

**EPT Protocol Team**

**Team Leaders**

Okeoma O Mmeje, MD, MPH  
*Obstetrics & Gynecology*  
Susan D Ernst, MD  
*Obstetrics & Gynecology*  
Office of the General  
Counsel  
*University of Michigan*

**Initial Release:**

June, 2016

**Literature search service**  
Taubman Medical Library

© Regents of the  
University of Michigan

These guidelines should not be construed as including all proper methods of care or excluding other acceptable methods of care reasonably directed to obtaining the same results. The ultimate judgment regarding any specific clinical procedure or treatment must be made by the physician in light of the circumstances presented by the patient.

**Expedited Partner Therapy (EPT) for Chlamydia and Gonorrhea**

**Patient population:** EPT should be offered to:

- Men who have sex with women
- Women who have sex with men
- Women who have sex with women

Note: Patients age 12 years and up can access STI screening and treatment without parental consent

**EPT should NOT be offered to:**

- Men who have sex with men (MSM)
- Anyone with a known severe allergy to azithromycin, cephalosporins, or penicillin.

**Disclaimer:** These guidelines are intended to aid clinicians in making informed decisions about patient care while complying with the requirements of the law. The ultimate judgment regarding clinical management should be made by the healthcare provider in consultation with his/her patient in light of clinical data presented by the patient and the diagnostic and treatment options available.

**Key points**

**Diagnosis.** The index patient has a clinical or laboratory diagnosis of chlamydia and/or gonorrhea. The index patient has a sexual partner(s) with whom they have engaged in sexual activity within the previous 60-day period. For more information on appropriate use of EPT with a clinical diagnosis see section on “Selecting appropriate patients for EPT.”

**Management of Sexual Partner(s) with EPT**

- If the index patient indicates that their sexual partner(s) will seek medical care in a timely manner, do not provide EPT.
- If the index patient indicates that their sexual partner(s) will be unable or unlikely to seek medical care in a timely manner, the healthcare provider may proceed with offering EPT. The healthcare provider may provide EPT to all known sexual partner(s) the patient has had within the past 60 days.
- If the index patient has not had any sexual partner in the past 60 days then the most recent partner prior to 60 days should be notified of possible exposure and offered treatment.

**Treatment Regimen**

- For the sexual partner(s) of an index patient who has chlamydia but NOT gonorrhea: azithromycin 1 gram orally once.
- For the sexual partner(s) of an index patient with gonorrhea, regardless of chlamydia result: cefixime 400 mg orally once PLUS azithromycin 1 gram orally once.

**Provision of Medications via EPT**

- Provide the index patient with a prescription for their sexual partner(s) via the MiChart EPT Smart Set. The prescriptions for the index patient will be e-prescribed to the patient’s preferred pharmacy. The prescriptions for the sexual partner(s) will automatically be printed at the local printer and available for 1) pick-up from the clinic; 2) fax to the preferred pharmacy; or 3) mailed. The prescription for the appropriate medication will be written in the name of “Expedited Partner Therapy” and with the date of birth January 1st of the current year.
- There is no limit to the number of EPT prescriptions provided to the index patient for their sexual partner(s).

**Counseling the Index Patient**

- Advise the patient of the importance of notifying all their sexual partner(s) of their STI diagnosis, and that it is important for their partner(s) to obtain medical care so they may receive a complete evaluation, testing, counseling, and treatment.
- Provide the index patient with written information about EPT. The healthcare provider may use the information sheet developed by the University of Michigan Health System or the Michigan Department of Health and Human Services (see Appendix).

**Documentation.** Regardless of the prescription delivery method (i.e. e-prescribe, fax, or pick-up), the healthcare provider must document the provision of EPT in the index patient’s medical record, including drug name, dosage, quantity, that the drug was provided for a partner’s use. See MiChart EPT Smart Set.

---

**Table 1. Recommended Antibiotic Therapies for Expedited Partner Therapy (EPT)**

<b>Infection Diagnosed in Index Patient</b>	<b>Recommended Medication for EPT</b>
<b><u>Chlamydia only</u></b>	Azithromycin tablets 1 gram orally once
<b><u>Gonorrhea</u></b> (regardless of chlamydia test result)	Cefixime 400 mg orally once <u>PLUS</u> Azithromycin 1 gram orally once

**Table 2. MiChart Expedited Partner Therapy (EPT) Smart Set**

1. Select the EPT Smart Set and follow the prompts for completing the order set.
2. The prescription for the index patient will be e-prescribed to their preferred pharmacy
3. The prescription(s) for the number of self-reported sexual partner(s) will print at your local printer. These prescription(s) may be given to the index patient for delivery to their partner(s) or faxed to their preferred pharmacy. The following steps must be completed to ensure that the correct medication is being dispensed to the appropriate sexual partner(s):
  - a. The healthcare provider will need to locate the **Order ID Number** located on the EPT prescription.
  - b. The healthcare provider will give the **Order ID Number** to the index patient. The index patient should be instructed to provide the **Order ID Number** to their sexual partner(s) through in-person, phone, or electronic communication. The sexual partner(s) will need to provide this number at the time of medication pick-up to ensure the correct medication is linked to the correct patient.

If the index patient selects pick-up of printed prescriptions, they will be provided with the printed prescription(s) and instructional sheets for each of their self-reported sexual partner(s) in the prior 60 (sixty) days. Treatment of the index patient and the number of printed prescriptions provided to the patient for “*Expedited Partner Therapy*” will be documented in their electronic medical record via the MiChart EPT Smart Set.

**Figure 1. MiChart “Expedited Partner Therapy (EPT) Smart Set” Order set to be completed by ordering provider:  
(Continued on next page)**

▼ Chlamydia & Gonorrhea Treatment with Expedited Partner Therapy (EPT)

This SmartSet is only for use in University Health Services (UHS).

Documentation Close

▼ Progress Notes

- Chlamydia with EPT Note [Edit](#)
- Gonorrhea with EPT Note [Edit](#)
- Chlamydia and Gonorrhea with EPT Note [Edit](#)

Diagnoses Close

▼ Diagnoses

- Chlamydia [A74.9] [Details](#)
- Gonorrhea [A54.9] [Details](#)
- Chlamydia infection complicating pregnancy, unspecified trimester [O98.319, A74.9] [Details](#)
- Gonorrhea complicating pregnancy, unspecified trimester [O98.219] [Details](#)

Labs Close

▼ Follow-up Labs

- HIV Antigen Antibody  
 Routine, Lab Collect
- RPR  
 Routine, Lab Collect
- Chlamydia trachomatis DNA, Urine  
 Routine, Lab Collect
- Chlamydia Trachomatis DNA, Swab  
 Routine, Clinic Collect
- Neisseria gonorrhoeae DNA, Urine  
 Routine, Lab Collect
- Neisseria gonorrhea DNA by PCR, Swab  
 Routine, Clinic Collect

## Chlamydia Treatment

Close

### ▼ Index Patient

- azithromycin (ZITHROMAX) 500 mg tablet  
Disp-2 tablet, R-0, Normal

### ▼ Partner Script

azithromycin 1 g orally ONCE

- Expedited Partner Therapy (EPT) for Chlamydia

## Gonorrhea Treatment

Close

### ▼ Index Patient

- ceFTRIAXone (ROCEPHIN) injection  
250 mg, Intramuscular, ONCE
- azithromycin (ZITHROMAX) 500 mg tablet  
Disp-2 tablet, R-0, Normal

### ▼ Partner Script

cefixime 400 mg + azithromycin 1 g orally ONCE

- Expedited Partner Therapy (EPT) for Gonorrhea

## Patient Instructions

Close

### ▼ EPT Patient and Partner Instruction

- EXPEDITED PARTNER THERAPY: FOR CHLAMYDIA AND GONORRHEA - UMHS (ENGLISH) [Edit](#)

## Follow-Up

Close

### ▼ EPT Follow-Up

- 3 months for NON-PREGNANT patient to re-test for STI, or sooner if symptoms persist or recur [Details](#)
- 3 weeks for PREGNANT patient to re-test for STI, or sooner if symptoms persist or recur [Details](#)

**Table 3. Michigan Law and Liability Concerns**

**Overview of Michigan’s expedited Partner Therapy (EPT) Law**

On January 14, 2015, the state of Michigan authorized the use of EPT in order to “protect individuals in [Michigan] from the spread of sexually transmitted infections.” MCL 333.5110(1). Key portions of the law are outlined below and the law is reproduced in its entirety in the Appendix.

1. A healthcare professional may provide EPT to their patient’s partner only if the **all** of the following conditions are met:
  - a. The patient has a laboratory-confirmed or suspected clinical diagnosis of a sexually transmitted infection (note: gonorrhea or chlamydia only).
  - b. The patient indicates that he or she has a partner with whom the patient has engaged in sexual activity within the 60-day period immediately before the diagnosis of a sexually transmitted infection.
  - c. The patient indicates that his or her partner is unable or is unlikely to seek clinical services in a timely manner. MCL 333.5110(2).
2. Counseling responsibilities to accompany provision of EPT
  - a. The healthcare professional must explain to the patient the importance of notifying their partner of their STI diagnosis, and that it is important for their partner to obtain medical care so that they may receive a complete evaluation, testing, counseling, and treatment. MCL 333.5110(3)(b).
  - b. The healthcare professional must provide the patient with an informational sheet containing important information about EPT. The Michigan Department of Health and Human Services has prepared an informational sheet that may be used and fulfills the requirements of what must be communicated under the law. It is available here: [http://www.michigan.gov/documents/mdch/EPT\\_Information\\_Sheet\\_for\\_Patients\\_and\\_Partners\\_494242\\_7.pdf](http://www.michigan.gov/documents/mdch/EPT_Information_Sheet_for_Patients_and_Partners_494242_7.pdf). MCL 333.5110(3)(c). If you would like to make your own information sheet, a complete list of what the informational sheet must contain is detailed in MCL 333.5110(4).
3. Provision of Medication
  - a. The healthcare professional may dispense/prescribe in the name of “expedited partner therapy.” MCL 333.5110(3)(a). For UMHS/UHS purposes, to maximize the privacy of the partner, we recommend dispensing/prescribing in the name of “expedited partner therapy” even if the patient has told you the name of their partner(s).
  - b. There is no requirement for an insurance company to pay for a partner’s EPT medication. MCL 333.5110(5).
4. Liability
  - a. The law provides broad legal protection to health professionals who provide EPT: a health professional that provides EPT “is not liable for damages . . . for personal injury, death, or other consequences arising from or related in any way to the provision of [EPT] by the health professional.” MCL 333.5110(6).
  - b. There is, however, an exception if the health professional is grossly negligent in providing EPT. MCL 333.5110(6).

**Table 4. Frequently Asked Questions: The Legal Perspective on Expedited Partner Therapy (EPT)**

**Q: If the partner is not a UMHS patient, can I contact them to assess whether EPT is appropriate for them? If the partner is a UMHS patient, may I look in their medical record to ensure that EPT is appropriate for them?**

**A:** The health professional's relationship is with only the index patient, and there is no health professional/patient relationship with the sexual partner(s) created in this scenario. Because of this, you may not contact the sexual partner(s) or, if the sexual partner(s) is already a UMHS/UHS patient, access his/her medical record, unless he or she is also a patient under your care. The EPT law allows you to provide EPT without having communicated with or assessed the sexual partner(s) in any form. The only way that you could permissibly come into contact with the partner is if he/she reached out to you on his/her own accord or also is a patient under your care.

**Q: How can I call a prescription in for a patient's partner if I don't have his/her name?**

**A:** You cannot. The two acceptable methods of providing EPT are: 1) providing the index patient with a written paper prescription, which he/she or their partner takes to a pharmacy; or 2) providing a faxed prescription in the name of "Expedited Partner Therapy" for the sexual partner(s) to their preferred pharmacy.

**Q: May I provide EPT for trichomoniasis infection?**

**A:** At this time, Michigan has limited EPT for use in cases of chlamydia and gonorrhea only. MCL 333.5110(1); Michigan Department of Community Health, 2015: Reportable Disease in Michigan – by Pathogen, [https://www.michigan.gov/documents/mdch/Reportable\\_Diseases\\_Michigan\\_by\\_Pathogen\\_478489\\_7.pdf](https://www.michigan.gov/documents/mdch/Reportable_Diseases_Michigan_by_Pathogen_478489_7.pdf).

**Q: Which types of health professionals can provide EPT?**

**A:** In terms of **prescribing** EPT, a physician who supervises a registered professional nurse (including a nurse practitioner (NP) or physician assistant (PA)) may delegate the prescription of non-controlled substances to such individual (with qualifying education, training or experience), so long as the delegating physician has established a written authorization. Such written authorization for NPs takes the form of a collaborative practice agreement; for PAs, the physician must state that his/she is delegating to the PA the performance of certain medical care services. Both the physician's name and the supervising physician's name must be used with the individual prescriptions.

In terms of **dispensing** EPT, a health professional who wishes to dispense must hold a Drug Control License from the Michigan Board of Pharmacy. Only an MD, DO, DDS, or DPM may obtain a Drug Control License. A dispensing provider who holds this licensure may, however, delegate the act of dispensing to a registered professional nurse or a PA. MCL 333.17745b(1). If dispensing from a location without an on-site pharmacy, the delegate may dispense no more than a 72-hour supply of the prescription drug. MCL 333.17745b(3). However, since EPT is dispensed as a single dose, this restriction is not pertinent.

**Q: What is my liability if I provide EPT and the partner has an allergic reaction or other adverse reaction to the medication?**

**A:** Michigan law limits a health professional's potential liability for such an occurrence. Under Michigan EPT law, a health professional that provides EPT is provided broad legal protection if the partner is in any way harmed by medications dispensed under EPT. MCL 333.5110(6). The health professional must properly counsel the patient and provide the patient with an EPT information sheet that should be passed on to the partner. A health professional is not protected by this provision if he/she is grossly negligent in providing EPT, such as providing EPT despite being aware that the sexual partner(s) has a known antibiotic drug allergy.

## Introduction

Expedited Partner Therapy (EPT) is the clinical practice of treating the sexual partners of patients diagnosed with clinical or laboratory diagnosis of chlamydia or gonorrhea by providing prescriptions or medications to the patient to take to his/her partner without the healthcare provider first examining the partner.

Importantly, EPT is not intended as the first-line or optimal partner management strategy. However, this strategy can serve as a useful alternative when the partner is unable or unlikely to seek care. EPT is an alternative strategy for

ensuring that the exposed sexual partners of the patients diagnosed with chlamydia or gonorrhea get a needed prescription or medication.

On January 14, 2015, the state of Michigan authorized the use of EPT for chlamydia and gonorrhea in order to "protect individuals in [Michigan] from the spread of sexually transmitted infections." MCL 333.5110(1). In light of this new law, these guidelines provide information on the most appropriate patients, medications, and counseling procedures developed to maximize patient and public health benefit while minimizing risk and complying with the law. Providers should use their best judgment to

---

determine whether partners will or will not come in for treatment, and to decide whether or not to prescribe additional medication to the index patient.

## **Clinical Background and Rationale for Recommendations**

Sexually transmitted chlamydia and gonorrhea infections are significant public health problems. Genital infections, which are often asymptomatic, can lead to pelvic inflammatory disease (PID), chronic pelvic pain, ectopic pregnancy, and preventable infertility in women. Patients with these infections are also at increased risk of acquiring sexually transmitted HIV. Repeat chlamydia and gonorrhea infections, which increase the risk of complications, occur in 10-15% of women and men within six months after treatment.

In 2014, in Michigan, there were 44,843 reported cases of chlamydia infection with a rate of 452.5 cases per 100,000. There were also 9,666 cases of gonorrhea infection with a rate of 97.5 cases per 100,000.

### **Barriers to Effective Partner Management**

Currently, there are considerable challenges to effective partner management. Public health efforts to notify and treat sexual partners have proven successful and are considered a cornerstone of syphilis control. However, because of the high burden of infection and limited public health resources for partner notification activities, it is difficult for local health departments to provide investigation and partner notification for cases of chlamydia and gonorrhea. Thus, the most common strategy for partner management for the majority of chlamydia and gonorrhea cases is patient referral, whereby providers counsel patients about the need for partner treatment and advise them that the responsibility for notifying partners rests with the patient. Although providers have the option to collect the partner's contact information and notify them consistent with privacy laws and regulations, there are no reimbursement mechanisms, and few clinics have the resources for this activity. The effectiveness of patient referral is limited by the patient's ability to notify his or her partner(s), as well as by the partner's willingness and ability to seek treatment. In particular, some partners may be uninsured and have limited access to medical care. Additionally, infected partners who are asymptomatic may be less likely to seek needed medical treatment.

### **Healthcare Provider Responsibilities for Ensuring Partner Treatment**

Because of the risk of repeat infection from untreated partners, patients diagnosed with chlamydia and gonorrhea infection cannot be considered adequately treated until all their partners have been treated. All sexual contacts within the previous 60 days from the onset of symptoms or diagnostic test results need to be treated. The optimal

partner management strategy involves providing comprehensive STI care to ensure treatment, confirm the exposure and/or diagnosis, examine the patient, test for other STIs and HIV, provide needed vaccinations, and offer risk-reduction counseling and community referrals.

### **Evidence for the Effectiveness of EPT**

Several research studies, including randomized clinical trials, have demonstrated that EPT is safe and as effective as other partner management strategies in facilitating partner notification and reducing recurrent infection among index cases. EPT is the general term for the practice of treating sexual partners of patients diagnosed with an STI without an intervening medical evaluation. Patient Delivered Partner Therapy (PDPT) is the most common type of EPT and demonstrated to be the most effective method of employing EPT; other types involve alternative delivery mechanisms, such as pharmacies. Data supporting EPT for heterosexual partners of patients with chlamydia or gonorrhea is particularly compelling. A meta-analysis that included five clinical trials showed an overall reduced risk (summary risk ratio 0.73, 95 percent confidence interval (CI) 0.57 to 0.93) of recurrent infection in individuals with chlamydia or gonorrhea who received EPT, compared with those who received standard partner treatment methods. A report published by the CDC in 2006 provided a review of the research literature, a discussion of programmatic issues related to EPT, and guidance for public health programs and clinicians.

### **Potential Pitfalls in Using EPT**

There are several concerns about EPT. First, the medication could cause a serious adverse reaction, including allergy. Second, EPT may compromise the quality of care provided to partners, particularly if it is used as a first-line approach for partners who would otherwise seek clinical services. Appropriate care for contacts with exposure to an STI includes testing for other STIs and HIV, physical examination to rule out a complicated infection, and risk-reduction counseling. Ideally, partners who receive EPT will still access these clinical services. Despite these concerns, EPT is likely to benefit partners who would not otherwise receive treatment. These risks may be mitigated through patient education and written materials for partners that provide warnings and encourage visiting a healthcare provider. Additional concerns about EPT include misuse of the medication, waste if the medication is not delivered or not taken, and contribution to antibiotic resistance at the population level. Currently, there is no evidence that EPT is misused or leads to increasing antimicrobial resistance.

---

## Guidelines for Using EPT for Chlamydia and Gonorrhea

### Selecting Appropriate Patients for EPT

Appropriate patients are those with a clinical or laboratory diagnosis of sexually transmitted chlamydia and/or gonorrhea infection. Laboratory confirmation of the diagnosis may be based on the findings of nucleic acid amplification test (NAAT), microscopy, or a Food and Drug Administration (FDA)-cleared molecular test or NAAT for *Chlamydia trachomatis* or *Neisseria gonorrhoeae*. Providing EPT without laboratory confirmation should be considered when the provider has a high clinical suspicion for chlamydia or gonorrhea infection and there is concern about failure to follow-up.

There are two additional clinical scenarios for which EPT is recommended by the CDC, cervicitis and pelvic inflammatory disease (PID). When an etiologic organism is isolated in the presence of cervicitis, it is typically *C. trachomatis* or *N. gonorrhoeae*. Presumptive treatment with antimicrobials for *C. trachomatis* and *N. gonorrhoeae* should be provided for women at increased risk especially if follow-up cannot be ensured or if testing with NAAT is not possible. Management of sex partners of women treated for cervicitis should be appropriate for the specific STD identified or suspected. All sex partners in the past 60 days should be referred for evaluation, testing, and presumptive treatment if chlamydia, gonorrhea, or trichomoniasis was identified or suspected in the women with cervicitis. EPT or other effective sexual partner referral strategies are alternative approaches to treating male partners of women who have chlamydia and/or gonorrhea infection. Sexual partner(s) should be instructed to abstain from sexual intercourse until they and their sexual partner(s) have been adequately treated (i.e., until therapy is completed and symptoms have resolved, if originally present).

Pelvic inflammatory disease (PID) comprises a spectrum of inflammatory disorders of the upper female genital tract, including any combination of endometritis, salpingitis, tubo-ovarian abscess, and pelvic peritonitis. Sexually transmitted organisms, especially *N. gonorrhoeae* and *C. trachomatis*, are implicated in many cases. All regimens used to treat PID should also be effective against *N. gonorrhoeae* and *C. trachomatis* because negative endocervical screening for these organisms does not rule out upper-reproductive-tract infection. Men who have had sexual contact with a woman with PID during the 60 days preceding her onset of symptoms should be evaluated, tested, and presumptively treated for chlamydia and gonorrhea, regardless of the etiology of PID or pathogens isolated from the woman. If a woman's last sexual intercourse was >60 days before onset of symptoms or diagnosis, the most recent sex partner should be treated. Male partners of women who have PID caused by *C. trachomatis* and/or *N. gonorrhoeae* frequently are asymptomatic. Arrangements should be made to link male

partners to care. If linkage is delayed or unlikely, EPT is an alternative approach to treating male partners of women who have chlamydia and/or gonococcal infections. Sexual partner(s) should be instructed to abstain from sexual intercourse until they and their sex partners have been adequately treated (i.e., until therapy is completed and symptoms have resolved, if originally present).

In women with clinical cervicitis or PID where chlamydia and gonorrhea NAAT are negative, EPT is not indicated. However, EPT is recommended in the setting of PID or clinical cervicitis if NAAT return positive or if empiric therapy is initiated without NAAT being performed. In addition, if the healthcare provider is concerned that the patient may be lost to follow-up, EPT may be offered to the index patient for their sexual partner(s).

Clinicians should encourage patients to bring partners in for comprehensive health care, including evaluation, testing, and treatment. Clinical services provide the opportunity to ensure treatment; confirm the exposure and/or diagnosis; examine the patient; test for other STIs and HIV; offer reproductive health services, including emergency contraception, family planning, and pregnancy testing; provide needed vaccinations; and offer risk reduction counseling and community referrals. These services are recommended for partners of patients infected with a sexually transmitted infection. Furthermore, many clinical settings are able to provide first-line therapy for gonorrhea: an injection of ceftriaxone 250 mg IM plus azithromycin 1 g orally.

Patients most appropriate for EPT are those with partners who are unable or unlikely to seek prompt clinical services. Factors to consider in the patient's report include whether the partner is uninsured, lacks a primary care provider, faces significant barriers to accessing clinical services, or will be unwilling to seek care. Healthcare providers should also assess the acceptability of EPT to both the patient and the partners receiving it. EPT does not preclude clinic attempts to encourage patients to bring their partners in for care. Even if EPT is provided, the partner should still be encouraged to seek follow-up care as soon as possible.

All sexual partner(s) in the 60 days prior to diagnosis should be considered at risk for infection and should be treated. If the last sexual encounter was more than 60 days prior to diagnosis, the most recent sexual partner should be treated.

There is no limit to how many sexual partners may be treated using EPT. Thus, patients can be provided with the number of doses necessary to treat each at-risk partner who can be located by the index patient. A combination of partner strategies also may be used; for example, a patient with several partners may refer one partner to the clinic but take EPT for other partners.

Providers should assess the partner's symptom status, particularly symptoms indicative of a complicated infection; pregnancy status; and risk for severe medication



---

allergies. If the partner is pregnant, every effort should be made to encourage the patient to seek referral to pregnancy services and/or prenatal care. The local health department may be of assistance for these special situations. For partners with known severe allergies to antibiotics, EPT should not be used.

Partners being treated for gonorrhea exposure should be informed that the oral medications (cefixime 400 mg plus azithromycin 1 g) used for EPT is not the recommended first line therapy for gonorrhea (i.e. rectal, urethral, cervical, or pharyngeal) infection. EPT medications prescribed for gonorrhea infection may not treat pharyngeal gonorrhea adequately. The first-line therapy for gonorrhea is ceftriaxone 250 mg IM plus azithromycin 1 g orally. If partners are at risk for pharyngeal infection (i.e., history of performing oral sex on a man), they should be informed that the EPT medication may not cure pharyngeal gonorrhea in all patients and that they should be seen by a medical provider.

EPT should **NOT** be used in the following situations:

- Men who have sex with men with the diagnosis of chlamydia and/or gonorrhea. Men who have sex with men who are diagnosed with chlamydia or gonorrhea have been found to have an approximately 6% rate of undiagnosed HIV infection. These patients would benefit from evaluation and testing to rule out other coexisting STIs
- Patients co-infected with treatable STIs (syphilis, HIV, trichomonas) other than chlamydia or gonorrhea.
- In cases of suspected child abuse or sexual assault.
- In situations where a patient's safety is in question.
- For index patients and their sexual partner(s) with known antibiotic allergies including azithromycin, cephalosporins or a severe life threatening allergy to penicillin.

## Special Populations

**Pregnancy.** Although EPT is not contraindicated when an index patient reports that his female partner may be pregnant, providers should assess whether the pregnant partner is receiving pregnancy services or prenatal care. Every effort should be made to encourage the index patient to recommend to the pregnant partner that she seek appropriate care; EPT should be considered a last resort. The local health department may be of assistance for these special situations. The need for a test of cure for chlamydia and gonorrhea in pregnancy (at least three weeks after treatment) should be emphasized. Both recommended EPT regimens are considered safe in pregnancy (assigned to category B). Doxycycline, a potential alternative to azithromycin for treating chlamydia, should not be used in pregnancy.

**Adolescents.** Minors (from age 12 through 18) may consent to medical care for the purposes of diagnosing and/or treating a STI. MCL 333.5127. An adolescent

patient or their adolescent sexual partner(s) are acceptable candidates for EPT. Parental consent or notification is not required. MCL 333.5127(1). The law does allow a treating physician or delegate to inform a parent regarding treatment given or needed, but such notification would typically only be done in very unusual circumstances when the benefits clearly outweigh the harms of disclosure. MCL 333.5127(2).

## Recommended Treatment Regimens

**The recommended antibiotic therapies for EPT are listed in Table 1.**

*N. gonorrhoeae* isolates with decreased susceptibility to cefixime or azithromycin have been documented, as have a limited number of isolates with decreased susceptibility to ceftriaxone. Dual therapy for all patients with gonorrhea is now recommended, regardless of the chlamydia test result. This strategy is intended to slow the development of cephalosporin-resistant *N. gonorrhoeae*. The gonorrhea regimen that provides the most effective treatment with sustained bactericidal levels in the blood is intramuscular ceftriaxone. As of December 2010, the first-line therapy for gonorrhea is ceftriaxone 250 mg IM plus azithromycin 1 g orally.

Because injection is not an option for EPT management of sexual partner(s), dual treatment with cefixime and azithromycin is recommended for sexual partner(s) using EPT. In published clinical trials conducted prior to 2007, the 400 mg dose of cefixime alone cured 97.5 percent of uncomplicated urogenital and anorectal gonorrhea infections. Although other oral cephalosporins are effective against gonorrhea, cefixime is the only oral cephalosporin recommended in the 2015 CDC STI treatment guidelines.

In general, oral cephalosporins are less effective in eradicating pharyngeal gonorrheal infection. Providers who are concerned that the partner is at risk for pharyngeal infection, specifically if the partner has performed oral sex on an infected man, should advise the patient that oral treatment may not cure pharyngeal gonorrhea in all patients and that the partner should still seek care to receive first-line therapy of dual treatment using injectable ceftriaxone.

Azithromycin 2 grams orally should not be used for EPT for gonorrhea. Although small studies have shown that this regimen is effective against uncomplicated gonococcal infections, there are concerns that widespread use would increase *N. gonorrhoeae* antimicrobial resistance. Recent reports from San Diego County of gonococcal isolates with reduced susceptibility to azithromycin are concerning and are further evidence of emerging resistance. Additionally, the two-gram dose of azithromycin causes significant gastrointestinal distress.

---

## Risk of Adverse Reactions to Medications

Adverse reactions to single-dose cefixime and azithromycin beyond mild to moderate side effects are rare. This risk of adverse drug reactions may be best mitigated through educational materials that accompany the medication, which include explicit warnings and instructions for partners who may be allergic to penicillin, cephalosporins, or macrolides to seek medical advice before taking the medication. Sample partner instructions can be found in the Appendix.

### Cefixime: Adverse Drug Reactions

- Cefixime is generally well tolerated, and most adverse reactions in clinical trials were mild and transient. The most commonly seen adverse reactions were gastrointestinal events, including the risk of *Clostridium difficile* colitis. Clinically mild gastrointestinal side (GI) effects occurred in 20 percent, moderate GI events occurred in nine percent, and severe GI events occurred in two percent of patients. Diarrhea was reported in 16 percent, nausea in seven percent, loose or frequent stools in six percent, flatulence in four percent, and abdominal pain in three percent of patients. No other side effects occurred with a frequency greater than two percent.
- Approximately one to three percent of patients have a primary hypersensitivity to cephalosporins; however, rates and cross-reactivity vary, depending on the molecular structure. The risk of anaphylaxis with cephalosporin in the general population is between one in one million and 1 in 1000 (0.0001-0.1 percent). However, patients with IgE-mediated allergy to penicillin are at increased risk for severe allergic reactions to cephalosporins. Evidence of IgE-mediated allergy includes anaphylaxis, hypotension, laryngeal edema, wheezing, angioedema, and/or urticaria.
- Cefixime has been assigned to pregnancy category B. This means that animal studies have failed to demonstrate a risk to the fetus and there are no adequate and well-controlled studies in pregnant women; or animal studies have shown an adverse effect, but adequate and well-controlled studies in pregnant women have failed to demonstrate a risk to the fetus in any trimester.

### Cefixime: Reactions among Penicillin-Allergic Patients

- Although up to ten percent of patients report penicillin allergy, the majority (more than 90 percent) are not found to be allergic and are able to tolerate the drug. Cephalosporins are less allergenic than penicillin. The risk of cephalosporin reaction among patients with penicillin allergy is 5-17 percent for first-generation cephalosporins, four percent for second-generation, and only one to three percent for third- and fourth-generation cephalosporins. Cefixime and ceftriaxone, recommended for the treatment of gonorrhea, are third-generation cephalosporins.
- In a retrospective cohort study of patients receiving penicillin and a subsequent cephalosporin, the risk of an allergic event was about 10-fold higher among those

who had had a prior allergic reaction to penicillin; however, the absolute risk of anaphylaxis was very small: one in 100,000. Further, because the risk was similarly elevated among those subsequently given a sulfonamide antibiotic, cross-reactivity may not be an adequate explanation for the increased risk.

- The American Academy of Pediatrics guidelines state that third-generation cephalosporins can be used to treat penicillin-allergic patients as long as the penicillin reaction is not severe (i.e., not IgE-mediated). Skin testing for penicillin allergy is recommended for patients if the allergic reaction was consistent with IgE-mediated mechanism or if the history is unclear. Such partners should be brought in for treatment for gonorrhea exposure.

### Azithromycin: Adverse Drug Reactions

- Azithromycin is generally well tolerated. The most common side effects in patients receiving a single-dose regimen of one gram of azithromycin are related to the gastrointestinal system: diarrhea/loose stools (seven percent), nausea (five percent), abdominal pain (five percent), vomiting (two percent), and dyspepsia (one percent). Vaginitis occurs in about one percent of women taking azithromycin. No other side effects have been documented with a frequency greater than one percent.
- Anaphylaxis or severe allergy to macrolides generally, or to azithromycin specifically, is very rare.
- Azithromycin has been assigned to pregnancy category B. This means that animal studies have failed to demonstrate a risk to the fetus and there are no adequate and well-controlled studies in pregnant women; or animal studies have shown an adverse effect, but adequate and well-controlled studies in pregnant women have failed to demonstrate a risk to the fetus in any trimester.

## Risk of Under-Treating Complicated Infections and Pharyngeal Gonorrhea and Missing Concurrent STIs/HIV

Another risk of EPT is missing concurrent STI and HIV infections. There is particular concern related to using EPT for men who have sex with men (MSM) because of the risk of missing an undiagnosed HIV infection. In a multi-site study of STD/HIV co-infection among STD patients who presented as contacts to infected patients, 6.3 percent of MSM had newly diagnosed HIV infection. The risk of missing new HIV infections may be less in areas with easy access to HIV screening. Because oral cephalosporins are less effective in eradicating pharyngeal gonorrhea infection, inadequate treatment of partners with pharyngeal infection is a potential limitation of EPT. Providers who are concerned that the partner is at risk for pharyngeal infection should advise the patient that oral treatment may not cure pharyngeal gonorrhea in all patients and that the partner should seek clinical services where ceftriaxone treatment is available.

Each of these risks can be mitigated through educational materials that clearly instruct all EPT recipients to seek care for STI and HIV testing, regardless of whether or not they take the medication. Examples of EPT partner instructions and information are available at the end of this document. Assistance from the local health department also may be available for challenging partner management situations.

### Key Education and Counseling

Ideally, the medications and educational material should be given to the patient to deliver to the partner. If a prescription is used, then the provider should give the patient both the educational material and the prescription and encourage the patient to deliver both the medication and accompanying informational material to their sexual partner(s). Examples of EPT partner instructions and information are available at the end of this document. Providers should discuss the following key counseling messages with their patient when prescribing EPT.

- Partners should seek a complete STI evaluation as soon as possible, regardless of whether they take the medication.
- Partners should read the informational material very carefully before taking the medication.
- Partners who have allergies to antibiotics or who have serious health problems should not take the medications and should see a healthcare provider.
- Partners who have symptoms of a more serious infection (e.g., pelvic pain in women, testicular pain in men, and fever in women or men) should not take the EPT medications and should seek care as soon as possible.
- Partners who are or could be pregnant should seek care for their pregnancy as soon as possible.
- Patients and partners should abstain from sex for at least seven days after treatment and until seven days after all partners have been treated, in order to decrease the risk of recurrent infection.
- Partners should be advised to seek clinical services for retesting three months after treatment.

#### Additional key counseling message for patients given EPT for gonorrhea:

- Partners who are at risk for gonorrhea infection in the pharynx (history of performing oral sex on a man) should be informed that the EPT medications given to them may not cure pharyngeal gonorrhea in all patients. These partners should seek care regardless of whether they take the medication.

### EPT Delivery at UMHS/UHS

The Process for the healthcare provider using the MiChart EPT Smart Set is shown in Table 2.

### Patient Follow-Up and Retesting at Three Months

Because a high prevalence of chlamydia and gonorrhea infection has been observed in women and men after treatment, the CDC recommends that these patients be retested approximately three months after treatment, regardless of whether they believe that their sex partners were treated. Additionally, partners should be encouraged to get tested three months after treatment.

### Related National Guidelines

The UMHS Clinical Guideline on Expedited Partner Treatment is consistent with: CDC STI treatment guidelines 2015

### Disclosures

The University of Michigan Health System endorses the Guidelines of the Association of American Medical Colleges and the Standards of the Accreditation Council for Continuing Medical Education that the individuals who present educational activities disclose significant relationships with commercial companies whose products or services are discussed. Disclosure of a relationship is not intended to suggest bias in the information presented, but is made to provide readers with information that might be of potential importance to their evaluation of the information.

Team Member	Company	Relationship
Okeoma O Mmeje, MD, MPH	(none)	
Susan D Ernst, MD	(none)	

### Review and Endorsement

Drafts of this guideline were reviewed in clinical conferences and by distribution for comment within departments and divisions of the University of Michigan Medical School to which the content is most relevant: Family Medicine, General Medicine, Geriatrics, Infectious Diseases, Pediatrics, Pharmacy, Obstetrics and Gynecology Departments / Divisions. The final version was endorsed by the Mott Executive Committee, Clinical Practice Committee of the University of Michigan Faculty Group Practice and the Executive Committee for Clinical Affairs of the University of Michigan Hospitals and Health Centers.

---

## References

- Apter AJ, Kinman JL, Bilker WB and et al. Is there cross-reactivity between penicillins and cephalosporins? *Am J Med* 2006;119:354.e11-20
- California Department of Public Health. Chlamydia and Gonorrhea 2006-2010 Provisional Tables. [www.std.ca.gov](http://www.std.ca.gov).
- Centers for Disease Control and Prevention. Cephalosporin susceptibility among *Neisseria gonorrhoeae* isolates--United States, 2000-2010. *MMWR Morb Mortal Wkly Rep* 2011;60:873-7.
- Centers for Disease Control and Prevention. Expedited partner therapy in the management of sexually transmitted diseases. Atlanta, GA: U.S. Department of Health and Human Services, 2006. [www.cdc.gov/std/](http://www.cdc.gov/std/). Accessed May 2011.
- Golden MR, Hogben M, Handsfield HH, St. Lawrence JS, Potterat JJ and Holmes KK. Partner notification for HIV and STD in the United States: low coverage for gonorrhea, chlamydial infection, and HIV. *Sex Transm Dis* 2003;30:490-496
- Golden MR, Whittington WL, Handsfield HH, et al. Effect of expedited treatment of sex partners on recurrent or persistent gonorrhea or chlamydial infection. *N Engl J Med* 2005;325:676-685
- Greenberger PA. 8. Drug allergy. *J Allergy Clin Immunol* 2006;117:S464-70
- Gruchalla RS, Pirmohamed M. Clinical practice. Antibiotic allergy. *N Engl J Med* 2006;354:601-9
- Hook EW, Handsfield HH. Gonococcal infections in the adult. In: Holmes KK, Sparling PF, Mardh P-A, et al., eds. *Sexually Transmitted Diseases*, 3rd Edition. New York, NY: McGraw-Hill, 1999:451-466
- Hosenfeld CB, Workowski KA, Berman S, et al. Repeat infection with chlamydia and gonorrhea among females: a systematic review of the literature. *Sex Transm Dis* 2009;36:478-89
- Jotblad S, Park IU, Bauer HM, Barandas A, Deal M and Amey A. Patient-delivered partner therapy for chlamydial infections: practices, attitudes, and knowledge of California family planning providers. *Sex Transm Dis* 2012;39:122-7
- Kelkar PS, Li JT. Cephalosporin allergy. *N Engl J Med* 2001;345:804-9
- Khan A, Fortenberry JD, Juliar BE, Tu W, Orr DP and Batteiger BE. The prevalence of chlamydia, gonorrhea, and trichomonas in sexual partnerships: implications for partner notification and treatment. *Sex Transm Dis* 2005;32:260-4
- Kissinger P, Hogben M. Expedited partner treatment for sexually transmitted infections: an update. *Curr Infect Dis Rep* 2011;13:188-95
- Kissinger P, Schmidt N, Mohammed H, et al. Patient-delivered partner treatment for *Trichomonas vaginalis* infection: a randomized controlled trial. *Sex Transm Dis* 2006;33:445-50
- Kissinger P, Richardson-Alson G, Leichter J and et al. Patient-delivered partner treatment for male urethritis: a randomized, controlled trial. *Clin Infect Dis* 2005;41:623-9
- Klausner JD, Chaw JK. Patient-delivered therapy for chlamydia: putting research into practice. *Sex Transm Dis* 2003;30:509-11
- Lupin Package Insert. Suprax® CEFIXIME TABLETS USP, 400 mg, CEFIXIME FOR ORAL SUSPENSION USP, 100 mg/5 mL, CEFIXIME FOR ORAL SUSPENSION USP, 200 mg/5 mL. Lupin Pharma, 2008. <http://www.lupinpharmaceuticals.com/pdf/09/SUPRA X%20Common%20PI%20.pdf>
- Oxman AD, Scott EA, Sellors JW, et al. Partner notification for sexually transmitted diseases: an overview of the evidence. *Can J Public Health* 1994;85 Suppl 1:S41-7
- Packel LJ, Guerry S, Bauer HM, et al. Patient-delivered partner therapy for chlamydial infections: attitudes and practices of California physicians and nurse practitioners. *Sex Transm Dis* 2006;33:458-63
- Peterman TA, Tian LH, Metcalf CA, et al. High incidence of new sexually transmitted infections in the year following a sexually transmitted infection: a case for rescreening. *Ann Intern Med* 2006;145:564-72
- Pichichero ME. A review of evidence supporting the American Academy of Pediatrics recommendation for prescribing cephalosporin antibiotics for penicillinallergic patients. *Pediatrics* 2005;115:1048-57
- Pichichero ME. Cephalosporins can be prescribed safely for penicillin-allergic patients. *J Fam Pract* 2006;55:106-12
- Romano A, Torres MJ, Namour F, et al. Immediate hypersensitivity to cephalosporins. *Allergy* 2002;57:52-7
- Rubinstein E. Comparative safety of the different macrolides. *Int J Antimicrob Agents* 2001;18:S71-6
- Schillinger JA, Kissinger P, Calvet H, et al. Patient-delivered partner treatment with azithromycin to

- 
- prevent repeated *Chlamydia trachomatis* infection among women: a randomized, controlled trial. *Sex Transm Dis* 2003;30:49-56
- Schwebke JR, Desmond RA. A randomized controlled trial of partner notification methods for prevention of trichomoniasis in women. *Sex Transm Dis* 2010;37:392-6
- Sena AC, Miller WC, Hobbs MM, et al. *Trichomonas vaginalis* infection in male sexual partners: implications for diagnosis, treatment, and prevention. *Clin Infect Dis* 2007;44:13-22
- Solensky R. Drug hypersensitivity. *Med Clin North Am* 2006;90:233-60
- Stekler J, Bachmann L, Brotman RM, et al. Concurrent sexually transmitted infections (STIs) in sex partners of patients with selected STIs: implications for patient delivered
- Stephens SC, Bernstein KT, Katz MH, Philip SS and Klausner JD. The effectiveness of patient-delivered partner therapy and chlamydial and gonococcal reinfection in San Francisco. *Sex Transm Dis* 2010;37:525-9
- partner therapy. *Clin Infect Dis* 2005;40:787-93
- Sutton M, Sternberg M, Koumans EH, McQuillan G, Berman S and Markowitz L. The prevalence of *Trichomonas vaginalis* infection among reproductive-age women in the United States, 2001-2004. *Clin Infect Dis* 2007;45:1319-26
- Trelle S, Shang A, Nartey L, Cassell JA and Low N. Improved effectiveness of partner notification for patients with sexually transmitted infections: systematic review. *BMJ* 2007;334:354
- Workowski K, Berman S. Sexually transmitted diseases treatment guidelines. *MMWR Recomm Rep*. 2015;64(3):1-138. doi:10.1097/00008480-200308000-00006.
- Wasserheit JN. Epidemiological synergy. Interrelationships between human immunodeficiency virus infection and other sexually transmitted diseases. *Sex Transm Dis* 1992;19:61-77
- Yu YY, Frasure-Williams JA, Dunne EF, Bolan G, Markowitz L and Bauer HM. Chlamydia partner services for females in California family planning clinics. *Sex Transm Dis* 2011;38:913-8

---

## Appendix. Resources

### MICHIGAN RESOURCES

#### Michigan Department of Health and Human Services

- “Guidance for Health Care Providers: Expedited Partner Therapy (EPT) for Chlamydia and Gonorrhea” (July 2015), [http://www.michigan.gov/documents/mdch/EPT\\_for\\_Chlamydia\\_and\\_Gonorrhea\\_-\\_Guidance\\_for\\_Health\\_Care\\_Providers\\_494241\\_7.pdf](http://www.michigan.gov/documents/mdch/EPT_for_Chlamydia_and_Gonorrhea_-_Guidance_for_Health_Care_Providers_494241_7.pdf)
- “Expedited Partner Therapy: Information Sheet for Patients and Partners” [http://www.michigan.gov/documents/mdch/EPT\\_Information\\_Sheet\\_for\\_Patients\\_and\\_Partners\\_494242\\_7.pdf](http://www.michigan.gov/documents/mdch/EPT_Information_Sheet_for_Patients_and_Partners_494242_7.pdf)
- HIV, STDs, and Viral Hepatitis in Michigan webpage, [http://www.michigan.gov/mdhhs/0,5885,7-339-71550\\_2955\\_2982---,00.html](http://www.michigan.gov/mdhhs/0,5885,7-339-71550_2955_2982---,00.html)
- HIV, STDs and Viral Hepatitis in Michigan, [www.michigan.gov/hivstd](http://www.michigan.gov/hivstd), Phone: (517) 241-0870
- The Washtenaw County Public Health Department Call (734) 544-6840 to schedule an appointment or walk in on Thursday from 1-4pm. Testing is available at no charge for those under 30 years of age; other fees are based on the federal sliding fee schedule [http://www.ewashtenaw.org/government/departments/public\\_health/adult\\_health/adult%20health%20fee%20schedule](http://www.ewashtenaw.org/government/departments/public_health/adult_health/adult%20health%20fee%20schedule)
- Expedited Partner Therapy: for Chlamydia and Gonorrhea <http://www.med.umich.edu/1libr/UniversityHealthService/EPT.Final.pdf>

### OTHER RESOURCES

#### California Department of Public Health

“Patient-Delivered Partner Therapy (PDPT) for Chlamydia, Gonorrhea, and Trichomoniasis: Guidance for Medical Providers in California” (August 2012), <https://www.cdph.ca.gov/pubsforms/Guidelines/Documents/CA-STD-PDPT-Guidelines.pdf>

#### Centers for Disease Control and Prevention

Sexually Transmitted Diseases / Expedited Partner Therapy, <http://www.cdc.gov/std/ept/>  
“Sexually Transmitted Disease Treatment Guidelines, 2015”, <http://www.cdc.gov/std/tg2015/>

#### Notification of sexual partner(s):

For more information on gonorrhea and other STDs, please visit <http://www.inspot.org> or [www.ashastd.org](http://www.ashastd.org).

Links to local resources:

- [University of Michigan Health System - Expedited Partner Therapy: For Chlamydia and Gonorrhea](#)
- [Michigan’s “Guidance for Health Care Providers: Expedited Partner Therapy \(EPT\) for Chlamydia and Gonorrhea” \(July 2015\)](#)
- [Michigan’s “Expedited Partner Therapy: Information Sheet for Patients and Partners”](#)
- [Michigan’s EPT Law, MCL 333.5110](#)
- Michigan’s Medication Dispensing Law, [MCL 333.17745](#), [MCL 333.17745a](#), [MCL 333.17745b](#)