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# STI Treatment Update

# Objectives

1

## **Explain**

What has changed in the STI treatment guidelines?

2

## **Describe**

All STI treatment guidelines and screening recommendations

3

## **Review**

CUHCC STI treatment protocol and where to find it

# What's changed?

## **Question 1: What has changed in STI treatment guidelines?**

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- A. Preferred Gonorrhea treatment**
- B. Preferred Chlamydia treatment**
- C. Preferred Trichomonas treatment**
- D. Preferred Syphilis treatment**

# A. Preferred Gonorrhea treatment

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## Update to CDC's Treatment Guidelines for Gonococcal Infection, 2020

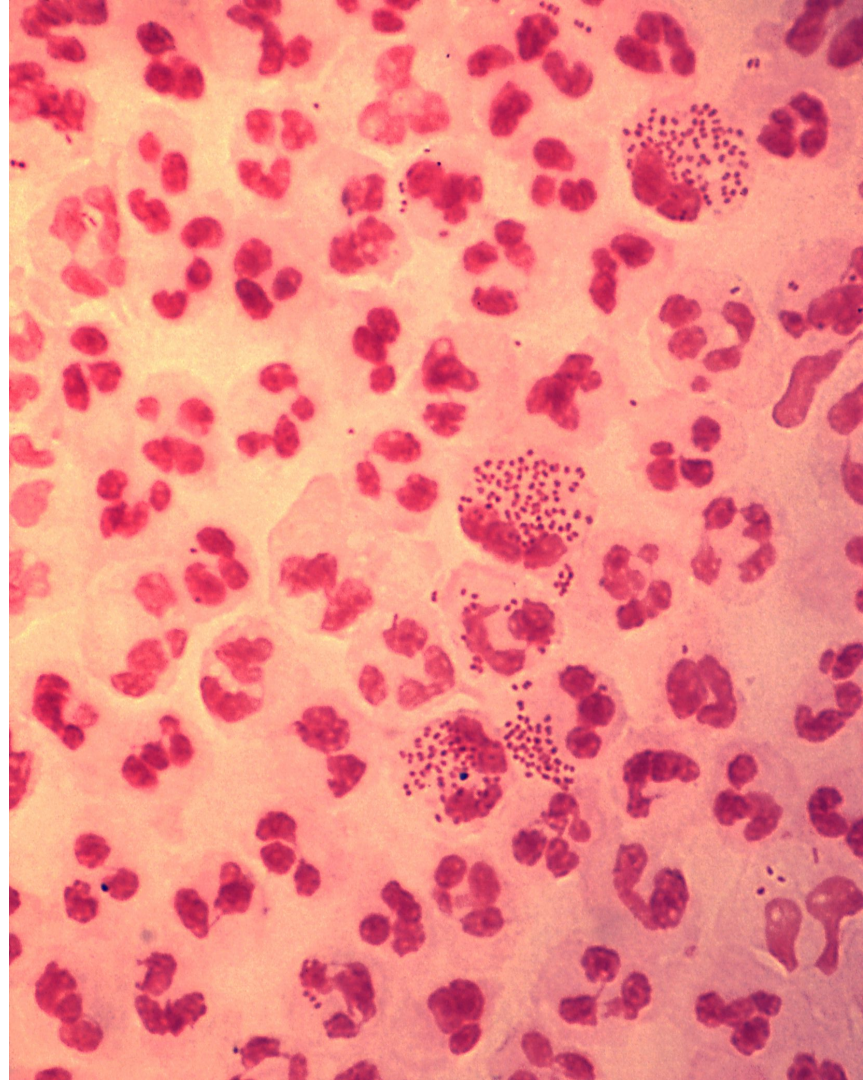
*Weekly* / December 18, 2020 / 69(50);1911-1916

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## ***Neisseria gonorrhoea***

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- gonococcal infections increased 63% since 2014
- complications can include pelvic inflammatory disease, ectopic pregnancy, infertility, and increased transmission of HIV



# National disparities

7.7x higher rate in Blacks as compared to Whites in 2018

Disparity greatest in Midwest and Northeast than in South and West

1.6x higher rate among Hispanics compared to Whites

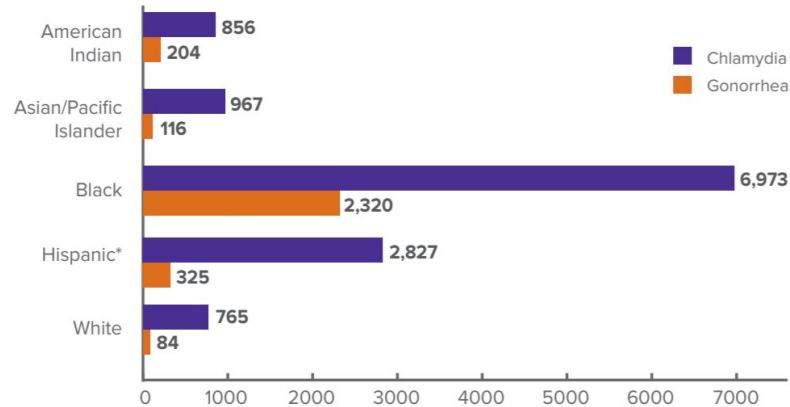
Greatest in the Northeast

0.5x rate among Asians compared to Whites

Consistent for all four regions of the US

# Disparities in MN- 2019

**FIGURE 8. MINNESOTA CHLAMYDIA AND GONORRHEA RATES BY RACE/ETHNICITY, 2019 (AGED 15-19 PER 100,000 POPULATION)**



\*Persons of Hispanic ethnicity may also be counted in other racial categories.



# 33,725

cases of chlamydia, gonorrhea and syphilis in MN in 2019

# 8,063

cases of gonorrhea

# #2

second most common STI in Minnesota

# CUHCC Data 2020

76 positive  
STI tests

17  
Gonorrhea  
cases

10 received  
treatment

# Updated Gonorrhoea Treatment

# Gonorrhea treatment recommendations

## Previously

A single 250 mg IM dose of ceftriaxone + single 1 g oral dose of azithromycin for treatment of uncomplicated gonococcal infections

## Updated

A single **500 mg IM** dose of **ceftriaxone** for persons weighing <150 kg or a single **1 g IM** dose of ceftriaxone for persons weighing  $\geq 150$  kg  
AND  
**doxycycline 100 mg** orally twice daily for 7 days if chlamydial infection has not been ruled out

**BOX. CDC recommended regimens for uncomplicated gonococcal infections, 2020**

**Regimen for uncomplicated gonococcal infections of the cervix, urethra, or rectum:**

Ceftriaxone 500 mg IM as a single dose for persons weighing <150 kg (300 lb).

- For persons weighing ≥150 kg (300 lb), 1 g of IM ceftriaxone should be administered.
- If chlamydial infection has not been excluded, providers should treat for chlamydia with doxycycline 100 mg orally twice daily for 7 days. During pregnancy, azithromycin 1 g as a single dose is recommended to treat chlamydia.

**Alternative regimens for uncomplicated gonococcal infections of the cervix, urethra, or rectum if ceftriaxone is not available:**

Gentamicin 240 mg IM as a single dose plus azithromycin 2 g orally as a single dose OR

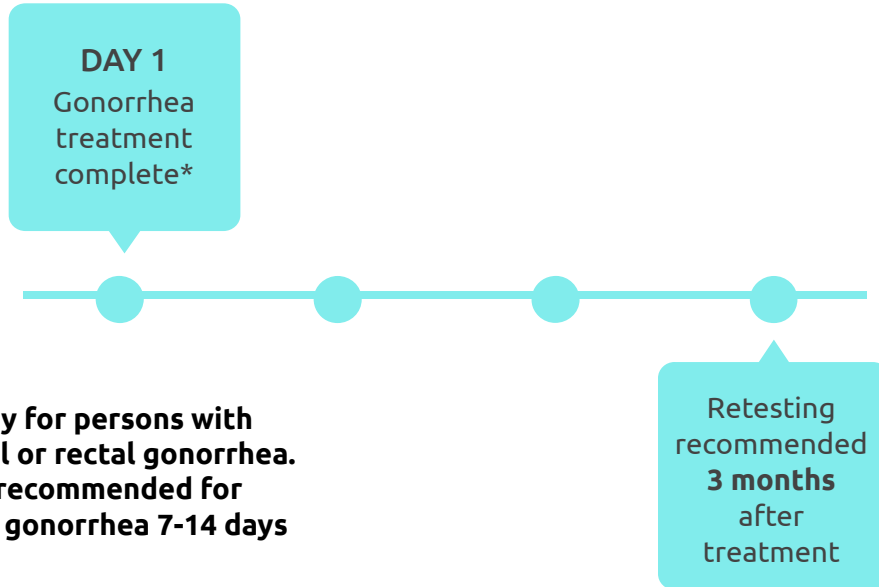
Cefixime 800 mg orally as a single dose. If treating with cefixime, and chlamydial infection has not been excluded, providers should treat for chlamydia with doxycycline 100 mg orally twice daily for 7 days. During pregnancy, azithromycin 1 g as a single dose is recommended to treat chlamydia.

**Recommended regimen for uncomplicated gonococcal infections of the pharynx:**

Ceftriaxone 500 mg IM as a single dose for persons weighing <150 kg (300 lb).

- For persons weighing ≥150 kg (300 lb), 1 g of IM ceftriaxone should be administered.
- If chlamydia coinfection is identified when pharyngeal gonorrhea testing is performed, providers should treat for chlamydia with doxycycline 100 mg orally twice a day for 7 days. During pregnancy, azithromycin 1 g as a single dose is recommended to treat chlamydia.
- No reliable alternative treatments are available for pharyngeal gonorrhea. For persons with a history of a beta-lactam allergy, a thorough assessment of the reaction is recommended.\*
- For persons with an anaphylactic or other severe reaction (e.g., Stevens Johnson syndrome) to ceftriaxone, consult an infectious disease specialist for an alternative treatment recommendation.

# Retesting



**\*test-of-cure unnecessary for persons with uncomplicated urogenital or rectal gonorrhea. However, test-of-cure is recommended for persons with pharyngeal gonorrhea 7-14 days after initial treatment.**

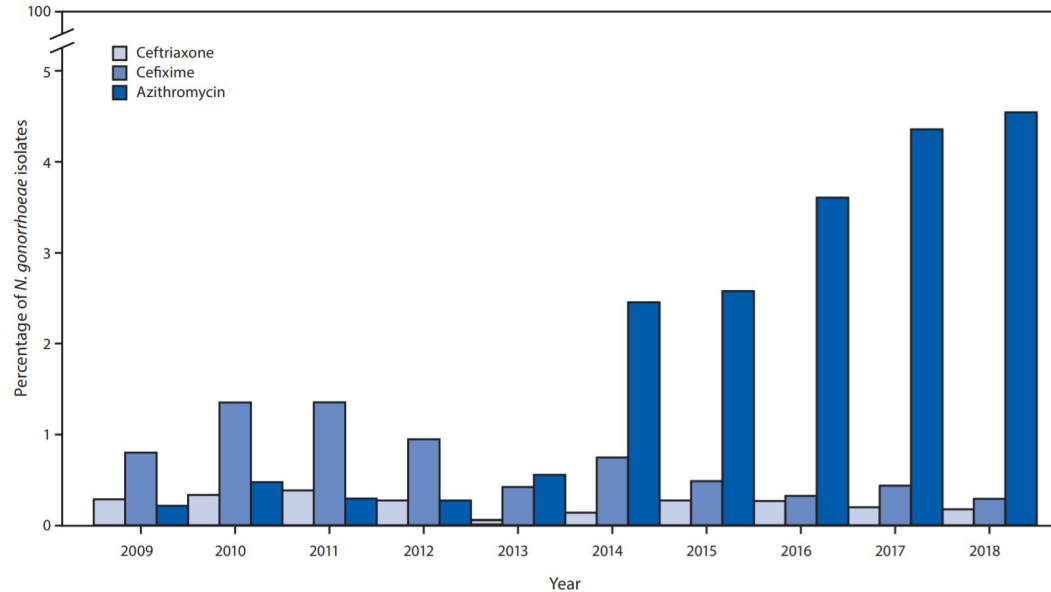
## Rationale for the change:

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- **Antimicrobial stewardship**
  - **impact on microbiome**
- **Pharmacokinetics**
  - **250 mg ceftriaxone doesn't achieve levels >MIC for extended duration**
- **Azithromycin resistance**
  - **percentage of N. gonorrhoea isolates with reduced azithromycin susceptibility has increased more than sevenfold between 2013 and 2018**

# Azithromycin resistance:

FIGURE. Percentage of *Neisseria gonorrhoeae* isolates with elevated minimum inhibitory concentrations (MICs)\* to ceftriaxone, cefixime, and azithromycin — Gonococcal Isolate Surveillance Project, United States, 2009–2018

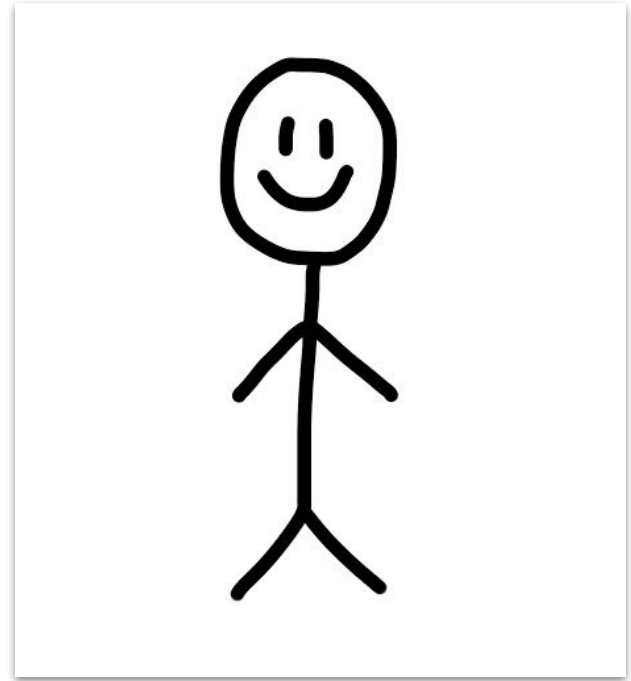




## Question 2: What would you prescribe for this patient?

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- A. Ceftriaxone 1 gm IM x 1
- B. Cefixime 800 mg orally x 1
- C. Ceftriaxone 500 mg IM x 1
- D. Ceftriaxone 250 mg IM x 1 + azithromycin 1 g orally x 1



- 27 year old female
- 59 kg
- NKDA
- Positive for gonorrhea, negative for any other STIs



# **Screening recommendations**

# Chlamydia

Women	<ul style="list-style-type: none"><li>● Sexually active women &lt;25 years old or 25+ if at increased risk</li><li>● All pregnant women &lt;25 years old or 25+ if at increased risk &amp; retest during 3rd trimester for women &lt;25 years old or at risk</li></ul>
Men	<ul style="list-style-type: none"><li>● Consider screening young men in high prevalence clinical settings regardless of condom use</li><li>● MSM at least annually, and every 3-6 months if at increased risk</li></ul>
Persons with HIV	<ul style="list-style-type: none"><li>● For sexually active individuals, screen at first evaluation &amp; at least annually thereafter, more frequently depending on behaviors and local epidemiology</li></ul>

# Gonorrhea

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Women	<ul style="list-style-type: none"><li>● Sexually active women &lt;25 years old or 25+ if at increased risk</li><li>● All pregnant women &lt;25 years old or 25+ if at increased risk</li></ul>
Men	<ul style="list-style-type: none"><li>● MSM at least annually, and every 3-6 months if at increased risk regardless of condom use</li></ul>
Persons with HIV	<ul style="list-style-type: none"><li>● For sexually active individuals, screen at first evaluation &amp; at least annually thereafter, more frequently depending on behaviors and local epidemiology</li></ul>

# Syphilis

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Women	<ul style="list-style-type: none"><li>• All pregnant women at the first prenatal visit &amp; retest early in the third trimester and at delivery if at high risk</li></ul>
Men	<ul style="list-style-type: none"><li>• MSM at least annually and every 3-6 months if at increased risk</li></ul>
Persons with HIV	<ul style="list-style-type: none"><li>• For sexually active individuals, screen at first evaluation &amp; at least annually thereafter, more frequently depending on behaviors and local epidemiology</li></ul>

# Trichomonas

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Women	<ul style="list-style-type: none"><li>● Consider for women receiving care in high-prevalence settings and women at high risk</li></ul>
Persons with HIV	<ul style="list-style-type: none"><li>● Recommended for sexually active women at entry to care and at least annually thereafter</li></ul>

# Herpes

Women	<ul style="list-style-type: none"><li>● Testing should be considered for women presenting for an STD evaluation (especially for women with multiple sex partners)</li><li>● Evidence does not support routine HSV-2 serologic testing among asymptomatic pregnant women</li></ul>
Men	<ul style="list-style-type: none"><li>● Should be considered for men presenting for an STD evaluation (especially for men with multiple sex partners)</li><li>● MSM: can be considered if infection status is unknown with previously undiagnosed genital tract infection</li></ul>
Persons with HIV	<ul style="list-style-type: none"><li>● Should be considered in persons with HIV infections or at high risk for HIV acquisition</li></ul>

# Review



## Preferred Treatment Options



### CHLAMYDIA

azithromycin 1 g orally once OR doxycycline 100 mg twice daily for 7 days

### SYPHILIS

benzathine penicillin G 2.4 million units IM as a single dose OR 2.4 million units IM once weekly for 3 weeks if latent syphilis >1 year or unknown duration

### TRICHOMONAS

metronidazole 2 g orally in a single dose or tinidazole 2 g orally in a single dose

### GENITAL HERPES

acyclovir 400 mg orally TID OR acyclovir 200 mg orally five times daily OR valacyclovir 1 g BID OR famciclovir 250 mg TID; duration for each 7-10 days

### **Question 3: How would you treat the partner of a patient diagnosed with chlamydia?**

- A. Doxycycline 100 mg twice daily for 7 days**
- B. Azithromycin 1 g orally once**
- C. Cefixime 400 mg orally once**
- D. Cefixime 400 mg once daily for 7 days**

# Expedited Partner Therapy-MDH

**Partners of  
patients diagnosed  
with chlamydia**

**Azithromycin 1 g  
orally once**

**Partners of  
patients  
diagnosed with  
gonorrhea**

**Cefixime 400 mg orally  
once  
PLUS  
Azithromycin 1 g orally  
once**

**Partners of  
patients diagnosed  
with chlamydia and  
gonorrhea**

**Cefixime 400 mg orally  
once  
PLUS  
Azithromycin 1 g orally  
once**

## **Expedited Partner Therapy**

**Dispense medication  
directly to patient for  
delivery to partner(s)**

**Dispense prescription to  
the patient to be delivered  
to partner(s)**

# Expedited Partner Therapy

## WHO TO TREAT

- partners who are unable or unlikely to seek timely clinical services
- number of doses limited to the number of known sex partners in previous 60 days

## PATIENT EDUCATION

- informational materials must accompany medications
- patients should be counseled to be abstinent until seven days after treatment and until seven days after partners have been treated

# Where to find this?

Protocol 0125 on CUHCC intranet (3Ps- patient care- clinical care policy related procedures)

- Appendix A - Screening Recommendations
- Appendix B - HIV PrEP
- Appendix C - Expedited Partner Therapy

## Future questions

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- azithromycin resistance- still recommended treatment for chlamydia and option for EPT
- Full update of remaining STI treatment guidelines from the CDC expected within the year

Updated MMWR EPT  
Recommendation:

single 800 mg cefixime oral dose + doxycycline 100 mg twice daily for 7 days if chlamydial coinfection has not been ruled out

# Summary

- **CDC updated gonorrhea treatment recommendation**
  - single 500 mg intramuscular dose of ceftriaxone for uncomplicated gonorrhea & treatment for coinfection with *Chlamydia trachomatis* with oral doxycycline (100 mg twice daily for 7 days) should be administered when chlamydial infection has not been excluded.
- Updated STI treatment guidelines from the CDC forthcoming, expect changes due to antibiotic resistance



# References

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# Thanks!

Questions?

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