Online Learning Module: Syndromic management of sexually transmitted infections
Course Objectives

• Understand how to identify and manage common vaginal and cervical infections based on a group of signs and symptoms called syndromes.
The Syndromic Approach

• Identifies consistent groups of signs and symptoms (syndromes) and treats accordingly

• Provides treatment for majority of serious organisms responsible for producing a syndrome

• Overcomes lack of laboratory infrastructure, expensive tests and special trained personnel

• Overtreatment
General signs and symptoms of STIs

• Vaginal discharge
• Pruritus (itching) of the vulva or vagina
• Lower abdominal pain
• Spotting
• Pain with urination (dysuria)
• Sexual intercourse (dyspareunia)
• Genital ulcers or warts
• Inflammation on exam
SYNDROME: Vaginal Discharge/Pruritis
Vaginal Discharge or Pruritus

- **Inflammation** is the most common pathological condition of the cervix and vagina. Usually caused by an infection.

- **Discharge** can be due to **cervicitis** (inflammation of the cervix) or **vaginitis** (inflammation of the vagina).
Vaginal discharge/pruritis

**Most common causes**

- Trichomonas vaginalis
- Bacterial vaginosis
- Candida albicans
- Gonocccal/Chlamydial cervicitis (Rarely)
<table>
<thead>
<tr>
<th></th>
<th>Discharge</th>
<th>Itching</th>
<th>Inflammation</th>
<th>Odor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Candida</strong></td>
<td>White, curd-like</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Trich</strong></td>
<td>Yellowish, frothy</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Bacterial vaginosis</strong></td>
<td>Greyish, white</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Candidiasis
Candidiasis
Vaginal discharge/pruritis

• Highly predictive of vaginal infection but poorly predictive of cervical infection

• Thus, all women presenting with vaginal discharge should receive treatment for vaginitis and cervicitis.
Vaginal discharge/pruritis

**Syndromic treatment**

- **Trichomoniasis or Bacterial vaginosis**
  - Metronidazole (Flagyl) 2g PO, once stat
  - Metronidazole (Flagyl) 400-500mg BID x 7

- **Candidiasis**
  - Fluconazole 150-200mg PO, once stat
  - Clotrimazole 500mg intravag, once stat
  - Miconazole or clotrimazole 200mg intravag, daily x 3
  - Nystatin pessary daily x 5
Vaginal discharge/pruritis

** Syndromic treatment **

• Chlamydia
  – Azithromycin 1g PO, once stat
  – Doxycycline 100mg PO BID x14 d
  – Erythromycin 500mg PO QID x 7 d

• Gonorrhea
  – Ciprofloxacin 500mg PO, once stat
  – Ceftriaxone 125mg IM Stat
SYNDROME:
Vaginal Discharge + Lower Abdominal Pain
Syndrome: Vaginal discharge + lower abdominal pain

**Signs**
- Vaginal discharge
- Lower abdominal tenderness on palpation
- Temperature $> 38^\circ\text{C}$

**Symptoms**
- Lower abdominal pain
- Dyspareunia
Syndrome: Vaginal discharge + lower abdominal pain

**Most common causes**

- Gonococcus
- Chlamydia
- Mixed anaerobes
Syndrome: Vaginal discharge + Lower abdominal pain

Syndromic treatment

- Chlamydia
  - Azithromycin 1g PO stat
  - *Doxycycline 100mg PO BID x14 d*
  - Erythromycin 500mg PO QID x14 d
- Gonorrhea
  - Ciprofloxacin 500mg PO Stat
  - *Ceftriaxone 125mg IM Stat*
- Mixed Anaerobes
  - *Metronidazole (Flagyl) 400-500mg BID x14 d*
Abdominal pain

Reasons for referral

• Rebound tenderness
• Guarding
• Last menstrual period overdue
• Recent abortion or delivery
• Menorrhagia—profuse or prolonged menses
• Metrorrhagia—irregular bleeding
SYNDROME: Cervicitis
Cervicitis

Symptoms

• Unusual vaginal discharge
• Dysuria (pain on urination)
• Dyspareunia (pain on intercourse)
• Abnormal bleeding
Cervicitis

Signs

• Swollen, reddened, and “beefy” cervix
• Cervix bleeds easily when touched
• Mucopurulent or copious discharge from os
Cervicitis

Most common causes

- Gonococcus
- Chlamydia
Cervicitis

Syndromic treatment

• Chlamydia
  – Azithromycin 1g PO stat
  – Doxycycline 100mg PO BID x 7
  – Erythromycin 500mg PO QID x 7

• Gonorrhea
  – Ciprofloxacin 500mg PO Stat
  – Azithromycin 2g PO Stat
  – Ceftriaxone 125mg IM Stat
Cervicitis

Note mucosal bleeding where purulent discharge has been wiped away.
Other counseling

- Avoid alcohol with antibiotic treatment
- Supply condoms
- Counsel regarding risk reduction
- Partner treatment
- Follow-up after completion of treatment
- Repeat VIA after treatment if necessary
Genital Ulcer Disease
Genital ulcer disease

**Most common causes**

- Genital herpes
- Chancroid
- Syphilis
- Associated with an increased risk of HIV infection
Genital Herpes

• Characterized by multiple, painful vesicles grouped together

• First episode - Bilateral

• Recurrences - Unilateral
Genital herpes - First episode
Genital herpes - recurrent
Genital herpes - recurrent
Genital herpes - recurrent
Chancroid

• Cause: *Haemophilus ducreyi*

• Single or multiple ulcers on the labia, vagina, or anus with or without swollen inguinal lymph nodes and cervicitis.

• May be co-infected with HIV, herpes, or *Treponema pallidum* (syphilis)

• Refer
Chancroid
Syphilis

- Cause: *Treponema pallidum*
- Characterized by painless ulcer or chancre on the vulva, vagina, or cervix
- Co-infection with HIV is common
- Refer
Syphilis
1. The syndromic approach to STI treatment:
   (a) Identifies patients for treatment based on signs and symptoms
   (b) Does not require laboratory confirmation of diagnosis
   (c) May result in overtreatment
   (d) All of the above

2. The most common sexually transmitted cervical infections are:
   (a) \textit{T} \textit{pallidum} infection
   (b) Herpes virus infection
   (c) Gonoccocal and chlamydial infection
   (d) \textit{G. vaginalis} infection
3. Patients with ulcerative genital lesions should be:
   (a) Observed closely
   (b) Treated with Fluconazole alone
   (c) Treated with Zidovudine (ZDV) alone
   (d) Referred to a physician for further evaluation and treatment

4. Patients with acute abdominal pain and signs of peritonitis should be:
   (a) Referred for urgent physician evaluation and treatment
   (b) Treated with analgesics and discharged home
   (c) Treated with a single dose of Doxycycline
   (d) Discharged home and ask to return for re-evaluation in 48 hours
Evaluation Score

• Congratulations!
• You passed this evaluation with a score of ________

• Please click on the CERTIFICATE button below to print your certificate. Be sure to print & sign your name before submitting the certificate to your supervisor.