WHAT IS THIS?
CUTANEOUS PRESENTATIONS OF STI

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Objectives
- Distinguish the differential diagnosis of STI.
- What are the STI that are visible above the waistline.
- Recognize the signs of STI versus rash.
- When to refer.

STI Presentations

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<td>Pediculosis Pubis</td>
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<td>Candidiasis</td>
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Vaginal Discharge

**CHLAMYDIA**

Most frequently reported bacterial STI in the United States.
Known as a "silent" infection because most infected people are asymptomatic and lack abnormal physical examination findings.

Easily treated with Azithromycin.
Facts

• Small bacterium that cannot grow outside a living cell
• Bacteria drapes itself around the nucleus of human cells and uses the cells energy to reproduce
• Almost 2/3 of new chlamydia infections occur among youth aged 15-24 years.
• It is estimated that 1 in 20 sexually active young women aged 14-24 years has chlamydia

Facts

• Most common STI
• The silent disease 75% of infected females and 50% males do not realize they have it
• Transmitted: vaginally, anal, oral
• Once an infected person has completed antibiotic treatment, they should be re-tested after approximately three months to make sure the condition is cured.

Chlamydia

- Usual presentation of Chlamydia are similar to Gonorrhea
- Chlamydia is also asymptomatic in many patients
- Common presentations of Chlamydia:

<table>
<thead>
<tr>
<th>In men</th>
<th>In women</th>
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<tr>
<td>Conjunctivitis</td>
<td>Conjunctivitis</td>
</tr>
<tr>
<td>Urethritis</td>
<td>Cervicitis</td>
</tr>
<tr>
<td>Proctitis</td>
<td>Proctitis</td>
</tr>
<tr>
<td>Epididymitis</td>
<td>Urethritis</td>
</tr>
<tr>
<td>Prostatitis</td>
<td>Endometritis</td>
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<tr>
<td>Salpingitis</td>
<td></td>
</tr>
</tbody>
</table>

Complications of Chlamydia:
- Infertility
- Ectopic pregnancy
- Miscarriage

Symptoms (if any) occur 1-3 weeks after exposure

- **Women**
  - Abnormal Vaginal Discharge (Odor or Odorless)
  - Spotting/Bleeding Between Periods
  - Pain During Sexual Intercourse
  - Painful Urination
  - Abdominal Pain With Fever
  - Burning and/or Itching in or Around the Vagina

- **Men**
  - Cloudy or Clear Discharge From the Tip of the Penis
  - Painful and Swollen Testicles
  - Itching and/or Burning Around the Opening of the Penis
  - Painful Urination

Chlamydia in the mouth

- Painless sores in the mouth
- Lesions similar to cold sores around the mouth
- Tonsillitis
- Redness with white spots resembling strep throat
- Scratchy, dry throat
**CHLAMYDIA**

**CHLAMYDIA IN THE EYES**
- Itching and redness of the eyes: This may be confined to a single eye only, and present for 2-3 weeks.
- Discharge of green or yellow color, pus-like fluid from the eyes with formation of crusts (usually seen in the morning, on waking up). Sticky eyelids, which are difficult to keep open.
- Eye pain and inflammation (usually mild), with gritty feeling of sand-like particles inside the eye.
- Blurred vision.
- Swollen lymph nodes in front of the ears.

**Treatment**

- **Azithromycin 1 g orally in a single dose**
  - OR Doxycycline 100 mg orally twice a day for 7 days.

**Alternative Regimens**
- Erythromycin base 500 mg orally four times a day for 7 days.
- Erythromycin ethylsuccinate 800 mg orally four times a day for 7 days.
- Levofloxacin 500 mg orally once daily for 7 days.
- Ofloxacin 300 mg orally twice a day for 7 days.

**GONORRHEA**

- **Caused by the bacteria Neisseria gonorrhoeae.**
- When symptoms are present they can include thick white or yellow/greenish discharge, painful urination, increased urination, sore throat and severe pain in lower abdomen.

**Who gets it?**
- Any sexually active person can be infected with gonorrhea.
- In the United States, the highest reported rates of infection are among sexually active teenagers, young adults, and African Americans.
- Transmitted through sexual contact with the penis, vagina, mouth, or anus of an infected partner.
- Ejaculation does not have to occur for gonorrhea to be transmitted or acquired.
- Gonorrhea can also be spread perinatally from mother to baby during childbirth.
Symptoms

- Unpleasant smelling and frothy vaginal discharge
- Itching in and around the vaginal area
- Blood spotting in discharge
- Frequent urination accompanied by burning sensation and pain
- Discomfort while having intercourse
- Green, white, yellow or gray vaginal discharge
- Genital swelling or redness
- Low abdominal pain in rare cases
- Groin swelling

Eyes and mouth

- Pharyngeal infection may cause a sore throat, but usually is asymptomatic

Gonorrhea Treatment

Uncomplicated Genital, Rectal, or Pharyngeal Infections

- Ceftriaxone 250 mg IM in a single dose
- Azithromycin 1 g orally

* Regardless of CT test result

If ceftriaxone is not available or Expeditated Partner Therapy:

- Cefixime 400 mg po
- Azithromycin 1gm PO single dose

Current CDC recommendations for gonorrhea treatment involve both oral azithromycin and injectable ceftriaxone, it has also determined that the risk of not treating gonorrhea infections in sex partners is more severe than the use of oral cefixime as EPT for gonorrhea infection.

Untreated gonorrhea

- In women, untreated gonorrhea can cause pelvic inflammatory disease (PID).
  a. Formation of scar tissue that blocks fallopian tubes
  b. Ectopic pregnancy (pregnancy outside the womb)
  c. Infertility (inability to get pregnant)
  d. Long-term pelvic/abdominal pain
- In men, gonorrhea can cause a painful condition in the tubes attached to the testicles. In rare cases, this may cause a man to be sterile, or prevent him from being able to father a child.
- Rarely, untreated gonorrhea can also spread to your blood or joints. This condition can be life-threatening.

Disseminated Gonococcal Infection

- DGI
  a. Vary greatly from patient to patient
  b. No longer have any localized symptoms
  c. The classic presentation: an arthritis dermatitis syndrome
  d. Joint or tendon pain is the most common
**Disseminated Gonorrhea**
- Skin rash in approximately 25% of patients
- Found below the neck and may also involve the palms and soles
- Lesions varying from maculopapular to pustular, often with a hemorrhagic component. Lesions usually number 5-40, are peripherally located, and may be painful before they are visible. Fever is common but rarely exceeds 39°C.

**DGJ: The early stage**
- Joint or tendon pain is the most common
- 25% of patients complain of pain in a single joint
- Migratory polyarthralgia, especially of the knees, ankles, and more distal joints.
- May also have tenosynovitis; most commonly affects the flexor tendon sheaths of the wrist or the Achilles tendon (“lovers’ heel”).

**Septic Arthritis**
- Usually 3-6 days after onset of illness
- Pain, redness and swelling in one or sometimes multiple joints

- If you find young kids developing STD infection it can be due to sexual abuse.

**Treatment: Hospitalization**
- Ceftriaxone 1 g IM or IV every 24 hours
  PLUS
  - Azithromycin 1 g orally in a single dose

- Alternative Regimens
  - Cefotaxime 1 g IV every 8 hours OR Ceftizoxime 1 g IV every 8 hours
  - PLUS Azithromycin 1 g orally in a single dose

- When treating for the arthritis-dermatitis syndrome, the provider can switch to an oral agent guided by antimicrobial susceptibility testing 24-48 hours after substantial clinical improvement, for a total treatment course of at least 7 days.
Trichomoniasis

Trichomoniasis, or “Trich,” is caused by a parasite, that can be transmitted through both vaginal and urinary secretions.

The CDC estimates there are 7,500,000 new cases of Trich each year, making it the most commonly sexually transmitted disease.

Men can be infected, but there is no test that can detect the infection, though Trich can be treated with antibiotics.

• Metronidazole 2 g po in a single dose
• OR
• Tinidazole 2 g po in a single dose

• ***Male partners should be evaluated with 3 swabs and treated with either Tinidazole in a single dose of 2 g po or Metronidazole twice a day at 500 mg po for 7 days.

• Metronidazole gel is considerably less efficacious for the treatment of Trichomoniasis

• Rescreening for T. vaginalis at 3 months following initial infection

Bacterial Vaginosis

<table>
<thead>
<tr>
<th>FISH like odor</th>
<th>Musty odor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thin, off-white, homogenous discharge</td>
<td>Pale green, watery discharge</td>
</tr>
<tr>
<td>Usually does NOT cause dysuria, dyspareunia, pruritus, or inflammation</td>
<td>Can cause tenderness, dysuria, dyspareunia, pruritus</td>
</tr>
<tr>
<td>Mild vulvar irritation possible</td>
<td>Vulvar erythema, cervical PETECHIA</td>
</tr>
<tr>
<td>Wet mount reveals bacteria coated EPITHELIAL cells</td>
<td>Wet mount reveals motile, pear-shaped, flagellated protozoa</td>
</tr>
</tbody>
</table>

Do NOT treat partners

Treat partners

Expedited Partner Therapy (EPT)

is the clinical practice of treating the sex partners of patients diagnosed with chlamydia or gonorrhea by providing prescriptions or medications to the patient to take to his/her partner without the health care provider first examining the partner.

useful option to facilitate partner management, particularly for treatment of male partners of women with chlamydial or gonorrhea infections

Trichomonas Vaginalis – Symptoms

• Only 10% of infected persons show any symptoms
• More common in females
• 5-28 Days

Men:
• Itching/irritation of Penis
• Burning sensation
• Discharge

Women:
• "Strawberry Cervix" (2%)
• Itching, Burning, Redness, Soreness of Genitals
• Discomfort during urination
• Odorous yellow-green discharge (12%)

Tric or Treat!!!

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• Rescreening for T. vaginalis at 3 months following initial infection

LEGAL STATUS OF EXPEDITED PARTNER THERAPY (EPT) IN THE US
How does EPT work

- should be offered to all heterosexual patients diagnosed with gonorrhea and/or chlamydia.
- The medications used for EPT are single-dose oral medications, with low risks of allergic reaction and minimal side effects.
- Information related to potential allergic reactions and side effects can be given to the partner at the same time a prescription or medication is provided.
- Physicians shouldn’t fear prescribing medications for a patient’s sex partner because the drugs prescribed to treat chlamydia and gonorrhea have few side effects and are effective in treating the diseases.

Texas Laws: EPT is the Standard of Care for STD Treatment

- “…establishing a professional relationship is not required for a physician to prescribe medications for sexually transmitted diseases for partners of the physician’s established patient, if the physician determines that the patient may have been infected with a sexually transmitted disease.” 22 Tex. Admin. Code §590.8(L)(X)(H)
- “An APRN may prescribe medications for sexually transmitted diseases for partners of an established patient, if APRN assesses the patient and determines that the patient may have been infected with a sexually transmitted disease.” 22 Tex. Admin. Code §222.4(d)

Rx, Pharmacist, and EPT

- "A pharmacist may not dispense a prescription drug if the pharmacist knows or should have known that the prescription was issued...without a valid patient-practitioner relationship." Tex. Occ. Code Ann. § 562.056a. Or practitioner-patient relationship is not present in an emergency. Tex. Occ. Code Ann. § 562.056(b)
- "A pharmacist may dispense a prescription when a physician has not established a professional relationship with a patient if the prescription is for medications for sexually transmitted diseases for partners of the physician's established patient..." 22 Tex. Admin. Code § 291.29(b)(3).

Name on Rx

- Prescription must bear patient’s name and address. Tex. Occ. Code Ann. § 157.056, 563.052; see also § 164.054 (2)
- "The name of the patient’s partner...is not required to be on the label of a drug prescribed for a partner for a sexually transmitted disease..." 22 Tex. Admin. Code § 291.33(c)(1).

Syphilis

- is a disease with a highly variable clinical course.
- called “the great imitator,” because the various clinical manifestations of syphilis match many other diseases.
Chancroid: Treatment

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

<table>
<thead>
<tr>
<th>Stage</th>
<th>Treatment</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early latent</td>
<td>Benzathine penicillin</td>
<td>2.4 million units IM x 1</td>
</tr>
<tr>
<td>Late latent or unknown duration</td>
<td>Benzathine penicillin</td>
<td>2.4 million units IM x 2, given at weekly intervals (assuming neurosyphilis has been ruled out)</td>
</tr>
<tr>
<td>Primary</td>
<td>Benzathine penicillin</td>
<td>2.4 million units IM x 1</td>
</tr>
<tr>
<td>Secondary</td>
<td>Benzathine penicillin</td>
<td>2.4 million units IM x 1</td>
</tr>
<tr>
<td>Tertiary</td>
<td>Benzathine penicillin</td>
<td>2.4 million units IM x 3, given at weekly intervals</td>
</tr>
<tr>
<td>Neurosyphilis</td>
<td>Aqueous crystalline penicillin</td>
<td>3-4 million units IV every 4 hours or a continuous infusion, for a total dose of 18-24 million units per day for 10-14 days</td>
</tr>
</tbody>
</table>

*MMWR Recomm Rep 2006; 55(RR:11):1. IM, intramuscular; IV, intravenous

Late and Latent Syphilis

- The late (hidden) stage of syphilis begins when primary and secondary symptoms disappear.
- The late stages of syphilis can develop in about 15% of people who have not been treated for syphilis, and can appear 10 – 20 years after infection was first acquired.
- The disease may subsequently damage the internal organs, including the brain, nerves, eyes, heart, blood vessels, liver, bones, and joints.
- Signs and symptoms of the late stage of syphilis include difficulty coordinating muscle movements, paralysis, numbness, gradual blindness, and dementia.
- These symptoms can be fatal.
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.

Fleshy-colored growths found in the genital area and anal region in both men and women.

They are also known as venereal warts.
Molluscum
are flesh colored and pearly. They have a smooth surface and the shape of a dome.

Genital Warts
Flesh colored but can also be greyish or brown in color. They are often dry and rough on the surface.

How is HIV Transmitted
To transmit HIV one has to come in contact with one of the following body fluids:
• Blood
• Semen
• Vaginal fluid
• Breast milk

The risk of contacting HIV follows:
• Unprotected Sex
• Multiple sex partners
• Prostitution
• IV drug use

Prophylactic: PrEP
PrEP is short for Pre-Exposure Prophylaxis. It means protecting yourself before you come in contact with HIV+. And continuing to protect yourself by taking the medicine daily and using safer sex practices.

• TRUVADA for PrEP is not something you take only when you plan to have sex. And it’s not a “morning-after pill.”
• You must be HIV-negative before you start and while taking TRUVADA for PrEP. Do not take TRUVADA to reduce the risk of getting HIV unless you are confirmed to be HIV-negative.
• Get tested for HIV immediately before and at least every 3 months while taking TRUVADA.
• If you think you were exposed to HIV+, tell your healthcare provider right away.
• It’s one pill, taken once a day, every day. You can take it with or without food, and it should always be used with safer sex practices.