Introduction to Communicable Disease Surveillance and Investigation in North Carolina
Bacterial Sexually Transmitted Infections (STIs)

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Learning Objectives

• List NC reportable sexually transmitted infections (STIs)
• Identify CDC approved treatment regimens for STIs
• Locate the case definitions for STIs
• Locate guidance for reporting STIs in NC EDSS
# Reportable STIs in North Carolina

## Bacterial
- Chlamydia
- Gonorrhea
- Pelvic Inflammatory Disease (PID)
- Non-Gonococcal Urethritis (NGU)
- Lymphogranuloma Venereum (LGV)
- Granuloma Inguinale
- Chancroid
- Syphilis*

## Viral
- Hepatitis A virus
- Hepatitis B virus
- Hepatitis C virus
- Human Immunodeficiency Virus (HIV)

* Discussed in another lecture
Chlamydia

Cause
- Gram-negative intracellular bacterium - *Chlamydia trachomatis*
- Majority of infections are asymptomatic

Presentation
- Cervicitis, urethritis, proctitis or PID
- Children born to infected women can develop ophthalmia neonatorum and pneumonia

Diagnosis
  - NAAT

Treatment (non-PID infection)
- Azithromycin 1 gm oral x 1 dose, OR
- Doxycycline 100 mg oral BID x 7 days

Follow-up
- Repeat testing in 3 months
- TOC (>3-4 week after treatment) ONLY in pregnant women
Gonorrhea

**Cause**
Gram negative intracellular diplococci
*Neisseria gonorrhoeae*
- Presents as urethritis (“the drip”), cervicitis, pharyngitis, proctitis
- Complications: PID and DGI and Ophthalmia neonatorum

**Diagnosis**
- Gram Stain of male urethral discharge
- NAAT
- Culture (preferred method if concern for treatment failure)

**Treatment**
- Ceftriaxone 250 mg IM x 1 dose **PLUS**
- Azithromycin 1 gm oral x 1 dose
  **OR** doxycycline 100 mg oral BID x 7 days

**Follow-up**
- Repeat testing in 3 months
- TOC 1 week after treatment if an alternative regimen used
Pelvic Inflammatory Disease

Caused when infections like chlamydia or gonorrhea spread from the lower to upper reproductive tract
  • Endometritis and/or Salpingitis
  • Tubo-ovarian abscess
  • Pelvic peritonitis
  • Fitz Hugh Curtis Syndrome

Presentation can range from mild to severe symptoms, including
  • Lower abdominal pain
  • abnormal bleeding
  • Vaginal discharge
  • Pain during intercourse
PID

Diagnosis
Sexually active or high-risk women with ≥1 of following:
• Cervical motion tenderness
• uterine tenderness
• adnexal tenderness

Treatment (mild cases)
• Ceftriaxone 250 mg IM x 1 dose
  • PLUS
• Doxycycline 100 mg oral BID x 14 days
• ± Metronidazole 500 mg oral BID x 14 days

Treatment (moderate to severe cases)
• Consider medical consultation to assess need for hospitalization and/or intravenous antibiotics
Non-Gonococcal Urethritis

Cause
Chlamydia, Mycoplasma spp, Ureaplasma spp, Trichomonas, HSV

Diagnosis
Meet the criteria for urethritis
Negative Gram stain for GNID/NAAT

Treatment
Azithromycin 1 gm oral x 1 dose, OR
Doxycycline 100 mg oral BID x 7 days

Recurrent or persistent symptoms
Assess for medication compliance
Consider treating for organisms not originally covered
Lymphogranuloma Venereum

Cause

*Chlamydia trachomatis* serovars L1-3

Presentation

Causes a self-limited genital/rectal ulcer or papule at inoculation site and tender unilateral inguinal/femoral LAD (Buboes)

Can also cause proctocolitis

Diagnosis of exclusion

Limited availability of NAATs able to distinguish between serovars

Treatment

Doxycycline 100 mg oral BID x 21 days

Follow-up

Clinical follow-up until symptoms resolve
Granuloma Inguinale (Donovanosis)

**Cause**
Intracellular gram-negative bacterium- *Klebsiella granulomatis*

**Presentation**
Painless, slowly progressive ulcerative genital or perineal lesions
Subcutaneous granulomas (pseudobuboes) might also occur
Can extend to extragenital sites

**Diagnosis**
Identification of Donovan bodies in infected tissue

**Treatment**
Doxycycline 100 mg oral BID ≥3 wks
Relapse can occur 6-18 months after effective therapy
Chancroid

**Cause**
Fastidious gram-negative coccobacillus-
*Haemophilus ducreyi*

**Presentation**
Painful genital ulcers and enlarged lymph nodes (buboes)
Uncommon in the U.S.
When to suspect:
- genital ulceration(s) and
- tender regional lymph nodes
- in a HSV and syphilis negative individual

**Treatment** (any of the following)
- Azithromycin 1 gm oral x 1 dose,
- Ceftriaxone 250 mg IM x 1 dose,
- Ciprofloxacin 500 mg oral BID x 3 days
- Erythromycin 500 mg oral TID x 7 days

**Follow-up**
3 and 7 days following treatment initiation
# Case Definitions


## 2012

**North Carolina**  
Division of Public Health  
Communicable Disease Manual

Public Health Management of Reportable Diseases and Conditions

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# Report Forms

[Link to Table of Contents](http://epi.publichealth.nc.gov/cd/lhds/manuals/cd/toc.html)

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