

2002 STD Treatment Guidelines

Division of STD Prevention, CDC



STD Prevention and Control

- Education and counseling to reduce risk of STD acquisition
- Detection of asymptomatic and/or symptomatic persons unlikely to seek evaluation
- Effective diagnosis and treatment
- Evaluation, treatment, and counseling of sexual partners
- Preexposure vaccination--hepatitis A, B



Prevention Messages

- Prevention messages tailored to the client's personal risk; interactive counseling approaches are effective
- Despite adolescents greater risk of STDs, providers often fail to inquire about sexual behavior, assess risk, counsel about risk reduction, screen for asx infection
- Specific actions necessary to avoid acquisition or transmission of STDs
- Clients seeking evaluation or treatment for STDs should be informed which specific tests will be performed



Prevention Methods

Male Condoms

- Consistent/correct use of latex condoms are effective in preventing sexual transmission of HIV infection and can reduce risk of other STDs
- Likely to be more effective in prevention of infections transmitted by fluids from mucosal surfaces (GC,CT, trichomonas, HIV) than those transmitted by skin-skin contact (HSV,HPV, syphilis, chancroid)



Prevention Methods

Spermicides

- N-9 vaginal spermicides are not effective in preventing CT, GC, or HIV infection
- Frequent use of spermicides/N-9 have been associated with genital lesions
- Spermicides alone are not recommended for STD/HIV prevention
- N-9 should not be used a microbicide or lubricant during anal intercourse



The Diseases

- Curable?
- Characteristics
- Treatment: Learn the basics



HSV 1 & 2



HSV Serologic Tests

- If you are sending cultures to lab you must specify type specific assay for HSV1 and HSV2 infection. Request the most specific assay available at your institution.
- Often it is difficult to get a good sample and you must rely on history and clinical



Characteristics of HSV

- Incurable with chronic recurrences
- Asymptomatic shedding
- Painful lesions
- Frequency and severity of outbreaks varies with regard to health, stress, individual



Treatment Genital Herpes

First Clinical Episode

Acyclovir 400 mg tid

or

Famciclovir 250 mg tid

or

(Valtrex) Valacyclovir 1000 mg bid

Duration of Therapy 7-10 days



Treatment Genital Herpes

Episodic Therapy

Acyclovir 400 mg three times daily x 5 days

or

Acyclovir 800 mg twice daily x 5 days

or

Famciclovir 125 mg twice daily x 5 days

or

Valacyclovir 500 mg twice daily x 3-5 days

or

Valacyclovir 1 gm orally daily x 5 days



Treatment Genital Herpes

Daily Suppression

Acyclovir 400 mg bid

or

Famciclovir 250 mg bid

or

Valacyclovir 500-1000 mg daily



Genital Herpes in HIV Infected

- May have prolonged or severe episodes with extensive genital or perianal disease
- Episodic or suppressive antiviral therapy often beneficial



Genital Herpes in Pregnancy

- Available data do not indicate an increased risk of major birth defects (first trimester)
- Limited experience on pregnancy outcomes with prenatal exposure to valacyclovir or famciclovir
- Acyclovir may be used with first episode or severe recurrent disease
- Risk of transmission to the neonate is 30-50% among women who acquire HSV near delivery



Genital Herpes Counseling

- Natural history of infection, recurrences, asymptomatic shedding, transmission risk
- Individualize use of episodic or suppressive therapy
- Abstain from sexual activity when lesions or prodromal symptoms present
- Risk of neonatal infection



Syphilis



Characteristics of Syphilis

- *T. Pallidum*
- Primary, Secondary and Tertiary stages
- Curable, but can be latent & asymptomatic
- Skin lesions
- Neurodegenerative
- “the great imitator”
- Always positive RPR



Treatment of Syphilis

Primary, Secondary, Early Latent

Recommended regimen

Benzathine Penicillin G, 2.4 million units IM

Penicillin Allergy*

Doxycycline 100 mg twice daily x 14 days

or

Ceftriaxone 1 gm IM/IV daily x 8-10 days (limited studies)

or

Azithromycin 2 gm single oral dose (preliminary data)

**Use in HIV-infection has not been studied*



Primary/Secondary Syphilis

Response to Treatment

- No definitive criteria for cure or failure are established
- Re-examine clinically and serologically at 6 and 12 months
- Consider treatment failure if signs/symptoms persist or sustained 4x increase in nontreponemal test
- Treatment failure: HIV test, CSF analysis; administer benzathine pcn weekly x 3 wks
- Additional therapy not warranted in instances when titers don't decline despite nl CSF and repeat therapy



Treatment of Syphilis

Latent Syphilis

Recommended regimen

Benzathine penicillin G 2.4 million units IM at one week intervals x 3 doses

Penicillin allergy*

Doxycycline 100 mg orally twice daily

or

Tetracycline 500 mg orally four times daily

Duration of therapy 28 days; close clinical and serologic follow-up; data to support alternatives to pcn are limited



Special Considerations in Syphilis

- Management of sex partners
- Pregnancy
- Congenital syphilis



Chancroid



Characteristics of Chancroid

- Curable
- *Haemophilus ducreyi*
- Genital ulcer



Treatment of Chancroid

Azithromycin 1 gm orally

or

Ceftriaxone 250 mg IM in a single dose

or

Ciprofloxacin 500 mg twice daily x 3 days

or

Erythromycin base 500 mg tid x 7 days



Chancroid: Management Considerations

- Re-examination 3-7 days after treatment
- Time required for complete healing related to ulcer size
- Lack of improvement: incorrect diagnosis, co-infection, non-compliance, antimicrobial resistance
- Resolution of lymphadenopathy may require drainage



Chancroid: Management of Sex Partners

Examine and treat partner whether symptomatic or not if partner contact \leq 10 days prior to onset



Urethritis



Characteristics of Urethritis

- Curable
- Mucopurulent or purulent discharge
- Can be asymptomatic



Treatment of Nongonococcal Urethritis

Azithromycin 1 gm in a single dose
or
Doxycycline 100 mg bid x 7 days



Treatment of Nongonococcal Urethritis

Alternative regimens

Erythromycin base 500 mg qid for 7 days
or
Erythromycin ethylsuccinate 800 mg qid for 7 days
or
Ofloxacin 300 mg twice daily for 7 days
or
Levofloxacin 500 mg daily for 7 days



Chlamydia trachomatis



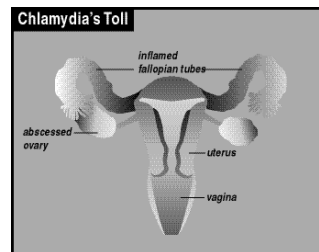
Chlamydia Screening

- Annual screening of sexually active women ≤ 25 yrs
- Annual screening of sexually active women > 25 yrs with risk factors
- Sexual risk assessment may indicate more frequent screening for some women
- Re-screen women 3-4 months after treatment due to high prevalence of repeat infection



Characteristics of Chlamydia

- Curable, but can cause permanent damage
- Asymptomatic
- Mucopurulent discharge



Treatment of Chlamydia

Azithromycin 1 gm single dose
or
Doxycycline 100 mg bid x 7d



Treatment of Chlamydia

Alternative regimens

Erythromycin base 500 mg qid for 7 days
or
Erythromycin ethylsuccinate 800 mg qid for 7 days
or
Ofloxacin 300 mg twice daily for 7 days
or
Levofloxacin 500 mg for 7 days



Treatment of Chlamydia in Pregnancy

Recommended regimens

Erythromycin base 500 mg qid for 7 days
or
Amoxicillin 500 mg three times daily for 7 days

Alternative regimens

Erythromycin base 250 mg qid for 14 days
or
Erythromycin ethylsuccinate 800 mg qid for 14 days
or
Erythromycin ethylsuccinate 400 mg qid for 14 days
or
Azithromycin 1 gm in a single dose



Neisseria gonorrhoeae



Characteristics of gonorrhoeae

- Curable, but can cause permanent damage
- Asymptomatic
- Mucopurulent discharge



Treatment of gonorrhoeae

Cervix, Urethra, Rectum

Cefixime 400 mg
or
Ceftriaxone 125 IM
or
Ciprofloxacin 500 mg
or
Ofloxacin 400 mg/Levofloxacin 250 mg
PLUS Chlamydial therapy if infection not ruled out



Treatment of gonorrhoeae

Cervix, Urethra, Rectum

Alternative regimens

Spectinomycin 2 grams IM in a single dose
or
Single dose cephalosporin (cefotaxime 500 mg)
or
Single dose quinolone (gatifloxacin 400 mg,
lomefloxacin 400 mg, norfloxacin 800 mg)

PLUS Chlamydial therapy if infection not ruled out



Treatment of gonorrhoeae

Pharynx

Ceftriaxone 125 IM in a single dose
or
Ciprofloxacin 500 mg in a single dose

PLUS Chlamydial therapy if infection not ruled out



Treatment of gonorrhoeae in pregnancy

- Cephalosporin regimen
- Women who can't tolerate cephalosporin regimen may receive 2 g spectinomycin IM
- No quinolone or tetracycline regimen
- Erythromycin or amoxicillin for presumptive or diagnosed chlamydial infection



Antimicrobial Resistance in the treatment of gonorrhoeae

- Geographic variation in resistance to penicillin and tetracycline
- No significant resistance to ceftriaxone
- Fluoroquinolone resistance in SE Asia, Pacific, Hawaii, California
- Surveillance is crucial for guiding therapy recommendations



Vaginitis



Characteristics of Candida Vaginitis

- Curable
- Thick white discharge, "cottage cheese"
- Itchy
- Microscopy



Treatment of Candida Vaginitis

Intravaginal regimens

Butoconazole, clotrimazole, miconazole, nystatin, tioconazole, terconazole

Oral regimen

Fluconazole 150 mg in a single dose



Recurrent Candida Vaginitis

- Four or more symptomatic episodes/year
- Vaginal culture useful to confirm diagnosis and identify unusual species
- Initial regimen of 7-14 days topical therapy or fluconazole 150 mg (repeat 72 hr)
- Maintenance regimens- clotrimazole, ketoconazole, fluconazole, itraconazole
- Non-albicans VVC- longer duration of therapy with non-azole regimen



Candida Vaginitis: Management of Sex Partners

- Treatment not recommended
- Treatment of male partners does not reduce frequency of recurrences in the female
- Male partners with balanitis may benefit from treatment



Treatment of Candida Vaginitis in Pregnancy

- Only topical intravaginal regimens recommended
- Most specialists recommend 7 days of therapy



Trichomoniasis



Characteristics of Trichomoniasis

- Curable
- Discharge
- Microscopy



Treatment of Trichomoniasis

Recommended regimen

Metronidazole 2 gm orally in a single dose

Alternative regimen

Metronidazole 500 mg twice a day for 7 days

Pregnancy

Metronidazole 2 gm orally in a single dose



Trichomoniasis: Management of Sex Partners

- Sex partners **should** be treated
- Avoid intercourse until therapy is completed and patient and partner are asymptomatic



Bacterial Vaginitis



Characteristics Bacterial Vaginosis

- Curable
- Fishy odor
- KOH test
- Microscopy, clue cells



Treatment of Bacterial Vaginitis

Metronidazole 500 mg twice daily for 7 days
or
Metronidazole gel 0.75%, 5 g intravaginally once
daily for 5 days
or
Clindamycin cream 5%, 5 g intravaginally qhs for 7
days



Bacterial Vaginitis: Management of Sex Partners

Woman's response to therapy and the
likelihood of relapse or recurrence not
affected by treatment of sex partner



Pelvic Inflammatory Disease

Curable, but can cause permanent damage!



Characteristics of Pelvic Inflammatory Disease

Minimum Diagnostic Criteria

Uterine/adnexal tenderness or cervical motion
tenderness

Additional Diagnostic Criteria

Oral temperature >38.3 C	Elevated ESR
Cervical CT or GC	Elevated CRP
WBCs/saline microscopy	Cx discharge



Pelvic Inflammatory Disease

Definitive Diagnostic Criteria

- Endometrial biopsy with histopathologic evidence of endometritis
- Transvaginal sonography or MRI showing thick fluid-filled tubes
- Laparoscopic abnormalities consistent with PID



Hospitalization in Pelvic Inflammatory Disease

- Surgical emergencies not excluded
- Pregnancy
- Clinical failure of oral antimicrobials
- Inability to follow or tolerate oral regimen
- Severe illness, nausea/vomiting, high fever
- Tubo-ovarian abscess



Treatment of Pelvic Inflammatory Disease

Oral
&
Parenteral



Pelvic Inflammatory Disease: Management of Sex Partners

- Male sex partners of women with PID should be examined and treated for sexual contact 60 days preceding pt's onset of symptoms
- Sex partners should be treated empirically with regimens effective against CT and GC



Human Papilloma Virus



Characteristics of Human Papilloma Virus

- Incurable, chronic disease
- Asymptomatic
- Genital warts
- Link to cervical cancer



Treatment of Papillomavirus

- Primary goal for treatment of visible warts is the removal of symptomatic warts
- Difficult to determine if treatment reduces transmission



Treatment of Papillomavirus

Patient-applied

Podofilox 0.5% solution or gel

or

Imiquimod 5% cream (Aldara)

Provider-administered

Cryotherapy

or

Podophyllin resin 10-25%

or

Trichloroacetic or Bichloroacetic acid 80-90%

or

Surgical removal



Treatment of Papillomavirus in pregnancy

- Imiquimod (Aldara), podophyllin, podofilox should not be used in pregnancy
- Many specialists advocate wart removal due to possible proliferation and friability
- HPV types 6 and 11 can cause respiratory papillomatosis in infants and children
- Preventative value of cesarean section is unknown; may be indicated for pelvic outlet obstruction



Cervical Cancer Screening

- Women with STD hx may be at increased risk of cervical cancer
- Clinics that offer pap screening without colposcopic f/u should arrange for referral
- Management of abnormal pap provided per Interim Guidelines for Management of Abnormal Cervical Cytology (NCI Consensus Panel)
- Emerging data support HPV testing for the triage of women with ASCUS Pap tests



Vaccine Preventable STDs



Hepatitis A

- MSM
- Illegal drug users
- Chronic liver disease, hepatitis B and C infection



Hepatitis B

- History of STD, multiple sex partners, sexually active MSM
- Illegal drug use
- Household members, sex partners of those with chronic hepatitis B
- Hemodialysis, occupational blood exposure

