

# ADAPTING YOUR PRACTICE

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*Treatment and Recommendations  
for Homeless Patients  
with Chlamydial or  
Gonococcal Infections*

## Chlamydial or Gonococcal Infections



*2013 Edition*

# **ADAPTING YOUR PRACTICE**

*Treatment and Recommendations  
for Homeless Patients  
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Gonococcal Infections*

Health Care for the Homeless  
Clinicians' Network  
*2013 Edition*

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Additionally, the information and opinions expressed in this document are those of the Advisory Committee on Adapting Clinical Guidelines for Homeless Patients with Chlamydial or Gonococcal Infections, not necessarily the views of the U.S. Department of Health and Human Services or the National Health Care for the Homeless Council, Inc.

## **PREFACE**

Clinicians practicing in Health Care for the Homeless (HCH) projects<sup>1</sup> and others who provide primary care to people who are homeless or at risk of homelessness routinely adapt their medical practice to foster better outcomes for these patients.

Standard clinical practice guidelines often fail to take into consideration the unique challenges faced by homeless patients that may limit their ability to adhere to a plan of care. Recognizing the gap between standard clinical guidelines and clinical practices used by health care providers experienced in the care of individuals who are homeless, the HCH Clinicians' Network has made the adaptation of clinical practice guidelines for homeless patients one of its top priorities.

The original edition of these adapted clinical guidelines was developed in 2003 by primary health care providers representing HCH projects across the United States. These recommendations reflect the collective experience of practitioners with extensive experience serving homeless adults, adolescents and children. Updates were made in 2008 to reflect changes in practice standards for the treatment of sexually transmitted infections (STIs) as well as recommended practice adaptations for the care of homeless patients, alerting clinicians to the strong association between STIs and sexual abuse in this population. The updates included in this 2013 document reflect new treatment guidelines, follow-up recommendations, and expedited partner therapy information in response to increased antibiotic resistance of gonococcal infections.

We hope these recommendations offer helpful guidance to primary care providers serving patients who are homeless or at risk of homelessness, and that they will contribute to improvements in both quality of care and quality of life for the patients they serve.

Sharon Morrison, RN, MAT  
HCH Clinicians' Network

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# Care for Homeless Patients with Chlamydial or Gonococcal Infections: Summary of Recommendations

## Adults and Adolescents

### DIAGNOSIS AND EVALUATION

#### History

- **Sexual practices** Obtain detailed history of sexual practices at first visit.
- **Sexual abuse** Ask whether patient has been forced to have sexual intercourse against his/her will.
- **Exploitation** Consider possible exploitation of patient, especially if mental illness or developmental disability is suspected.
- **Prior STIs** Ask about history of STIs in both male and female patients.
- **Reproductive health** Obtain gynecological history including best possible menstrual history for females.
- **Readiness to change** Assess patient's developmental level and readiness to change.
- **Partner history** Always ask whether partner needs to be treated.

#### Physical Examination

- **Preventive care** For female patient, do breast exam with pelvic exam to address preventive as well as acute care needs. For male patient, include testicular exam.
- **Chaperoned examinations for GU** All patients/clients should be offered a chaperone for intimate examinations.
- **Sexual abuse** Be sensitive to concerns, fears, and safety needs of patients with a history of sexual abuse.
- **Refused pelvic exam** Consider empiric treatment if patient has history of exposure.
- **Pharyngeal and rectal exams** Suspect chlamydial or gonococcal infection if pharyngeal and/or rectal symptoms are present and patient has history of exposure.
- **Evidentiary collection:** All adult victims of rape or sexual assault should be counseled regarding options for examination, testing, and treatment.

#### Diagnostic Tests

- **Chlamydia/gonorrhea** Screen for *C. trachomatis* and *N. gonorrhoeae* with every female pelvic examination if cervix is present, whether patient is symptomatic or not.
- **Vaginitis** Consider obtaining specimen for wet mount on site, if possible, to screen for co-occurring trichomonas or bacterial vaginosis, and assess degree of acute inflammation.
- **Other STIs** Screen for other sexually transmitted infections if feasible.

- **Pregnancy** If any suspicion of pregnancy, do urine testing. All pregnant women should be screened for both chlamydia and gonorrhea.
- **Pap smear** For females: annual Pap smear with reflex HPV testing beginning within three years of sexual debut **or** at age 21 or older.

### PLAN AND MANAGEMENT

#### Education/Self-Management

- **Risk reduction** Assist client to identify and reduce personal risks for sexually transmitted infections.
- **Medical care** Educate patient about importance of seeking medical care immediately when symptoms occur.
- **Dispel myths** about home remedies or protections against STIs with cultural sensitivity.
- **Case management** Provide case management to assure access to housing and other social services.
- **Safety** Help patient develop a safety plan if interpersonal violence/sexual abuse is suspected.

#### Medications

- **Simple regimen** When appropriate, employ a shortened course of therapy and directly observed therapy (DOT). The 2010 and 2012 CDC recommended first-line treatment regimens calls for single-dose DOT for both chlamydial and gonococcal infections.
- **Presumptive treatment** Treat patient and partner empirically pending lab results, even if partner is not seen in clinic, if this can be done safely and if regulations/clinic policies permit.
- **HBV & HAV** Recognize that some homeless people are at high risk for hepatitis B and/or hepatitis A infection. Assure that at-risk patients are immunized. For those who have been partially vaccinated, resume schedule whenever possible.
- **Resistant organisms** In 2012, the CDC documented increased antibiotic resistance to gonococcal infections and called for increased follow-up efforts to monitor for treatment failure. Recognize higher risk for drug-resistant organisms among highly mobile homeless patients with multiple, unknown sex partners. Emphasize to patients the importance of monitoring their symptoms and returning for testing if symptoms persist.

## Care for Homeless Patients with Chlamydial or Gonococcal Infections: Summary of Recommendations

### Associated Problems/Complications

- **Rape** including unrecalled rape.
- **Pregnancy** including ectopic pregnancy.
- **Pelvic inflammatory disease (PID)** - a serious complication of untreated STIs frequently seen in homeless women, which can result in infertility.
- **Reactive Arthritis** - inflammatory arthritis that can be triggered by chlamydia or other infectious agents.
- **More florid disease** Homeless people often do not seek medical help until their disease is advanced and symptoms are florid.
- **Nonadherence/loss to follow-up** People who are homeless may place a higher priority on meeting basic needs than on obtaining needed health care or following through with prescribed treatment.
- **Psychological factors** Recognize that lack of self-esteem or assertiveness skills, emotional/psychological needs, addictions, developmental disabilities, partner attitudes, and/or developmental stage may affect the patient's sexual behavior and adherence to a plan of care.
- **Legal considerations** Be aware of possible legal barriers to medical care of unaccompanied youth and limits of patient confidentiality.

### Follow-Up

- **Contact information** At every visit, seek contact information for the patient including telephone/cell phone numbers and mailing/email addresses.
- **Outreach** Use outreach workers for partner identification.
- **Monitor for treatment failure when possible** Due to increased antibiotic resistance of gonococcal infections, the CDC has called for increased efforts to monitor for treatment failure. Suspected treatment failure should be reported to the CDC through local or state public health officials within 24 hours.
- **Partner notification and treatment** Work with local public health department to facilitate partner identification, notification and treatment. Utilize expedited partner therapy as appropriate, using CDC guidelines at [www.cdc.gov/std/ept/default.htm](http://www.cdc.gov/std/ept/default.htm).
- **Incentives** Use incentives to encourage patients to return for lab results.
- **Peer-led groups** Initiate peer-led STI prevention/intervention groups.
- **Provider-patient relationship** Build positive, encouraging relationships with clients.

# Care for Homeless Patients with Chlamydial or Gonococcal Infections: Summary of Recommendations

## Infants and Children Under Three Years of Age

### DIAGNOSIS AND EVALUATION

#### History

- **Living conditions** Ask parent where family is living.
- **Sexual history of mother** Ask mother about her sexual behaviors and partner(s) in a nonjudgmental way.
- **Access to care** Inquire about parental/partner treatment for STIs.
- **Prenatal/neonatal care** Ask mother how many prenatal care visits she had and where child was delivered.

#### Physical Examination

- **Confine interview to history.** Defer physical exam; refer to pediatric specialist with expertise in evidentiary and post-assault evaluation.

#### Diagnostic Tests

For chlamydial/gonococcal conjunctivitis or pneumonia in an infant or child under three years of age:

- **Cell culture** is preferred for conjunctival, pulmonary specimens; more sensitive and specific than non-DNA tests.
- **Non-DNA tests** Direct Fluorescent Antibody (DFA), Enzyme Immunoassay (EIA) or Nucleic Acid Probe may be used for conjunctival specimens. Only DFA is used for nasopharyngeal specimens.
- **Nucleic Acid Amplification tests** Ligase Chain Reaction (LCR), Polymerase Chain Reaction (PCR), Transcription Mediated Amplification (TMA), and Strand Displacement Amplification (SDA) tests are not used with conjunctival, pulmonary, or nasopharyngeal specimens, nor are they admissible for medicolegal purposes if child abuse is suspected.

### PLAN AND MANAGEMENT

#### Education/Self-Management

- **Symptoms** Educate parent about signs and symptoms of chlamydial and gonococcal infections in infants. Inquire nonjudgmentally about parents' literacy level in the language in which materials are written.
- **Treatment** Explain that infant, parent, and any infected partner(s) must be treated to prevent transmission and complications of infection.

#### Medications

- **GI upset** Prefer antibiotic with minimal gastrointestinal irritation.
- **Presumptive treatment** Treat empirically without lab results if there is high suspicion of infection.

#### Associated Problems/Complications

- **Diarrhea** as a side effect of antibiotics is more difficult for homeless families to manage because of limited access to diapers and facilities for cleansing child. Maintaining adequate hydration can also be a problem if fluids are not readily available.
- **Lack of prenatal/post-partum care**, indicating need for case management and social supports for parent.
- **Physical/sexual abuse** of parent as an adult and/or in childhood.
- **Lack of financial resources** for medications, transportation, quality daycare.
- **Lack of consistent follow-up** secondary to mobility.

#### Follow-Up

- **Outreach** Use outreach workers to locate infant for appropriate follow-up.
- **Test of cure** If parent says infant did not complete treatment regimen or missed a few days, repeat culture and resume treatment. In 2012, the CDC called for increased monitoring of treatment failure due to documented antibiotic resistance of gonococcal infections.

# Care for Homeless Patients with Chlamydial or Gonococcal Infections: Summary of Recommendations

Health Care for the Homeless Clinicians' Network

# Care for Homeless Patients with Chlamydial or Gonococcal Infections: Summary of Recommendations

## Chlamydial or Gonococcal Infections in Children Not Consenting to Sex

### DIAGNOSIS AND EVALUATION

#### History & Assessment

- **Living situation** Ask where patient is living and with whom. Establish rapport with parent.
- **Unwelcome sex** In a separate interview, ask child about being touched against his/her will or being forced to have sexual intercourse.
- **Child safety** Carefully assess for possible sexual abuse. Ask who is participating in childcare, who watches child when parent is busy, who takes child to the bathroom. Ask parent about sexual behaviors of adult caregivers and partners. If sexual abuse is suspected, follow your state's statutory requirements for reporting child abuse.
- **Identify risk of loss to follow-up** Assess risk that family may flee and patient may be lost to follow-up.
- **Psychosocial evaluation** Evaluate whole family unit, not just the child.

#### Physical Examination

- **General** Use every patient visit as an opportunity for a general physical examination.
- **Forensic evaluation** Sexual abuse/ assault evaluations are most appropriately provided at centers experienced in forensic interviewing and evaluation that are equipped to collect evidence and strictly maintain the chain of evidence.

#### Diagnostic Tests

- **Cell culture** is required if sexual abuse is suspected. No adaptation of standard guidelines recommended.

### PLAN AND MANAGEMENT

#### Education/Self-Management

- **Prevention** Ask if there is a "safe haven" for the child when mother is not present.
- **Abuse of parent** Develop a safety plan for abused parent to break the cycle of domestic/interpersonal violence. Know the mandatory reporting requirements in your state for adult abuse.
- **Abuse of child** Offer support to a parent whose child has been abused by someone else.

#### Medications

No adaptation of standard guidelines recommended.

#### Associated Problems/Complications

- **Sexual abuse of parent** Mental health support may be required for parental depression or posttraumatic stress disorder (PTSD) secondary to prior sexual abuse.
- **Substance abuse** Parents with a history of drug abuse may fear the child will be taken away from them if sexual abuse is reported to child protective services (CPS).
- **Fear of authorities** Homeless people may be nervous about any interaction with authorities who may have treated them badly in the past.
- **Childcare** Homeless parents without access to childcare often leave their children with strangers.
- **Housing** In some shelters, single men, families, and children all stay in same room. This increases risk for sexual abuse. Formerly incarcerated perpetrators of sexual abuse who become homeless when released from jail may interact with families in shelters and at food distribution sites.
- **Loss of child custody** Parent who loses custody of child may also lose access to shelter and benefits.

#### Follow-Up

- **Referral of child** If there is evidence of sexual abuse, refer child to CPS and for specialized assessment and counseling.
- **Referral of parent** Refer parent to counseling for prior sexual abuse.
- **Social support** Specify shelter options and other resources for parent who loses child to state custody.

## **INTRODUCTION**

The tenuous nature of life on the streets and life in unstable housing is a complex interplay of psychological, emotional, physical, and economic constraints. For many people experiencing homelessness, this fragile existence can result in greater vulnerability to disease and illness (O’Connell, 2005). The Health Care for the Homeless (HCH) approach to delivering comprehensive, compassionate, culturally-appropriate care to persons experiencing homelessness requires health care and other providers to balance critical thinking with mindfulness of individual vulnerabilities in developing a plan of care. The need for flexible care delivery is ever apparent in the testing, identification, and treatment of sexually transmitted infections (STIs) in persons experiencing homelessness (Carrière, 2008).

Infections caused by *Chlamydia trachomatis* and *Neisseria gonorrhoeae* are the most commonly reported STIs in the United States (CDC, 2010). A history of sexual abuse, substance misuse, vulnerability to sexual assault, and risky sexual behaviors (sometimes including the exchange of sex for basic needs) place people experiencing homelessness at increased risk for these infections (Bailey, 1998). Homeless people of any age, gender, or sexual orientation who engage in unprotected sexual contact with an infected partner or multiple partners, by consent or against their will, are at higher risk for STIs, which are among the health problems most commonly observed by clinicians serving this population (Kennedy et al., 1990).

Sexually transmitted infections in homeless individuals may be a direct result of sexual abuse or assault. Physical, emotional, and/or sexual abuse in family and other relationships has been identified as both a cause and a consequence of homelessness (Stein, 2002; Hirsch, 1989; Hagen, 1987; Stoner, 1983). Persons living on the streets or in shelters are often victims of assault, both physical and sexual. Those who are mentally ill or under the influence of substances or alcohol are even more vulnerable to victimization and are less likely or able to seek help (Wenzel, 2001; Burroughs, 1990).

The multitude of psychosocial factors that often lead to homelessness also elevates homeless peoples’ risk of exposure to STIs and complications of infection, thus warranting focused outreach to special needs populations. Homeless youth, sometimes known as runaways, “throwaways”, or “street kids,” are often victims of physical and sexual abuse before and after becoming homeless. Many engage in “survival sex” (exchanging sexual activity for food, shelter, money, or protection), which increases the likelihood of STIs and unintended pregnancies (Noell, 2001; Rew, 2001, 1996; Tyler, 2000). Equally compelling indicators for risky sexual behaviors among newly homeless youth are the length of time they have been incarcerated and the stability of their housing situations prior to becoming homeless (Rew, 2008; Solorio 2008).

Gay, lesbian, bisexual, transgender, and questioning (GLBTQ) homeless persons are particularly vulnerable to victimization, including robbery, rape, and assault (Whitbeck, 1993). In addition, high rates of risky sexual behavior (including survival sex, sex work, and prostitution) place

GLBTQ adolescents and young adults at higher risk for victimization and sexually transmitted infections (Yates, 1991). Programs and outreach must be targeted to reach out to this vulnerable cohort in creative and culturally appropriate ways to reduce risk of exposure, infection, and complications.

Single homeless woman (Lewis, 2003), homeless persons suffering from developmental regression or neuropsychological dysfunction (Gonzalez, 2001), and undocumented immigrants (Kuiper, 1999) experience disproportionate barriers to changing behaviors associated with increased STI risk. Care delivery must be matched to the unique needs of these target populations.

Clinical practice guidelines for people with sexually transmitted infections who are homeless require a unique, flexible approach to the delivery of evidence-based care. Primary care providers who routinely serve homeless patients recognize an increased need to develop interventions that remove barriers for testing and treatment, and increase opportunities for adherence and cure (Van Leeuwen et al., 2002). Providers must take into account the precarious living situations of their patients; the confounding variables of co-occurring psychological, emotional, mental, and somatic disorders; and the unique needs of homeless adolescents and hard-to-reach young adults.

The treatment and recommendations in this guide were compiled to assist clinicians who provide care for homeless adults, adolescents and children. It is the expectation of the authors that these simple adaptations of established, evidence-based guidelines will improve treatment adherence and patient outcomes. The Sexually Transmitted Diseases Treatment Guidelines developed by the Centers for Disease Control and Prevention (CDC, 2010; CDC 2012) is the primary source document for these adaptations. Recommendations found in the CDC guidelines are not restated in this document except to clarify a particular adaptation.

### Updated Treatment Guidelines and Implications

In 2010, the CDC issued updated treatment guidelines for chlamydial and gonococcal infections. The 2010 guidelines for chlamydial infections remain in effect. It should be noted, though, that in 2012 the CDC made significant changes to its treatment guidelines for gonococcal infections in response to an increase of antibiotic resistance in gonococcal infections. Through the Gonococcal Isolate Surveillance Project (GISP), the CDC documented that over 27% of all GISP isolates were resistant to penicillin, tetracycline, ciprofloxacin, or some combination of those, and 6.9% of isolates were resistant to all three antimicrobials.

### 2012 CDC Treatment Recommendations for Gonococcal Infections

#### **Recommended Regimen:**

Ceftriaxone 250 mg in a single intramuscular dose

-PLUS-

Azithromycin 1 g orally in a single dose

-or- doxycycline 100 mg orally twice daily for 7 days\*

#### **Alternative regimens:**

If ceftriaxone is not available:

Cefixime 400 mg in a single oral dose

-PLUS-

Azithromycin 1 g orally in a single dose

-or- doxycycline 100 mg orally twice daily for 7 days\*

-PLUS-

Test-of-cure in 1 week

#### **If the patient has severe cephalosporin allergy:**

Azithromycin 2 g in a single oral dose

-PLUS-

Test-of-cure in 1 week

### 2010 CDC Treatment Recommendations for Chlamydial Infections

#### **Recommended Regimens**

Azithromycin 1 g orally in a single dose

-OR-

Doxycycline 100 mg orally twice a day for 7 days

#### **Alternative Regimens**

Erythromycin base 500 mg orally four times a day for 7 days

-OR-

Erythromycin ethylsuccinate 800 mg orally four times a day for 7 days

-OR-

Levofloxacin 500 mg orally once daily for 7 days

-OR-

Ofloxacin 300 mg orally twice a day for 7 days

\* Because of the high prevalence of tetracycline resistance among Gonococcal Isolate Surveillance Project isolates, particularly those with elevated minimum inhibitory concentrations to cefixime, the use of azithromycin as the second antimicrobial is preferred. The CDC further cautions that the use of monotherapy with azithromycin for gonococcal infections should be extremely judicious due to concerns about the possible rapid emergence of azithromycin resistance.

Further information about the updated 2012 treatment guidelines for gonococcal infections can be found at [www.cdc.gov/std/gonorrhea/treatment.htm](http://www.cdc.gov/std/gonorrhea/treatment.htm).

Further information about the 2010 treatment guidelines for chlamydial infections is available at [www.cdc.gov/std/chlamydia/treatment.htm](http://www.cdc.gov/std/chlamydia/treatment.htm).

These changes to the recommended treatment regimens could have a positive impact on the ability of providers to effectively treat gonococcal and chlamydial infections in persons experiencing homelessness. This is in part because the newly recommended combination therapy for gonococcal infections also includes the recommended treatment regimen for chlamydial infections, due to the high right of co-occurrence of these infections. Perhaps most importantly, the recommended regimens of single-dose, directly observed therapies for both gonococcal and chlamydial infections eliminate or greatly reduce concerns about medication compliance among persons experiencing homelessness.

However, the updated treatment guidelines for gonococcal infections could potentially have a negative impact on expedited partner therapy and partner management, since the recommended

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treatment regimen calls for injectable medication as a primary component of the first-line treatment regimen. In the event that a heterosexual partner of a patient cannot be linked to evaluation and treatment for presumptive gonococcal infection, the CDC recommends that expedited partner therapy be considered, using oral combination antimicrobial therapy delivered to the partner by the patient, a disease investigation specialist, or collaborating pharmacy. Further information on expedited partner therapy for gonococcal and chlamydial infections can be found at [www.cdc.gov/std/ept/default.htm](http://www.cdc.gov/std/ept/default.htm).

Additionally, health care facilities that have not previously stocked injectable ceftriaxone will need to begin doing so.

Increased antibiotic resistance also requires that health care providers make increased efforts to follow-up and monitor patients for treatment failure, especially following use of ceftriaxone. Providers should emphasize to patients the need to monitor their symptoms and return for further evaluation and treatment if symptoms persist. Patients who have continued symptoms after treatment should be retested by culture if possible. Suspected treatment failures should also be reported to the CDC through local or state public health officials within 24 hours.

## CASE STUDY: HOMELESS ADOLESCENT WITH CHLAMYDIA

An 18-year-old female presents to the clinic with the complaint of vaginal discharge for two weeks. She states that she was treated for a sexually transmitted infection when she was in Dallas three weeks ago. She states, "I think I had chlamydia," for which she was given Doxycycline. The instructions were to take one pill two times a day until the bottle was empty. "I took the pills for a couple of days and then my medicine was stolen."

**Review of Symptoms:** She denies abdominal pain, vaginal bleeding, nausea, vomiting or diarrhea. She denies any current fever, chills or rigors. She denies taking any prescription medications except Valium periodically, which she buys on the street. She denies allergies to food or medications.

**Pertinent medical history:** Negative for heart problems, high blood pressure and diabetes. Induced termination of first pregnancy one year ago. Last Pap smear — "What's that?" Menarche age 12; regular menstrual cycles, denies cramps.

**Sexual history:** First welcomed sexual encounter: 12 years old; partners since first encounter: "a lot"; partners in the past 12 months: "I have no idea." Partners include males and females; she voices no preference. Client has exchanged sex for a place to sleep, food, liquor, and drugs. Reported condom use is less than 50%. Engages in vaginal intercourse, oral intercourse with both male and female partners, and anal intercourse; uses sex toys with female partners. Partner risks: drug dealer, unknown for injection drug use, unknown for HIV infection.

**Psychosocial history:** Substance use/abuse: positive for ecstasy, heroin, cocaine, daily alcohol use, cigarettes (about one pack a day for five years), marijuana daily, and benzodiazepines. The patient reports that she has been traveling and arrived in New Orleans "a couple of weeks ago," and has not had any contact with her family in "about a year." She reports sleeping in a "squat" at night with her "husband" and her dog. She states that during the day she goes out to "spange" (asking for spare change) on the streets in get money for food.

### Physical Examination:

- Urine dipstick: +++ WBC , negative Nitrite, +++ RBC
- Urine HCG: negative
- Pelvic exam: external genitals: no lesions; BSU (Bartholin's gland, Skene's gland, urethra): WNL; cervix: friable, copious amount of yellowish discharge, +CMT (cervical motion tenderness), no lesions; vagina: no lesions, pooled discharge; uterus: WNL; adnexa: mild tenderness on bi-manual exam, no palpable masses.
- Wet mount - WBCs >10 per high-powered field; RBCs: few; negative for trichomonas, clue cells.
- KOH: no yeast, negative whiff test.

**Assessment:** Unremarkable clinical examination with exception for pelvic exam. The cervix is friable and tender with palpation. Yellow, mucopurulent discharge noted draining from the os. There is mild adnexal pain, but no uterine pain with deep palpation. Pap smear obtained and swabs for gonorrhea and chlamydia collected.

**Diagnosis:** Suspected pelvic inflammatory disease secondary to gonorrhea and/or chlamydia infection.

**Plan:** Empiric oral treatment initiated for suspected PID with plan for patient to return to the clinic for re-examination in 72-hours. If no clinical improvement is noted on re-examination, patient will be referred for further assessment. Repeat testing for chlamydia or gonorrhea recommended to the patient with a plan to follow-up 3–6 months after treatment. As per empiric diagnosis with women acute PID, patient was offered HIV testing. The patient was counseled extensively regarding options for housing, supportive services and case management. Referral was made to peer advocacy program for initial engagement into comprehensive services. Extensive risk reduction counseling with the patient regarding pregnancy prevention and birth control options as well as STI prevention. Will follow-up in 3-days for repeat bimanual examination and further considerations.

### **CASE STUDY: HOMELESS YOUNG ADULT WITH GONORRHEA**

A 21-year-old woman presents for the first time at the clinic with complaint of cough, sore throat, and runny nose for three days.

**Review of symptoms:** The patient reports a two-day history for cough, nasal discharge and pharyngitis. She denies fever, chills or rigors. On further history, the patient reports a “main concern” of malodorous, “green” vaginal discharge for the past week. She reports itching, redness and irritation around her introits. She denies abdominal pain, nausea, vomiting or diarrhea.

**Pertinent medical history:** The patient was previously diagnosed with a “sexual infection” – but she is unable to recall the specifics of the diagnosis or the treatment. She denies hospitalizations or surgeries for PID, or GU infections. She is G0P0A0.

**Sexual history:** This patient has not had a Pap smear in over two years. Her boyfriend is her only sexual partner for the past year, although she had three partners prior to him. She believes he has no other partners. They do not use condoms because he “doesn’t like to use them.” She feels it would be “okay” if she got pregnant because then she would be motivated to change her life. Her last menstrual period was two weeks ago.

**Psychosocial history:** The patient reports that she been homeless for the past year, usually sleeping on the beach with her boyfriend of nine months. Both the patient and her boyfriend regularly use alcohol and cocaine. She denies injection drug use but thinks her boyfriend may have used injection drugs in the past. When asked about her relationship with her boyfriend, she says it is good. He is very protective of her and gets upset with her if she goes anywhere without him. He barely conceded to let her come to the clinic today. When asked, she admits that he has sometimes slapped or pushed her, but believes that she provoked this behavior. She says that she is “glad to have a man to protect her on the streets.”

**Physical Examination:**

- Urine dipstick: negative WBC, negative Nitrite, negative RBC
- Urine HCG: negative
- Pelvic exam: external genitals: mild erythema without any lesions or friability noted; BSU (Bartholin’s gland, Skene’s gland, urethra): WNL; cervix: friable with “strawberry” appearance noted, copious amount of greenish mucopurulent discharge from os, negative CMT (cervical motion tenderness), no lesions; vagina: no lesions, pooled discharge; uterus: WNL; adnexa: non-tender, no palpable masses.
- Wet mount - WBCs >10 per high-powered field; RBCs: few; Positive for trichomonas on microscopic examination. Negative clue cells.
- KOH: no yeast, negative whiff test.

**Assessment:** Unremarkable clinical examination with exception for pelvic exam. The cervix is mildly friable, but there is no chandelier sign or tenderness with deep palpation. Greenish, mucopurulent discharge draining from the os with characteristic “musty” odor noted. Pap smear obtained and swabs for gonorrhea and chlamydia were collected.

**Diagnosis:** Suspected gonorrhea and/or chlamydia. Wet mount shows clinical signs indicative of trich vaginalis infection.

**Plan:** Patient with complex psychosocial history that gives great concern for intimate partner violence. She has signs and symptoms indicative of a GC, CT infection. In addition, her wet mount is positive for trichomonas. Will provide empiric treatment for GC, CT and trich. Discussed plan for partner notification and advised patient to use an anonymous online system for notifying partner for need to seek treatment. Will link patient to case management and help to advocate for DV services and placement in transitional, supportive housing. Will see patient back in the clinic in 2-weeks and counsel regarding repeat BHcg testing and further STI workup if warranted.

# Adults and Adolescents

## *Diagnosis and Evaluation*

### **HISTORY**

- **Sexual practices** Obtain a detailed history of sexual practices at the first visit (cf., Nusbaum, 2002). Responding to questions may influence behavior even if the patient does not return for follow-up. Discuss medical confidentiality and its limits (e.g., in cases of child abuse, threat to self or others) with the patient. Determine if the patient has exchanged sex for money or drugs and whether s/he remembers what happened and with whom. Use written questions so the patient knows it is standard procedure to ask them. Ask the same questions of both males and females in a nonjudgmental way:
  - How old when had first welcome sexual experience, one that was not forced on you?
  - How many sex partners in lifetime? Past year?
  - Were sex partners male? Female? Both?
  - Partner risks: HIV positive? Are partners having sex with other men and/or women? Is partner a drug user?
  - Traded sex for drugs, money, place to stay?
  - Condom use/barrier methods, dental dams, etc?
  - Vaginal intercourse? Oral intercourse? Anal intercourse? Give and/or receive?
  - Use sex toys, dildos, and/or vibrators?Expect these questions to elicit further questions from the patient. Be aware of what local resources are available for support.
- **Sexual abuse** Ask whether the patient has been forced to have sexual intercourse against his/her will. Assess for violence, abusive relationships, and patient safety (e.g., whether knowledge of STI may precipitate abuse against the patient or partner). Evaluate the need to report assault/abuse. Ask if the patient wants evidence collected to pursue legally. In the case of minors, disclosed sexual abuse histories must be reported to child protective services. Be knowledgeable about mandatory reporting requirements regarding consensual sexual activity and abuse in your state, and explain them to the patient.

*(A summary of state reporting requirements for adult victims of domestic violence or abuse is available at <http://www.futureswithoutviolence.org/userfiles/file/HealthCare/Compendium%20Final.pdf> To look up statutory requirements for reporting child abuse in your state, see <http://www.ndaa.org/pdf/Mandatory%20Reporting%20of%20Child%20Abuse%20and%20Neglect-nov2012.pdf> or [https://www.childwelfare.gov/systemwide/laws\\_policies/statutes/manda.cfm](https://www.childwelfare.gov/systemwide/laws_policies/statutes/manda.cfm) )*
- **Exploitation** Consider possible exploitation of the patient, especially if mental illness or developmental disability is suspected. Keep in mind that a partner's refusal to use a condom may be a form of exploitation. Substance abuse and "survival" sex also increase the risk for sexually transmitted infections. Realize that adolescents may not understand or acknowledge that they are being exploited when exchanging sex for food, shelter, or drugs.

- **Prior STIs** Ask about history of STIs in both male and female patients. Infestations that are commonly sexually transmitted, such as lice and scabies, pose special challenges for homeless people, whose use of showers and laundry facilities may be limited by lack of funds, facilities, or spare clothing.
- **Reproductive health** Obtain a gynecological history including best possible menstrual history for females. Ask what method of contraception is used; if none, explore interest in pregnancy prevention.
- **Readiness to change** Assess the patient's developmental level and readiness to change sexual behaviors. Find out what his/her motives are for engaging in particular behaviors.
- **Partner history** Always ask whether a partner needs to be treated. Also inquire about new or casual encounters. Transience of homeless people and lack of familiarity with sex partners complicates partner notification. Try to identify geographic areas where the patient and partner(s) have been to determine risk for drug-resistant organisms.

#### PHYSICAL EXAMINATION

- **Preventive care:** For female patients, do a breast exam with a pelvic exam to address preventive as well as acute care needs. For male patients, include a testicular exam. Anticipate shyness and anxiety about sexual norms in adolescents; conscientiously respect their privacy and need for control. Eliminate the rectal exam if not pertinent to clinical presentation.
- **Chaperoned examinations for GU:** All patients/clients should be offered a chaperone for intimate examinations.
- **Sexual abuse:** Be sensitive to concerns, fears, and safety needs of patients with a history of sexual abuse, who may be reluctant to have a rectal, pharyngeal, or pelvic exam. Consider using an assistant for exams of unclothed patients and clothed patients who seem emotionally disturbed, recognizing the high prevalence of paranoia, delusions, sexual trauma, and posttraumatic stress disorder (PTSD) among homeless people.
- **Refused pelvic exam:** Consider empiric treatment if the patient has a history of exposure (e.g., when a partner has been diagnosed with chlamydial or gonococcal infection). Consider obtaining a urine LCR for *C. trachomatis* and *N. gonorrhoeae* in lieu of a pelvic exam. Consider a self-administered vaginal swab for saline and KOH preparations when the genital exam is refused.
- **Pharyngeal and rectal exams:** Suspect chlamydial or gonococcal infection if pharyngeal and/or rectal symptoms are present and the patient has history of exposure.
- **Evidentiary collection:** All adult victims of rape or sexual assault should be counseled regarding the optional paths for examination, testing, and treatment. Clients should be led through an informed consent discussion regarding evidentiary/forensic vs. medical examination, testing, and treatment without evidentiary collection. It should be noted that forensic collection follows a specific "chain of evidence" protocol; in many jurisdictions, sexual

assault resource and advocacy centers provide trained examiners (e.g. Sexual Assault Nurse Examiners or Sexual Assault Response Team) who perform evidence collection and provide the initial contact with the aftercare resources and services.

## DIAGNOSTIC TESTS

- **Chlamydia/gonorrhea** Screen for *C. trachomatis* and *N. gonorrhoeae* with every female pelvic examination if her cervix is present, whether the patient is symptomatic or not. (Males are more likely to be symptomatic.) Use the most highly sensitive and accurate screening method available and affordable, recognizing that time required to obtain lab reports is also an issue because of follow-up concerns. It is important to screen men who have sex with men (MSM) for gonococcal infection in all possible sites of inoculation, which may include rectal, urethral and pharyngeal. A study conducted by the CDC found that among MSM who showed no symptoms of gonorrhea, more than one-third of rectal gonorrhea infections as well as one-fourth of throat infections were missed because some physicians did not test all anatomical sites of recent exposure.

**Nucleic Acid Amplification tests** Ligase Chain Reaction (LCR), Polymerase Chain Reaction (PCR), Transcription Mediated Amplification (TMA), and Strand Displacement Amplification (SDA) are the preferred methods for diagnosis and screening. Advantages include highest sensitivity and specificity for chlamydial and gonococcal infections with both genital and urine specimens, and they do not require an invasive exam. Treat empirically pending lab results. Urine LCR is now preferred for males.

**Culture** can still be used if more sensitive, less invasive, more convenient diagnostic tests are not available or affordable. Bacterial culture test for gonorrhea is cheap and highly specific but requires special handling and incubation. Cell culture for chlamydia is no longer in common use, except in cases of child abuse or sexual assault. Culture is the only acceptable diagnostic test for medicolegal purposes. Treat empirically pending culture results.

**Other diagnostic tests** Direct Fluorescent Antibody (DFA), Enzyme Immunoassay (EIA), and Nucleic Acid Probe (NAP) are widely available, but they are less sensitive for both gonorrhea and chlamydia, and can only be used with genital specimens, making an exam necessary.

- **Vaginitis** Consider obtaining specimen for a wet mount on site, if possible, to screen for co-occurring trichomonas or bacterial vaginosis and assess degree of acute inflammation.
- **Other STIs** Screen for other sexually transmitted infections if feasible, including human immunodeficiency virus (oral HIV testing optimal), syphilis (RPR or VDRL tests), human papillomavirus (HPV), hepatitis B, and hepatitis C. We recommend wide-based screening within financial means and the patient's willingness to be screened.
- **Pregnancy** If there is any suspicion of pregnancy, do urine testing. All pregnant women should be screened for both chlamydia and gonorrhea.

- **Pap smear** While results may be obscured by or reveal atypia attributable to inflammation, this may be a rare opportunity to uncover or prevent a serious condition in a homeless woman who would not otherwise be screened. For female: annual Pap smear with reflex HPV testing beginning within three years of sexual debut **or** at age 21 or older.

## *Plan and Management*

### **EDUCATION/SELF-MANAGEMENT**

- **Comprehensive clinical encounters:** Where appropriate, all patients/clients seeking services at an HCH site should be offered comprehensive clinical services at every visit. This includes providing integrated care around behavioral, sexual, mental and physical health. Equally important is assuring access to supportive services and care advocacy.
- **Risk reduction:** Assist the client to identify and reduce personal risks for sexually transmitted infections. Emphasize the risk of STIs with unprotected sex. Use a risk reduction approach; promote the use of condoms and reduction in the number of sexual partners. Employ interactive counseling focused on preventing transmission of disease, including a description of risky behaviors and preventive methods. Counseling should be nonjudgmental, client-centered, and appropriate to the client's age, gender, sexual orientation, and developmental level. For patients with substance abuse problems, offer referral for treatment and counseling; for injection drug users, offer access to clean needles when available.

Explain that no screening test result warrants unprotected sex. Encourage the use of condoms and provide information on availability of condoms, either on site or elsewhere. Learn techniques that sex workers use to protect themselves (e.g., “cheeking” a condom for oral sex). If high-risk sexual behavior is perceived as necessary to meet basic survival needs, try to engage the patient for services and find another way of meeting underlying needs. If high-risk behavior is used to obtain a drug on which the patient is dependent, continually offer detoxification/substance abuse treatment as an alternative.

- **Medical care:** Educate patients about the importance of seeking medical care immediately when symptoms occur. Explicitly discuss the possibility of having an infection without symptoms. If a patient is at risk, stress that regular screening for STIs is important for reproductive health.
- **Dispel myths** about home remedies or protections against STIs with cultural sensitivity. For example, symptomatic males may try to cure themselves by scrubbing genitalia with bleach, lemon juice, alcohol, earth, aloe vera, or Vicks Vaporub. Some believe in the cleansing power of urine and apply it to sores and in eyes for conjunctivitis. These “remedies” are especially popular in some areas of Mexico. Many patients believe that STIs can be contracted from dirty toilets and common showers in shelters, that oral contraceptives protect against sexually transmitted infections, and that “you can tell who is likely to have an STI; if you don’t see a sore, your partner isn’t infected.” Explain that most STIs are asymptomatic but can still have negative consequences, and that STIs are infections associated with particular behaviors, not

punishments for moral failings.

- **Case management:** Provide case management to assure access to housing and other social services, recognizing that these interventions are also effective forms of STI prevention
- **Safety:** Help the patient develop a safety plan if interpersonal violence/sexual abuse is suspected; explain adult and child abuse reporting requirements in your state.

*(A summary of state reporting requirements for adult victims of domestic violence or abuse is available*

*at: <http://www.futureswithoutviolence.org/userfiles/file/HealthCare/Compendium%20Final.pdf>*

*To look up statutory requirements for reporting child abuse in your state, see*

*<http://www.ndaa.org/pdf/Mandatory%20Reporting%20of%20Child%20Abuse%20and%20Neglect-nov2012.pdf> or [https://www.childwelfare.gov/systemwide/laws\\_policies/statutes/mandacfm](https://www.childwelfare.gov/systemwide/laws_policies/statutes/mandacfm) )*

## MEDICATIONS

- **Simple regimen:** Every attempt should be made to adapt best practice and standard of care guidelines to the patient's lifestyle and psychosocial needs/circumstances. Where appropriate, a shortened course of therapy and directly observed therapy (DOT) should be employed. The 2010 treatment guidelines for chlamydia and the 2012 update to the treatment guidelines for gonorrhea call for a first-line recommended regimen consisting of single-dose DOT for both types of infections.

For the 2012 update to treatment guidelines for gonococcal infections, see

[http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6131a3.htm?s\\_cid=mm6131a3\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6131a3.htm?s_cid=mm6131a3_w)

For the 2010 treatment guidelines for chlamydial infections, see

<http://www.cdc.gov/std/treatment/2010/chlamydial-infections.htm>

- **Presumptive treatment:** Treat the patient and partner empirically pending lab results, even if the partner is not seen in clinic, if this can be done safely and if regulations/clinic policies permit. Design a treatment regimen to cover common, co-occurring STIs. For information on expedited partner therapy, see [www.cdc.gov/std/ept/default.htm](http://www.cdc.gov/std/ept/default.htm).
- **HBV & HAV:** Recognize that some homeless people are at high risk for hepatitis A and/or hepatitis B—especially injection drug users, their sexual partners, and men having sex with men. Assure that at-risk patients are immunized. For those who have been partially vaccinated, resume schedule whenever possible. For high risk and transient clients, consider the FDA approved accelerated dosing schedule with the combination Hepatitis A and B vaccine (Twinrix); dosing schedule at 0, 7, 21–30 days, followed by a booster dose at 12 months.
- **Resistant organisms:** Increased antibiotic resistance of gonococcal infections has been documented by the CDC. Providers should recognize higher risk for drug-resistant organisms among highly mobile homeless patients with multiple, unknown sex partners. Emphasize to patients the need to monitor their symptoms and return for further evaluation and treatment if symptoms persist. Patients who have continued symptoms after treatment should be retested by culture if possible. Suspected treatment failures should also be reported to the CDC through local or state public health officials within 24 hours.

For patients unresponsive to standard treatment, consider non-gonococcal, non-chlamydial urethritis (e.g., ureaplasma and mycoplasma), which frequently respond to longer courses of macrolide antibiotics or doxycycline.

#### **ASSOCIATED PROBLEMS/COMPLICATIONS**

- **Rape** including unrecalled rape that occurred when a patient was under the influence of alcohol and/or drugs.
- **Pregnancy** including ectopic pregnancy. (Always offer contraceptive options.)
- **PID** (pelvic inflammatory disease), a serious complication of untreated STIs frequently seen in homeless women, which can result in infertility.
- **Reactive Arthritis**, inflammatory arthritis that can be triggered by chlamydia or other infectious agents.
- **More florid disease:** Homeless people often do not seek medical help until their disease is advanced and symptoms are florid. Poor hygiene, mental illness, substance abuse, and “survival sex” increase their risk for sexually transmitted infections.
- **Nonadherence/loss to follow-up:** People who are homeless may place a higher priority on meeting basic needs than on obtaining needed health care or following through with prescribed treatment. Substance use disorders and mental illness further complicate adherence and follow-up. (Always approach patient encounter with a nonjudgmental attitude.) The increased antibiotic resistance in gonococcal infections requires increased efforts for follow-up.
- **Psychological factors:** Recognize that lack of self-esteem or assertiveness skills, emotional/psychological needs, addictions, developmental disabilities, partner attitudes, and/or developmental stage may affect a patient's sexual behavior and adherence to a plan of care. Homeless adolescents and youth are often developmentally less advanced than peers of same chronological age; concrete thinking predominates over abstract reasoning skills, according to providers who are experienced with this population. Homeless adults with mental illness or chronic substance use may have impaired reasoning and delayed social developments that cause them to act like young adolescents. When discussing behavior change with these patients, focus on immediate concerns rather than possible future consequences.
- **Legal considerations:** Many homeless youth are emancipated minors. Be aware of the possible legal barriers to medical care of an unaccompanied youth and limits of patient confidentiality. These vary from state to state.

## **FOLLOW-UP**

CDC recommendations call for repeat examination and testing in some cases of empiric treatment. While this is especially true in the face of increased antibiotic resistance of gonococcal infections, repeat examinations and tests of cure may not always be a feasible practice in HCH sites. A plan should be developed for follow-up examination and testing, with the careful understanding that these recommendations may not be followed.

- **Suspected Pelvic Inflammatory Disease (PID):** The CDC recommends follow-up clinical examination for suspected, empirically treated cases of PID within 72-hours of the initiation of treatment. If no clinical improvement has occurred within 72 hours after outpatient oral or parenteral therapy, the CDC recommends further assessment. In addition, the CDC recommends that women with documented chlamydial or gonococcal infections receive repeat testing 3–6 months after treatment, regardless of whether their sex partners were treated. Finally, the CDC supports that all women diagnosed with acute PID should be offered HIV testing. See, <http://www.cdc.gov/std/treatment/2010/pid.htm>
- **Contact information:** At every visit, seek contact information for the patient, a family member or a friend with a stable address, the shelter where the patient is currently staying, the patient's case manager and health care providers, including telephone/cell phone numbers and mailing/email addresses.
- **Outreach:** Use outreach workers for partner identification and to bring hard-to-reach individuals (especially adolescents) to the clinic. Provide diagnostic testing (e.g., urine screening) and treatment at outreach sites whenever possible.
- **Partner notification and treatment:** Work with the local public health department to facilitate partner identification, notification, and treatment. Utilize expedited partner therapy as appropriate. For guidelines on expedited partner therapy for STIs, including guidance on expedited partner therapy relative to the updated 2012 gonorrhea treatment guidelines, see: <http://www.cdc.gov/std/ept/default.htm>.
- **Monitor for treatment failure when possible:** Due to increased antibiotic resistance of gonococcal infections, the CDC has called for increased efforts to monitor for treatment failure. Suspected treatment failure should be reported to the CDC through local or state public health officials within 24 hours.
- **Incentives:** Use incentives (phone cards, bus tokens, hygiene kits, free condoms, socks, fast food coupons) to encourage patients to return for lab results.
- **Peer-led groups:** Initiate peer-led STI prevention/intervention groups; include lunch to attract participants.
- **Provider-patient relationship** Build positive, encouraging relationships with clients to increase likelihood of return for follow-up care.



**CASE STUDY: HOMELESS INFANT WITH CHLAMYDIA**

C.L., a six-week-old female African American infant, is brought to the HCH clinic by her mother for poor feeding. She was born in the emergency room of the local county hospital by precipitous vaginal delivery on November 15, 2001. Her birth weight was 2250 gm; she appeared to be somewhat small for gestational age (about 36 weeks) but vigorous, with Apgars of 8 and 9. She was sent to the neonatal intensive care unit for a sepsis work-up because of prolonged rupture of membranes, but all cultures were negative. She never required ventilatory support, was nipping well, and was discharged on the fourth day of life.

**History:** C.L.'s mother (G3P1SAb2) had three prenatal visits during the pregnancy. At the last visit, she was told that she was at 22 weeks gestation and her estimated delivery date was 12-15-01; so she "figured she didn't need to hurry" when labor began on 11-14-01, even though she knew her membranes had ruptured. She barely made it to the hospital in time to deliver the next day. The mother reports that she had been staying with her boyfriend until he was incarcerated, about two weeks before the baby was born. She then went to stay with an aunt and her children. After leaving the hospital, she took the baby there, but moved out when the aunt's boyfriend became irate because the baby was crying. They are now staying at the family shelter.

The mother knew she was supposed to take her baby in for a check-up one week after birth, but she delayed coming to the clinic because the appointment coincided with the argument with her aunt, and she decided she needed to find a place to stay first. Besides, the baby was "doing okay" then, taking up to an ounce of formula in each feeding and not crying too much. About one week later, the infant's eyes got "sticky and swollen looking." For the last couple of weeks, "she just hasn't wanted to eat," and has an aggravating cough. The mother thinks the baby has a cold that has been going around the shelter. She hasn't had a fever, but her eyes are still a little red.

While waiting in the examining room for the provider, the mother confides to the case manager that she is overwhelmed with caring for the baby by herself and has no social support system. She believes things will be better when her boyfriend gets out of jail. He said he wants to raise this baby with her, even though they have only been together for about three months. He is in jail for possession of cocaine. She knows he has had multiple partners, but believes that he will settle down with her as soon as he gets out. The baby coughs constantly during the interview, and the mother becomes increasingly frustrated and finally tearful.

**Physical examination:** The patient is a 3100 gm infant (5-10 percentile for age), fussy but consolable. Note is made of tachypnea (56-60) even when the infant is consoled. There is mild retraction noted, and a persistent cough. Some fine rales are appreciated but no wheezes. There is mild bilateral conjunctival injection with a small amount of purulent discharge. The remainder of the exam is unremarkable.

**Assessment:** Suspected chlamydia pneumonia and conjunctivitis infection secondary to perinatal transmission.

**Plan:** Refer patient for pediatric consultation and appropriate antimicrobial treatment and monitoring. Mother was engaged into an expanded discussion about supportive services and options for parenting resources. Plan is for mother to meet with a case manager to enroll in a "Healthy mothers, health babies" program through the health department. Will follow-up with mother and patient in one week to assess progress and coordinate care.

# Infants and Children Under Three Years of Age

## *Diagnosis and Evaluation*

### **HISTORY**

- **Living conditions:** Ask parents where the family is living – on the street, in a shelter or motel room, in their car, staying with friends or relatives? In some cases, homelessness is a risk factor for sexually transmitted infections; chlamydia and gonorrhea are commonly reported STIs in homeless patients.
- **Sexual history of mother:** Ask the mother about her sexual behaviors and partner(s) in a nonjudgmental way. (See recommendations for chlamydial/gonococcal infections in adults and adolescents on page 18.)
- **Access to care:** Inquire about parental/partner treatment for STIs.
- **Prenatal/neonatal care:** Ask the mother how many prenatal care visits she had and where the child was delivered. Lack of prenatal care is a risk factor for neonatal chlamydia. Assess the likelihood of ophthalmia prophylaxis to prevent maternal transmission of *N. gonorrhoeae* to the neonate.

### **PHYSICAL EXAMINATION**

Confine the interview to the history and make referrals to the appropriate person to complete the physical exam. This exam should be completed by a specialist who has experience and training in evidentiary and post-assault examinations for infants and children.

### **DIAGNOSTIC TESTS**

For chlamydial/gonococcal conjunctivitis or pneumonia in an infant or child under three years of age:

- **Cell culture:** Is preferred for conjunctival, pulmonary specimens; it is more sensitive and specific than non-DNA tests. Collect conjunctival cells, not just exudates. Tissue culture of nasopharynx if *C. trachomatis* pneumonia is suspected. (Culture required if child abuse is suspected.)
- **Non-DNA tests:** Direct Fluorescent Antibody (DFA), Enzyme Immunoassay (EIA) or Nucleic Acid Probe may be used for conjunctival specimens. Only DFA is used for nasopharyngeal specimens. These tests are less sensitive than cell culture. (Not acceptable if child abuse is suspected because false-negatives and false-positives may occur.)
- **Nucleic Acid Amplification tests:** Ligase Chain Reaction (LCR), Polymerase Chain Reaction (PCR), Transcription Mediated Amplification (TMA), and Strand Displacement Amplification (SDA) tests are not used with conjunctival, pulmonary, or nasopharyngeal specimens, nor are they admissible for medicolegal purposes if child abuse is suspected, although they are more sensitive, less invasive, and more convenient than other diagnostic tests.

## *Plan and Management*

### **EDUCATION/SELF-MANAGEMENT**

- **Symptoms:** Educate parents about the signs and symptoms of chlamydial and gonococcal infections in infants. Conjunctivitis (red, sticky eyes) may be a symptom of either type of infection; cough with tachypnea is a symptom of neonatal chlamydial infection but not of gonococcal infection. Use written educational materials only if you are sure the parent can read and understand them. Inquire nonjudgmentally about the parents' literacy level in the language in which materials are written.
- **Treatment:** Explain that the infant, parent, and any infected partner(s) must be treated to prevent transmission and complications of infection. Tell parents that untreated chlamydial infections in children will lead to serious health problems affecting their eyes, ears, and lungs.

### **MEDICATIONS**

- **GI upset:** Prefer antibiotics with minimal gastro-intestinal irritation. Infants often get candidal diaper dermatitis from diarrhea secondary to this side effect. Diarrhea is a more serious issue with homeless patients. Make provisions for extra diapers and a place for parents to cleanse infant.
- **Presumptive treatment:** Treat empirically without lab results if there is high suspicion of infection, recognizing that the patient may not return for follow-up.

### **ASSOCIATED PROBLEMS/COMPLICATIONS**

- **Diarrhea** as a side effect of antibiotics is more difficult for homeless families to manage because of limited access to diapers and facilities for cleansing a child. Maintaining adequate hydration can also be a problem if fluids are not readily available.
- **Lack of prenatal/post-partum care**, indicating a need for case management and social supports for the mother
- **Physical/sexual abuse** of the parent as an adult and/or in childhood
- **Lack of financial resources** for medications, transportation, quality daycare
- **Lack of consistent follow-up** secondary to mobility

### **FOLLOW-UP**

- **Outreach:** Use outreach workers to locate the infant for appropriate follow-up.
- **Test of cure:** If the mother says the infant did not complete treatment regimen or missed a few days, repeat chlamydial culture and resume treatment. Greater likelihood of poor adherence and unpredictable follow-up increases the risk of unresolved infections in homeless infants.

### **CASE STUDY: STI IN A HOMELESS CHILD NOT CONSENTING TO SEX**

An outreach team (nurse practitioner, RN, and case manager) encounters a six-year-old female (the patient), her 22-year-old Hispanic mother, the child's maternal grandmother, and the grandmother's boyfriend. The family came to the city two months ago in search of work. For the past week, they have been staying together in a motel room. Before that, they "camped out" in their car.

**History:** The team learns from the patient's mother that the grandmother is using heroin, and that the grandmother's boyfriend "sometimes gets rough" with both women. When asked about the child's safety, the mother responds that the boyfriend "is good with my little girl, and sometimes he even baby-sits her while I'm out looking for work."

The case manager has engaged the grandmother separately, and learns that the six-year-old is not in school, that her mother "smokes crack and sometimes works the streets to pay for it," and that the grandmother's boyfriend "only gets violent when he's been drinking."

**Physical examination:** The child's mother asks the nurse practitioner to examine the six-year-old, who has been complaining of abdominal pain and has had a fever for the past few days. The mother also reports having noticed a yellowish discharge in her daughter's underwear. Upon physical examination, the child pushes the provider's hand away, but seems to have tenderness in the suprapubic area.

**Assessment:** Vaginal infection secondary to possible sexual abuse.

**Plan:** Refer patient to child protective services for forensic evaluation and treatment. Explore readiness of family to seek substance abuse counseling. Provide ongoing social support to family.

# Chlamydial or Gonococcal Infections In Children Not Consenting to Sex

## *Diagnosis and Evaluation*

### **HISTORY & ASSESSMENT**

- **Living situation:** Ask where the patient is living and with whom. Don't assume the current family make-up has always been the same. Establish a rapport with the parent.
- **Unwelcome sex:** In a separate interview, ask the child about being touched against his/her will or being forced to have sexual intercourse.
- **Child safety:** Carefully assess for possible sexual abuse. Ask who is participating in childcare, who watches the child when the parent is busy, who takes the child to the bathroom. Ask the parent about sexual behaviors of all adult caregivers and their partners. Don't assume physical or sexual abuse just because a homeless child has a chlamydial infection. Although a positive chlamydial culture beyond the newborn period indicates "probable" sexual abuse (Reese, 2001), chlamydial infection from perinatal transmission may occur in children up to three years of age. However, a positive gonococcal culture beyond the immediate newborn period is "certain evidence" of sexual abuse (Ibid.). Most chlamydial and gonococcal infections in children over age three are from sexual abuse, and for some homeless children, the risk of sexual abuse is high.

If sexual abuse is suspected, follow your state's statutory requirements for reporting child abuse:

- To look up statutory requirements for reporting child abuse in your state, see <http://www.ndaa.org/pdf/Mandatory%20Reporting%20of%20Child%20Abuse%20and%20Neglect-nov2012.pdf>, or [https://www.childwelfare.gov/systemwide/laws\\_policies/statutes/manda.cfm](https://www.childwelfare.gov/systemwide/laws_policies/statutes/manda.cfm)
- Hot line phone numbers for reporting suspected abuse and neglect are available at <http://www.childhelp.org/page/-/pdfs/CPS-Phone-Numbers.pdf>.
- For general information, see the Child Welfare Information Gateway at <http://www.childwelfare.gov/>.

If the provider is unsure whether to report sexual abuse, call a local specialist in child abuse, who can usually be found in regional children's hospitals. (See also: *Internet resources for medical practitioners, listed on page 36.*)

- **Identify risk of loss to follow-up:** Assess for risk that the family may flee and the patient may be lost to follow-up; base decisions to refer to child protective services or the police on this assessment.
- **Psychosocial evaluation:** Evaluate the whole family unit, not just the child. Assess for mental stress and history of physical/sexual abuse. If the medical provider cannot do so, refer to someone who can. Assess risks to the child from substance abuse/mental illness of a parent or other caregiver.

## **PHYSICAL EXAMINATION**

- **General:** Use every patient visit as an opportunity for a general physical examination, including height, weight, head circumference, and other screening recommended by standard clinical guidelines. Balance comprehensive care with meeting the child's acute needs.
  - American Academy of Pediatrics guidelines  
<http://aappolicy.aappublications.org/index.dtl>
  - Early and Periodic Screening, Diagnosis and Treatment (EPSDT) services required for children on Medicaid  
[http://www.cms.hhs.gov/MedicaidEarlyPeriodicScrn/02\\_Benefits.asp#TopOfPage](http://www.cms.hhs.gov/MedicaidEarlyPeriodicScrn/02_Benefits.asp#TopOfPage)
- **Forensic evaluation:** Sexual abuse/assault evaluations are most appropriately provided at centers experienced in forensic interviewing and evaluation that are equipped to collect evidence and strictly maintain the chain of evidence. Examination provided in a clinic within 24 hours of a sexual assault (36 hours at most) precludes collection of forensic evidence. Once there is a reasonable suspicion of sexual assault or molestation of a child, the medical provider can be most useful by facilitating referral of the child through child protective services or the police.

## **DIAGNOSTIC TESTS**

- **Cell culture:** Is required if sexual abuse is suspected. For medical issues, rapid tests (e.g., Nucleic Acid Amplification tests) are acceptable, but for legal issues the only sanctioned documentation of gonococcal or chlamydial infection is a culture.

No adaptation of standard guidelines recommended.

## *Plan and Management*

### **EDUCATION/SELF-MANAGEMENT**

- **Prevention:** Ask if there is a “safe haven” for the child when the mother is not present. Investigate availability of respite nurseries.
- **Abuse of parent:** Develop a safety plan for an abused parent to break the cycle of domestic/interpersonal violence. Know the mandatory reporting requirements in your state for adult abuse. (*For a summary of state reporting requirements for domestic violence or adult abuse, see <http://www.futureswithoutviolence.org/userfiles/file/HealthCare/Compendium%20Final.pdf>*)
- **Abuse of child:** Offer support to a parent whose child has been abused by someone else. Explain that the social worker’s role is to help the family cope with this situation. Be knowledgeable about mandatory child abuse reporting requirements in your state and explain them to the parent. *To look up statutory requirements for reporting child abuse in your state, see <http://www.ndaa.org/pdf/Mandatory%20Reporting%20of%20Child%20Abuse%20and%20Neglect-nov2012.pdf> or [https://www.childwelfare.gov/systemwide/laws\\_policies/statutes/manda.cfm](https://www.childwelfare.gov/systemwide/laws_policies/statutes/manda.cfm)*

## **MEDICATIONS**

No adaptation of standard guidelines recommended.

## **ASSOCIATED PROBLEMS/COMPLICATIONS**

- **Sexual abuse of parent:** Mental health support may be required for parental depression or posttraumatic stress disorder (PTSD) secondary to prior sexual abuse. Part of treating the child is helping the parent to avoid future physical or sexual abuse as well. The mother may need to be transferred to a safe place for protection from continued abuse.
- **Substance abuse:** Parents with a history of drug abuse may fear that the child will be taken away from them if sexual abuse is reported to child protective services.
- **Fear of authorities:** Homeless people may be nervous about any interaction with authorities who may have treated them badly in the past. Some parents also fear being reported to immigration officials.
- **Childcare:** Homeless parents without access to childcare often leave their children with strangers.
- **Housing:** In some shelters, single men, families and children all stay in same room. This increases the risk for sexual abuse. Formerly incarcerated perpetrators of sexual abuse who become homeless when released from jail may interact with families in shelters and at food distribution sites.
- **Loss of child custody:** Parents who lose custody of their child may also lose access to shelter and benefits, and may not be allowed to get their child back until housing is obtained.

## **FOLLOW-UP**

- **Referral of child:** If there is evidence of sexual abuse, refer the child to child protective services (CPS) and for specialized assessment and counseling. Emphasize that CPS can be a support system for the parents, to help them obtain what they need for their child.
- **Referral of parent:** Refer the mother to counseling for prior sexual abuse.
- **Social support:** Specify shelter options and other resources for a parent who loses their child to state custody.
- **Monitor for treatment failure when possible:** Due to increased antibiotic resistance of gonococcal infections, the CDC has called for increased efforts to monitor for treatment failure. Suspected treatment failure should be reported to the CDC through local or state public health officials within 24 hours.

**PRIMARY SOURCES**

- Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services. (2010). Sexually Transmitted Diseases Treatment Guidelines 2010  
<http://www.cdc.gov/std/treatment/>
- CDC. (2011). Sexually Transmitted Disease Surveillance, 2011.  
<http://www.cdc.gov/std/stats11/default.htm>
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- CDC (2012) Update to CDC's Sexually Transmitted Treatment Guidelines, 2010: Oral Cephalosporins No Longer a Recommended Treatment for Gonococcal Infections.  
[http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6131a3.htm?s\\_cid=mm6131a3\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6131a3.htm?s_cid=mm6131a3_w)
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<http://www.ahrq.gov/research/victsexual/>
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<http://www.ncjrs.gov/pdffiles1/ovw/206554.pdf>

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### RECOMMENDED RESOURCES

- English A et al. (2002). *State Minor Consent Laws: A Summary.* 2<sup>nd</sup> Edition. Chapel Hill, NC: Center for Adolescent Health & the Law; 211 North Columbia Street, Chapel Hill, NC 27514; 919 968-8850; english@cahl.org
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### WEBSITES

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|---|--|
| Advocates for Youth   | <a href="http://www.advocatesforyouth.org/hivsti.htm">www.advocatesforyouth.org/hivsti.htm</a>                   |
| American Academy of Family Physicians                                     | <a href="http://www.aafp.org">www.aafp.org</a>   |
| American Professional Society on the Abuse of Children                    | <a href="http://www.apsac.org">www.apsac.org</a>   |
| Centers for Disease Control & Prevention                                  | <a href="http://www.cdc.gov">www.cdc.gov</a>   |
| Child Abuse Prevention Network  | <a href="http://www.child-abuse.com">www.child-abuse.com</a>   |
| International Journal of STD and AIDS                                     | <a href="http://ijsa.rsmjournals.com/">http://ijsa.rsmjournals.com/</a>  |
| Mandatory Reporting of Child Abuse & Neglect State statutory requirements | <a href="http://www.smith-lawfirm.com/mandatory_reporting.htm">www.smith-lawfirm.com/mandatory_reporting.htm</a> |

National Center for Youth Law	<a href="http://www.youthlaw.org">www.youthlaw.org</a>
Child Welfare Information Gateway,	<a href="http://www.childwelfare.gov/index.cfm">www.childwelfare.gov/index.cfm</a>
Administration for Children and Families/ U.S. Dept. of Health & Human Service	<a href="http://www.acf.hhs.gov">www.acf.hhs.gov</a>
National Health Care for the Homeless Council Health Care for the Homeless Clinicians' Network	<a href="http://www.nhchc.org">www.nhchc.org</a>
Prevent Child Abuse America	<a href="http://www.preventchildabuse.org">www.preventchildabuse.org</a>
Society for Adolescent Medicine	<a href="http://www.adolescenthealth.org">www.adolescenthealth.org</a>
Seattle STD and HIV Training Center	<a href="http://www.depts.washington.edu/seaptc/">www.depts.washington.edu/seaptc/</a>
STD Prevention Courses (CDC)	<a href="http://www.cdc.gov/STD/training/courses.htm">www.cdc.gov/STD/training/courses.htm</a>

**ABOUT THE HCH CLINICIANS' NETWORK**

Founded in 1994, the Health Care for the Homeless Clinicians' Network is a national membership association that unites care providers from many disciplines who are committed to improving the health and quality of life of homeless people. The Network is engaged in a broad range of activities including publications, training, research and peer support. The Network is operated by the National Health Care for the Homeless Council, and our efforts are supported by the Health Resources and Services Administration, the Substance Abuse and Mental Health Services Administration, and member dues. The Network is governed by a Steering Committee representing diverse community and professional interests.

To become a member or order Network materials, call 615 226-2292 or write to [network@nhchc.org](mailto:network@nhchc.org). Please visit our Web site at [www.nhchc.org](http://www.nhchc.org)

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