



Sexually Transmitted Disease Clinic Standing Orders

Revised 2015

STANDING ORDER

**BACTERIAL VAGINOSIS
(BV)**

DIAGNOSIS

1. Clinical criteria require three of the following symptoms:
 - a. Client complains of increase discharge and/or odor.
 - b. Homogeneous, thin, white discharge that smoothly coats the vaginal walls.
 - c. Presence of clue cells on microscopic examination.
 - d. pH of vaginal fluid >4.5.
 - e. A fishy odor of vaginal discharge before or after addition of 10% KOH (i.e., the whiff test).

STD testing

TREATMENT

Recommended Regimens:

Metronidazole 500 mg orally twice a day for seven days;
OR
Metronidazole gel 0.75%, one full applicator intravaginally, once a day for five days;
OR
Clindamycin cream 2%, one full applicator, intravaginally at bedtime for seven days.

Note: Do not consume alcohol during treatment with metronidazole and for 24 hours thereafter. Clindamycin is oil-based and might weaken latex condoms and diaphragms for five days after use.

Alternative Regimens:

Tinidazole 2 gram orally once daily for 2 days.
OR
Tinidazole 1 gram orally once daily for 5 days.
OR
Clindamycin 300 mg orally twice a day for seven days
OR
Clindamycin ovules, 100 mg intravaginally once at bedtime for three days

FOLLOW-UP

Unnecessary if symptoms resolve.

MANAGEMENT OF SEX PARTNERS

Routine treatment is not recommended.

PREGNANT

BV has been associated with adverse pregnancy outcomes.

Recommended Regimens:

Metronidazole 500 mg orally twice a day for seven days
OR
Metronidazole 250 mg orally three times a day for seven days;
OR
Clindamycin 300 mg orally twice a day for seven days.

Allergy

Intravaginal clindamycin cream is preferred in case of allergy or intolerance to metronidazole or tinidazole. Intravaginal metronidazole gel can be considered for women who do not tolerate systemic metronidazole. Intravaginal metronidazole should not be administered to women allergic to metronidazole.

FOLLOW-UP

One month after completion of treatment if needed.

- For women with multiple recurrences after completion of a recommended regimen consult with I.D. physician.

STANDING ORDER

CERVICITIS

DIAGNOSIS

- A purulent or mucopurulent endocervical exudate visible in the endocervical canal **and/or**
- Sustained endocervical bleeding easily induced by gentle passage of a cotton swab through the cervical os **and/or**
- Leukorrhea may be a sensitive indicator of cervical inflammation. A finding of leukorrhea (>10 WBC per high-power field on microscopic examination of vaginal fluid) has been associated with chlamydial and gonococcal infection of the cervix.

TEST: Test for *C. trachomatis* and for *N. gonorrhoeae*. Testing can be performed on either vaginal, cervical or urine samples.

*Cervicitis might be a sign of upper-genital-tract infection (endometritis), patient should be assessed for signs of PID.

TREATMENT

- Azithromycin 1 g orally in a single dose; OR,
- Doxycycline 100 mg orally twice a day for seven days.

Note: Several factors should affect the decision to provide presumptive therapy for cervicitis. Presumptive treatment with antimicrobials for *C. trachomatis* and *N. gonorrhoeae* should be provided for women at increased risk (age \leq 25, new or multiple partners).

Note: Consider concurrent treatment for gonococcal infection if prevalence of gonorrhea is high in the patient population under assessment.

FOLLOW-UP

As recommended for the identified or suspected infections for which a woman is treated. In women with persistent symptoms that are clearly attributable to cervicitis, refer to a gynecologic specialist.

MANAGEMENT OF SEX PARTNERS

Partners should be notified by the index patient and examined if Chlamydia, gonorrhea, or trichomoniasis was identified or suspected. Treat for the STDs for which the index patient received treatment.

EDUCATION

Educate about identified or suspected STDs. Patients and their sex partner(s) should abstain from sexual intercourse until therapy is completed.

STANDING ORDER

CHANCROID

DIAGNOSIS

All of the following criteria need to be met:

- One or more painful genital ulcers.
- Regional lymphadenopathy which are suppurative.
- Negative serologic test for syphilis performed at least 7 days after onset of ulcers.
- HSV culture negative.

STD and HIV testing

Consult with Nurse Practitioner or I.D. physician

TREATMENT

Azithromycin 1 g orally in a single dose, **OR**
Ceftriaxone 250 mg IM in a single dose, **OR**
Ciprofloxacin 500 mg orally twice a day for 3 days, **OR**
Erythromycin base 500 mg orally three times a day for 7 days.

Note: Ciprofloxacin is contraindicated for pregnant and lactating women.

FOLLOW-UP

Re-examine in 3-7 days then weekly until lesions are healed.

Repeat RPR and HIV in 3 months.

MANAGEMENT OF SEX PARTNERS

Examine and treat if sexual contact with the patient during the 10 days preceding the patient's onset of symptoms.

Abstain from sex until lesions are healed.

STANDING ORDER

CHLAMYDIA

DIAGNOSIS

A positive test with STD clinic or from another provider.

Note: Annual screening is recommended for:

- **All sexually active men and women \leq 25 years.**
- **Older women with high risk factors (e.g., those who have a new sex partner, more than one sex partner, a sex partner with concurrent partners, or a sex partner who has a sexually transmitted infection).**

TESTING

C. trachomatis infection can be diagnosed by testing at the anatomic site of exposure.

Testing in women by first-catch urine or collecting swab specimens from the endocervix, vagina, rectum or oropharyngeal. Diagnosis in men can be made by testing by urethral swab, first-catch urine, rectum or oropharyngeal.

NOTE:

Self-collected vagina and rectal swab sensitivity and specificity are comparable to those collected by a clinician and are a reasonable alternative to clinician collected swabs if the patient is more comfortable doing their own tests.

STD testing.

If referred from another provider take a history, do testing that was not performed by other provider (such as syphilis if they have risk for syphilis). Do a pelvic exam to rule out PID for women and testicular exam to rule out epididymitis for men if they are symptomatic.

TREATMENT

Recommended Regimen:

Preferred drugs

Azithromycin 1 g orally in a single dose or Doxycycline 100 mg orally twice a day for 7 days (do not use doxy in pregnancy).

Other Alternative Regimens:

Ofloxacin 300 mg orally twice a day for 7 days (do not use in pregnancy), **OR**
Levofloxacin 500 mg orally once daily for 7 days (do not use in pregnancy).

FOLLOW-UP

Annual screening of all sexually active women aged < 25 years is recommended, as is screening of older women with risk factor (e.g. those who have a new sex partner, more than one sex partner, a sex partner with concurrent partners, or a sex partner who has a sexually transmitted infection).

MANAGEMENT OF SEX PARTNERS

Patients should refer their sex partner(s) for evaluation, testing and treatment.

EDUCATION

Patients should abstain from sexual intercourse until 7 days after a single dose regimen or until completion of a 7-day regimen.

PREGNANCY

Doxycycline, ofloxacin, and levofloxacin are contraindicated.

TREATMENT Recommended Regimen:
Azithromycin, 1 g orally in a single dose.

Other Alternative Regimen: Amoxicillin, 500 mg orally three times a day for 7 days.

RECOMMENDATIONS: Chlamydia-infected women and men should be retested approximately 3 months after treatment, regardless of whether they believe that their sex partners were treated. If retesting at 3 months is not possible, clinicians should retest whenever persons next present for medical care in the 12 months following initial treatment.

STANDING ORDER

EPIDIDYMITIS

Among sexually active men aged <35 years, acute epididymitis is most frequently caused by *C. trachomatis* or *N. gonorrhoeae*. Acute epididymitis caused by sexually transmitted enteric organisms (e.g., *Escherichia coli*) also occurs among men who are the insertive partner during anal intercourse. In men aged 35 or older who do not report insertive anal intercourse, sexually transmitted acute epididymitis is less common.

Spermatic cord (testicular) torsion, a surgical emergency, should be considered in all cases, but it occurs more frequently among adolescents and in men without evidence of inflammation or infection.

Men with **severe, unilateral pain** with **sudden onset**, those whose test results do not support a diagnosis of urethritis or urinary tract-infection, or men in whom diagnosis of acute epididymitis is questionable, **refer to the emergency room for evaluation of testicular torsion.**

If epididymitis is suspected, consult with the nurse practitioner or I.D. Physician.

DIAGNOSIS

- Unilateral testicular pain and tenderness of <6 weeks duration.
- Palpable swelling of the epididymis is usually present.
- The spermatic cord is usually tender and swollen.
- Urethritis is present but is frequently asymptomatic and seldom accompanied by bacteriuria.
- Swelling usually begins in the tail of the epididymis, then spreads to involve the rest of the epididymis and testicle.

The evaluation should include one of the following:

- Gram stain of urethral secretions demonstrating ≥ 5 WBC per oil immersion field or positive leukocyte esterase test on first-void urine.

STD testing.

TREATMENT

Recommended regimen:

For acute epididymitis most likely caused by gonococcal or chlamydial infection:

- Ceftriaxone 250 mg IM in a single dose, **PLUS**
- Doxycycline 100 mg orally twice a day for 10 days.

For acute epididymitis most likely caused by sexually-transmitted chlamydia and gonorrhea and enteric organisms (men who practice insertive anal sex) or for patients allergic to cephalosporins and/or tetracyclines:

- Ceftriaxone 250 mg IM in a single dose **PLUS**
- Ofloxacin 300 mg orally twice a day for 10 days, **OR**
- Levofloxacin 500 mg orally once daily for 10 days **OR**

For acute epididymitis most likely caused by enteric organisms

Ofloxacin 300 mg orally twice a day for 10 days, **OR**
Levofloxacin 500 mg orally once daily for 10 days.

FOLLOW-UP

Return to the clinic in 3 days.

Failure to improve within 3 days requires referral to PMD or Emergency Room ASAP.

The differential diagnosis includes tumor, abscess, infarction, testicular cancer, TB, and fungal epididymitis.

MANAGEMENT OF SEX PARTNERS

Patient with confirmed or suspected *N. gonorrhoeae* or *C. trachomatis* epididymitis should refer sex partners for evaluation and treatment if their contact with the patient was within the last 60 days.

EDUCATION

Patient should be instructed to avoid sexual intercourse until therapy is completed and they no longer have symptoms. Recommend bed rest, scrotal elevation, and analgesics.

STANDING ORDER

EXPEDITED PARTNER THERAPY (EPT)

Expedited partner therapy (EPT) is the practice of treating the sex partners of persons with sexually transmitted diseases (STD) without an intervening medical evaluation or professional prevention counseling. The implementation of EPT is through patient-delivered partner therapy (PDPT).

The goal of EPT is prevention of persistent or recurrent Chlamydia or Gonorrhea infection. EPT is a useful, additional strategy for partner management and it should be used when other management strategies are impractical or unsuccessful. It does not replace standard, traditional partner management by public health agencies and health care providers.

Guidance for use of expedited partner therapy:

- Heterosexual men and women 14 or older.
- Not used for MSM or pregnant women.
- Chlamydia and/or gonorrhea infection only. The index patient must have a positive test(s).
- Sexual partner(s) within two months prior to diagnosis or onset of symptoms. If no partners within two months, then the most recent partner(s).
- Prescription(s) or medication(s) given to the index case.
- Prescription(s) or medication(s) given by Nurse Practitioners, or MDs. RN's may give the index patient the medication(s) by consulting first with a Nurse Practitioner or MD and then chart the consult in index patient's chart. The Nurse Practitioner or MD should write a note in the patients chart that they were consulted.
- Informational materials about STD(s) and medication(s) given with the prescription(s) or medication(s).
- Write on prescription for index patient "partner of" and write the name of the index patient. If medication(s) are given, hand out medication package to index patient. Index patient can only receive up to 3 medication packages.

Chlamydia

Azithromycin given as 500 mg tablet, two tablets by mouth in a single dose.

Gonorrhea:

Cefixime/Suprax 400mg tablet by mouth in a single dose, AND azithromycin given as 500 mg tablet, two tablets by mouth in a single dose.

Chlamydia and gonorrhea:

Cefixime/Suprax 400 mg tablet by mouth in a single dose AND azithromycin 500 mg table, two tablets given by mouth in a single dose.

Chart in index cases chart:

- The number of prescription(s) or medication(s) packets were given
- Which medication(s) were given
- Informational materials given

STANDING ORDER

Genital Warts

STD SCREENING

The clinician should offer STD testing and chart that is was recommended under the following conditions:

- If the patient has signs or symptoms of an STD, or
- A recent change of partner or new partner, or
- If the patient has not tested for STD's in the last 3 months.

After a discussion with the patient, the clinician will decide whether to treat or not and, if so, what treatment modality to use.

DIAGNOSIS

Warts are flat, papular, or pedunculated growths. Genital warts are usually asymptomatic, but depending on the size and anatomic location, they might be painful or pruritic.

Genital warts can be confirmed by biopsy which might be indicated if

1. The diagnosis is uncertain
2. The lesions do not respond to standard therapy.
3. The disease worsens during therapy

If any of the above applies the patient should be referred to their primary care provider or a dermatologist.

TREATMENT

- Cryotherapy with liquid nitrogen. Repeat applications every 2-3 weeks as needed up to 3 months (most genital warts will respond within 3 months). If there are concerns regarding response to therapy consult with the Nurse Practitioner or I.D. Physician.
- Imiquimod 5% cream. Apply once at bedtime 3 times a week for up to 16 weeks. The treatment area should be washed with soap and water 6-10 hours after the application (contraindicated in pregnancy).
- Imiquimod 3.75% cream. Apply once at bedtime, every night, for up to 16 weeks. The cream should be washed off with soap and water 6-10 hours after the application (contraindicated in pregnancy).

EDUCATION

- Genital warts are caused by specific types of HPV which are different from the types that cause cervical cancer.
- Condoms might reduce the risk for HPV-associated diseases.
- Patients should be warned that persistent hypopigmentation or hyperpigmentation occurs commonly with ablative modalities such as cryotherapy and has also been described with immune modulating therapies (imiquimod).

FOLLOW-UP

- Recommend regular PAP testing for women.

MANAGEMENT OF SEX PARTNERS

Examination of partners is not necessary.

COUNSELING FOR PERSONS WITH HPV

- Anogenital HPV infection is very common. It usually infects the anogenital area but can infect other areas including the mouth and throat. Most sexually active people get HPV at some time in their lives, although most never know it.
 - Partners who have been together tend to share HPV, and it is not possible to determine which partner transmitted the original infection. Having HPV does not mean that a person or his/her partner is having sex outside the relationship.
 - Most persons who acquire HPV clear the infection spontaneously and have no associated health problems. When the HPV infection does not clear, genital warts, precancers, and cancers of the cervix, anus, penis, vulva, vagina, head, and neck might develop.
 - The types of HPV that cause genital warts are different from the types that can cause cancer.
 - Many types of HPV are sexually transmitted through anogenital contact, mainly during vaginal and anal sex. HPV also might be transmitted during genital-to-genital contact without penetration and oral sex. In rare cases, a pregnant woman can transmit HPV to an infant during delivery.
 - Having HPV does not make it harder for a woman to get pregnant or carry a pregnancy to term. However, some of the precancers or cancers that HPV can cause, and the treatments needed to treat them, might lower a woman's ability to get pregnant or have an uncomplicated delivery. Treatments are available for the conditions caused by HPV, but not for the virus itself.
 - No HPV test can determine which HPV infection will clear and which will progress. However, in certain circumstances, HPV tests can determine whether a woman is at increased risk for cervical cancer. These tests are not for detecting other HPV-related problems, nor are they useful in women aged <25 years or men of any age.
- ### Prevention of HPV
- Two HPV vaccines can prevent diseases and cancers caused by HPV. The Cervarix and Gardasil vaccines protect against most cases of cervical cancer; Gardasil also protects against most genital warts. HPV vaccines are recommended routinely for boys and girls aged 11–12 years; either vaccine is recommended for girls/women, whereas only one vaccine (Gardasil) is recommended for boys/men (<http://www.cdc.gov/vaccines/vpd-vac/hpv>). These vaccines are safe and effective.
 - Condoms used consistently and correctly can lower the chances of acquiring and transmitting HPV and developing HPV-related diseases (e.g., genital warts and cervical cancer). However, because HPV can infect areas not covered by a condom, condoms might not fully protect against HPV.
 - Limiting number of sex partners can reduce the risk for HPV. However, even persons with only one lifetime sex partner can get HPV.
- Abstaining from sexual activity is the most reliable method for preventing genital HPV infection.

Key Messages for Persons with Anogenital Warts

most cases of genital warts in persons who have not yet been exposed to wart-causing types of HPV.

- If left untreated, genital warts may go away, stay the same, or increase in size or number. The types of HPV that cause genital warts are different from the types that can cause cancer.
- Women with genital warts do not need Pap tests more often than other women.
- Time of HPV acquisition cannot be definitively determined. Genital warts can develop months or years after getting HPV. HPV types that cause genital warts can be passed on to another person even in the absence of visible signs of warts. Sex partners tend to share HPV, even though signs of HPV (e.g., warts) might occur in only one partner or in neither partner.
- Although genital warts are common and benign, some persons might experience considerable psychosocial impact after receiving this diagnosis.
- Although genital warts can be treated, such treatment does not cure the virus itself. For this reason, it is common for genital warts to recur after treatment, especially in the first 3 months.
- Because genital warts can be sexually transmitted, patients with genital warts benefit from testing for other STDs. Sexual activity should be avoided with new partners until the warts are gone or removed. HPV might remain present and can still be transmitted to partners even after the warts are gone.
- Condoms might lower the chances of transmitting genital warts if used consistently and correctly; however, HPV can infect areas that are not covered by a condom and might not fully protect against HPV.
- A vaccine is available for males and females to prevent genital warts (Gardasil), but it will not treat existing HPV or genital warts. This vaccine can prevent

STANDING ORDER

GONOCOCCAL INFECTIONS

DIAGNOSIS

- Gram stain of a male urethral specimen that demonstrates polymorphonuclear leukocytes with intracellular Gram-negative diplococci.
- Positive gonorrhea test at the STD clinic or from another provider.

Note: Gram stain of endocervical specimens, pharyngeal, or rectal specimens are not sufficient to detect infection and, therefore, are not recommended.

STD testing.

If a positive test is received from another provider, take a history and perform testing that was not done by provider (such as Syphilis IgG). Do a pelvic exam to rule out PID for women and a testicular exam to rule out epididymitis for men.

TREATMENT

1) Uncomplicated Gonococcal infections of the cervix, urethra, and rectum.

Recommended Regimens:

Ceftriaxone, 250 mg IM in a single dose,
Plus
Azithromycin 1 gram by mouth in a single dose
or
Doxycycline 100 mg by mouth twice a day for 7 days

Alternative Regimens

If ceftriaxone is not available:

Cefixime 400 mg by mouth in a single dose
Plus
Azithromycin 1 gram by mouth in a single dose

Penicillin or Cephalosporin Allergy: In those persons with a history of penicillin allergy, the use of cephalosporins should be contraindicated only in those with a history of a severe reaction to penicillin (e.g. anaphylaxis, Stevens Johnson syndrome, and toxic epidermal necrolysis).

Gemifloxacin 320 mg plus oral azithromycin 2 gram
***7.7% of patients treated with the above treatment regimen vomited within 1 hour of medication administration.**

- Treatment for Chlamydia if chlamydial infection is not ruled out (azithromycin treatment does not require any additional drug).
- For alternative regimens consult with I.D. Physician.

Note: Medications for gonococcal infections should be dispensed on site if possible.

2) **Uncomplicated Gonococcal infections of the pharynx.**

Recommended Regimens:

Ceftriaxone 250 mg IM in a single dose,
Plus
Azithromycin 1 gram po single dose
Or
Doxycycline 100 mg po twice a day for 7 days

Penicillin or Cephalosporin Allergy: In those persons with a history of penicillin allergy, the use of cephalosporins should be contraindicated only in those with a history of a severe reaction to penicillin (e.g. anaphylaxis, Stevens Johnson syndrome, and toxic epidermal necrolysis),

Gemifloxacin 320 mg plus oral azithromycin 2 gram
***7.7% of patients treated with the above treatment regimen vomited within 1 hour of medication administration.**

For alternative regimens consult with I.D. Physician.

3) **Uncomplicated gonococcal infection of the eye.**

Ceftriaxone 1 gram.
Consult with nurse practitioner or ID physician.

FOLLOW-UP

Advise patients to be re-tested in 3 months.

If the patient is not re-tested in 3 months, re-test whenever they seek medical care within the following 12 months.

MANAGEMENT OF SEX PARTNERS

Epidemiological investigation and referral of contacts for evaluation and treatment.

- Sex partners who had sexual contact within 60 days.
- Most recent sex partner if sexual intercourse >60 days.

EDUCATION

Avoid sexual intercourse until therapy is completed and until they and their sex partners no longer have symptoms.

STANDING ORDER

GRANULOMA INQUINALE (Donovanosis)

Caused by the intracellular gram-negative bacterium *Klebsiella granulomatis*.

DIAGNOSIS

- Painless, progressive ulcerative lesions.
- No regional lymphadenopathy.
- Subcutaneous granulomas (pseudoboobes).
- Lesions are highly vascular (beefy red appearance) and bleed easily on contact.
- Lesions may be hypertrophic, necrotic, or sclerotic.
- Visualization of dark-staining Donovan bodies on tissue crush preparation or biopsy (not available at this clinic).

Relapse can occur 6-18 months after apparently effective therapy.

STD and HIV testing.

Consult with nurse practitioner or I.D. physician.

TREATMENT

Recommended Regimen:

Azithromycin 1 gram orally once per week or 500 mg daily for at least 3 weeks and until all lesions have completely healed.

Alternative Regimens:

Doxycycline 100 mg orally twice a day for at least 3 weeks and until all lesions have completely healed, **OR**
Ciprofloxacin 750 mg orally twice a day for at least 3 weeks and until all lesions have completely healed, **OR**
Erythromycin base, 500 mg orally four times a day for at least 3 weeks and until all lesions have completely healed., **OR**
Trimethoprim-sulfamethoxazole one double-strength (160 mg / 800 mg) tablet orally twice a day for at least 3 weeks and until all lesions have completely healed.

FOLLOW-UP

Follow clinically until signs and symptoms have resolved.

MANAGEMENT OF SEX PARTNERS

Persons who have had sexual contact with a patient who has granuloma inguinale within the 60 days before onset of the patient's symptoms should be examined and offered therapy

PREGNANCY

Doxycycline and ciprofloxacin are contraindicated. Treat with the erythromycin base regimen. Azithromycin might prove useful for treating granuloma inguinale during pregnancy, but published data are lacking. Pregnancy is a relative contraindication to the use of sulfonamides.

No sex until lesions has healed.

HIV Infection

Persons with both granuloma inguinale and HIV infection should receive the same regimens as those who do not have HIV infection.

STANDING ORDER

HERPES SIMPLEX VIRUS INFECTIONS

HSV-1 is causing an increasing proportion of first episodes of ano-genital herpes in some populations (e.g., young women and MSM). The majority of recurrent genital herpes cases are caused by HSV-2. The majority of infections are transmitted by persons unaware that they have the infection or who are asymptomatic when transmission occurs. Lack of symptoms in an HSV-1 seropositive person does not distinguish anogenital from orolabial or cutaneous infection, and regardless of site of infection, these persons remain at risk for acquiring HSV-2. Type-specific HSV serologic assays might be useful in the following scenarios:

- 1) recurrent genital symptoms or atypical symptoms with negative HSV PCR or culture;
- 2) clinical diagnosis of genital herpes without laboratory confirmation; and
- 3) a patient whose partner has genital herpes.

HSV serologic testing should be considered for persons presenting for a STD evaluation (especially for those persons with multiple sex partners) persons with HIV infection, and MSM at increased risk for HIV acquisition. Screening for HSV-1 and HSV-2 in the general population is not indicated. Low index values (1.1-3.5) might be falsely positive and it is recommended that the patient test again with a Western blot.

*Persons with genital herpes should be tested for HIV infection.

DIAGNOSIS

- Painful multiple vesicular or ulcerative lesions.
- Positive PCR assay.
- Positive Serologic testing.

STD and HIV testing recommended.

TREATMENT

- 1) First clinical episode:
Recommended regimens*:

Acyclovir 400 mg orally three times a day for 7-10 days, **OR**
Valacyclovir 1 g orally twice a day for 7-10 days.
Famciclovir 250 mg orally three times a day for 7-10 days.

*Treatment might be extended if healing is incomplete after 10 days of therapy.

- 2) Suppressive therapy for recurrent episodes:
Recommended regimens:

Acyclovir 400 mg orally twice a day **OR**
Valacyclovir 500 mg orally once a day **OR**
Valacyclovir 1 g orally once a day.
Famciclovir 250 mg orally twice a day.

*Suppressive therapy reduces the frequency of genital herpes by 70%-80% in patients who have frequent recurrences

*Valacyclovir 500 mg once a day might be less effective than other valacyclovir or acyclovir dosing regimens in patients who have very frequent recurrences (i.e., greater than 10 episodes per year).

3) Episodic therapy for recurrent episodes. Initiate therapy within day 1 of onset of lesion(s) or during the prodrome that precedes some outbreaks.

Recommended regimens:

Acyclovir 400 mg orally three times a day for 5 days, **OR**
Acyclovir 800 mg orally twice a day for 5 days, **OR**
Acyclovir 800 mg orally three times a day for 2 days, **OR**
Famciclovir 1 g orally twice a day for 1 day, **OR**
Valacyclovir 500 mg orally twice a day for 3 days, **OR**
Valacyclovir 1 g orally once a day for 5 days.
Famciclovir 125 mg orally twice a day for 5 days.
Famciclovir 1 gram orally twice daily for 1 day, or
Famciclovir 500 mg once, followed by 250 mg twice daily for 2 days.

HIV Infection

Immunocompromised patients can have prolonged or severe episodes of genital, perianal, or oral herpes. HSV shedding is increased in HIV-infected persons. Whereas antiretroviral therapy reduces the severity and frequency of symptomatic genital herpes, frequent subclinical shedding still occurs.

Recommended Regimens for Daily Suppressive Therapy in Persons with HIV.

Acyclovir 400-800 mg orally twice to three times a day, **OR**
Valacyclovir 500 mg orally twice a day, **OR**
Famciclovir 500 mg orally twice a day.

Recommended Regimens for Episodic Infection in Persons with HIV;

Acyclovir 400 mg orally three times a day for 5-10 days, **OR**
Valacyclovir 1 gram orally twice a day for 5-10 day, **OR**
Famciclovir 500 mg orally twice a day for 5-10 days.

If lesions persist or recur in a patient receiving antiviral treatment, HSV resistance should be suspected and the patient should be referred to an HIV specialist.

Pregnancy

Consult with infectious disease physician.

EDUCATION

- Educate about the natural history of the disease.
- Advise that suppressive therapy is available.
- Encourage patients to inform their sex partners.
- Patients should remain abstinent when lesions are present.
- Latex condoms might reduce the risk for transmission.

MANAGEMENT OF SEX PARTNERS

Symptomatic partners should be evaluated and treated.

STANDING ORDER

LYMPHOGRANULOMA VENEREUM (LGV)

LGV is caused by *C. trachomatis* serovars L1, L2, or L3.

DIAGNOSIS

- Unilateral, tender inguinal and/or femoral lymphadenopathy..
- Genital ulcer or papule sometimes occurs at the site of inoculation.
- Mucoïd and/or hemorrhagic rectal discharge, anal pain.
- Lesion swab or bubo aspirate may be tested for *C. trachomatis* by culture, direct immunofluorescence, or nucleic acid detection (refer to I.D. physician).

* Rectal exposure in women or MSM can result in proctocolitis mimicking inflammatory bowel disease, and clinical findings may include mucoïd and/or hemorrhagic rectal discharge, anal pain, constipation, fever, and/or tenesmus.

STD and HIV testing

Consult with nurse practitioner or I.D. physician

TREATMENT

Recommended regimen:

Doxycycline 100 mg orally twice a day for 21 days.

Alternative regimen:

Erythromycin base 500 mg orally four times a day for 21 days.

FOLLOW-UP

Patients should be followed clinically until signs and symptoms have resolved.

MANAGEMENT OF SEX PARTNERS

Contacts that had sex with the patient within 60 days should be examined and tested for urethral, cervical or rectal chlamydial infection depending on the anatomic site of exposure. They should be treated with the standard chlamydial regimen:

Azithromycin 1 g orally.

Doxycycline 100 mg orally twice a day for 7 days.

No sex until signs and symptoms have resolved.

PREGNANCY

Treat with erythromycin if doxycycline is contraindicated.

STANDING ORDER

NONGONOCOCCAL URETHRITIS (NGU)

DIAGNOSIS

- Mucopurulent or purulent discharge, dysuria or urethral pruritis.
- Gram Stain of urethral secretions with ≥ 2 WBC per oil immersion field. Positive leucocyte esterase test on first-void urine or microscopic exam of first-void urine sediment demonstrating ≥ 10 WBC per high power field.
- If S/S only consult with nurse practitioner or ID physician.

STD testing

TREATMENT

Recommended Regimens:

Azithromycin 1 g orally in a single dose (prescription only do not use Health Department stock),

OR

Doxycycline 100 mg orally twice a day for 7 days

Alternative Regimens:

Levofloxacin 500 mg orally once daily for 7 days

OR

Ofloxacin 300 mg orally twice a day for 7 days

FOLLOW-UP

Return to clinic if symptoms persist after 7 days and therapy was completed.
Abstain from sexual intercourse until 7 days after therapy is initiated.

PARTNER REFERRAL

All sex partners within preceding 60 days should be evaluated and treated.

If patient does not comply or is re-exposed:

Re-treat with the initial regimen if patient did not comply or if re-exposed to an untreated sex partner.

Persistent NGU/Nonresponder

Gram stain of urethral secretions with >2 WBC per oil immersion field. If S/S only consult with nurse practitioner or ID physician.

Persistent urethritis after doxycycline treatment might be caused by doxycycline-resistant *U. urealyticum* or *M. genitalium*. *T. vaginalis* is also known to cause urethritis in men. If the patient is compliant with the initial regimen and re-exposure can be excluded, the following regimen is recommended.

Metronidazole 2 g orally in a single dose **or**

Tinidazole 2 g orally in a single dose.

plus

Azithromycin 1 gram orally in a single dose (if not used for initial episode).

If Azithromycin is used for the initial episode recommended regimens:

Moxifloxacin 400 mg one orally once daily for seven days

plus

Metronidazole 2 g orally in a single dose **or**

Tinidazole 2 g orally in a single dose.

Men with a low probability of *T. Vaginalis* (e.g., MSM) are unlikely to benefit from the addition of metronidazole or tinidazole.

Persons with persistent or recurrent NGU after presumptive treatment for *M. genitalium* or *T. vaginalis* should be referred to an urologist.

STANDING ORDER

**PELVIC INFLAMMATORY DISEASE
(PID)**

DIAGNOSIS

STD testing, including temperature and pregnancy test.

C/O pelvic or lower abdominal pain if no cause for the illness other than PID can be identified and if one or more of the following minimum criteria are present on pelvic examination:

- Cervical motion tenderness, **OR**
- Uterine tenderness, **OR**
- Adnexal tenderness.

The requirement that all three minimum criteria be present before the initiation of empiric treatment could result in insufficient sensitivity for the diagnosis of PID. The presence of signs of lower-genital-tract inflammation as below in addition to one of the three minimum criteria increases the specificity of the diagnosis.

- Abnormal cervical or vaginal mucopurulent discharge.
- Presence of abundant numbers of WBC on saline microscopy of vaginal secretions.
- Cervical friability.
- Oral temperature >101 degree F.
- Laboratory documentation of cervical infection with *N. gonorrhoeae* or *C. trachomatis*.

Most women with PID have either mucopurulent cervical discharge or evidence of WBCs on a microscopic evaluation of a saline preparation of vaginal fluid. If the cervical discharge appears normal and no WBCs are observed on the wet prep of vaginal fluid, the diagnosis of PID is unlikely, and alternative causes of pain should be considered. Consult with I.D. physician.

CRITERIA FOR HOSPITALIZATION (Refer to ER)

- Surgical emergencies (e.g., appendicitis) can not be excluded
- Pelvic mass.
- State of illness to indicate seriousness beyond out-patient management.
- The patient is pregnant.
- The patient does not respond clinically to out patient antimicrobial therapy.
- The patient is unable to follow or tolerate an outpatient oral regimen.
- The patient has severe illness, nausea and vomiting, or high fever.
- The patient has a tubo-ovarian abscess.

Note: RN's need NP or I.D. physician for diagnosis.

ORAL TREATMENT

Recommended Regimen A:

Ceftriaxone 250 mg IM in a single dose,
PLUS
Doxycycline 100 mg orally twice a day for 14 days,
WITH OR WITHOUT*
Metronidazole 500 mg orally twice a day for 14 days

*The recommended third-generation cephalosporins are limited in the coverage of anaerobes. Therefore, until it is known that extended anaerobic coverage is not important for treatment of acute PID, the addition of metronidazole to treatment regimens with third-generation cephalosporins should be considered.

Alternative Regimen:

Ceftriaxone 250 mg IM single dose and 1 gram azithromycin orally once a week for 2 weeks.

Allergy to cephalosporin:

If the community prevalence and individual risk for gonorrhoeae are low, and if follow-up is likely, use of fluoroquinolones could be used.

Levofloxacin 500 mg orally once daily for 14 days
OR
Ofloxacin 400 mg twice daily for 14 days
OR
Levofloxacin 500 mg orally one daily for 14 days
OR
Moxifloxacin 400 mg orally once daily for 14 days
with
Metronidazole 500 mg twice daily for 14 days

FOLLOW-UP

- Evaluate patient in 72 hours.
- If no clinical improvement, refer to Emergency Room.
- If the patient received a diagnosis of gonococcal or chlamydia PID re-screen for gonorrhea and chlamydia in 3 months after therapy is completed regardless if their partner(s) were treated.
- No sex until signs and symptoms have resolved.

MANAGEMENT OF SEX PARTNERS

- Sex partners should be evaluated and treated if they had sexual contact within 60 days.
- Sex partners should be treated empirically with regimens effective against N. gonorrhoeae and

C. trachomatis regardless of the etiology of PID.

IUD

- IUD can be left in place, but close clinical follow-up is mandatory. If no clinical improvement occurs within 48-72 hours of initiating treatment, patient should be referred out for removal of IUD.

STANDING ORDER

PUBIC LICE

DIAGNOSIS

Lice or nits on pubic hair.

Pruritus.

Recommend testing for other STDs (may defer if low probability).

TREATMENT

Recommended Regimens:

Permethrin (OTC NIX) 1% cream rinse applied to affected areas and washed off after 10 minutes, **OR**
Pyrethrins with piperonyl butoxide (OTC RID) applied to the affected area and washed off after 10 minutes.

Alternative Regimens: Consult with NP or I.D. doctor.

Malathion (Ovide, prescription only) 0.5% lotion applied for 8-12 hours and washed off. Use if treatment failure is suspected, **OR**
Ivermectin (prescription only) has been successfully used to treat lice but has only been evaluated in small studies, 250 ug/kg repeated in 2 weeks, **consult with I.D. physician.**
Lindane 1% (Kwell, prescription only) shampoo applied to affected area and washed off after 4 minutes. Can cause toxicity, as indicated by seizure and aplastic anemia. It should only be used when other therapies cannot be tolerated or have failed. Lindane toxicity has not been reported when treatment was limited to the recommended 4-minute period. Lindane should not be used immediately after a bath or shower, and it should not be used by persons who have extensive dermatitis, women who are breast feeding, or children aged <10 years.

EDUCATION

Bedding and clothing should be machine-washed and machine-dried using the heat cycle, or dry cleaned.

Fumigation of living areas is not necessary.

FOLLOW-UP

Re-examine in 1 week if symptoms persist re-treat.

MANAGEMENT OF SEX PARTNERS

Sex partners within 1 month should be treated.

Patients should avoid sexual contact until treated and re-evaluated.

PREGNANCY

Treat with permethrin or pyrethrins. Lindane and Ivermectin are contraindicated.

No sex until signs and symptoms have resolve

STANDING ORDER

SCABIES

DIAGNOSIS

Pruritus (usually worse at night).
Erythematous papular eruptions.
History of exposure to scabies.

STD testing recommended (may defer with low probability).

TREATMENT

Recommended Regimens:

Permethrin cream 5% (60 grams) applied to all areas of the body from the neck down and washed off after 8-14 hours, **OR**
Ivermectin, 200 ug/kg orally, repeated in 2 weeks consult with I.D. physician. Ivermectin should be taken with food because bioavailability is increased, thereby increasing penetration of the drug into the epidermis.

Alternative Regimen:

Lindane (1%), 1 oz. of lotion or 30g of cream applied in a thin layer to all areas of the body from the neck down and thoroughly washed off after 8 hours. Lindane is not recommended as first-line therapy because of toxicity. It should only be used as an alternative if the patient cannot tolerate other therapies or if other therapies have failed.

Note: Lindane should not be used by persons who have extensive dermatitis or women who are pregnant or lactating. Infants and young children aged 10 years should not be treated with lindane.

EDUCATION

Bedding and clothing should be machine-washed and machine-dried using the hot cycle or dry cleaned or removed from body contact for at least 72 hours.

Fumigation of living areas is not necessary.

Rash and pruritus might persist for up to 2 weeks. Some specialists recommend retreatment

After 1-2 weeks for patients who are still symptomatic, others recommend re-treatment only if live mites are observed.

FOLLOW-UP

Patients who do not respond should be re-treated with an alternative regimen.

MANAGEMENT OF SEX PARTNERS AND HOUSEHOLD CONTACTS

Both sexual and close personal contacts within the preceding month should be examined and treated.

SPECIAL CONSIDERATIONS

Infants, young children, and pregnant and lactating women should not be treated with lindane.

Ivermectin is not recommended for pregnant and lactating women.

No sex until signs and symptoms have resolved.

STANDING ORDER

SYPHILIS

Systemic disease caused by *T. pallidum*.

Diagnosis

Primary infection:

- Typical lesion (ulcer or chancre) or recent history of lesion with reactive IgG, and reactive RPR.
- Reactive IgG, with reactive RPR, with history of contact within 90 days to person diagnosed with primary, secondary, or early latent syphilis.
- Typical lesion with high risk history, after consult with ID physician or nurse practitioner.

Secondary infection:

- Reactive IgG, and reactive RPR and/or macular, papular, or papulosquamous rash. Could have palmar and plantar distribution.
- Other symptoms could be alopecia, loss of eyelashes and lateral third of eyebrows, uveitits, condylomata lata, mucous patches on oropharynx or cervix, generalized lymphadenopathy (non tender), hepato/splenomegaly is occasionally present or fever and malaise.

Tertiary infection:

- Reactive IgG, and reactive RPR with:
 - cardiac or ophthalmic manifestations.
 - auditory abnormalities.
 - gummatous lesions.
- Refer to ID physician

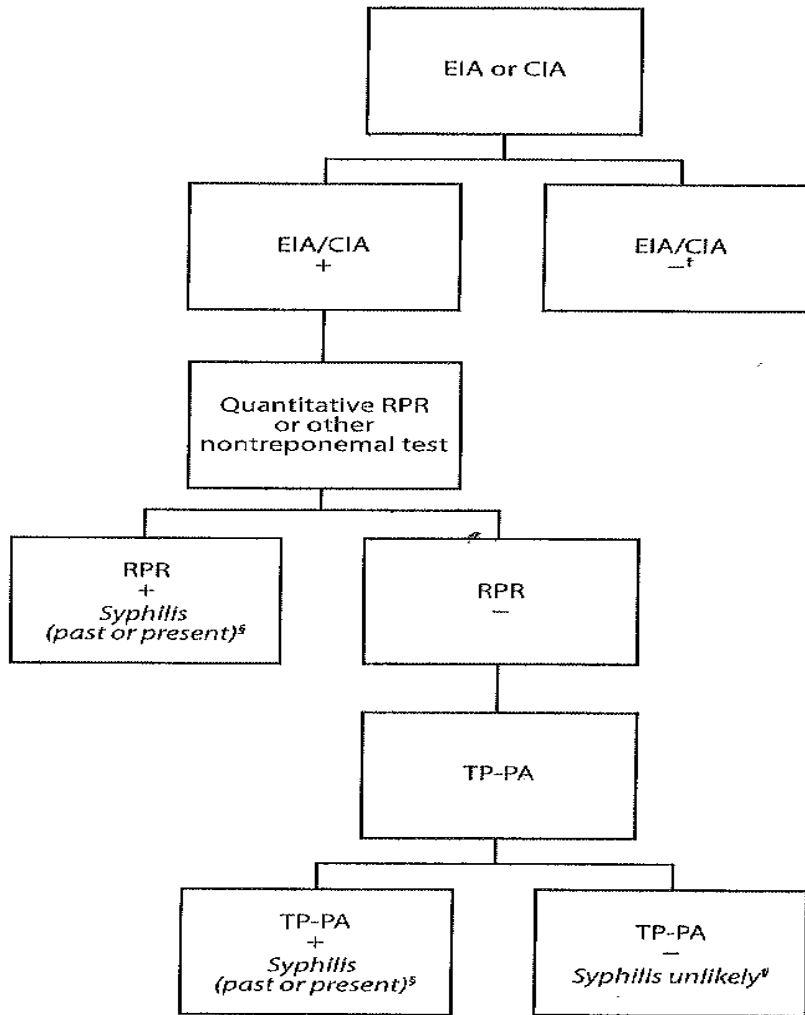
Latent infections:

- Lack of clinical manifestations.
- Reactive serologic testing:
- Early latent syphilis:
 - Acquired within the preceding year with a documented negative RPR within a year.
 - A documented seroconversion or fourfold or greater increase in titer of a nontreponemal test.
 - Unequivocal symptoms of primary or secondary syphilis.
 - A sex partner documented to have primary or secondary, or early syphilis.
 - Reactive nontreponemal and treponemal tests from a person whose only possible exposure occurred within the previous 12 months.

Late latent syphilis if acquired >1 year.

Latent syphilis of unknown duration if onset unknown.

Syphilis Screening Algorithm



If TP-PA is not available the FTA is acceptable as a substitute test. *

Persons with a positive treponemal screening test should have a standard nontreponemal test (see above). If the nontreponemal test is negative, the laboratory will perform a TP-PA to confirm the results of the initial test. If a second treponemal test is positive, persons with a history of previous treatment will require no further management unless sexual history suggests re-exposure. In this instance, a repeat nontreponemal test in 2-4 weeks is recommended to evaluate for early infection.

*MMWR February 11,2011 Vol.60 No.5

Diagnostic Testing

Serologic tests: We may receive syphilis test results from other labs, below are other non-treponemal test and treponemal test that are used.

Presumptive diagnosis is possible with the use of two types of serologic tests. If only treponemal tests is positive consult with Nurse Practitioner or ID physician

- Non-treponemal test : Rapid Plasma Reagin (RPR) or Venereal Disease Research Laboratory. (VDRL)
- Treponemal test: Syphilis IgG EIA, Fluorescent Treponemal Antibody Absorption (FTA – ABS), or T. pallidum particle agglutination (TP-PA), MHA-TP.
- All indeterminate and equivocal test should be discussed with the nurse practitioner or ID physician.

Other testing:

- HIV testing on all positive syphilis patients and contacts.
- High risk patients such as MSM/bisexual with primary syphilis should be re-tested for HIV in 3 months.
- Offer STD testing.

1. Primary and Secondary Syphilis

Treatment:

Recommended Regimen:

Benzathine penicillin G 2.4 million units IM in a single dose.

Alternative Regimen (if allergic to Penicillin and not pregnant):

Doxycycline 100mg orally twice daily for 14 days.

Follow-up:

- Re-examine clinically and serologically 6 months, and 12 months after treatment.
- Retreat and re-test for HIV if persistent signs and symptoms or sustained fourfold increase in nontreponemal test titer persisting for greater than 2 weeks.
- Patients should be referred for CSF analysis if possible. Consult with Infectious Disease physician.

2. Latent Syphilis

Treatment:

Recommended Regimens for Adults:

Early latent syphilis:

Benzathine penicillin G 2.4 million units IM in a single dose.

Late latent syphilis or latent syphilis of unknown duration:

Benzathine penicillin G 7.2 million units total, administered as 3 doses of 2.4 million units IM each at 1 week intervals.

Alternative Regimens (if allergic to Penicillin and not pregnant):

Early latent syphilis:

Doxycycline 100mg orally twice daily for 14 days.

Late latent or latent syphilis of unknown duration:

Doxycycline 100mg orally twice daily for 28 days.

OR

Other management considerations:

- Evaluate for evidence of tertiary disease.
- Refer to Infectious Diseases in the case of:
 - neurologic or ophthalmic signs and symptoms
 - evidence of active tertiary syphilis
 - treatment failure
 - HIV infection

Follow-up:

- Repeat nontreponemal serologic test at 6, 12, and 24 months.
- Consult with Infectious Disease physician if:
 - 1) titer increase fourfold
 - 2) an initially high titer ($\geq 1:32$) fails to decline at least fourfold within 12-24 months of therapy
 - 3) signs or symptoms of syphilis develop

3. Tertiary syphilis and Neurosyphilis

Refer to Infectious Disease Clinic 1A, University of Utah Medical Center.

Management of sex partners

- Persons who were exposed to early syphilis within the 90 days should be treated even if seronegative.
- Persons who were exposed to early syphilis >90 days should be tested. Treat if tests results not available immediately and the opportunity for follow-up is uncertain.
- For purposes of partner notification and presumptive treatment of exposed sex partners, patients with syphilis of unknown duration who have high nontreponemal serologic test titers (i.e., >1:32) can be assumed to have early syphilis. For the purpose of determining a treatment regimen, if the patient is 1:32 consult with ID physician on a case by case basis.

- Long-term sex partners of patients who have latent syphilis should be evaluated clinically and serologically.
- The following sex partners of persons with syphilis are considered at risk for infection and should be notified or the exposure and need evaluations are sex partners who have had sexual contact within:
 - 1) 3 months plus the duration of symptoms for persons who received a diagnosis of primary syphilis,
 - 2) 6 months plus duration of symptoms for those with secondary syphilis, and
 - 3) one (1) year for early latent syphilis.

Pregnancy

Pregnant patients who are allergic to penicillin should be referred to their OB/GYN specialist.

Syphilis among HIV infected persons

- Treatment regimens as recommended for HIV-negative patients.
- If the patient is referred from a health care provider the patient can be treated here if we receive a doctor's order stating the stage of syphilis, dosage of Rx and duration of treatment. If any concerns regarding the health care providers order, consult with ID physician.
- Follow up testing and clinical exam recommended is 3, 6, 9, 12 and 24 months.
- HIV-infected, penicillin-allergic patients who have primary or secondary syphilis should be managed according to the recommendations for penicillin-allergic, HIV-negative patients. Patients with penicillin allergy whose compliance with therapy or follow-up cannot be ensured should be desensitized and treated with penicillin, consult with I.D physician.

NOTE: Education for patient: The Jarisch-Herxheimer reaction (most common among persons who have early syphilis) is an acute febrile reaction frequently accompanied by headache, myalgia, and other symptoms that usually occur within the first 24 hours after any therapy for syphilis. Antipyretics may be used.

STANDING ORDER

TRICHOMONIASIS

Caused by protozoan *T. vaginalis*.

DIAGNOSIS

WOMEN:

Diffuse, malodorous, yellow-green vaginal discharge with vulvar irritation.
Wet preparation slide of vaginal secretions with trichomoniasis present.

MEN:

Contact to trichomoniasis.

STD testing.

TREATMENT

Recommended Regimen:

Metronidazole 2g orally in a single dose.
OR
Tinidazole 2g orally in a single dose. Do not use in pregnancy.

Alternative Regimen:

Metronidazole 500mg orally twice a day for 7 days.

EDUCATION

Do not consume alcohol during treatment.
Continue abstinence from alcohol for 24 hours after completion of Metronidazole or 72 hours after completion of Tinidazole.
No sex for 7 days

FOLLOW-UP

Not necessary.

MANAGEMENT OF SEX PARTNERS

Sex partners should be treated.

PREGNANCY

Consult with the nurse practitioner or I.D. physician.

Clinicians should counsel patients regarding the potential risk and benefits of treatment and communicate the option of therapy deferral in asymptomatic pregnant women until after 37 weeks' gestation. If the patient is receiving prenatal care she should discuss this with her health care provider.

All symptomatic pregnant women should not only be considered for treatment regardless of pregnancy stage, but be provided careful counseling regarding condom use and the continued risk of sexual transmission.

Women can be treated with 2 grams of metronidazole in a single dose at any stage of pregnancy.

Lactating women who are administered metronidazole, withholding breastfeeding during treatment and for 12-24 hours after the last dose will reduce the exposure of the infant to metronidazole. Women treated with tinidazole interrupt breastfeeding during treatment and for 3 days after the last dose.

STANDING ORDER

**VULVOVAGINAL CANDIDIASIS
(VVC)**

Usually caused by *C. albicans*.

Classification of vulvovaginal candidiasis (VVC)

Uncomplicated VVC

Sporadic or infrequent VVC

AND

Mild-to-moderate VVC

AND

Likely to be *Candida albicans*

AND

Nonimmunocompromised women

Complicated VVC

Recurrent VVC

OR

Severe VVC

OR

Nonalbicans candidiasis

OR

Women with uncontrolled diabetes,
debilitation, or immunosuppression, or
those who are p

Uncomplicated VVC

DIAGNOSIS:

WOMEN:

Pruritus, vaginal soreness, dyspareunia, external dysuria, and abnormal vaginal discharge. Also signs can include vulvar edema, fissures, excoriations, or thick curdy vaginal discharge. A wet preparation (10% KOH) of vaginal discharge demonstrates yeast or pseudohyphae.

MEN: Balanitis

Erythematous areas, pruritus, irritation on skin of penis. Treatment for men recommend OTC Lotrimin or Lamisil. Apply twice a day till symptoms resolve and continue for 1 additional week. If S/S persists consult with ID physician or refer to PMD.

TREATMENT

Recommended Regimens:

Over the Counter Intravaginal Agents:

Clotrimazole 1% cream 5 g intravaginally daily for 7-14 days.

OR

Clotrimazole 2% cream 5 g intravaginally daily for 3 days

OR

Miconazole 2% cream 5 g intravaginally daily for 7 days

OR

Miconazole 4% cream 5 g intravaginally daily for 3 days

OR

Miconazole 100 mg vaginal suppository, one suppository daily for 7 days

OR

Miconazole 200 mg vaginal suppository, one suppository for 3 days

OR

Tioconazole 6.5 ointment 5 g intravaginally in a single application

Prescriptions Intravaginal Agents:

Butoconazole 2% cream (single dose bioadhesive product), 5 g intravaginally in a single application

OR

Terconazole 0.4% cream 5 g intravaginally daily for 7 days

OR

Terconazole 0.8% cream 5 g intravaginally daily for 3 days

OR

Terconazole 80 mg vaginal suppository, one suppository daily for 3 days

Oral Agent:

Fluconazole 150 mg orally in a single dose

FOLLOW-UP

Not necessary.

MANAGEMENT OF SEX PARTNERS

Treatment not recommended.

Complicated VVC

Recurrent Vulvovaginal Candidiasis (RVVC): Consult with nurse practitioner or ID physician

Four (4) or more episodes of VVC in 1 year

Maintenance Regimens (refer to private provider):

Severe VVC: *Extensive vulvar erythema, edema, excoriation, and fissure formation.* Consult with nurse practitioner or ID physician

TREATMENT

Nonalbicans VVC: consult with nurse practitioner or ID physician.

Compromised Host:

Seven (7) to 14 days of conventional therapy.

PREGNANCY

Topical azoles for 7 days.

HIV Infection

Treatment for HIV infected women should not differ from that for seronegative women.