

Arizona Clinician and Public Health Protocols for Suspected Cephalosporin Treatment Failure of Gonorrhea 2020 Update

Arizona Department of Health Services
Office of Disease Integration and Services
STD Control Program

Background

Gonorrhea causes significant morbidity in Arizona. The case rate of gonorrhea in Arizona is rising; in 2019, 15,249 cases were reported statewide. The 2019 gonorrhea case rate of 212/100,000 represents a 16% increase from the year before.

Gonorrhea continues to develop resistance to antibiotics. Gonorrhea has already gained resistance to penicillins and tetracyclines; treatment failure with cephalosporins has been seen in Asia, South Africa, Australia, Europe, and Canada. In the United States, decreased susceptibility to cephalosporins has been noted and may continue. On December 18, 2020 the Centers for Disease Control and Prevention published an article in the Morbidity and Mortality Weekly Report (MMWR) recommending a shift back to monotherapy treatment for gonorrhea.

Goal

To enhance the surveillance and control of suspected cephalosporin-resistant gonorrhea in Arizona through clinician and public health protocols.

CDC Recommended Therapy for Gonorrhea (2020)

Uncomplicated gonorrhea (rectal, urogenital, and/or pharyngeal) should be treated with [ceftriaxone 500 mg IM in a single dose](#).* *****

CDC Alternative Therapy for Rectal and/or Urogenital Gonorrhea (2020)

If ceftriaxone is not available, alternative regimens include:

- [Gentamicin 240 mg IM plus azithromycin 2 g orally](#) OR
- [Cefixime 800 mg orally](#)**

There is no recommended alternative treatment for pharyngeal gonorrhea. For persons with a history of beta-lactam allergy, a thorough assessment of the reaction is recommended. For persons with anaphylactic or other severe reactions, consult an infectious disease specialist for an alternative treatment regimen (www.stdccn.org).

*For persons weighing ≥ 150 kg (300 lb), 1 g of IM ceftriaxone should be administered.

**If chlamydial infection has not been excluded, providers should also treat for chlamydia with: doxycycline 100 mg orally twice daily for 7 days, or during pregnancy, single dose azithromycin 1 g.

*** All persons with pharyngeal gonorrhea, regardless of treatment regimen, should return for a test-of-cure 7-14 days after treatment initiation via culture or nucleic acid amplification test (NAAT). All positive cultures for test-of-cure should undergo antimicrobial susceptibility testing. A test-of-cure is not needed for persons with uncomplicated urogenital or rectal gonorrhea.

Criteria for Suspected Treatment Failure of Gonorrhea

Treatment failure should be suspected for a patient with confirmed gonorrhea infection if:

- 1) Symptoms* persist or recur following CDC-recommended antibiotic therapy OR
- 2) A test-of-cure performed 7 or more days after CDC-recommended treatment is positive for anogenital gonorrhea, and 14 days or more after treatment for pharyngeal gonorrhea.

*Symptoms include persistent urethral discharge, dysuria, and/or pyuria (leukocyte esterase on urine dipstick); persistent pharyngitis or odynophagia; persistent rectal discharge, pain, bleeding, pruritus, tenesmus, or painful defecation; persistent vaginal discharge, dysuria, or post-coital spotting.

Clarification (1): Patients with persistent or recurrent symptoms who report interim sexual exposure to untreated or new partners have likely been reinfected and are not subject to treatment failure. Patients with reinfection should be treated with [ceftriaxone 500 mg IM](#).

Clarification (2): Treatment failure in this document refers to after therapy with [ceftriaxone](#) or [cefixime](#). Patients with persistent symptoms or a positive test-of-cure after noncompliance or treatment with a non-recommended regimen (e.g., [fluoroquinolones](#)) should be treated with [ceftriaxone 500 mg IM](#)

Clinician Management of Suspected Cephalosporin Treatment Failure of Gonorrhea

For patients with suspected treatment failure after CDC-recommended treatment, the following steps should be taken to ensure adequate testing, treatment, partner management, and follow-up.

Notify the Arizona Department of Health Services of the suspected case of treatment failure (See **Contacts**).

Obtain specimens for NAAT and culture at all sites of sexual exposure (i.e., genital, rectal, pharyngeal). If gonorrhea culture is not available at your local laboratory, contact the Arizona Department of Health Services for testing assistance (See **Contacts**).

Contact your local public health department to report the case (See **Contacts**).

Arrange for antimicrobial susceptibility testing (AST) of cultured specimen(s) (See **Public Health Management of Suspected Cephalosporin-Resistant Cases of Gonorrhea** below).

Retreat the patient with [ceftriaxone 500 mg IM](#)*

Ensure that all the patient's partners in the last 60 days are notified and referred for testing and empiric treatment with [ceftriaxone 500 mg IM](#)* Assistance with partner notification and treatment may be provided by your local public health department.

Instruct the patient to abstain from oral, vaginal, and anal sex until 7 days after the patient and all partner(s) are treated AND all symptoms have resolved.

Ask the patient to return for a test-of-cure with NAAT *and* CULTURE (one week after treatment for genital and/or rectal gonorrhea, or 14 days for pharyngeal gonorrhea).

*Reinfections are more likely than actual treatment failure. If there is a higher likelihood of treatment failure than reinfection. If treatment with [ceftriaxone 500 mg IM](#) fails, use [gentamicin 240 mg IM plus azithromycin 2 g orally in a single dose](#).

Public Health Management of Suspected Cephalosporin-Resistant Cases of Gonorrhea

For specimens that require antimicrobial susceptibility testing (AST), the following steps should be taken to ensure proper handling and submission of specimens.

For providers **in Maricopa County**, provide the patient with a written order for AST and refer them to the Maricopa County Health Department at (602) 506-1678 for further evaluation and testing.

For providers **outside of Maricopa County**, contact the Arizona Department of Health Services: STD Control Program at (602) 364-4571 for assistance.

References

[Update to CDC’s Treatment Guidelines for Gonococcal Infection, 2020](#) (last revised 12/2020)

[CDC 2015 Sexually Transmitted Diseases Treatment Guidelines](#) (Last revised 6/2015)

[Arizona Department of Health Services, STD Reports](#) (Last revised 2020)

Contacts

Arizona Department of Health Services
STD Control Program
150 N 18th Avenue, Suite 110, Phoenix, AZ 85007
602-364-4571

Gila County Health Department
5515 S. Apache Street, Suite 100
Globe, AZ 85501
928-402-8811

Apache County Health Department
323 S. Mountain Avenue, Suite 102
Springerville, AZ 85938
928-333-2415

Graham County Health Department
826 W. Main
Safford, AZ 85546
928-428-0110

Cochise County Health Department
1415 Melody Lane, Bldg. A
Bisbee, AZ 85603
520-432-9400

Greenlee County Health Department
P.O. Box 936
253 5th and Leonard Street
Clifton, AZ 85533
928-865-2601

Coconino County Health Department
2625 N. King St.
Flagstaff, AZ 86004
928-679-7222

La Paz County Health Department
1112 Joshua Avenue, Suite 206
Parker, AZ 85344
928-669-1100

Mohave County Health Department

700 W. Beale
P.O. Box 7000
Kingman, AZ 86402
928-753-0714

**Maricopa County Department of
Public Health**

1645 E Roosevelt St. Phoenix, AZ
85006
602-506-1678

Navajo County Health Department

117 E. Buffalo St.
Holbrook, AZ 86025
928-524-4750

Pima County Health Department

Theresa Lee Public Health Center
1493 W. Commerce Ct.
Tucson, AZ 85745
520-724-7900

Pinal County Health Department

971 Jason Lopez Circle, Bldg. D
Florence, AZ 85132
520-866-7289

Santa Cruz County Health Department

2150 N. Congress Dr.
Nogales, AZ 85621
520-375-7900

Yavapai County Health Department

1090 Commerce Dr.
Prescott, AZ 86305
928-583-1000

Yuma County Health Department

2200 W. 28th Street, Suite 178
Yuma, AZ 85364
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