AMERICAN COLLEGE OF EMERGENCY PHYSICIANS
SCIENTIFIC ASSEMBLY
1999

## STDs: What's New?

The lecturer will address current sexually transmitted disease (STD) management guidelines from the Centers for Disease Control and Prevention (CDC). The lecturer will present a rational approach to cost-effective treatment of patients with STDs and offer a look into future therapeutic options.

- Define a rational, cost-effective approach to STDs based on current CDC recommendations.
- Identify new antibiotics that are of proven efficacy in treating STDs and the additional options for therapy these antibiotics provide.
- Identify antibiotic-resistance patterns of the major STDs and the effects these have on treatment recommendations.

MO-32
Monday, October 11, 1999
1:30 PM - 2:25 PM
Room # N219
Las Vegas Convention Center

*Gregory J Moran, MD, FACEP
*Research Grants: Ortho McNeil, Pfizer, Bayer*
*Speaker: Ortho McNeil, Pfizer, Bayer, Roche*

**FACULTY**

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# Sexually Transmitted Diseases

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## Gonorrhea – Treatment Options

Ceftriaxone 125 mg IM
Cefixime 400 mg po
Ciprofloxacin 500 mg po
Ofloxacin 400 mg po
Levofloxacin 250 mg po
Azithromycin 2 gm po

## GC - Treatment Options

Cephalosporins:
- Treat incubating syphilis

Ceftriaxone 125 mg IM
- Best studied at all sites
- Requires IM injection

Cefixime 400 mg po
- Single dose oral
- Equal to Ceftriaxone for cervicitis and urethritis

## GC - Treatment Options

Quinolones:
- Don't treat incubating syphilis
- Contraindicated if pregnant or < 17
- Increasing quinolone resistance

Ciprofloxacin 500 mg po - best studied at all sites

Ofloxacin 400 mg po
- Effective against Chlamydia if given 7 - 10 days

Levofloxacin 250 mg po
- Not FDA approved, but should be equivalent to ofloxacin

## GC - Treatment Options

Azithromycin 2 gm po

- Single dose for both GC and Chlamydia
- GI side effects more common with 2 gm dose
  - Nausea 18%
  - Diarrhea 14%

## Chlamydia – Treatment Options

Doxycycline 100 mg po bid X 7d
Azithromycin 1 gm po once
Ofloxacin 300 mg bid X 7d
Levofloxacin 250 mg qd X 5d
Erythromycin 500 mg qid X 7d

## Antibiotic Compliance - PID

256 women prescribed Doxy 100 bid X 10 d
27% never filled Rx

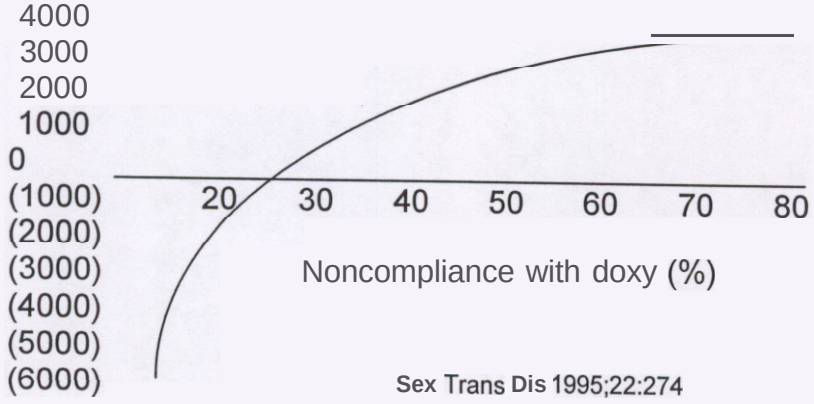
- Reasons: cost 50%
  Inconvenience 28%
  Sx resolved 20%

42% took incomplete course (mean 3.5 d)

- Reasons: Side Effects 36%
  Persist. Pain 29%
  Sx resolved 22%

Brookoff D: Ann Emerg Med 1992;21: 204

## Azithromycin vs. doxy. - Cost




Sex Trans Dis 1995;22:274

## Chlamydia - Diagnosis

Cell culture - Sensitivity 60-90%

Nonculture tests

- Direct Fluorescent antibody
- Enzyme immunoassay
- Nucleic acid hybridization
- Polymerase chain reaction
- Ligase chain reaction

## Chlamydia - Testing

| Test | Sensitivity | Specificity |
|---|---|---|
| DFA | 50-81 | 88-99 |
| EIA | 73-91 | 95100 |
| DNA Probe | 71-97 | 97-99 |

## Chlamydia - LCR

Ligase Chain Reaction assay of clean-catch urine vs. endocervical swab culture

1937 women

| | | Sensitivity | Specificity |
|---|---|---|---|
| Culture | | 65 | 100 |
| Urine | LCR | 94 | 99.9 |

Lee HH. et al. *Lancet* 1995;345:213.

## STD vs. UTI

Men - Epididymitis / Prostatitis

Women - Acute Urethral Syndrome

Pyuria without bacteriuria

Cystitis - $10^2$ - $10^4$ cfu/ml E. coli, etc.

Urethritis - GC, Chlamydia, Herpes

Vaginitis - Trichomonas, Candida

## UTI vs. STD

| | Doxy | TMP/SMX | Quinolones |
|---|---|---|---|
| Coliforms | + | ++ | +++ |
| Chlamydia | +++ | + | +++ |
| GC | + | + | +++ |

## Pelvic Inflammatory Disease

1 million cases/yr in U.S.

- Ectopic Pregnancy Risk Increased
- Infertility Risk Increased
- Many Subclinical Cases

## PID - Diagnosis

Minimal Criteria:

Lower Abdominal Tenderness
Adnexal Tenderness
Cervical Motion Tenderness

Additional Criteria:

Temperature > 38.3
Cervical or Vaginal Discharge
Elevated ESR or C-reactive protein
+ GC or Chlamydia

## PID -Admission

Toxic appearing or unable to take po meds
Diagnosis uncertain (cannot r/o appendicitis, ectopic pregnancy, etc.)
Pelvic abscess suspected
Patient is pregnant
HIV infected
Compliance questionable (e.g. adolescents) or no follow-up in 72 hrs
Has failed outpatient therapy

## PID - Inpatient Rx

Cefoxitin 2 gm q6 or Cefotetan 2 gm q12
plus Doxycycline 100 mg q 12

or

Clindamycin 900 mg q 8
plus Gentamicin

or

Azithromycin 500 mg IV qd X l-2 days,
then 250mg qd to complete 7 days
plus Metronidazole

## PID - Outpatient Rx

Ofloxacin 400 + Metronidazole 500 bid x 14d

or

Ceftriaxone 250mg IM + Doxy 100 bid x 14 d

## STD - Partner Treatment

168 women with Chlamydia infection
125 given referral cards for partner
43 given doxycycline for partner
Rate of Chlamydia recurrence over 18 mos
Card: 22.1% per year
Doxy: 11.5% per year (OR 0.37)

Kissinger P. Sex *Trans Inf* 1998;74:331.

## Trichomonas - Treatment

Metronidazole
2gm po single dose
or 500mg bid X 7d
Safe in pregnancy

Topical preparations not effective

## Chancroid

Haemophilus ducreyi

Therapy:

- Azithromycin 1 gm orally
- Ceftriaxone 250mg IM
- Ciprofloxacin 500 bid X 3d
- Erythromycin 500mg qid X 7d

## Herpes simplex - Treatment

First episode

- Acyclovir 400 tid or 200 5X/d for 7-10 days
- Famcyclovir 250 mg tid for 5-l 0 days
- Valacyclovir 1 gm bid for 7-10 days

Recurrent episodes

- Acyclovir 400 mg tid for 5 days
- Famcyclovir 125 mg bid for 5 days
- Valacyclovir 500 mg bid for 5 days

## ED Screening for Syphilis

Should test ALL pts. treated for STD

Often overlooked:

Frequency of syphilis testing in GC pts:

- Males 58%
- Females 26%

Frequency of + VDRL/FTA in pts. with STD complaints: 6%

Kirsch TD: Ann Emerg Med (abstract)1992; 21: 204
Ernst A: Ann Emerg *Med 1991: 20:*

## Syphilis - Serologic Tests

Nontreponemal - VDRL or RPR
- Quantitative - Rise with new infection and fall after treatment
- Cheaper – used for screening
- May be false positive

Treponemal - FTA ABS or MHATP
- Qualitative + or -
- Once positive, always positive
- More specific

## Syphilis - Therapy

**Primary, Secondary, Early Latent < 1 year**
- Benzathine PCN 2.4 million units IM X 1
- or Doxycycline 100mg bid X 2 wks

**Late Latent > 1 year, Gummas,Cardiovascular**
- Benzathine PCN G 2.4 million units weekly X 3
- or Doxycycline 100mg bid X 4 weeks

## Syphilis - Lumbar Puncture

All patients with neurologic signs

Syphilis > 1 year's duration with:
- Treatment failure or non-PCN Rx planned
- VDRL ≥ 1:32 or HIV +
- Other evidence of active syphilis

Neurosyphilis Therapy:
- PCN G 2-4 million units q4h IV X IO-14d

# Sexual Assault

Evaluation:
- GC, Chlamydia, VDRL, pregnancy
- HIV, Hep B

Prophylaxis:
- Cefixime 400 mg po (or alternative GC Rx)
- Azithromycin 1 gm po (or doxy 100 bid X 7d)
- Metronidazole 2 gm po
- Hepatitis B - begin vaccine series
- ? HIV

CDC. *MMWR* 1998;47(RR-1)

# HIV Prophylaxis for Sexual Exposure

Risk for receptive anal intercourse > needlestick

Risk for receptive vaginal intercourse < needlestick
- approximately 1 /1 000

Regimen: AZT 300mg bid or 200 mg tid
plus 3TC 150 mg bid
for 4 weeks

Consider adding nelfinavir 750 tid or indinavir 800 tid
for highest risk exposures

Bamberger JD et al., *Am J Med* 1999;106:323

## Selected Reading - STDs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