

# CLINICAL GUIDELINES FOR GONORRHEA TREATMENT AND MANAGEMENT OF SUSPECTED TREATMENT FAILURE

California Department of Public Health  
Division of Communicable Diseases Control  
Sexually Transmitted Diseases Control Branch



## Purpose

Gonorrhea is the second most common sexually transmitted disease (STD) in California and is caused by *Neisseria gonorrhoeae*, a bacterial infection that has rapidly acquired resistance to each class of antibiotics. The U.S. Centers for Disease Control and Prevention (CDC) has declared drug-resistant gonorrhea an urgent public health threat. Monotherapy with ceftriaxone is currently the only CDC recommended treatment regimen for [gonorrhea](#). While alternative regimens exist for rectal and urogenital infections, there is no other option for pharyngeal infections. Reported cases of cephalosporin resistance have occurred in Europe, Asia, Australia, and Canada. This guideline summarizes California Department of Public Health (CDPH) clinical recommendations to enhance detection and management of suspected gonorrhea treatment failure and assure adequate treatment.

## Criteria for Suspected Gonorrhea Treatment Failure\*

Clinicians should be alert for potential treatment failures. Consider the following criteria:

1. Patients with persistent symptoms **greater** than three days despite appropriate treatment, **and**
  - no sexual contact reported since treatment (reinfection unlikely), **and**
  - untreated infections (e.g., chlamydia, trichomoniasis, *Mycoplasma genitalium*) have been excluded
2. Patients with a positive test-of-cure (TOC) who report no sexual contact since treatment.
  - A positive TOC is defined as the following:
    - A positive culture at least 72 hours after treatment, **or**
    - A positive nucleic acid amplification test (NAAT\*) obtained:
      - **More than** 7 days after treatment for anogenital gonorrhea
      - **More than** 14 days after treatment for pharyngeal gonorrhea
3. Patients with a positive TOC if there is evidence of decreased susceptibility to cephalosporins on antimicrobial susceptibility testing (AST)<sup>†</sup>, regardless of whether sexual contact is reported since treatment.

\*Note: BD Probetec\*\* NAAT testing may have false-positive results due to commensal *Neisseria* species in the oropharynx

<sup>†</sup>Decreased susceptibility to cefixime = MIC  $\geq$ 0.25  $\mu$ g/mL  
Decreased susceptibility to ceftriaxone = MIC  $\geq$ 0.125  $\mu$ g/mL

## Suspected Gonorrhea Treatment Failure Management

The following steps should be taken to ensure adequate testing, treatment, partner management, and follow up of suspected gonorrhea treatment failure when reinfection is unlikely.

<b>CULTURE:</b>	Obtain specimens for <b>culture AND NAAT</b> prior to retreatment. If gonorrhea culture is not available on-site, see section below on <a href="#">Testing Resources</a> .
<b>REPEAT TREATMENT:</b>	Treat with: 1. Ceftriaxone 1 g IM <b>PLUS</b> azithromycin 2 g orally <b>OR</b> 2. <b>**Gentamicin 240 mg IM PLUS</b> azithromycin 2 g orally (for Cephalosporin allergy) <b>**Gentamicin has poor efficacy for pharyngeal infection. For suspected pharyngeal treatment failure, ceftriaxone 1 g PLUS azithromycin 2 g should be used whenever possible</b>
<b>REPORT:</b>	<b>Report to your local health department</b> within 24 hours.
<b>TEST/TREAT PARTNERS:</b>	All sexual partners in the last 60 days should be tested at all sites of exposure and empirically treated with the same treatment as patient.
<b>TEST-OF-CURE (TOC):</b>	Counsel patient to refrain from sex. TOC should be performed with <b>BOTH culture AND NAAT</b> in the following timeframe: <ul style="list-style-type: none"><li>7 days for urogenital/rectal infection</li><li>14 days for pharyngeal infection</li></ul> All positive cultures should have <b>antimicrobial susceptibility testing</b> performed and held for further testing if needed. If gonorrhea susceptibility testing is not available on-site, see section below on <a href="#">Testing Resources</a> .
<b>CONSULT:</b>	<b>Contact your local health department</b> or the CDPH Sexually Transmitted Diseases Control Branch (STDCB) ( <b>510-620-3400</b> ) for consult or reporting assistance.

## Antimicrobial Susceptibility Testing Resources Available to CA Providers and Laboratories

- **CDPH Microbial Diseases Lab** offers antibiotic susceptibility testing using bioMérieux Etest gradient strip. Visit their [test information page](#) for more information. Isolates will only be accepted from the local public health laboratories.
- **Quest Diagnostics\*** offers gonorrhea culture with reflex to antimicrobial susceptibility testing (Test Code 38404; CPT Code 87081). If gonorrhea is isolated, then antimicrobial susceptibility testing will be performed (CPT code(s): 87185, 87181(x4)). Contact [Quest directly](#) for more information on gonorrhea testing.
- **Washington DOH Lab** offers antimicrobial susceptibility testing by gradient strip for suspected gonorrhea treatment failures. Visit their [lab test menu](#) or contact [ARLN@doh.wa.gov](mailto:ARLN@doh.wa.gov) for more information.

\* Note: Most suspected treatment failures in California are likely due to reinfection rather than true treatment failures. Patients suspected of having a [reinfection](#) should be re-treated with the recommended antibiotic regimen (see page 3, [Recommended Treatment for Uncomplicated Gonorrhea\\*](#))

## Recommended Treatment for Uncomplicated Gonorrhea\*

DISEASE	RECOMMENDED TREATMENT	ALTERNATIVE TREATMENT
Uncomplicated gonorrhea infections of the cervix, urethra, or rectum	For persons weighing <150kg: <b>Ceftriaxone 500 mg IM</b>  For persons weighing ≥150kg: <b>Ceftriaxone 1 g IM</b>	Cefixime 800 mg orally, <b>OR</b>  Gentamicin 240 mg IM <b>PLUS</b> Azithromycin 2 g orally
Uncomplicated <u>pharyngeal</u> gonorrhea**	For persons weighing <150kg: <b>Ceftriaxone 500 mg IM</b>  For persons weighing ≥150kg: <b>Ceftriaxone 1 g IM</b>	No reliable alternative treatments are available. Conduct a thorough assessment of beta-lactam allergy. If history of anaphylactic or other severe reaction to ceftriaxone, consult an infectious disease specialist or STD Clinical Consultation Network ( <a href="http://stdccn.org">stdccn.org</a> )

**Chlamydia:** If chlamydial infection has not been excluded, providers should treat for chlamydia with doxycycline 100 mg orally twice daily for seven days. If treating gonorrhea with azithromycin 2g as part of alternative therapy, the addition of doxycycline to treat chlamydia is not needed.

**Pregnancy:** During pregnancy, azithromycin 1g as a single dose is recommended to treat chlamydia.

\*\***Pharyngeal gonorrhea**, particularly when treated with an alternative regimen, a **TOC by culture AND/OR NAAT is recommended**. NAAT is more sensitive than culture, but to avoid false positive results (due to non-viable genetic material) we recommend TOC by NAAT 14 days post-therapy.

\*Company and laboratory names are provided for informational purposes only. The California Department of Public Health and California Prevention Training Center do not endorse any company or its products. CPT copyright 2008 American Medical Association. All rights reserved.