Genital Ulcer

*Treponema pallidum*  
*Hemophilus ducreyi*

*Herpes simplex virus*
The Genital Ulcer Syndrome

• consists of ulcers, sores or vesicles in the genital area

• is frequently associated with unilateral or bilateral inguinal lymphadenopathy (also known as a bubo)
Appearance of the Genital Ulcers

• single or multiple
• vesicular or ulcerative
• superficial or deep
• painful or painless
• have a clean or “dirty” base which may bleed easily
• have smooth or ragged edges
Causes of Genital Ulcer Disease

The most common causes are:
- Primary or recurrent genital herpes
- Chancroid
- Primary syphilis
- Drug intake (fixed drug eruption), trauma and scabies

Other causes include:
- Donovanosis (granuloma inguinale)
- Lymphogranuloma venereum (LGV)

Common pathogens:
*Herpes simplex virus, Hemophilus ducreyi and Treponema pallidum*
Classical Presentation of Genital Herpes

• caused by the herpes simplex virus (HSV)
• incubation period 2-7 days
• multiple small painful vesicles or superficial erythematous erosions which may coalesce
• cannot be cured and lesions often recur
• the first episode is usually associated with bilateral tender inguinal lymphadenopathy
• treatment is palliative
Classical Presentation of Chancroid

• caused by *Hemophilus ducreyi*
• incubation period 3-10 days
• the lesions appear as papules that drain leaving “soft chancrens”
• associated with unilateral, tender, fluctuant inguinal lymphadenopathy (*bubo*) which may suppurate
Characteristics of Chancroid Lesion

- multiple, often coalescing
- soft and painful (except when intra-vaginal or cervical)
- irregular or ragged edges
- “dirty” base (yellow/gray purulent necrotic material)
- bleeds easily on scraping
Classical Presentation of Primary Syphilis

• caused by Treponema pallidum
• incubation period about 3 weeks
• appears as a single papule which develops into a “hard chancre”
• associated with bilateral, firm, non-tender lymphadenopathy
Characteristics of the Syphilitic Chancre (Primary Syphilis)

- single
- firm and painless
- well-demarcated, regular, “rolled” borders
- base looks “clean” (red, smooth and non-purulent)
Stages of Syphilis

Early syphilis (less than 2 years after infection):
- Primary syphilis (about 3 weeks after infection)
- Secondary syphilis (2-4 months after infection)
- Early latent syphilis (2-24 months after infection)

Late syphilis (2 years and over after infection):
- Late latent syphilis (2 years after infection)
- Late/tertiary syphilis (10 years or more after infection in 25% of untreated patients)

Patients who have acquired syphilis are highly infectious for weeks or months and most transmission occurs during the first year
Secondary Syphilis

The most common clinical manifestations:

• maculopapular rash affecting the palms and the soles
• condyloma lata
• mucous patches in the mouth

Other manifestations include:

• generalized lymphadenopathy
• patchy alopecia (loss of hair)
Maculopapular Rash of Secondary Syphilis

• appears 3-6 weeks after the primary chancre

• starts as non-itchy fine pink macular eruption on the trunk and flexor surfaces of arms

• gradually becomes darker and papular and spreads to the entire body including palms and soles
Condyloma Lata of Secondary Syphilis

- flat, raised, wart-like lesions that arise from the papules of secondary syphilis in the warm moist areas such as: the vulva, anus, scrotum, axillae or beneath the breasts

- they should not be confused with genital warts (condyloma acuminate) which they resemble

- they are highly infectious
Natural Course of Primary and Secondary Syphilis

- The clinical manifestations of both primary and secondary syphilis will resolve spontaneously without treatment.
- The only evidence of infection during the latent period will be a positive serologic test.
Consequences of Untreated Syphilis

Left untreated, syphilis has serious consequences:

– late/tertiary syphilis: neurosyphilis and cardiovascular syphilis

– transmission to the fetus: stillbirth, premature delivery & congenital syphilis

– increased risk acquiring and transmitting HIV infection
Other Cause of Genital Ulcer Disease

Lymphogranuloma venereum (LGV):
• caused by *chlamydia trachomatis* (L1, L2, L3)
• incubation period 3 - 12 days or longer
• Primary Stage: ulcer is rarely noticed
  – inconspicuous
  – painless
  – heals rapidly without leaving a scar
• Secondary stage:
  – 10-30 days and up to 6 months after the initial infection
  – associated with tender, inguinal adenopathy (bubo) which may suppurate

If Bubo without ulcer, please follow the Inguinal Swelling Syndrome
Diagnosis of Genital Ulcer Disease

Why clinical findings alone are not sufficient?

- mixed infections are common
- patients often delay seeking treatment until advanced stage
- secondary infections alter the appearance of the lesions
- systemic and topical antibiotics, corticosteroids and other applications
  - alter the appearance of the lesions
  - can mask incubating infection (treatment of chancroid may mask incubating syphilis)
- presentation is often atypical, particularly in the presence of HIV
Diagnosis of Genital Ulcer Disease

Laboratory Diagnosis

**Syphilis**
- False positive
- Late seronegativity (1-4 weeks)
- Needs confirmatory test (TPHA)

**Chancroid**
- Reliable test: expensive and not always available
Management of Associated Lymphadenopathy (bubo)

• if bubo becomes fluctuant, it may burst and create more complications

• a fluctuant bubo should always be managed by a trained practitioner

• it should never be excised but drained using a large bore sterile needle through healthy neighboring skin
Management of Genital Ulcer Syndrome

• Since it is not possible to make a conclusive clinical distinction between genital ulcers
• Since mixed infections are common
• Since syphilis and chancroid are the most common curable causes
• Since the treatment of chancroid alone may mask the manifestations and clinical course of incubating syphilis
• Since untreated primary and secondary syphilis resolve on their own leaving no physical sign of ongoing infection
• Since untreated syphilis has serious consequences

It is recommended: To treat all cases of genital ulcer disease for both syphilis and chancroid simultaneously at first visit
GENITAL ULCER

Patient Complains of Genital Ulcer

History and Examination

- Genital Ulcer
  - Treatment for Syphilis and Chancroid
  - Return after 1 week

- Grouped vesicles, small painful ulcers with history of recurrence
  - Management of Herpes

Persistence

- Non-compliance to treatment?
- Possible re-infection?

Yes
- Repeat Treatment

No
- Refer
Treatment Regimen for Herpes

Management of Herpes:
- Patient should be reassured and warned that a recurrence of ulceration is possible.
- Inform patients to refrain from sexual intercourse while lesions are present.
- Advise patients to keep the lesions clean and dry, wash lesions with soap and water.
- Start antiviral treatment within 48 hours of appearance of the lesions.

Provide or prescribe specific antiviral herpes treatment:
- Acyclovir, 200 mg orally 5 times daily for 5 days
- Acyclovir, 400 mg orally, 3 times daily for 5 days
- Famciclovir, 125 mg orally, twice daily for 5 days
- Valaciclovir, 500 mg orally, twice daily for 5 days

Note:
- For pregnant females, during the first clinical episode of genital herpes, treat with acyclovir.
- Vaginal delivery in women who develop primary genital herpes shortly before delivery puts babies at risk for neonatal herpes.
- Babies born to women with recurrent disease are at very low risk.

History taking and examination guide providers on recommending sections.
**Treatment Regimen for Genital Ulcer**

**Recommended Treatment for Early Syphilis** (primary, secondary and early latent):
- Benzathine Penicillin G 2.4 million units in a single IM dose

**Alternative Treatment for Early Syphilis**:
- Tetracycline 500 mg orally 4 times daily for 14 days or
- Doxycycline 100 mg orally twice daily for 14 days or
- Erythromycin 500 mg orally 4 times daily for 14 days (for penicillin allergic pregnant women)

*Note: Tetracycline and Doxycycline should not be used by pregnant lactating women.*

**PLUS**

**Recommended treatment for Chancroid**:
- Erythromycin 500 mg orally 4 times daily for 7 days or
- Azithromycin 1g orally in a single dose

**Alternative treatment for Chancroid**:
- Ciprofloxacin 500 mg orally in a single dose (not for pregnant and lactating women) or
- Cefpodoxime 200 mg IM in a single dose

*Single doses of treatment should be administered during the initial clinic visit.*
Case Study 5

A 34 years old prostitute complains of sores and burning when she urinates. She has washed her private parts with antiseptic and applied antibiotic ointment to the sores but the sores are getting bigger, more painful and there is a lot of pus now.

On examination she has several deep purulent painful sores on her labia and a right fluctuant inguinal node.

a) What is your diagnosis?
b) What is the appropriate management?
Case Study 6

A man in his mid-30s complains of small painful sores on the shaft of his penis. He says he hasn't had sexual contact with any woman other than his wife for the last 3 months.

You examine him and find numerous small superficial erosions. The man explains that he has had this problem before. It always starts with tingling and then painful little blisters full of water.

a) What is your diagnosis?
b) What is the appropriate management?
Case Study 7

A 28 years old road construction worker tells you he must have contracted “sore” from one of the women he had contacted in the past month.

The capsules (ampicillin) he is taking aren't working this time, neither is the topical ointment he obtained from a “quack” doctor.

He is going back home next week and wants to be cured.

On examination you find multiple shallow ulcers with irregular borders. The ulcers are covered with a whitish paste. He has bilateral inguinal lymphadenopathy.

a) What is your diagnosis?

b) What is the appropriate management?
Inguinal Swelling
(Bubo)

Lymphogranuloma
venereum chlamydia

Hemophilus ducreyi
The Inguinal Swelling Syndrome (Bubo)

- consists of the unilateral or bilateral enlargement of inguinal lymph nodes
- is associated with genital ulcer disease

**Common pathogens:**
*Lymphogranuloma venerum* chlamydia, *Hemophilus ducreyi*
Differential Characteristics of Buboes Associated with Genital Ulcers or TB

- **Lymphogranuloma venereum (LGV):** unilateral, tender, fluctuant, can rupture
- **Chancroid:** unilateral, tender, fluctuant, can rupture
- **Syphilis:** bilateral, non-tender, firm
- **Genital herpes:** bilateral, tender, firm (first episode)
- **Tuberculosis:** bilateral, non-tender, firm, matted
Bubo of Chancroid versus LGV

- the primary genital lesion (ulcer) is usually absent or inconspicuous in LGV

- the characteristic “groove” sign (cleavage of swollen inguinal and femoral lymph nodes by inguinal ligament) is rare for chancroid but pathognomonic for LGV
### Treatment Regimen for Inguinal Swelling (Bubo)

<table>
<thead>
<tr>
<th>Treatment of Lymphogranuloma Venereum:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doxycycline 100 mg orally twice daily for 14 days</td>
</tr>
<tr>
<td>(not for pregnant and lactating woman)</td>
</tr>
<tr>
<td>or</td>
</tr>
<tr>
<td>Erythromycin 500 mg orally four times daily for 14 days</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Alternative treatment for Lymphogranuloma Venereum:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetracycline 500 mg orally four times daily for 14 days</td>
</tr>
</tbody>
</table>

**PLUS**

<table>
<thead>
<tr>
<th>Surgical aspiration of fluctuant bubo:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspirate the pus with a needle through the adjacent healthy skin</td>
</tr>
<tr>
<td>Repeat aspiration after 2 to 3 days if necessary</td>
</tr>
<tr>
<td>Never incise a bubo</td>
</tr>
</tbody>
</table>
Case Study 8

A 35 years old married man presents with painful swelling in his right groin which started five days ago and has gotten progressively worse.

He says he had contact with a sex worker but this was well over a month ago and he hadn't developed any discharge, burning or genital lesions.

On examination you note a right inguinal bubo. There is a depression along the inguinal ligament and the swelling looks like it is divided into two portions by the inguinal ligament. The genital examination is otherwise normal.

a) What is your diagnosis?
b) What is the appropriate management?
Case Study 9

A 40 years old man comes to you with a painful swelling in his left groin which has been present for at least a week. He was treated five days ago for painful sores on his penis. He was given some tablets to take for one week but stopped taking them after 3 days because they made him feel very nauseated. He does not know that the drug was but it was expensive. In any case, the sores had gotten much better while the swelling in his groin had gotten worse.

On examination you find a fluctuant left inguinal bubo which is about to rupture and suppurate, and a number of healing ulcers on his prepuce.

a) What is your diagnosis?
b) What is the appropriate management?
SCROTAL SWELLING AND PAIN

*Chlamydia trachomatis*  *Neisseria gonorrhoea*
The Syndrome of Scrotal Swelling

- involves inflammation of the testis and epididymis
- is most often unilateral
- may be associated with mild constitutional symptoms such as fever, myalgia and malaise
- often associated with urethral discharge or dysuria
- may represent a surgical emergency which must be ruled out in all cases (more common in youth)

<table>
<thead>
<tr>
<th>Common pathogens:</th>
<th>Neisseria gonorrhoea</th>
<th>Chlamydia trachomatis</th>
</tr>
</thead>
</table>


Causes of Scrotal Swelling

The differential diagnosis includes:
- epididymitis and orchitis due to infectious organisms
- torsion of the testis (surgical emergency)

Infectious Causes of Scrotal Swelling:
- sexually transmitted organisms such as *N. gonorrhea*, *C. trachomatis* or both (more common in men under 35)
- enteric bacteria which cause urinary tract infections (more common in men over 35)
- chronic infections such as tuberculosis and filariasis (often bilateral involvement)
History and Examination for Scrotal Swelling and Pain Syndrome

- To confirm the presence of swelling and pain in the testis
- To exclude rotation or torsion or trauma to the testis
- To exclude inguinal hernia
- To confirm presence of urethral discharge
- To detect other STIs
### Treatment Regimen for Scrotal Swelling and Pain

**Recommended Treatment for Gonorrhea:**
- Ceftriaxone 250 mg IM in a single dose.

**Alternative Treatment for Gonorrhea:**
- Ciprofloxacin 500 mg orally in a single dose
  - or
- Spectinomycin 2 g IM in a single dose

**PLUS**

**Recommended treatment for Chlamydia:**
- Azithromycin 1g orally in a single dose
  - or
- Doxycycline 100 mg orally twice daily for 7 days

**Alternative treatment for Chlamydia:**
- Tetracycline 500 mg orally four times daily for 7 days
  - or
- Erythromycin 500 mg orally four times daily for 7 days

*Single doses of treatment should be administered during the initial clinic visit.*
Case Study 10

Several days after he had sex with an unknown woman, a 28 years old man started to have slight burning when he passes urine.

He took two capsules of antibiotic from a pharmacy and the symptoms improved but did not resolve completely. After 10 days he started to experience pain and swelling in his right testicle along with mild fever, body ache and malaise. Today he comes to consult you.

a) What is your diagnosis?
b) What is the appropriate management?
Case Study 11

A 35 years old single driver complains of swelling and tenderness in his right testicle which got much worse during his long drive last night. He admits that he has suffered from gonorrhea in the past but denies any burning or discharge since his last episode 4 months before. He denies taking medication and trauma.

a) What is your diagnosis?
b) What is the appropriate management?

The patient returns after 7 days and his symptoms have not improved. He has completed the full course of antibiotics you prescribed, has taken a week off work and has abstained from sexual intercourse.

c) What is the appropriate management?
Vaginal Discharge Syndrome

- is one of the most common gynecological complaints
- is frequently associated with vaginal irritation, itching and soreness
- is suggestive of pelvic inflammatory disease (PID) when associated with lower abdominal pain
Vaginal Discharge
May Be Physiological

• A variable amount of clear or white vaginal discharge consisting of normal cervical secretions and vaginal fluids is normal.

• On microscopy: epithelial cells and normal flora (lactobacilli predominate)

• An increase in the amount is common:
  • during the mid-cycle
  • oral contraceptive pills (OCP)
  • intrauterine device (IUD)
Vaginal Discharge May Be Pathological

Reproductive tract infection should be suspected

• when there is a change in the quantity, consistency, color or smell of the discharge
• when there is one or more of the following signs or symptoms
  – irritation & itching in the genital area
  – external or internal burning when passing urine
  – intermenstrual bleeding
  – pain on intercourse (dyspareunia)
  – lower abdominal pain suggestive of pelvic inflammatory disease (PID)
Causes of Pathological Vaginal Discharge

- Vaginitis: candidiasis, trichomoniasis and bacterial vaginosis
- Cervicitis: gonorrhea and chlamydia

*Candidiasis and Bacterial vaginosis are not STIs*

<table>
<thead>
<tr>
<th>Common pathogens:</th>
<th><em>Candida albicans</em></th>
</tr>
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<tbody>
<tr>
<td></td>
<td><em>Trichomonas vaginalis</em></td>
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<tr>
<td></td>
<td><em>Non specific pathogens</em></td>
</tr>
<tr>
<td></td>
<td><em>Neisseria gonorrhoea</em></td>
</tr>
<tr>
<td></td>
<td><em>Chlamydia trachomatis</em></td>
</tr>
</tbody>
</table>
Characteristics of Vaginal Discharge in Case of Infections

• Profuse, watery, frothy, yellow or green discharge is suggestive of trichomoniasis

• Moderate, white, thick or curd-like discharge is suggestive of candidiasis

• Scant, white, adherent, homogenous, malodorous discharge is suggestive of bacterial vaginosis (*Gardenella vaginalis*, *Mycoplasma hominis* and anaerobic bacteria)
Speculum Examination

• To confirm the origin of the discharge: from the vagina, the endocervix, or both

• To confirm if the discharge is vaginal: white curd-like (Candidiasis)

• To confirm if the discharge is cervical: cervical mucopus and friability of the cervix

• To make sure the patient does not have other STIs

• To screen for other abnormalities: cervical dysplasia and carcinoma (PAP smear)
STIs Risk Assessment

- A positive risk assessment increases the probability that the patient has a cervical infection that should be treated
- An STIs risk assessment is considered positive if:
  - the patient or her partner has an STI or high-risk behavior
  - Cervicitis is diagnosed by any of the following:
    - Cervical mucopus
    - Friability of the cervix
    - Positive STIs risk assessment
Gonococcal Versus Chlamydial Cervicitis

In the absence of Advanced laboratory tests, it is not possible to make a reliable distinction between gonococcal and chlamydial cervicitis

– the signs and symptoms of gonococcal and chlamydial cervicitis overlap
– coexisting gonococcal and chlamydial infections are common
Role of Laboratory in Vaginal Discharge Syndrome

Wet mount/gram stain to diagnose vaginitis

- Trichomoniasis: mobile trichomonads
- Candidiasis: budding yeasts or pseudohyphae
- Bacterial vaginosis:
  - Clue cells
  - plus pH > 4.5 or KOH positive
Complications of Gonococcal and Chlamydial Cervicitis

Left untreated chlamydial and gonococcal cervicitis can lead to serious consequences:

– pelvic inflammatory disease (PID)
– infertility
– ectopic pregnancy
– acquisition and transmission of HIV infection
– neonatal infections (ophthalmia neonatorum, pneumonitis)
Management of the Vaginal Discharge Syndrome

- **Since** cervical infections are frequently asymptomatic
- **Since** it is not possible to distinguish clinically between gonococcal and chlamydial cervicitis
- **Since** mixed gonococcal and chlamydial infections are common
- **Since** a significant proportion of women with cervicitis will develop complications

**It is recommended:**

All women with a vaginal discharge should be treated for cervicitis (both gonococcal and chlamydial infections):
- After speculum examination or/and
- A positive STIs Risk Assessment
VAGINAL DISCHARGE
(Without Speculum)

Patient Complains of Vaginal Discharge (Without Lower Abdominal Pain)

History and Assess Risk and External Examination

Risk Assessment Positive

Yes

Treatment for Gonorrhea and Chlamydia PLUS
Treatment for Trichomonas and Bacterial Vaginosis

No

Treatment for Trichomonas and Bacterial Vaginosis

Vulval Oedema/Excoriations Curd-like Discharge

Treatment for Candida
VAGINAL DISCHARGE
(With Speculum)

Patient Complains of Vaginal Discharge
(Without Lower Abdominal Pain)

History, Assess Risk
and Examination
(External and Speculum)

Cervical Mucopus and/or
Erosions/Friability of the
Cervix and/or Risk
Assessment Positive

Yes

Treatment for
Gonorrhea and
Chlamydia
PLUS
Treatment for
Trichomonas and
Bacterial Vaginosis

No

Treatment for
Trichomonas and
Bacterial Vaginosis

Vulval Edema/Excoriations
Curd-like Discharge

Treatment for Candida
### Treatment Regimen for Vaginal Discharge (Vaginitis)

#### Recommended Treatment for Trichomoniasis and Bacterial Vaginosis:
- Metronidazole 2g orally in a single dose
  (not during the first trimester of pregnancy)

#### Alternative Treatment for Trichomoniasis and Bacterial Vaginosis:
- Metronidazole 500 mg orally twice daily for 7 days
  (not in the first trimester of pregnancy)

*Note: Patients receiving metronidazole should be cautioned to avoid alcohol.*

#### PLUS

#### Recommended Treatment for Vaginal Candidiasis:
- Clotrimazole 500 mg inserted into the vagina once only
  *or*
- Clotrimazole 200 mg inserted into the vagina once daily for 3 days
  *or*
- Miconazole 200 mg inserted into the vagina once daily for 3 days
  *or*
- Nystatin 100,000 units (one pessary), inserted into vagina once daily for 14 days

*Single doses of treatment should be administered during the initial clinic visit.*
### Treatment Regimen for Vaginal Discharge (Cervicitis)

**Recommended Treatment for Gonococcal Cervicitis:**
- Ceftriaxone 250 mg IM in a single dose

**Alternative Treatment for Gonococcal Cervicitis:**
- Ciprofloxacin 500 mg orally in a single dose (not for pregnant / lactating women) or
- Spectinomycin 2g IM in a single dose

**PLUS**

**Recommended treatment for Chlamydial Cervicitis:**
- Azithromycin 1 g orally in a single dose or
- Doxycycline 100 mg orally twice daily for 7 days (not for pregnant / lactating women)

*Note: Preliminary data indicates that Azithromycin is safe for pregnant women (Pregnancy Category B).*

**Alternative treatment for Chlamydial Cervicitis:**
- Tetracycline 500 mg orally four times daily for 7 days (not for pregnant/ lactating women) or
- Erythromycin 500 mg orally 4 times daily for 7 days
Institute for HIV/AIDS

Family Health International
Trichomoniasis

Saline wet mount of vaginal secretions in trichomonal vaginitis, showing two T. vaginalis (arrows), leukocytes and a normal vaginal epithelial cell.
Case Study 12

A 24 years old woman complains of burning, itching and white vaginal discharge. She says it started about 10 days ago and is foul smelling. Her husband has also complained of the smell.

On examination you find white, curd-like, malodorous discharge. Her risk assessment is negative as best as you can tell. There is minimal vulvo-vaginal irritation and no evidence of cervicitis on speculum examination. Pelvic examination is normal.

a) What is your diagnosis?
b) What is the appropriate management?
Case Study 13

A 20 years old woman complains of burning, itching and vaginal discharge of about one week in duration. Her husband is a migrant worker who returned almost 2 weeks ago. He denies any sexual contacts or discharge. She adds that intercourse has become painful.

On examination the vulva is irritated. There is a profuse, watery, frothy, yellow discharge. The endocervix looks inflamed and bleeds easily on contact. She is not pregnant or breastfeeding.

a) What is your diagnosis?
b) What is the appropriate management
A 23 years old woman has had a vaginal discharge and itching. It has been there for two weeks and is getting worse. She does not know if her partner has a discharge or not because she has not seen him for two weeks. She refuses to have a genital examination. She is not pregnant or breastfeeding.

a) What is the most likely diagnosis?
b) What is the appropriate management?
LOWER ABDOMINAL PAIN IN WOMEN

Chlamydia trachomatis  Neisseria gonorrhoea
The Syndrome of Lower Abdominal Pain in Women

- The primary complaint is lower abdominal or pelvic pain, usually bilateral and of recent onset
- The presence of Pelvic Inflammatory Disease (PID) should be evaluated (salpingitis, endometritis)
- Other complaints may include painful intercourse, irregular bleeding and an abnormal vaginal discharge
- Systemic signs such as fever may be present

**Common pathogens:**
- *Neisseria gonorrhoea*
- *Chlamydia trachomatis*
- *Anaerobic pathogens*
Differential Diagnosis of Lower Abdominal Pain in Women

The differential diagnosis includes:

– Pelvic Inflammatory Disease (PID)

– Surgical emergencies such as acute appendicitis, peritonitis, abdominal abscess and ectopic pregnancy

– Other medical conditions
Etiology of Pelvic Inflammatory Disease

• PID implicates a wide spectrum of bacteria including STI agents and endogenous flora of the lower genital tract:
  – *Neisseria gonorrhoea*
  – *Chlamydia trachomatis*
  – *Anaerobic bacteria*
  – *Gram negative rods*
  – *Streptococci*

• Therapy for PID must therefore provide broad spectrum coverage of likely pathogens.
Clinical Criteria for Treatment of Pelvic Inflammatory Disease

Treatment for PID is indicated when a woman with lower abdominal pain has any one of the following physical findings:
– cervical motion tenderness, or
– abnormal vaginal / cervical discharge and lower abdominal tenderness

Intrauterine Device (IUD):
If the patient has an intrauterine device (IUD) in place, there is no evidence that removing it will benefit
Clinical Examination for Lower Abdominal Pain

To confirm:
- elevated temperature (indicates infection)
- abnormal vaginal discharge
- pain during examination

To make sure that there are no other STIs

<table>
<thead>
<tr>
<th>Palpation:</th>
</tr>
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<tbody>
<tr>
<td>- Tenderness: Superficial palpation</td>
</tr>
<tr>
<td>- Rebound Tenderness: Deep palpation</td>
</tr>
<tr>
<td>- Guarding: Rigid abdominal muscles</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bimanual Examination:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Swelling</td>
</tr>
<tr>
<td>- Lower abdominal tenderness</td>
</tr>
<tr>
<td>- Cervical mobilization</td>
</tr>
</tbody>
</table>
Surgical and Gynecological Referral

- Surgical Referral
  - Rebound Tenderness
  - Abdominal guarding

- Gynecological Referral
  - Missed overdue period
  - Recent delivery
  - Abortion
  - Vaginal bleeding
  - Abdominal mass
Hospitalization Should be Considered

- The diagnosis is uncertain
- Surgical emergencies: appendicitis, ectopic pregnancy
- Suspected pelvic abscess
- Pregnancy
- Failure of outpatient therapy
LOWER ABDOMINAL PAIN IN WOMEN

Patient Complains of Lower Abdominal Pain

History and Examination

Rebound Tenderness or Abdominal Guarding

Yes → Surgical Referral

No → Missed Overdue period or Recent Delivery/Abortion or Vaginal Bleeding or Abdominal Pain

Yes → Gynecological Referral

No → Cervical Motion Tenderness or Lower Abdominal Tenderness and Vaginal Discharge

Yes → Treatment of Pelvic Inflammatory Disease

Return after 3 days

Patient has improved?

Yes → Continue Treatment

No → Refer
<table>
<thead>
<tr>
<th>Treatment Regimen for Pelvic Inflammatory Disease</th>
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</thead>
<tbody>
<tr>
<td><strong>First Regimen:</strong></td>
</tr>
<tr>
<td>• Ceftriaxone 250 mg IM in a single dose Plus</td>
</tr>
<tr>
<td>• Doxycycline 100 mg orally twice daily or Tetracycline 500 mg orally 4 times daily for 14 days (not for pregnant/lactating women) Plus</td>
</tr>
<tr>
<td>• Metronidazole 500 mg orally or IV twice daily for 14 days (not during the first trimester of pregnancy)</td>
</tr>
<tr>
<td><strong>Second Regimen:</strong></td>
</tr>
<tr>
<td>• Clindamycin 900 mg IV every 8 hours or</td>
</tr>
<tr>
<td>• Gentamycin 1.5 mg/kg IV every 8 hours.</td>
</tr>
</tbody>
</table>

Treat for at least 48 hours then evaluate the condition. Consider possibly shifting to another oral regimen.

| **Third Regimen:**                                |
| • Ciprofloxacin 500 mg orally in a single dose Plus |
| • Doxycycline 100 mg orally twice daily or Tetracycline 500 mg orally 4 times daily for 14 days (not for pregnant/lactating women) Plus |
| • Metronidazole 500 mg orally or by intravenous (IV) injection, twice daily for 14 days (not during the first trimester of pregnancy) |

Note: No pain killers should be used since they may mask serious complications. Patients receiving Metronidazole should be cautioned to avoid alcohol.
Case Study 15

A 25 years old married woman complains of a dull pain in her lower abdomen that she has been experiencing for the last 3 days. She also complains of increased vaginal discharge which she noticed one week after her husband returned from Bangkok about four weeks ago.

Her last menstrual period was 9 days ago and she uses an IUD. She denies any irregular bleeding. Her abdominal examination is difficult because she is embarrassed but there is no evidence of peritonitis.

On speculum examination you note a purulent discharge from the endocervical os, and cervical motion tenderness on bimanual examination.

a) What is your diagnosis?

b) What is the appropriate management?
Case Study 16

A 30 years old woman complains of pain in her lower abdomen for 10 days. Her husband is a frequent traveler and comes home to her every two weeks. He was home last night and intercourse was very painful for her. The last time she had intercourse with her husband before last night was four weeks ago. She denies any fever or vaginal discharge. She is not using any form of family planning. She refuses to be examined by you.

a) What is your diagnosis?
b) What is the appropriate management?
NEONATAL CONJUNCTIVITIS

Chlamydia trachomatis

Neisseria gonorrhoea
Syndrome of Neonatal Conjunctivitis

- presence of purulent conjunctival discharge
- one or both eyes may be involved
- baby's eyes are usually closed
- eyelids are usually swollen
- when eyelids are separated or pressed, pus pours out

Common pathogens:  
*Neisseria gonorrhoea*  
*Chlamydia trachomatis*
### Treatment Regimen for Neonatal Conjunctivitis

**Recommended Treatment of Baby for Gonococcal Ophthalmia:**
- Ceftriaxone 50 mg/kg (maximum 120 mg) IM in a single dose

**Alternative Treatment of Baby for Gonococcal Ophthalmia:**
- Kanamycin 25 mg/kg (maximum 75 mg) IM in a single dose
- Streptomycin 25 mg/kg (maximum 75 mg) IM in a single dose

**PLUS**

**Recommended treatment of Baby for Chlamydial Conjunctivitis:**
- Erythromycin syrup 50 mg/kg/day orally 4 times daily for 14 days

**Alternative treatment of Baby for Chlamydial Conjunctivitis:**
- Cotrimoxazole syrup 1 teaspoon orally twice daily for 14 days

**PLUS**

- Cleaning of baby's eyes:
  - Clean baby's eyes with saline or clean water, using a clean swab for each eye
  - Clean from inside to the outside edge of each eye
  - Wash your hand carefully afterwards.

*Single doses of treatment should be administered during the initial clinic visit.*
Other STIs
Condyloma Accuminata
(Anal and Genital Warts)

• caused by the human papilloma virus (HPV)
• are nearly always transmitted by sexual contact
• Incubation period: 1-6 months
• soft fleshy growths with cauliflower appearance
• recurrences after removal is common
• women with genital warts should have an annual PAP smear (cervical cancer)
• can be confused with condyloma lata, granulating lesions of donovanosis or carcinoma
Treatment of Condyloma Accuminata

- Podophyllin resin (10-25% in Tincture of Benzoin):
  - Apply once or twice weekly until resolved.
  - Should be washed off 2 hours after the first application.
  - Contraindicated in pregnancy

- Electro-cauterization
- Cryotherapy with liquid nitrogen
- Surgical removal
- Laser surgery
Molluscum Contagiosum

• It is caused by a pox virus
• Pearly white umbilicated papules (2-5 mm) that appears in the genital area
• If transmission is non-sexual, they may also be found in any part of the body
Treatment of Molluscum Contagiosum

• Curettage (often followed by iodine)
• Unroof lesions with a needle and express the central materials
• Electro-cauterization
• Cryotherapy
Scabies

- Infestation is caused by the mite Sarcoptes scabiei
- The clinical features are caused by the female burrowing into the upper most layer of the skin and laying eggs and defecating
- Usually occurs as a result of close physical, but not necessarily sexual contact
- The patient usually complains of itching, which is often unbearable and arises at night when the body is warm
- Lesions may often be found in the cleft of the fingers and on the wrists and elbows as well as on genitals.
## Treatment of Scabies

- Permethrin 5% lotion, emulsion, cream
- Lindane 1% cream (Not for pregnant or lactating women nor for children less than 2 years – not after bath)
- Sulfur (5% children 10% adult) precipitated in ointment
- Ivermectin (1 tab/30 kg) single oral dose or topical solution
- Change and launder clothes and bed linens
Pediculosis pubis

• Infection is caused by the pubic louse: Phthirus pubis

• The insect is small and round (1-2 mm) and has three sets of legs. It is a blood sucker. The adult adheres not only to pubic hair but also to other hairy areas of the body. The female lays eggs (nits) at the base of the hair and these usually hatch within 7 days

• The adult louse is transferred from person to person during close bodily contact

• The patient may complain of itching and irritation
Treatment of Pediculosis Pubis

- Permethrin 5% lotion, emulsion and cream
- Malathion 0.5%
- Lindane 1% cream (Not for pregnant or lactating women nor for children less than 2 years - not after bath)
- Occlusive ophthalmic ointment to eyelids margins twice a day for 10 days
- Change and launder clothes and bed linens.
Elements of STIs Surveillance

- **Passive Data Collection**
  - Case notification
  - Routine screening
  - Laboratory reporting

- **Specific Surveys/Studies**
  - Prevalence
  - Drug sensitivity
  - Algorithm validation
  - Syndrome etiology
  - Biological and Behavioral Surveillance Survey (BSS)
  - Treatment seeking behavior
  - Others
Record Keeping and Reporting

• **Important questions?**
  
  • Is it possible to monitor trends in the frequency of STIs syndromes or their incidence in the population?
  • How can the data be used locally?
  • What data might be useful to collect?
  • Who collects the data and when?
  • Who performs electronic data entry?
  • Where are the data stored?
What data to be collected?

**Goal:** “to monitor the frequency of the patients treated for each STI syndrome”

- Simple data
- Use of simple sheet or sheets for recording data
- Information on the numbers of people treated for specific syndrome
- Other Information include: gender, age, occupation, marital status, sexual behavior…
Data Management

- Regular standard collection of data
- Files should be stored in secure place
- The data should be interpreted
- Results should be available to staff at the center and also sent to the national level
How can we interpret the findings of recordings?

- The frequency and incidence of STIs syndromes
- We cannot use it to deduce the prevalence
- Usually used to refer to a proportion of the entire population of the country

The frequency: the number of infections over a given time period
The incidence: the frequency of new infections, expressed as a proportion of the population at risk
The prevalence: the proportion of a defined population with the infection at a given point or period of time
Recording the Number of STIs Patients Can Help

- Identify trends in the frequency and incidence of STIs
- Better planning for human and materials resources
- Identify ways to promote service

“Recording alone cannot explain the reasons for trends without epidemiological research: Biological and Behavior Surveillance Survey (BSS)”
Data Collection Instruments

- STIs Logbook
- STIs Client Intake Form
- Inventory Form
- Request for Referral
- Monthly report
Appendix-A:

**Sample of Workshop Agenda**

*(Training Schedule)*

**Day - 1**

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Resource person</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00-10:30 am</td>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>10:30-11:30 am</td>
<td>Review of the workshop Agenda</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ground rules for the workshop</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre-test</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The STIs Situation</td>
<td></td>
</tr>
<tr>
<td>11:30-12:00 pm</td>
<td>Tea-Break</td>
<td></td>
</tr>
<tr>
<td>12:00- 12:45 pm</td>
<td>Facts about STIs</td>
<td></td>
</tr>
<tr>
<td>12:45-1:30 pm</td>
<td>RTIs/STIs/HIV</td>
<td></td>
</tr>
<tr>
<td>1:30-2:30 pm</td>
<td>Steps of the Comprehensive Management of STIs</td>
<td></td>
</tr>
<tr>
<td>2:30-3:00 pm</td>
<td>Discussions followed by Lunch</td>
<td></td>
</tr>
</tbody>
</table>
### Day - 2

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Resource person</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00-9:45 am</td>
<td>Communication Skills</td>
<td></td>
</tr>
<tr>
<td>9:45-10:45 am</td>
<td>Health Education Messages: the 4 Cs</td>
<td></td>
</tr>
<tr>
<td>10:45-11:30 am</td>
<td>Approaches for STIs Case Management</td>
<td></td>
</tr>
<tr>
<td>11:30-12:00 pm</td>
<td>Tea-Break</td>
<td></td>
</tr>
<tr>
<td>12:00 -1:15 pm</td>
<td>Urethral Discharge in Men</td>
<td></td>
</tr>
<tr>
<td>1:15 - 2:30 pm</td>
<td>Genital Ulcer</td>
<td></td>
</tr>
<tr>
<td>2:30-3:00 pm</td>
<td>Discussions followed by Lunch</td>
<td></td>
</tr>
</tbody>
</table>

### Day - 3

<table>
<thead>
<tr>
<th>Time</th>
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</tr>
</thead>
<tbody>
<tr>
<td>09:00-9:45 am</td>
<td>Inguinal Swelling (Bubo)</td>
<td></td>
</tr>
<tr>
<td>09:45-10.30 am</td>
<td>Scrotal Swelling and Pain</td>
<td></td>
</tr>
<tr>
<td>10:30-11:30 am</td>
<td>Vaginal Discharge</td>
<td></td>
</tr>
<tr>
<td>11:30-12:00 pm</td>
<td>Tea-Break</td>
<td></td>
</tr>
<tr>
<td>12:00-01:00 pm</td>
<td>Lower Abdominal Pain in Women</td>
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</tr>
<tr>
<td>1:00-1:20 pm</td>
<td>Neonatal Conjunctivitis</td>
<td></td>
</tr>
<tr>
<td>1:20 -1:45 pm</td>
<td>Other STIs</td>
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</tr>
<tr>
<td>1:45-2:30 pm</td>
<td>STIs Data</td>
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</tr>
<tr>
<td>2:30-3:00 pm</td>
<td>Discussions followed by Lunch</td>
<td></td>
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### Day - 4

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<td>09:00-10:00 am</td>
<td>Introduction to practical sessions</td>
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</tr>
<tr>
<td></td>
<td>Clinical Training</td>
<td></td>
</tr>
<tr>
<td>10:00-11:30 am</td>
<td>Clinical Training</td>
<td></td>
</tr>
<tr>
<td>11:30-12:00 pm</td>
<td>Tea-Break</td>
<td></td>
</tr>
<tr>
<td>12:00-2:30 pm</td>
<td>Clinical Training</td>
<td></td>
</tr>
<tr>
<td>2:30-3:00 pm</td>
<td>Feedback followed by lunch</td>
<td></td>
</tr>
</tbody>
</table>

### Day - 5

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<tr>
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</thead>
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<tr>
<td>09:00-11:30 am</td>
<td>Clinical Training</td>
<td></td>
</tr>
<tr>
<td>11:30-12:00 pm</td>
<td>Tea-Break</td>
<td></td>
</tr>
<tr>
<td>12:00-2:00 pm</td>
<td>Clinical Training</td>
<td></td>
</tr>
<tr>
<td>2:00-2:30 pm</td>
<td>Feedback</td>
<td></td>
</tr>
<tr>
<td>02:30-3:00 pm</td>
<td>Post-test</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course evaluation</td>
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</tr>
<tr>
<td></td>
<td>Closing followed by lunch</td>
<td></td>
</tr>
</tbody>
</table>
Appendix -B:

Sample 1 of Pre and Post-Test Questionnaires

Write True (T) or false (F)

1. STI patients are more likely to become infected when exposed to HIV virus, but are less likely to transmit HIV if they are infected.

2. Early and effective STIs treatment prevents future transmission of STIs but not HIV.

3. Non ulcerating STIs facilitate HIV transmission.

4. Recent studies showed that tetracycline is the most effective antibiotic for N. gonorrhea.

5. Ciprofloxacin should not be given to pregnant women.

6. Tetracycline can be given to lactating and not pregnant women.

7. The syndromic approach for STI case management reduces probability of incorrect clinical diagnosis.

8. Both gonorrhoea and chlamydia should be always suspected in a woman with cervical discharge.

9. A man complaining of urethral discharge is advised to be treated with ciprofloxacin.

10. Mixed gonococcal and chlamydial infections are common.

11. It is possible to make a conclusive distinction clinically between gonococcal and chlamydial urethritis on clinical grounds.

12. Multiple small painful vesicles on genitalia is the classical appearance of genital herpes.

13. Multiple painful ulcers are specific for chancroid.

14. Syphilitic chancre and chancroid can co-exist.

15. Lymphogranuloma venereum is likely to be diagnosed in case of inguinal lymphadenopathy associated with an ulcer.

16. Chancroid is likely to be diagnosed in case of inguinal lymphadenopathy not associated with an ulcer.
17. An asymptomatic partner of a case of genital ulcer should receive treatment.

18. An asymptomatic partner of a case of urethral discharge should receive treatment.

19. A woman came to you complaining of vaginal discharge, on speculum examination there was vaginal but not cervical discharge. She stated that her partner was recently treated from an STI. Should you give her a treatment for vaginitis and cervicitis.

20. Friability of the cervix is quiet enough to diagnose cervicitis.

21. Cervical mobilization tenderness is a sign of cervicitis.

22. You would treat a woman with lower abdominal pain who had given you a history of recent abortion.

23. Gynecological referral is advised, in case of abdominal guarding detected on palpation.

24. A fluctuant bubo should be excised.

25. Frothy discharge is specific for trichomoniasis while curd like discharge is specific for candidiasis.

26. From the health center, you could work out the prevalence of a specific STI.

27. A female partner of a case of scrotal swelling should be treated for gonorrhea only.

28. A married patient having steady sexual relation with one female sex worker, come to you suffering from urethral discharge. You shall treat him as well as his wife only.

29. The mother of a baby suffering from neonatal conjunctivitis should be treated too.

30. It is a good practice to withhold treatment from an STI patient until the diagnosis is confirmed by laboratory tests.

31. Most of the STIs patients you treat will start to use condoms just because you said so.
32. Oil-based lubricants should be used with latex condoms to prevent irritation and breakage.

33. Health workers must avoid discussing sexual matters. It is useless to try to change the behavior of your patient.

**Answers of sample 1 of Pre-and Post -Test:**

**True:** 3, 5, 7, 8, 10, 12, 14, 17, 18, 19, 20, 23, 25, 29
Sample 2 of Pre and Post-Test Questionnaires

Write True (T) or false (F)

1. The following condition is an STI:
   a- Chlamydial Cervicitis
   b- Vaginal Trichomoniasis
   c- Bacterial Vaginosis

2. Gram stain microscopy is recommended to diagnose:
   a- Gonorrhea in women
   b- Chlamydial uretheritis in men
   c- Chlamydial infection in women
   d- Vaginal infection in women
   e- Cervical infection in women

3. Chlamydia is excluded in men if urethral discharge is muco-purulent

4. Gonorrhea is excluded in men if urethral discharge is scanty and clear

5. Painful multiple ulcerations on genitalia might occur in the following conditions:
   a- Herpes
   b- Syphilis
   c- Chancroid

6. In presence of syphilitic ulcer, negative serologic test is possible

7. Asymptomatic partner of an STI patient should be treated
8. Most of STI female patients are asymptomatic

9. The following drug should not be given to lactating mothers:
   a- Ciprofloxacin
   b- Azithromycin
   c- Metronidazole

10. Skin allergy testing should be performed prior to penicillin injections without special precautions

11. A fluctuant bubo may be caused by:
   a- Syphilis
   b- Chancroid
   c- Lymphogranuloma venerum

12. Pathogens causing vaginitis include:
   a- Chlamydia
   b- Trichomonas
   c- Gonorrhea

Answers of sample 2 of Pre-and Post -Test:
True: 1a, 1b, 2d, 5a, 5b, 5c, 6, 7, 8, 9a, 11b, 11c, 12b
Appendix-C:

Course Evaluation Form

Please rate the usefulness of the different sessions and exercises using the above scale:

<table>
<thead>
<tr>
<th>Session</th>
<th>ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pre and Post-test</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2. The STIs Situation</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3. Facts about STIs</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4. RTIs/STIs/HIV</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5. Steps of the Comprehensive Management of STIs</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6. Communication Skills</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7. Exercise on Sexual Words</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8. Health Education Messages (the 4Cs)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9. Approaches for STIs Management</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>10. Urethral Discharge in Men</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>11. Genital Ulcer</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>12. Inguinal Swelling (Bubo)</td>
<td>1</td>
</tr>
<tr>
<td>13. Scrotal Swelling</td>
<td>1</td>
</tr>
<tr>
<td>14. Vaginal Discharge</td>
<td>1</td>
</tr>
<tr>
<td>15. Lower Abdominal Pain in Women</td>
<td>1</td>
</tr>
<tr>
<td>16. Neonatal Conjunctivitis</td>
<td>1</td>
</tr>
<tr>
<td>17. Other STIs</td>
<td>1</td>
</tr>
<tr>
<td>18. Data Management</td>
<td>1</td>
</tr>
<tr>
<td>19. Clinical Slides</td>
<td>1</td>
</tr>
<tr>
<td>20. Case Studies</td>
<td>1</td>
</tr>
</tbody>
</table>

21. What did you like least about the workshop?

________________________________________________________________________

________________________________________________________________________

22. What did you like most about the workshop?

________________________________________________________________________

________________________________________________________________________

23. Suggestions: how could the workshop be improved?

________________________________________________________________________

________________________________________________________________________
Appendix-D:

Data Collection Instruments

1. STIs Logbook
2. STIs Client Intake Form
3. Inventory Form
4. Request for Referral
5. Monthly report
## STIs LOGBOOK

<table>
<thead>
<tr>
<th>Column heading</th>
<th>Possible answers</th>
</tr>
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<tbody>
<tr>
<td>Date</td>
<td>Start new page by date every new working day</td>
</tr>
<tr>
<td>Client code</td>
<td></td>
</tr>
<tr>
<td>District/Governorate</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>1 = male, 2 = female</td>
</tr>
<tr>
<td>Age</td>
<td>1 = &lt;16 years 2 = 16-24 years 3 = 25-35 years 4 = &gt;35 years</td>
</tr>
<tr>
<td>Complaint</td>
<td></td>
</tr>
<tr>
<td>Visit type</td>
<td>1 = First Visit 2 = Follow up Visit 3 = Return visit 4 = Partner referral</td>
</tr>
<tr>
<td>Examination performed</td>
<td>1 = yes, 2 = no</td>
</tr>
<tr>
<td>Treatment prescribed</td>
<td>1 = yes, 2 = no</td>
</tr>
<tr>
<td>Condoms given</td>
<td>1 = yes, with demo 2 = yes, without demo 3 = not given 4 = refused 5 = condoms not available</td>
</tr>
<tr>
<td>IEC materials given</td>
<td>1 = yes, 2 = no</td>
</tr>
<tr>
<td>Counseling completed</td>
<td>1 = yes, 2 = no</td>
</tr>
<tr>
<td>Referral</td>
<td>1 = yes, to VCT 2 = yes, to other services 3 = no</td>
</tr>
</tbody>
</table>
STIs CLIENT INTAKE FORM

Client Code

Date:
First Visit 1 [ ] Yes 2 [ ] No
Follow up visit 1 [ ] Yes 2 [ ] No
Return visit 1 [ ] Yes 2 [ ] No

Governorate:
District:

Age: (Tick one)
1 [ ] <16 years 2 [ ] 16-24 years 3 [ ] 25-35 years 4 [ ] >35 years

Gender: (Tick one)
1 [ ] Male 2 [ ] Female

Occupation: (Tick one)
1 [ ] Unemployed 2 [ ] Student 3 [ ] Craftsman 4 [ ] Professional 5 [ ] Other – please specify:

Education: (Tick one)
1 [ ] None 2 [ ] Some primary 3 [ ] Some preparatory 4 [ ] Some secondary 5 [ ] Some university 6 [ ] University

Marital status: (Tick one)
1 [ ] Never married 2 [ ] Steady partner, not living together 3 [ ] Steady partner, living together 4 [ ] Married, monogamous 5 [ ] Married, polygamous 6 [ ] Widowed 7 [ ] Separated / divorced

Pregnant, If female: (Tick one)
1 [ ] Yes 2 [ ] No 3 [ ] Don't know 9 [ ] N/A

Client visit as: (Tick one)
1 [ ] Individual 2 [ ] Couple

Complaint: (Tick all that apply)
1 [ ] Urethral discharge/dysuria in men 2 [ ] Genital ulcer 3 [ ] Vaginal discharge 4 [ ] Scrotal swelling/pain 5 [ ] Inguinal Swelling (Bubo) 6 [ ] Lower abdominal pain in women 7 [ ] Itching at genitalia 8 [ ] Skin eruption 9 [ ] Referred by health worker 10 [ ] Other - Please specify:

Used condom last time had sex: (Tick one)
1 [ ] Yes 2 [ ] Yes, but condom broke 3 [ ] No 9 [ ] Never had sex

Used injecting drugs? (Tick one)
1 [ ] Yes 2 [ ] No

Exchanged sex for drugs? (Tick one)
1 [ ] Yes 2 [ ] No

History and Examination:

Male:
History 1 [ ] Yes 2 [ ] No
Examination 1 [ ] Yes 2 [ ] No

Findings
1 Urethral Discharge 1 [ ] Yes 2 [ ] No 2 Genital Ulcer 1 [ ] Yes 2 [ ] No 3 Others findings

How did client learn about this service? (Tick all that apply)
1 [ ] Television 2 [ ] Radio 3 [ ] Newspaper 4 [ ] Poster/sign post 5 [ ] Pamphlets 6 [ ] Relative/friend 7 [ ] Sex partner/spouse 8 [ ] Another VCT client 9 [ ] Health facility/worker 10 [ ] Hotline 11 [ ] Other - Please specify:

Sex in last month? (Tick one)
1 [ ] Yes 2 [ ] No

No. of sex partners over past 6 months: (Tick one)
1 Women sex partners 2 Men sex partners
**STIs CLIENT INTAKE FORM**

**Client Code**

### Female:
- **History**
  - 1 [ ] Yes  2 [ ] No
- **Risk assessment**
  - 1 [ ] Pos  2 [ ] Neg

### Examination
- **Without Speculum**
  - 1 [ ] Yes  2 [ ] No
- **With Speculum**
  - 1 [ ] Yes  2 [ ] No
- **With Speculum and Microscope:**
  - **Wet mount**
    - 1 [ ] Yes  2 [ ] No
  - **Gram stain**
    - 1 [ ] Yes  2 [ ] No

### Findings (Tick all that apply)
- **Curd like discharge**
  - 1 [ ] Yes  2 [ ] No
- **Cervical mucopus**
  - 1 [ ] Yes  2 [ ] No
- **Friable cervix**
  - 1 [ ] Yes  2 [ ] No
- **Ph > 4.5**
  - 1 [ ] Yes  2 [ ] No
- **KOH positive**
  - 1 [ ] Yes  2 [ ] No
- **Clue cells**
  - 1 [ ] Yes  2 [ ] No
- **Trichomonads**
  - 1 [ ] Yes  2 [ ] No
- **Budding yeasts**
  - 1 [ ] Yes  2 [ ] No
- **Cervical motion tenderness**
  - 1 [ ] Pos  2 [ ] Neg

### Other findings

### Counseling (4Cs) completed? (Tick one):
- 1 [ ] Yes  2 [ ] No

### IEC materials given? (Tick one):
- 1 [ ] Yes  2 [ ] No

### Final Diagnosis (Tick all that apply)
- **Urethral discharge in men**
- **Genital ulcer (not Herpes)**
- **Genital Herpes**
- **Vaginitis:**
  - If microscope:
    - 4 [ ] Trichomonas
    - 4 [ ] Bacterial vaginosis
    - 4 [ ] Candida
- **Cervicitis**
- **PID**
- **Scrotal swelling (non surgical)**
- **Inguinal bubo**
- **Genital wart**
- **Other - Please specify:**

### Follow up visit scheduled (Tick one):
- 1 [ ] Yes  2 [ ] No

### Cured at Follow up? (Tick one):
- 1 [ ] Yes
- 2 [ ] No due to non compliance
- 3 [ ] No due to re-infection
- 4 [ ] No without clear reason

### Condoms given? (Tick one):
- 1 [ ] Yes, with demo
- 2 [ ] Yes, without demo
- 3 [ ] No
- 4 [ ] Refused
- 5 [ ] Condoms not available

### Referred: (Tick all that apply)
- 1 [ ] Yes  2 [ ] No

- **If yes, referred to:**
  - 1 [ ] VCT services
  - 2 [ ] Laboratory services
  - 3 [ ] Surgery services
  - 4 [ ] ANC services
  - 5 [ ] FP services
  - 6 [ ] Other - Please specify:

### STI Management/Treatment prescribed (Tick one):
- 1 [ ] Yes  2 [ ] No

### Intend to notify partner? (Tick one):
- 1 [ ] Yes  2 [ ] No

- **If No, Please specify:**
**INVENTORY FORM**

Reporting Period: ____________________

<table>
<thead>
<tr>
<th>Condoms</th>
<th>Number</th>
<th>IEC Materials</th>
<th>Number</th>
</tr>
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<tbody>
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<td>Condom stocks at beginning of month</td>
<td>(A)</td>
<td>IEC Materials in stocks beginning of month</td>
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<tr>
<td>New condom stocks received during the month</td>
<td>(B)</td>
<td>New IEC stocks received during the month</td>
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<tr>
<td>Condom stocks at end of month</td>
<td>(C)</td>
<td>IEC Materials in stocks at end of month</td>
<td>(C)</td>
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<td>(A)+(B)-(C) = (D)</td>
<td>Number of IEC Materials distributed</td>
<td>(A)+(B)-(C) = (D)</td>
</tr>
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*To check for errors in counting, the total amount distributed in the table above should equal the total distributed from the table below.
**Shade in weekends to explain lack of data.*

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<th>Date</th>
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<td>Stock at end of day (C)</td>
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<td>TOTAL # OF IEC MATERIALS DISTRIBUTED =</td>
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247
# REQUEST FOR REFERRAL

**Client Code**

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<tr>
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<td>NAME OF SERVICE TO WHICH REFERRED:</td>
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<tr>
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<td>REASONS FOR REFERRAL:</td>
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<tr>
<td>3.</td>
<td>REFERRED BY PHYSICIAN</td>
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<td>Date:</td>
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## Table 1: Services Provided by STI Center

<table>
<thead>
<tr>
<th>Number of</th>
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<th>Total</th>
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<tbody>
<tr>
<td></td>
<td>&lt;16</td>
<td>16-24</td>
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<tr>
<td>Clients visiting STI center</td>
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</tr>
<tr>
<td>Return clients</td>
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<td>Clients receiving counseling</td>
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<tr>
<td>Clients being managed</td>
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<tr>
<td>Clients with Ulcerations (not Herpes)</td>
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<td></td>
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<tr>
<td>Clients with Genital Herpes</td>
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<tr>
<td>Clients with Urethral Discharge</td>
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</tr>
<tr>
<td>Clients with Cervicitis</td>
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<tr>
<td>Clients with Vaginitis</td>
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<td>Clients with confirmed Trichomoniasis</td>
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<tr>
<td>Clients with confirmed Bacterial Vaginosis</td>
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## Table 2: Commodities Distributed

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<td>IEC Materials</td>
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**Additional Remarks**

Site manager’s signature Date
References


5. STI Training Curriculum. Family Health International, Bangladesh.