Lecture Objectives

1. Provide an introduction to the recently updated CDC Sexually Transmitted Diseases Treatment Guidelines, 2010.
2. Discuss the epidemiology of STDs in Connecticut and the United States
3. Discuss the approach to patients being screened for STDs.
4. Summarize the new recommendations in the 2010 document.

TOPICS COVERED IN THE 2010 CDC STD TREATMENT GUIDELINES

- Clinical Prevention Guidelines (prevention counseling, prevention methods, partner management, reporting and confidentiality)
- Special Populations (pregnant women, adolescents, children, persons in correctional facilities, MSM, WSW
- HIV infection: Detection, Counseling and Referral
- Diseases Characterized By Genital, Anal, or Perianal Ulcers (Chancroid, Genital HSV, Granuloma Inguinale, LGV, Syphilis including congenital syphilis)
- Management of Persons Who Have a History of Penicillin Allergy
- Diseases Characterized by Urethritis and Cervicitis

- Chlamydia Infections
- Gonococcal Infections
- Diseases Characterized by Vaginal Discharge (Bacterial Vaginosis, Trichomoniasis, Vulvovaginal Candidiasis)
- PID
- Epididymitis
- HPV Infection
- Genital Warts
- Cervical Cancer Screening
- Vaccine Preventable STDs (Hepatitis A and B)
- Hepatitis C

- Proctitis, Protocolitis and Enteritis
- Ectoparasitic Infections
- Sexual Assualt and STDs

NEW INFORMATION AND GUIDELINES IN THE 2010 DOCUMENT

- Expanded diagnostic evaluation for cervicitis and trichomoniasis
- New treatment recommendations for bacterial vaginosis and genital warts
- Clinical efficacy of azithromycin for chlamydial infections in pregnancy
- Role of Mycoplasma genitalium and trichomoniasis in urethritis/cervicitis and treatment-related implications
- LGV proctocolitis among MSM
- Criteria for spinal fluid examination to evaluate for neurosyphilis
- Emergence of azithromycin-resistant Treponema pallidum

- Increasing prevalence of antimicrobial-resistant Neisseria gonorrhoeae
- Sexual transmission of hepatitis C
- Diagnostic evaluation after sexual assault
- STD prevention approaches

STDs in the United States

- 19 million infections annually
- 14 billion dollars in medical costs
- High prevalence in persons aged 15–24 years
- Health disparities
  - African-Americans
- All preventable

STDs in Connecticut- 2010

- Chlamydia
  - 12,687 cases
  - 328/100,000
  - Continues to increase
- Gonorrhea
  - 2,566 cases
  - 75/100,000
  - Stable
- Syphilis
  - 148 cases of early syphilis (98/50)
  - 4.4/100,000
  - 55% increase in primary/secondary syphilis

Taking a Sexual History

- Don’t make assumptions
- Don’t act surprised
- Be non-judgmental
- Use gender neutral language
- Use open-ended questions

Taking a Sexual History

- Reason for the visit
- Symptoms and duration
- Past medical history
- Medications
  - Recent antibiotic use
  - Allergies

Taking a Sexual History

- Gynecologic history
  - Menstrual history, parity, hygiene, contraception
- Sexual partners
  - Who, when, where
- Type of sex
  - Condom use
- History of STDs
- HIV risk assessment

Partners

- “Do you have sex with men, women, or both?”
- “In the past 2 months, how many partners have you had sex with?”
- “In the past 12 months, how many partners have you had sex with?”
- “Is it possible that any of your sex partners in the past 12 months had sex with someone else while they were still in a sexual relationship with you?”

Prevention of pregnancy

- “What are you doing to prevent pregnancy?”

Protection from STDs

- “What do you do to protect yourself from STDs and HIV?”

Practices

- “To understand your risks for STDs, I need to understand the kind of sex you have had recently.”
- “Have you had vaginal sex, meaning ‘penis in vagina sex’?” If yes, “Do you use condoms: never, sometimes, or always?”
- “Have you had anal sex, meaning ‘penis in rectum/anus sex’?” If yes, “Do you use condoms: never, sometimes, or always?”
- “Have you had oral sex, meaning ‘mouth on penis/vagina’?”

For condom answers:

- If “never:” “Why don’t you use condoms?”
- If “sometimes:” “In what situations (or with whom) do you not use condoms?”

Past History of STDs

- “Have you ever had an STD?”
- “Have any of your partners had an STD?”

Additional questions to identify HIV and viral hepatitis risk include:

- “Have you or any of your partners ever injected drugs?”
- “Have any of your partners exchanged money or drugs for sex?”
- “Is there anything else about your sexual practices that I need to know about?”

STD Physical Exam

- Should minimally include:
  - Mouth
  - Lymph nodes
  - Skin
  - External anogenital area
  - Internal exam (women)

STD screening

- Good screening practices require good ASKING practices

+GC- Site of infection	% of subjects
Rectal only	21%
Urethral Only	15%
Pharyngeal only	36%
Rectal and urethral	6%
Rectal and pharyngeal	12%
Urethral and pharyngeal	5%
All 3 sites	5%

•MSM

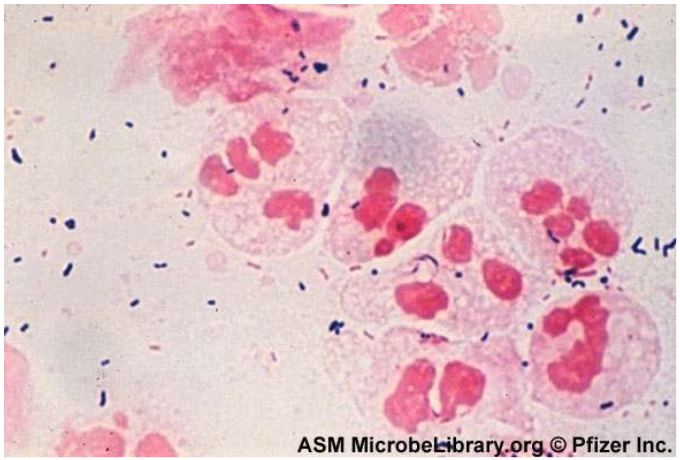
• 90% of urethral Infections were asymptomatic

•Only 16% of rectal infections were symptomatic

Kent C., etal CID 2005; 41:67-74

Chlamydia

- *Chlamydia trachomatis*
- Over 1 million cases reported annually
  - Most reported infectious disease
- Often asymptomatic
- Can lead to many complications:
  - Pelvic inflammatory disease
  - Infertility



CT/GC Screening: Non-pregnant women

- Sexually active women ≤ 25 years
- Sexually active women >25
  - Screen if at "increased" risk
    - New/multiple partners
    - Hx of STI, inconsistent condom use; CSW
  - Problematic for moderate prevalence settings:
    - Know your rates! GC
    - GC- State ranked #27 (73.1 cases/100,000)
      - New Haven- Cases (2009): 448
      - Danbury- Cases (2009): 9

Chlamydia- Laboratory Diagnosis

- Amplied nucleic acid tests the standard
  - Can be used on urine or cervical/urethral sites
  - Not approved for pharyngeal/rectal sites
    - Individual labs can do their own validation for these sites

Self-collected vaginal swabs for CT/GC testing

- Advantages
  - As sensitive as endocervical specimen; more sensitive than urine
  - No need for pelvic exam
  - Acceptable to women
  - Easier collection and handling than urine
  - FDA-approved site: TMA (GenProbe); SDA (BD); PCR (Abbott)
- Future potentials
  - Alternative venues
  - Mail-in specimens

2010 CDC Treatment Guidelines: Uncomplicated Chlamydia infection

- Recommended
  - Azithromycin 1gm po x 1; DOT
  - Doxycycline 100 mg po bid x 7 d
- Alternatives
  - Ofloxacin 300 bid or Levofloxacin 500 mg qd x 7d
  - Erythromycin 500 mg po qid x 7 d

Note: Ciprofloxacin not effective!

Chlamydia- Treatment

- Azithromycin 1 gram orally po x 1
- Doxycycline 100 mg po bid x 7 days
- Treat partners (<60 days)
- Abstain from sex for 1 week after treatment
- Test 3–4 months post treatment- assess for repeat infection
- For cervicitis- Also treat for GC if prevalence of infection is >5%

Gonorrhea

- *Neisseria gonorrheae*
- Causes infection in the genital tract and mouth/throat/eyes/anus
- 700,000 infections annually (half reported)
- Women usually asymptomatic
- Men present with discharge, dysuria
- Can lead to pelvic inflammatory disease, epididymitis, or disseminated disease

Gonorrhea- the good news.

Gonorrhea rate at lowest level since 1941

Updated 11/23/2010 4:15 PM | Comments 59 | Recommend 5 E-mail | Save | Print | Reprints & I

By Rita Rubin, USA TODAY

One of the nation's most common forms of sexually transmitted diseases has fallen to its lowest level ever recorded, but there's still improvement needed, according to a government report out Monday.

Gonorrhea- the bad news…..

PERSPECTIVE | Annals of Internal Medicine

Emerging Antimicrobial Resistance in *Neisseria gonorrhoeae*: Urgent Need to Strengthen Prevention Strategies

Kimberly A. Workowski, MD; Stuart M. Berman, MD, ScM; and John M. Douglas Jr., MD

Prevention and control of gonorrhea is an important public health concern due to the high burden of disease, the recent increase in reported infection rates, and the reproductive and economic consequences of infection. Effective antibiotic treatment is one essential component of an integrated approach to gonorrhea control. Over the past 60 years, however, development of resistance in *Neisseria gonorrhoeae* to multiple antimicrobial classes challenges this component of gonorrhea control. An integrated, comprehensive prevention strategy should include enhancement of national and international surveillance systems to monitor antimicrobial resistance and new strategies to maximize the benefit and prolong the utility of antimicrobials, including combination regimens, implementation of screening recommendations for individuals at high risk for infection, and the assurance of prompt and effective treatment for infected persons and their sexual partners. Progress in controlling the epidemic and avoiding a resurgence as treatment options wane will require careful attention to all components of a comprehensive prevention strategy.

Ann Intern Med. 2008;148:606-613. www.annals.org
For author affiliations, see end of text.

- Options limited for cephalosporin-intolerant patients; potential for emerging R
- Pharyngeal GC reservoir?

Gonorrhea: Resistance through the ages

- 1990s-
  - Fluoroquinolones
  - Strains of NG with elevated MIC ID'd in US
- 2001
  - Treatment failures with oral cephalosporins outside US
  - Report of multidrug resistant strains in Hawaii
- 2011
- 1970s- penicillins, tetracyclines
  - Cephalosporins only recommended class of antibiotics for GC

2010 Treatment Guidelines: Uncomplicated urogenital GC

- Recommended
  - **Ceftriaxone** 250 mg IM x 1

  Or, if not an option,
  - **Cefixime** 400 mg po x 1 or single dose injectable ceph

PLUS (if chlamydia can not be ruled out)
- **Azithromycin** 1 gm po x 1 or,
- **Doxycycline** 100 mg po bid x 7 d

2010 Treatment Guidelines: pharyngeal GC

Recommended

- **Ceftriaxone** 250 mg IM x 1

PLUS

- **Azithromycin** 1 g po x 1

Or

- **Doxycycline** 100 mg po bid x 7 d

2010 Gonorrhea Treatment Issues: Emerging Resistance

- Routine co-treatment may hinder development of resistance
  - Suspected ceph treatment failures should be cultured: if positive:
    - Perform susceptibility testing
    - Report case to CDC through State of CT DPH
    - HD prioritize partner notification case
- Improved efficacy of ceftriaxone 250 mg in pharyngeal infection which is often unrecognized
- Consistent recommendation for treatment regardless of anatomic site involved

Should you do a test of Cure?

- No- not routinely recommended
  - Current regimens highly efficacious if taken
- Exceptions
  - Pregnancy
  - Non-compliance
  - Persistant symptoms despite therapy
  - Suspect early reinfection
  - GC- have to use non-recommended regimen
- Test no earlier than 3-4 weeks after therapy if NAAT used

What about her partner? Partner treatment options

- Patient referral
- Provider/clinic referral
- Health department referral
- Expedited partner therapy (EPT)
  - Patient delivered partner therapy (PDPT)
- Ask patient to bring partner to clinic (BYOP)

CDC: EPT Legal Status

- http://www.cdc.gov/std/ept/legal/connecticut.htm
- Deemed “potentially allowable” (as of Jan 20, 2011)
- House Bill 5450 repeals Section 20-14e to the General Statutes of Connecticut and makes substitutions such that "a prescribing practitioner who diagnoses a sexually transmitted chlamydia or gonorrhea infection in a patient may prescribe and dispense oral antibiotic drugs to such patient and the patient's sexual partner or partners without a physical examination of the sexual partner or partners." Introduced March 4, 2010

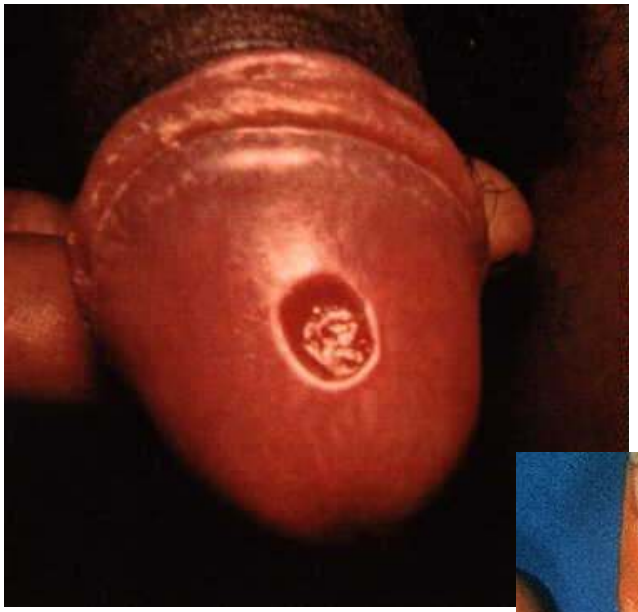
Syphilis

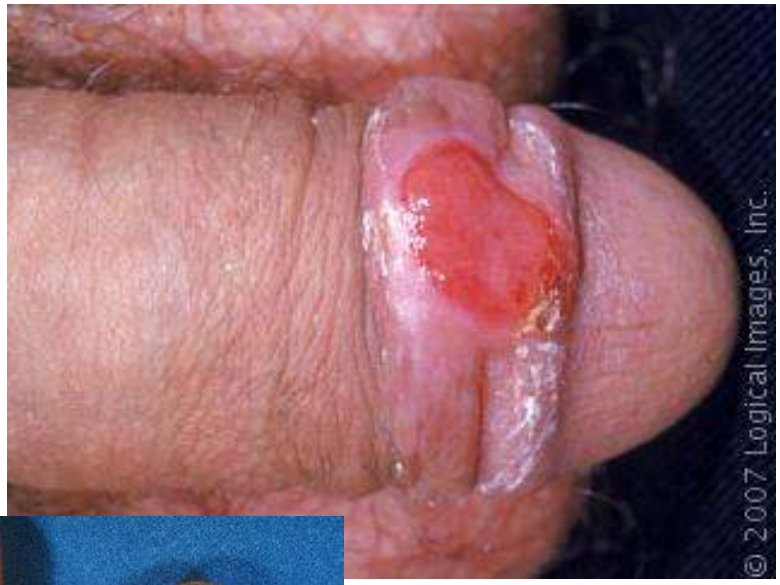
- *Treponema pallidum*
- ~14,000 cases of 1° and 2° syphilis in 2009
- Highest numbers in 15 years
  - Men who have sex with men
  - HIV positive

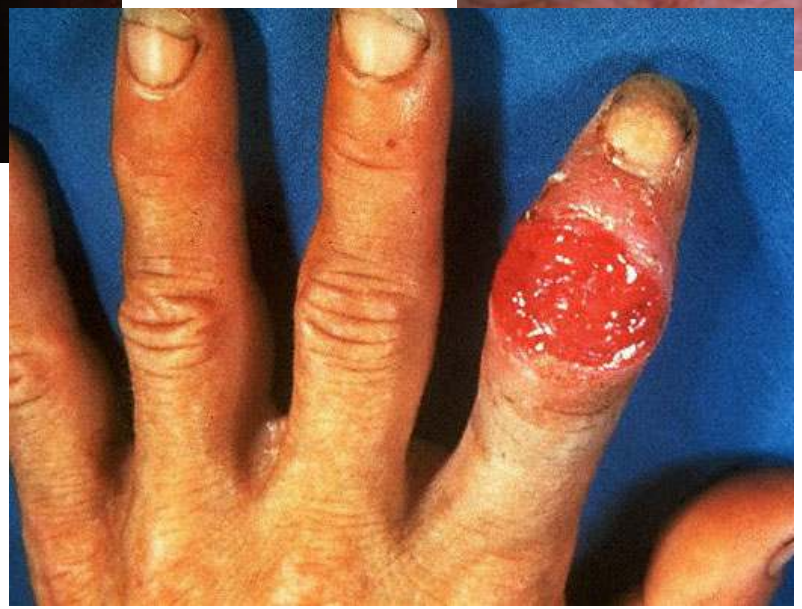
Primary Syphilis

- Chancre
  - Begins as macule/papule
  - Evolves into painless, clean based, indurated ulcer
  - Found at site of inoculation
  - Within 90 days of exposure
  - Usually single, can be multiple
  - Associated with painless regional lymphadenopathy
  - Resolves in 1 – 5 weeks

Primary Syphilis



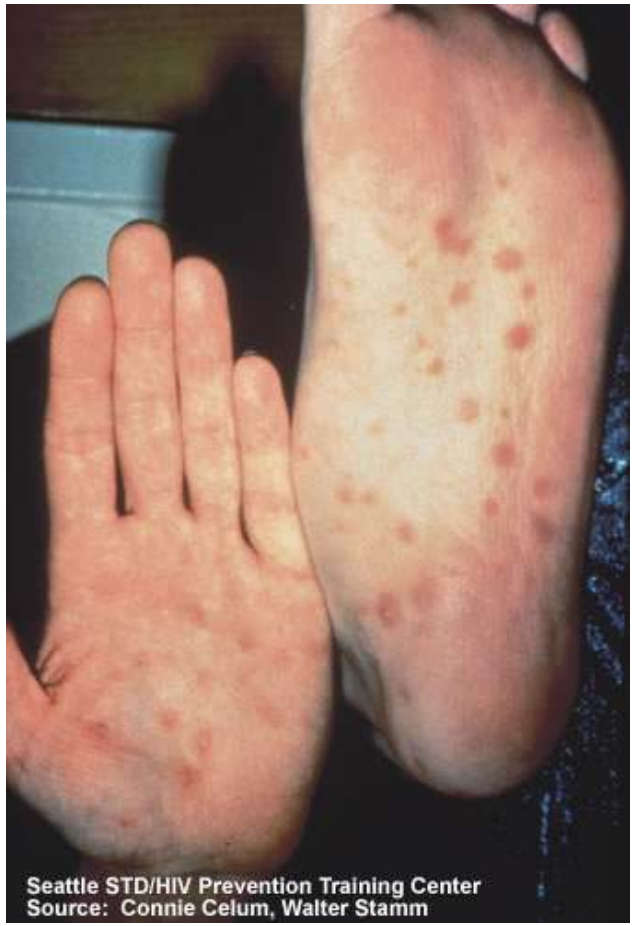


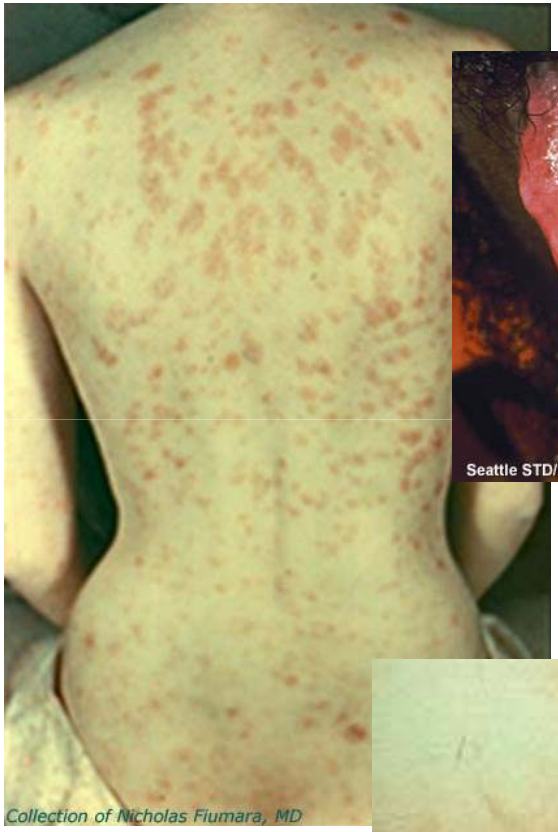


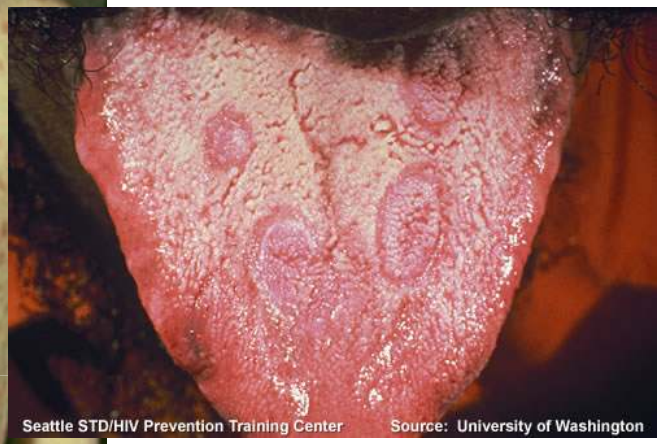
Secondary Syphilis

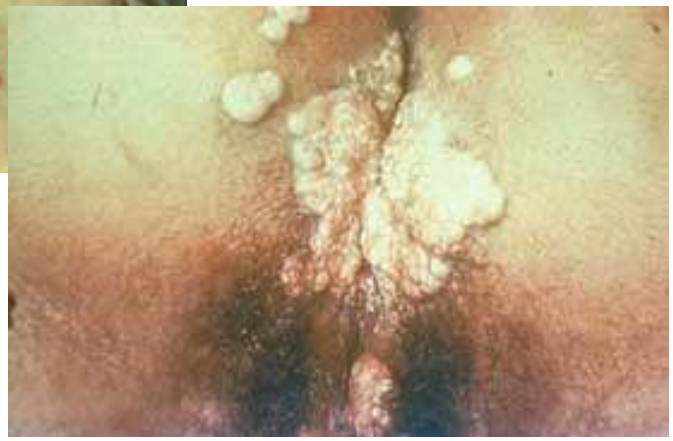
- Usually 3–6 weeks after primary stage
- Constitutional symptoms
- Maculopapular rash
- Lymphadenopathy
- Mucous patches
- Condyloma lata

Syphilis


Seattle STD/HIV Prevention Training Center
Source: Connie Celum, Walter Stamm


Collection of Nicholas Fiumara, MD


Seattle STD/HIV Prevention Training Center
Source: University of Washington



Latent Syphilis

- Early latent
  - Infection < 1 year duration
  - Documented seroconversion
  - Known history of primary or secondary sxs
  - Sex partner with early syphilis
- Late latent
  - Infection > 1 year duration

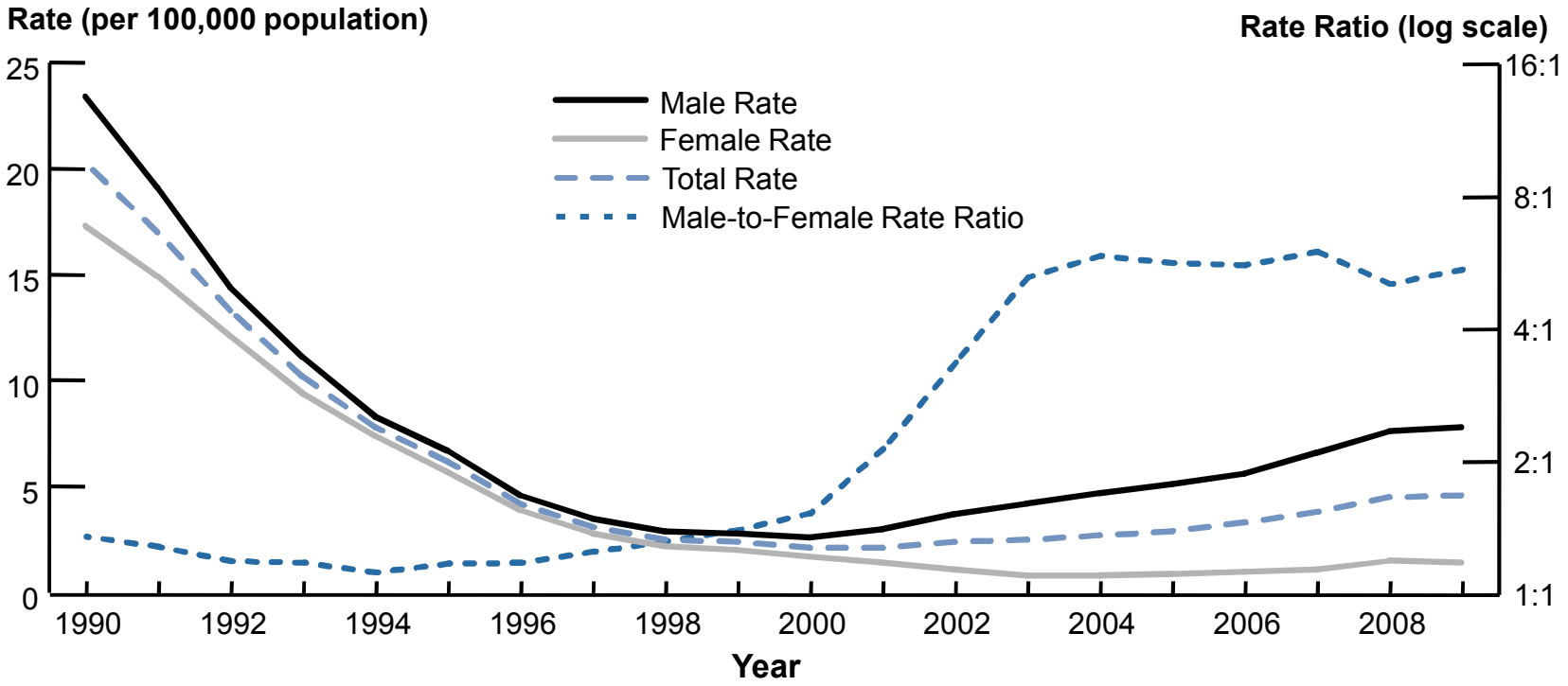
Tertiary Syphilis

- Usually manifests many years after infection
- Gummatous disease
- Cardiovascular disease
- Neurosyphilis
  - Can occur at any stage of syphilis
  - Diagnosis should be pursued if clinical signs/symptoms

Syphilis Issues

- Epidemiology
  - Relentless upward trends in MSM
  - China- huge epidemic since 2007 resulting in 1 baby born every hour with congenital syphilis (Tucker, NEJM, 2009)
- Testing
  - New use of EIA treponemal tests resulting in
    - New testing algorithms
    - Mass confusion

Primary and Secondary Syphilis—Rates by Sex and Male-to-Female Rate Ratios, United States, 1990–2009



Syphilis- Diagnosis

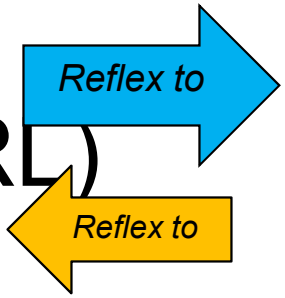
- Darkfield microscopy
- Direct fluorescence antibody testing
- Non-treponemal tests- RPR/VDRL
  - Non-specific
  - Used for screening
  - Can follow titers to determine response to treatment
  - Prozone phenomenon
- Treponemal tests (FTA-ABS, TP-PA, MHA-TP)
  - Specific for *T. pallidum*
  - Usually positive for life

Syphilis Treponemal Test Screening Paradigm Shift

- Non-treponemal tests

(i.e. RPR, VDRL)

- Non-specific
- Quantitative
- Reactivity declines over time



- Treponemal tests

(i.e. EIA, CLIA)

- Specific to TP
- Qualitative
- Reactivity persists over time

Syphilis EIA/CLIA

- Treponemal tests cleared by FDA for clinical use
  - Captia, Trep-Chek, Trep-sure, BioPlex2200, Enzy-well, Liaison (CLIA)
- Both IgG and IgM tests available
  - No clinical value of IgM in adult early syphilis diagnosis
- Highly automated, occupational advantages (no pipetting), less costly, no prozone

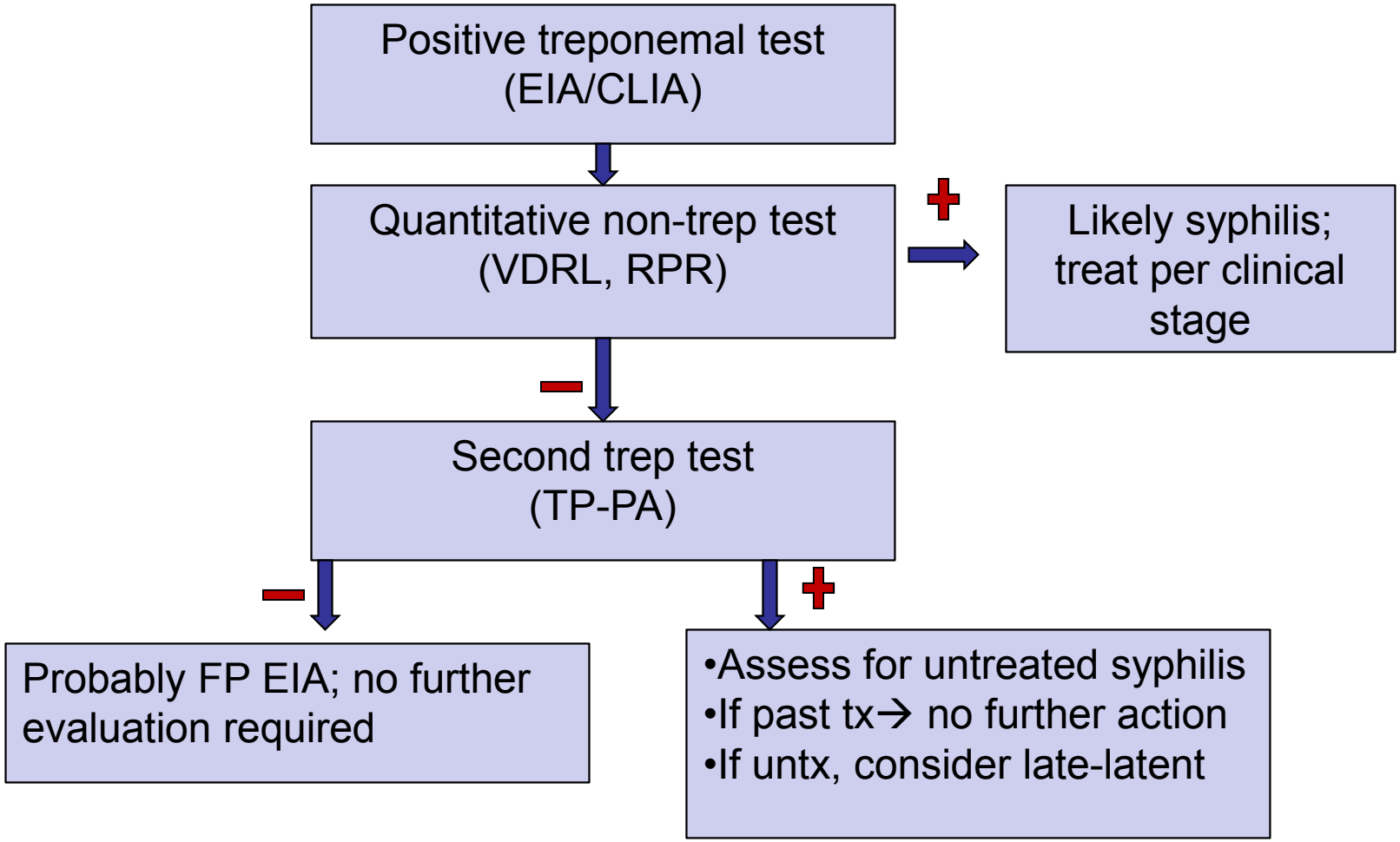
Syphilis- EIA Tests

- Treponemal tests used by commercial labs because automated process
- Does not distinguish between patients previously treated and patients with new or untreated infections
- Recent studies indicate high false positive rates, esp in populations with low prevalence of disease

Syphilis EIA

- Disadvantages
  - Few studies compare test performance
    - Specificity: NY/CA experience 16-31% FP?
  - Positive tests need quantitative reflexive RPR/VDRL for management
    - Cant distinguish between old (tx or untx) and active disease
    - Limited utility as screening test in previously +
    - How to deal with EIA+/RPR -; esp in HIV+
      - Ddx- early untx, FP EIA, previously treated

Suggested algorithm



Syphilis- Treatment

- Early syphilis
  - Benzathine penicillin (Bicillin-LA)
  - 2.4 MU IM x 1
- Late syphilis
  - Bicillin-LA
  - 2.4 MU IM x 3 doses (1 week apart)
- Neurosyphilis
  - Aqueous crystalline penicillin G
  - 18-24 MU daily intravenous
  - 10-14 days
  - Followed by Bicillin-LA x 3 doses
- Jarisch-Herxheimer reaction
- Treatment same for HIV+ patients
- Increasing resistance seen to azithromycin

Syphilis- Partners

- Exposure period includes:
  - Primary- 90 days + symptom duration
  - Secondary- 6 mos + symptom duration
  - Early latent- 1 year
- Partners in previous 90 days should be tested and treated empirically
- Partners in previous 3-6 months should be tested and treated based on results

SYPHILIS TESTING

- Nontreponemal tests include VDRL, RPR
- “A fourfold change in titer, equivalent to a change of 2 dilutions (eg., from 1:16 to 1:4 or from 1:8 to 1:32), is considered necessary to demonstrate a clinically significant difference between 2 nontreponemal test results…using the same test.”
- Sequential testing should be performed using the same tests (VDRL, RPR) preferably by the same laboratory.
- Newer treponemal tests (EIA, chemiluminescence, are now in use in many labs.

Syphilis- Follow-Up

- Assess for 4 fold decrease in titer
- Can sometimes be difficult to distinguish reinfection from treatment failure
- Early Syphilis
  - Clinical and serological evaluation at 6 and 12 months
  - 3 month intervals for HIV infected patient
- Latent Syphilis
  - 6, 12, 24 months

CSF EXAMINATION

- “Patients diagnosed with latent syphilis who demonstrate any of the following criteria should have a prompt CSF examination”: 1) neurologic or ophthalmic signs or symptoms; 2) evidence of active tertiary syphilis; or 3) serologic treatment failure; 4) in HIV positive patients with a titer of 1:32 or greater or a CD4 count of 350 or less (?)
- After appropriate therapy for latent syphilis “CSF examination should be performed if 1) titers increase fourfold, 2) an initially high titer (1:32 or higher) fails to decline at least fourfold (i.e., 2 dilutions) within 12-24 months of therapy”, (HIV exception) “or 3) signs or symptoms attributable to syphilis develop.”

Trichomoniasis

- *Trichomonas vaginalis*
- Malodorous, yellow-green discharge with vaginal irritation
- Often asymptomatic
- Diagnosis
  - Wet prep- 60-70% sensitive
  - Point of care tests (>83% sensitive, 97% specific)
  - Culture
  - New NAA test recently approved

Trichomonas Issues

- Screening recommendations added:
  - Seeking care for vaginal discharge
  - Seeking care in STD clinic
  - At risk: new or multiple partners, hx of STI, inconsistent condom use; CSW
- If suspected and wet mount negative; confirm with culture or NAAT (just approved, April 2011)
- If seen on liquid pap→ treat (good s and s).
- If seen on thick prep pap and low risk→ confirm
- Rescreening recommended in 3 months (high rates of reinfection like chlamydia)

NEWS FLASH!!!!!!!!!
SAN DIEGO, CA, April 20, 2011

GEN-PROBE

For Immediate Release

Contact:
Michael Watts
Vice president, investor relations and
corporate communications
858-410-8673

FDA Clears First Nucleic Acid Amplification Test to Detect Common Sexually Transmitted Infection *Trichomonas Vaginalis*

NAAT- details

- GenProbe Aptima (TMA)- Tigris platform
- Samples- females
  - clinician-collected endocervical or vaginal swabs,
  - urine
  - specimens collected in PreservCyt solution
  - Can co-test with CT/GC
- Test Performance- highly sensitive and specific (98.2%; 100%)

Trichomonas Treatment

- Nitromidizole resistance
  - 5-10% estimated prevalence
  - No data to guide tx of male partners of tx failure
    - Metronidazole 500 mg po bid x 7 d or tinidazole 2g
- HIV Interaction
  - Screen on entry into care
  - Low rates of cure with 2 gm stat dose
  - Tx: Metronidazole 500 mg po bid x 7 days (Kissinger, P. AIDS 2010)

Trichomoniasis- Treatment

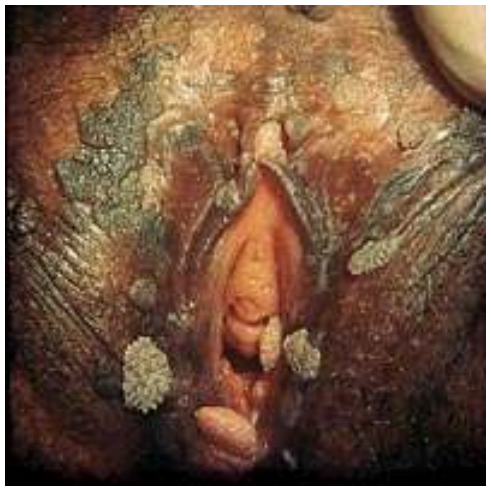
- Metronidazole 2g po x 1
- Tinidazole 2g po x 1
- Avoid alcohol for 24 hours
- Treat partners

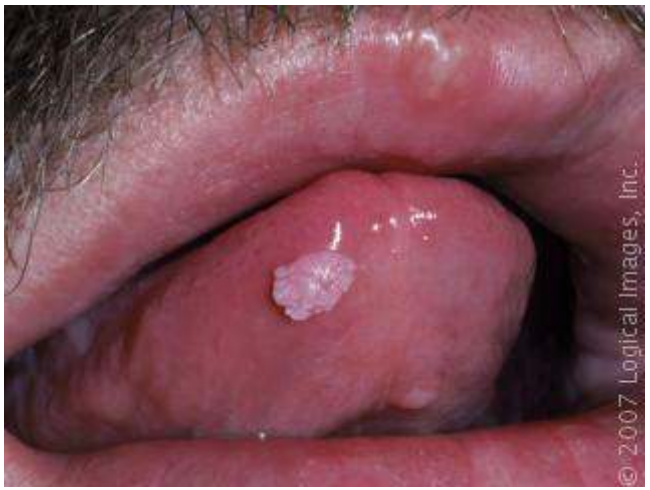
Genital Warts

- Human papillomavirus (HPV)
- Most common sexually transmitted infection
  - 20 million people infected
  - 6.2 million new infections annually
  - 50% of persons acquire infection in their lifetime
- Group of viruses of which 40 are sexually transmitted
- Infects the skin and mucus membranes of the genital area
- Usually asymptomatic
- Immune system often able to clear infection

Genital Warts

- Bumps or groups of bumps in genital area
- Appear within weeks or months of infection (or not at all)
- Can have multiple episodes, one or none





Genital Warts- Treatment

- Cosmetic or alleviation of symptoms
  - No “cure” available
- Patient applied treatments
  - Podophyllin 0.5% (Condylox)
  - Imiquimod (Aldara)
- Provider applied treatments
  - Trichloroacetic acid (safe in pregnancy)
  - Podophyllin 10-25%
  - Cryotherapy
  - Laser
  - Surgery/Electrocautery

HPV Issues

- Guidelines emphasize lack of evidence for use of HPV DNA testing in any other context other than cervical neoplasia/ASCUS triaging
- HPV vaccine approved for boys
- New patient applied tx for EGW: Sinecatechins 15%
  - Green tea extract
  - Requires application 3x daily
  - Only recommended for EGW or perianal (not internal)

Treatment Efficacy of Patient-applied regimens

Treatment Regimen	Complete Clearance rate	Recurrence rate
Imiquimod 5% cream	50.3%	13-19%
Podophyllotoxin 0.5%	56.4%	2-90%
Sinecatechins 15% ointment	57.2%	6.8%

Note: data from different studies; no head-to-head comparisons

Yan, etal Demratology 2006; 213:218—223
Tatti etal, ObGyn 2008;111(6): 1371-1379

HPV Vaccine

- Two vaccines now available
  - Garadasil- Protects against types 6, 11, 16, 18
  - Cervarix- Protects against types 16, 18
- Nearly 100% effective against precancerous lesions and genital warts
- Recommended for girls/women 9-26 years old
  - Gardasil approved for boys/men as well
- Preventive, not therapeutic
  - Ideally should be given before exposure

Genital Herpes Issues

- HSV-2 US seroprevalence unchanged (16.2%)
  - Most disease asymptomatic and unrecognized (81%)
  - Subclinical active infection is the rule
- Increases seen in GH due to type 1 over past 15 years
- Culture/PCR preferred test when patients present with GUD
- Recommendations for type-specific HSV2 testing more explicit:
  - Consider screening: MSM, HIV, discordant couples, high risk (STI, multiple partners).
  - Not recommended to screen:- routine prenatal, universal

Genital Herpes- Clinical Manifestations

- Primary Infection
  - Incubation 2-12 days
  - Multiple, bilateral lesions
  - Fever, systemic symptoms
  - Lasts 2-4 weeks
  - More severe than recurrences
- Recurrent Episodes
  - Milder symptoms
  - Shorter duration (5-10 days)
  - HSV 2- 5 recurrences/year, HSV-1- 1 recurrence/year

Genital Herpes- Diagnosis

Infection Type	Lesions	Symptoms	Antibody at Presentation	
			HSV-1	HSV-2
Initial Episode (Primary)	Yes	Severe	No	No
Initial Episode (Non-Primary)	Yes	Moderate	Yes	No
Initial Episode (Recurrence)	Yes	Mild	Yes/No	Yes
Symptomatic Recurrence	Yes	Mild	Yes/No	Yes
Asymptomatic	No	No	Yes/No	Yes

Genital Herpes- Treatment

- Initial episode
  - Shortens illness by 7 days
  - Shortens duration of pain and viral shedding
  - Acyclovir 400mg po tid x 7-10 days
  - Valacyclovir 1g po bid x 7-10 days
- Recurrent episodes
  - Shortens viral shedding, speeds healing
  - Can be given so patient can initiate at time of sxs
  - Acyclovir 400mg po tid x 5 days
  - Valacyclovir 1g qd x 5 days

Genital Herpes- Treatment

- Suppressive Therapy
  - Effective in reducing recurrences 70-80%
  - Decreases transmission
  - Can be stopped after 1 year
  - Acyclovir 400mg bid
  - Valacylovir 500-1000mg qd

Genital Herpes Treatment

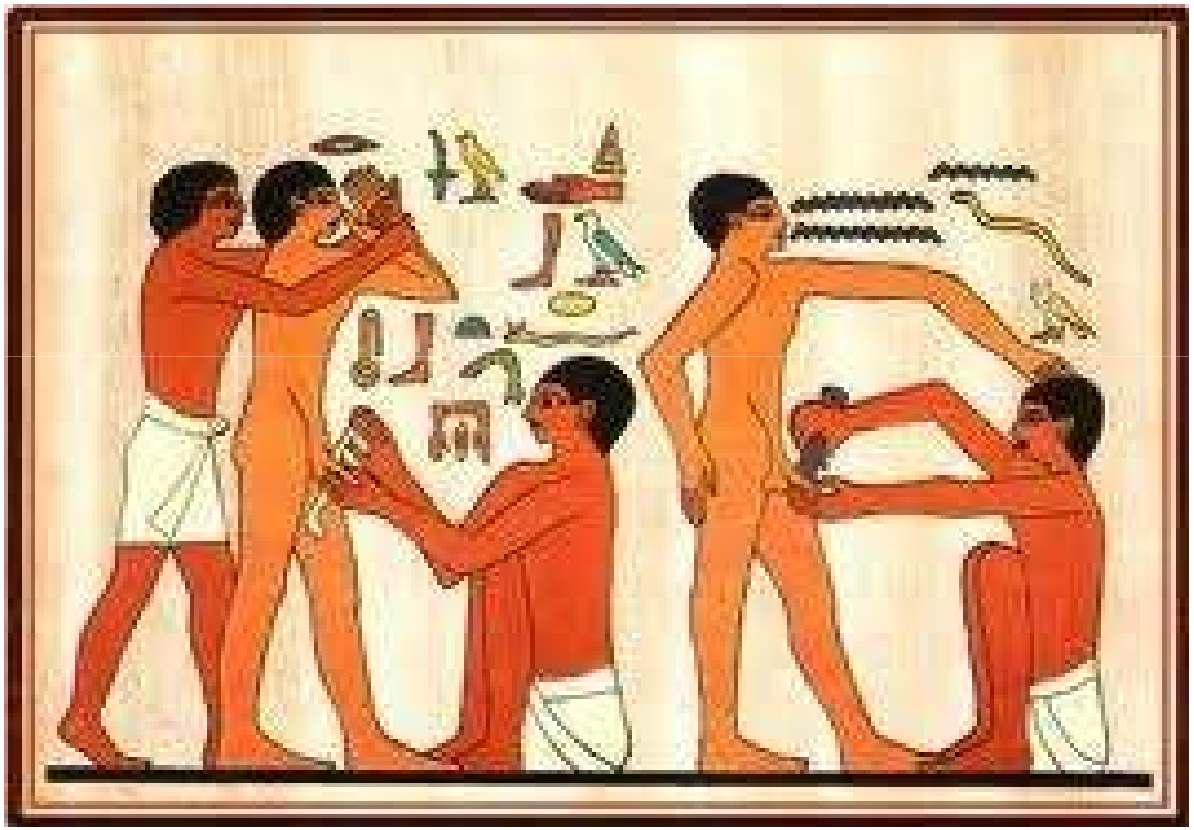
- All patients with initial GH outbreak should be treated
- Episodic regimens
  - Added Famciclovir 500 mp po x 1, then 250 mg bid x 2 d
- Suppressive therapy: permissive stance
  - Consider discontinuing after 1 year to observe rate of recurrence
  - Little evidence for resistance in immunocompetent
  - Famciclovir less effective than valacyclovir for decrease shedding
  - Doesn’t reduce increased risk of HIV acquisition in HSV-2+ individuals

HIV

- “CDC recommends HIV screening for individuals aged 13-64 years in all health-care settings
- Repeat testing for patients with high risk behaviors
- No written consent needed – patient to be notified that test is being ordered and given a chance to “opt out”.
- “Providing prevention counseling along with HIV diagnostic testing…is not a requirement within health-care settings”.
- HIV antibody detectable in at least 95% of patients within 3 months of infection. Acute infection can be detected earlier with the use of virus specific tests (p24 antigen, HIV-1 RNA)
- Rapid testing, oral swab test available

- Test should be done whenever another STD is identified or suspected
- Classical presentation of acute retroviral syndrome includes fever, malaise, lymphadenopathy, diffuse skin rash; highly transmissible in this stage

Male Circumcision



WHO/UNAIDS Statement March 28,2007

- “Efficacy of male circumcision in reducing female to male HIV transmission has now been proven beyond reasonable doubt. This is an important landmark in the history of HIV prevention”
  - Reduction of HIV by 50-60%
  - Protects against high-risk HPV and HSV-2
- “Male circumcision should be considered as part of a comprehensive HIV prevention package”
- US recommendations pending

HEPATITIS A/B/C

- All 3 viruses can be transmitted sexually
- Hepatitis A and B infections are vaccine preventable; post-exposure prophylaxis is available
- Sexual transmission of hepatitis C is less common; 10% of persons with acute HCV infection report contact with a known HCV-infected sex partner as their only risk for infection; reported recently among HIV infected MSM

Clinical Prevention Guidance

The prevention and control of STDs are based on the following five major strategies:

- education and counseling of persons at risk on ways to avoid STDs through changes in sexual behaviors and use of recommended prevention services;
- identification of asymptomatically infected persons and of symptomatic persons unlikely to seek diagnostic and treatment services;
- effective diagnosis, treatment, and counseling of infected persons;
- evaluation, treatment and counseling of sex partners of persons who are infected with an STD; and
- pre-exposure vaccination of persons at risk for vaccine-preventable STDs.

PREVENTION METHODS

- Abstinence and reduction of number of sex partners
- Pre-exposure vaccination
- Male and female condoms, cervical diaphragms, topical microbicides and spermicides (no N9)
- Nonbarrier contraception, surgical sterilization and hysterectomy
- Male circumcision

- Post-exposure prophylaxis (PEP) for HIV and STD
- Pre-exposure prophylaxis (PrEp) for HIV and STD
- Partner management
- Reporting and confidentiality

Take home messages

- Ask appropriately; Screen appropriately
- Rescreen for CT and GC and trichomonas 3-6 months after initial infection.
- Recognize extent and subclinical nature of genital herpes and consider some populations with type-specific HSV-2 serologic test.
- Be aware of antibiotic R GC- dual treatment recommended.
- Trichomonas- better diagnostic tests, HIV+ need 7 d tx
- Syphilis- its back! Know what the EIA is.
- Sexual Health- vaccinate for HPV; prevention messages

STD Resources

- Ratelle STD/HIV Prevention Training Center
  - www.ratellestdhivptc.org
- National Network of STD/HIV PreventionTraining Centers
  - www.stdhivpreventiontraining.org
- CDC Treatment Guidleines
  - www.cdc.gov/std/treatment