100 mg,** orally, twice a day for 14 days *or* **Erythromycin 500 mg,** 4 times a day for 14 days | **Benzathine penicillin 2.4 million units**, intramuscularly in a single dose *or* **Erythromycin 500 mg,** orally, 4 times a day for 14 days[b] |
| **Syphilis (late)** (treatment for late latent and tertiary syphilis) | **Benzathine penicillin 2.4 million units** by intramuscular injection, once weekly for 3 consecutive weeks | **Procaine penicillin 1.2 million units** by intramuscular injection, once daily for 20 consecutive days *or* **Doxycycline 100 mg,** orally, twice daily for 30 days | **Erythromycin 500mg** orally, 4 times a day for 30 days[b] |

# SİFİLİZ TEDAVİSİ

| Recommended Regimen for Primary and Secondary Syphilis* Among Adults |
| --- |
| **Benzathine penicillin G** 2.4 million units IM in a single dose |

| Recommended Regimens for Latent Syphilis* Among Adults |
| --- |
| **Early latent syphilis: Benzathine penicillin G** 2.4 million units IM in a single dose |
| **Late latent syphilis: Benzathine penicillin G** 7.2 million units total, administered as 3 doses of 2.4 million units IM each at 1-week intervals |

| Recommended Regimen for Tertiary Syphilis Among Adults |
| --- |
| **Tertiary syphilis with normal CSF examination: Benzathine penicillin G** 7.2 million units total, administered as 3 doses of 2.4 million units IM each at 1-week intervals |

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## Recommended Regimen for Neurosyphilis, Ocular Syphilis, or Otosyphilis Among Adults

**Aqueous crystalline penicillin G** 18–24 million units per day, administered as 3–4 million units IV every 4 hours or continuous infusion for 10–14 days

## Alternative Regimen

**Procaine penicillin G** 2.4 million units IM once daily

*plus*

**Probenecid** 500 mg orally 4 times/day, both for 10–14 days

# Penisilin allerjisinde alternatif tedavi

- Kanıtlanmış alternatif tedavi yok
- Desensitizasyon kuvvetle öneriliyor
- **Primer ve sekonder sifiliz;**
  - Doksisiklin 2x100 mg ya da Tetrasiklin 4x500 mg-14 gün
  - Seftriakson 1 grIM/IV, 10 gün-kesin süre bilinmiyor
- **Gebe primer ve sekonder sifiliz;**
  - Desensitizasyonu ve penisilin G ile tedavi
- **Latent Sifilis;**
  - Doksisiklin (100 mg oral günde 2 kez) ya da Tetrasiklin (500 mg oral günde 4 kez), 28gün? Tam süre belirsiz
- **Nörosifiliz;**
  - Seftriakson 1-2gr IV/ gün 10-14 gün….etkisi iyi tanımlanmamış
- Mutlaka yakın izlem ve seroloji takibi gerekli

# Tedavi takibi

- Nontrepanomal testler 6,12,24. aylarda tekrarlanmalı
- 4 kat titre azalması yanıtı gösterir
- Azalırken tekrar artması
  - Reinfeksiyon
  - Nörosifilis
  - HIV

# 2020 European guideline on the management of syphilis

**Early syphilis (Primary, Secondary and Early later <1 year previously)**

**First-line therapy option:**

- Benzathine penicillin G (BPG) 2.4 million units int injection of 2.4 million units or 1.2 million units in e

**Second-line therapy option:**

- Procaine penicillin 600 000 units IM daily for 10– not available

**Bleeding disorders:**

- Ceftriaxone 1g intravenously (IV) daily for 10 day
- Doxycycline 200 mg daily (either 100 mg twice d 200 mg dose) orally for 14 days

**Penicillin allergy or parenteral treatment refused:**

- Doxycycline 200 mg daily (either 100 mg twice d 200 mg dose) orally for 14 days

**Late latent (i.e. acquired ≥1 year previously or of u cardiovascular and gummatous syphilis**

**First-line therapy option:**

- BPG 2.4 million units IM (one injection 2.4 million 1.2 million units in each buttock) weekly on day 1

**Second-line therapy option:**

- Procaine penicillin 600 000 units IM daily during BPG is not available

**Penicillin allergy or parenteral treatment refused:**

- Some specialists recommend penicillin desensiti base for the use of non-penicillin regimens is wea
- Doxycycline 200 mg daily (either 100 mg twice d 200 mg dose) orally during 21–28 days.

**Neurosyphilis, ocular and auricular syphilis**

**First-line therapy option:**

- Benzyl penicillin 18–24 million units IV daily, as 3-4 million units every 4 hours for 10–14 day

**Second-line therapy option:**

- If hospitalization and IV benzyl penicillin is impossible
- Ceftriaxone 1–2 g IV daily for 10–14 days
- Procaine penicillin 1.2–2.4 million units IM daily AND probenecid 500 mg four times daily, both for 10–14 days

**Penicillin allergy:**

- Desensitization to penicillin followed by the first-line regimen

**Pregnancy**

**First-line option for treatment of early syphilis (i.e. acquired <1 year previously):**

- BPG 2.4 million units IM single dose (or 1.2 million units in each buttock)

**Second-line therapy option:**

- Procaine penicillin 600 000 units IM daily for 10–14 days, i.e. if BPG is not available

**Penicillin allergy.**

- Desensitization to penicillin followed by the first-line regimen

**HIV-infected patients**

**Treatment of syphilis in patients with concomitant HIV infection**

- Treatment should be given as for non-HIV-infected patients.

# CYBE korunmada yenilikler

**Doksisiklin** temas öncesi ve sonrası profilaksi çalışmaları

- **Temas öncesi profilaksisi;**
  - 100mg/gün doksisiklinin 48 hafta, bakteriyel CYBE %70 azalttığı
  - HIV pozitif ve daha önce sifilis geçirdiği bilinen hastalar
- **Temas sonrası profilaksi;**
  - 200mg tek doz doksisiklin
  - HIV pozitif MSM ve transgender kadınlarda korunmasız anal sex sonrası 72 saat içinde
  - Klamidya ve sifilis bulaşını %70ve %73 azalttığı

*Bolan RK, et al. Sex Transm Dis 2015;42:98–103*
*Grant JS, et al. Clin Infect Dis 2020;70:1247–53.*

# TEŞEKKÜRLER