



Complete Summary

GUIDELINE TITLE

Gonococcal and chlamydial infections.

BIBLIOGRAPHIC SOURCE(S)

New York State Department of Health. Gonococcal and chlamydial infections. New York (NY): New York State Department of Health; 2007 Oct. 7 p. [8 references]

GUIDELINE STATUS

This is the current release of the guideline.

** REGULATORY ALERT **

FDA WARNING/REGULATORY ALERT

Note from the National Guideline Clearinghouse: This guideline references a drug(s) for which important revised regulatory and/or warning information has been released.

- [September 11, 2007, Rocephin \(ceftriaxone sodium\)](#): Roche informed healthcare professionals about revisions made to the prescribing information for Rocephin to clarify the potential risk associated with concomitant use of Rocephin with calcium or calcium-containing solutions or products.

COMPLETE SUMMARY CONTENT

** REGULATORY ALERT **

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INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT

CATEGORIES

IDENTIFYING INFORMATION AND AVAILABILITY

DISCLAIMER

SCOPE

DISEASE/CONDITION(S)

- Human immunodeficiency virus (HIV) infection
- Gonococcal infection
- Chlamydial infection

GUIDELINE CATEGORY

Diagnosis
Management
Screening
Treatment

CLINICAL SPECIALTY

Allergy and Immunology
Family Practice
Infectious Diseases
Internal Medicine
Obstetrics and Gynecology

INTENDED USERS

Advanced Practice Nurses
Health Care Providers
Nurses
Physician Assistants
Physicians
Public Health Departments

GUIDELINE OBJECTIVE(S)

To provide guidelines for the management of gonorrhea and chlamydia in human immunodeficiency virus (HIV)-infected patients

TARGET POPULATION

Human immunodeficiency virus (HIV)-infected patients with gonococcal and chlamydial co-infection

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis/Screening

1. Obtaining sexual history and determining sites of possible exposure
2. Culture or nucleic acid amplification test (NAAT)
3. Immunofluorescence or deoxyribonucleic acid (DNA) amplification test

Management/Treatment

1. Azithromycin or doxycycline for chlamydial infection
2. Ceftriaxone for uncomplicated gonococcal infection
3. Avoiding use of fluoroquinolones for gonococcal infections

4. Reporting all cases or suspected cases of resistance to state and local public health authorities
5. Follow-up including physical examination and a test of cure
6. Management of sex partners including management of human immunodeficiency virus (HIV) exposure and gonococcal and chlamydial exposure

MAJOR OUTCOMES CONSIDERED

- Incidence and prevalence of gonococcal and chlamydial infection in human immunodeficiency virus (HIV)-infected patients
- Incidence of quinolone-resistant *Neisseria gonorrhoeae* (QRNG)

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus (Committee)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

AIDS Institute clinical guidelines are developed by distinguished committees of clinicians and others with extensive experience providing care to people with HIV infection. Committees* meet regularly to assess current recommendations and to write and update guidelines in accordance with newly emerging clinical and research developments.

The Committees* rely on evidence to the extent possible in formulating recommendations. When data from randomized clinical trials are not available, Committees rely on developing guidelines based on consensus, balancing the use of new information with sound clinical judgment that results in recommendations that are in the best interest of patients.

* Current committees include:

- Medical Care Criteria Committee
- Committee for the Care of Children and Adolescents with HIV Infection
- Dental Standards of Care Committee
- Mental Health Committee
- Women's Health Committee
- Substance Use Committee
- Physician's Prevention Advisory Committee
- Pharmacy Committee

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

All guidelines developed by the Committee are externally peer reviewed by at least two experts in that particular area of patient care, which ensures depth and quality of the guidelines.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Screening Patients for Gonococcal and Chlamydial Infections

Clinicians should screen sexually active human immunodeficiency virus (HIV)-infected women under the age of 25 for gonorrhea and chlamydia at baseline and at least annually. Clinicians should obtain a sexual history to determine the sites of possible exposures, and all sites of exposure should be screened. Culture or nucleic acid amplification tests (NAAT) should be used to screen for gonorrhea. Immunofluorescence or DNA amplification should be used for chlamydia.

Clinicians should screen women 25 years of age or older for gonorrhea and chlamydia at baseline and at least annually if they have or have had a recent sexually transmitted infection, have multiple sexual partners, have had a new sexual partner, or have a sexual partner with symptoms of a sexually transmitted infection (STI).

Clinicians should screen HIV-infected men who have sex with men with ongoing high-risk behaviors for gonorrhea and chlamydia at baseline and at least annually. Clinicians should obtain a sexual history to determine the sites of possible exposures, and all sites of exposure should be screened.

Refer to the Table below for information regarding annual screening of patients for gonococcal and chlamydial infection.

Table Annual Gonorrhea and Chlamydia Screening of Asymptomatic Patients	
Men who have sex with men	<ul style="list-style-type: none"> • Urine for GC/CT NAAT <i>and</i> • Rectal swab for GC culture <i>and</i> • Pharyngeal swab for GC culture
Women	<ul style="list-style-type: none"> • Endocervical swab for GC/CT NAAT <i>or</i> • Urine for GC/CT NAAT* <i>and</i> • If history of rectal and/or pharyngeal exposure: <ul style="list-style-type: none"> • Rectal swab for GC culture <i>and</i> • Pharyngeal swab for GC culture

GC, gonococcal; CT, *C trachomatis*; NAAT, nucleic acid amplification test

*For women with previous hysterectomy, screening with urine NAAT, rather than urethral swab, may be indicated.

Diagnosis and Treatment

Clinicians managing HIV-infected patients with gonococcal and/or chlamydial infections should follow the same diagnosis and treatment recommendations as those for non-HIV-infected patients.

Clinicians should *not* use fluoroquinolones to treat proven or suspected gonococcal infections.

Chlamydial infections should be treated with azithromycin 1 g single dose or doxycycline 100 mg bid for 7 days. Ceftriaxone 125 mg intramuscularly (IM) is the preferred treatment for uncomplicated gonococcal infections of the cervix, urethra, rectum, and pharynx.

Clinicians should report all cases or suspected cases of resistance to state and local public health authorities.

Refer to the Table below for information on diagnostic tests for symptomatic patients.

Table Diagnostic Tests for Symptomatic Patients	
Men	<ul style="list-style-type: none"> • Urethral gram stain* <i>and</i> • Urine <i>or</i> urethral swab for GC/CT NAAT <i>and</i> • If history of rectal and/or pharyngeal exposure: <ul style="list-style-type: none"> • Rectal swab for GC culture <i>and</i> • Pharyngeal swab for GC culture
Women	<ul style="list-style-type: none"> • Endocervical swab for GC/CT NAAT <i>or</i> • Urine for GC/CT NAAT <i>and</i> • If history of rectal and/or pharyngeal exposure: <ul style="list-style-type: none"> • Rectal swab for GC culture <i>and</i> • Pharyngeal swab for GC culture
Persistent symptoms	<p>Men</p> <ul style="list-style-type: none"> • Urethral, rectal, and pharyngeal swabs for GC culture and susceptibility testing <p>Women</p>

Table Diagnostic Tests for Symptomatic Patients	
	<ul style="list-style-type: none"> • Endocervical, rectal, and pharyngeal swabs for GC culture and susceptibility testing
Follow-up after completion of treatment	<p>Men with proven CT</p> <ul style="list-style-type: none"> • Retest (urine NAAT) at 3 months to assess for reinfection <p>Men or women with uncomplicated GC</p> <ul style="list-style-type: none"> • Test of cure at 2 to 4 weeks** for evidence of resistance <i>and</i> • Retest at 3 months (urine NAAT for men and endocervical swab for women) to assess for reinfection
Partners	Should be referred for treatment***

CT, *Chlamydia trachomatis*; GC, gonococcal; NAAT, nucleic acid amplification test

*White blood cell count (WBC) ≥ 5 per oil immersion field with evidence of gram-negative intracellular diplococci is considered diagnostic for gonococcal urethritis in symptomatic men.

**Clinicians should perform a follow-up physical examination and a test of cure from gonococcal-infected sites at 2 weeks post-treatment if using culture or at 4 weeks post-treatment if using NAAT, regardless of whether or not symptoms have resolved. If the post-treatment NAAT is positive, a culture should be performed to assess for resistance.

***Considerations of HIV exposure in the partner need to be thoroughly examined before clinicians consider prescribing expedited partner therapy. For information regarding expedited partner therapy, see <http://www.cdc.gov/std/ept>.

Diagnosis and Treatment of Patients with Penicillin Allergy

Clinicians should treat patients with uncomplicated gonococcal infection who have penicillin allergy, and for whom penicillin desensitization is not possible, with 2 g of azithromycin.

Treatment Follow-Up

Patients treated for confirmed gonorrhea should receive a follow-up physical examination and a test of cure from gonococcal-infected sites at 2 weeks post-

treatment if using culture or at 4 weeks post-treatment if using NAAT, regardless of whether or not symptoms have resolved. If the post-treatment NAAT is positive, a culture should be performed to assess for resistance.

Clinicians should retest patients treated for confirmed gonorrhea or chlamydial infection at least 3 months after treatment completion for evidence of reinfection.

Key Point:

The majority of infections identified after treatment with one of the recommended regimens result from reinfection rather than treatment failure, demonstrating the importance of retesting for new infection at 3 months after completion.

Management of Sex Partners

Clinicians should consider both the HIV exposure and the STI exposure to partners when HIV-infected patients present with a new STI. Clinicians should also assess for the presence of other STIs.

Management of HIV Exposure

When HIV-infected patients present with a new STI, clinicians should encourage their partner(s) to undergo HIV testing at baseline, 1, 3, and 6 months. In New York State, if the test result is positive, a Western blot assay must be performed to confirm diagnosis of HIV infection.

Clinicians should be vigilant for any post-exposure acute febrile illness accompanied by rash, lymphadenopathy, myalgias, and/or sore throat. If the partner presents with signs or symptoms of acute HIV seroconversion, a quantitative ribonucleic acid polymerase chain reaction (RNA PCR) should be obtained, and consultation with an HIV Specialist should be sought. Positive RNA tests should be confirmed with HIV antibody testing performed within 6 weeks of the RNA test.

Clinicians should offer assistance with partner notification if needed.

Management of Gonococcal and/or Chlamydial Exposure

Sex partners of patients with gonococcal and/or chlamydial infections should be treated or referred for treatment if the partner was exposed within 60 days prior to symptom onset.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting the recommendations is not specifically stated.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate management of gonococcal and chlamydial infections in human immunodeficiency virus (HIV)-infected patients

POTENTIAL HARMS

Not stated

CONTRAINDICATIONS

CONTRAINDICATIONS

Cephalosporins are contraindicated in patients with penicillin allergy.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

The AIDS Institute's Office of the Medical Director directly oversees the development, publication, dissemination and implementation of clinical practice guidelines, in collaboration with The Johns Hopkins University, Division of Infectious Diseases. These guidelines address the medical management of adults, adolescents and children with HIV infection; primary and secondary prevention in medical settings; and include informational brochures for care providers and the public.

Guidelines Dissemination

Guidelines are disseminated to clinicians, support service providers and consumers through mass mailings and numerous AIDS Institute-sponsored educational programs. Distribution methods include the HIV Clinical Resource website, the Clinical Education Initiative, the AIDS Educational Training Centers (AETC) and the HIV/AIDS Materials Initiative. Printed copies of clinical guidelines are available for order from the New York State Department of Health (NYSDOH) Distribution Center for providers who lack internet access.

Guidelines Implementation

The HIV Clinical Guidelines Program works with other programs in the AIDS Institute to promote adoption of guidelines. Clinicians, for example, are targeted through the Clinical Education Initiative (CEI) and the AETC. The CEI provides tailored educational programming on site for health care providers on important topics in HIV care, including those addressed by the HIV Clinical Guidelines

Program. The AETC provides conferences, grand rounds and other programs that cover topics contained in AIDS Institute guidelines.

Support service providers are targeted through the HIV Education and Training initiative which provides training on important HIV topics to non-physician health and human services providers. Education is carried out across the State as well as through video conferencing and audio conferencing.

The HIV Clinical Guidelines Program also works in a coordinated manner with the HIV Quality of Care Program to promote implementation of HIV guidelines in New York State. By developing quality indicators based on the guidelines, the AIDS Institute has created a mechanism for measurement of performance that allows providers and consumers to know to what extent specific guidelines have been implemented.

Finally, best practices booklets are developed through the HIV Clinical Guidelines Program. These contain practical solutions to common problems related to access, delivery or coordination of care, in an effort to ensure that HIV guidelines are implemented and that patients receive the highest level of HIV care possible.

IMPLEMENTATION TOOLS

Personal Digital Assistant (PDA) Downloads

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

New York State Department of Health. Gonococcal and chlamydial infections. New York (NY): New York State Department of Health; 2007 Oct. 7 p. [8 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2007 Oct

GUIDELINE DEVELOPER(S)

New York State Department of Health - State/Local Government Agency [U.S.]

SOURCE(S) OF FUNDING

New York State Department of Health

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Not stated

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available from the [New York State Department of Health AIDS Institute Web site](#).

AVAILABILITY OF COMPANION DOCUMENTS

This guideline is available as a Personal Digital Assistant (PDA) download from the [New York State Department of Health AIDS Institute Web site](#).

PATIENT RESOURCES

None available

NGC STATUS

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