



Ministry of Health and Population
National AIDS Program
Arab Republic of Egypt

National Guidelines for the Management of Sexually Transmitted Infections



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The upgrading of health services offered to the Egyptian population for the detection and treatment of sexually transmitted infections (STIs) is a major priority area for the Ministry of Health and Population (MOHP).

Due to worldwide concerns regarding the spread of STIs, including HIV/AIDS, preventive health services remain imperative in controlling further spreading of infections.

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- ▶ Family Health International's Implementing AIDS Prevention and Care (IMPACT) Project in Egypt

I look forward to the success of these activities in maintaining the good health of all Egyptians.

Sincerely,



Dr. Nasr El Sayed
Undersecretary
Preventive Affairs
Ministry of Health and Population

Acronyms

AIDS	Acquired Immunodeficiency Syndrome
FHI	Family Health International
HIV	Human Immunodeficiency Virus
IM	Intramuscular
IMPACT	Implementing AIDS Prevention and Care Project
IUD	Intrauterine Device
IV	Intravenous
KOH	Potassium Hydroxide
LGV	Lymphogranuloma Venereum
MOHP	Ministry of Health and Population
PID	Pelvic Inflammatory Disease
STI	Sexually Transmitted Infection
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing

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INTRODUCTION

The control of sexually transmitted infections (STIs) is an essential component of all public health programs. STIs can remain asymptomatic for long periods of time however they can cause serious complications, fetal and neonatal infections. Furthermore, left uncontrolled, STIs significantly increase the spread of the human immunodeficiency virus (HIV). By promoting the early detection of STIs, the morbidity associated with infection can be greatly reduced.

The interrelationship between HIV infection and the other STIs are many. HIV infection is yet another STI. It is acquired and transmitted in the same manner as all other STIs. The primary prevention of both HIV infection and other STIs is the same. Most importantly, the presence of other STIs increases the risk of acquisition and transmission of HIV. Concurrent HIV in an STI patient may change the natural history of the STI, where infectivity may be increased and treatment may be prolonged.

The objectives of STI case management are to:

- ▶ Provide treatment
- ▶ Obtain cure
- ▶ Reduce infectivity
- ▶ Prevent, or at least reduce, future risk taking behaviour
- ▶ Make sure sexual partners are appropriately treated
- ▶ Prevent complications such as pelvic inflammatory disease (PID), infertility, low birth weight, and abortion in women

In order to achieve the objective of appropriate case management the patient must receive:

- ▶ Correct diagnosis
- ▶ Effective treatment
- ▶ Education and counseling on risk reduction including promotion (and provision) of condoms
- ▶ Encouragement to notify/treat sexual partner(s)
- ▶ Clinical follow up where necessary

Strategies for STI Control

Controlling STIs should include not only the strategy for treatment of curable STIs, but also a strategy to prevent further transmission of infection. In addition to providing care for STI patients, an emphasis must be placed on providing educational interventions for the prevention of transmission. STI patients should be managed in a comprehensive manner which includes treatment and prevention.

Patients with an STI seek care when they have symptoms. Therefore, the care that is offered to them should relieve the patients of their symptoms as quickly as possible. Care must be emphasized on preventing complications and achieving non-infectiousness as soon as possible. This practical guide is designed to illustrate the use of the syndromic approach in assisting health care providers to provide effective and appropriate management of STI patients.

The main principle behind the syndromic case management approach is that STI patients are treated during their first encounter with a health facility. They do not need to be referred to special STI clinics, nor do they require sophisticated laboratory tests before effective care is provided. Many patients do not return for results of laboratory tests, if such tests are conducted. Treatment becomes deferred until the test results are available. Hence, the opportunity to treat the STI patient will be lost, with adverse effects on the patients and an increased risk of further transmission onto others. Thus, utilizing the first encounter by applying the syndromic approach to case management reduces the number of patients lost to follow-up. Therefore, even in sites with laboratory equipment available, treatment should be initiated at the first encounter with the health care provider based on syndromic case management and laboratory tests ordered as required. Treatment should be reviewed again later when the test results become available.

Although STIs can be caused by a large number of pathogens, these pathogens fortunately produce a common set of symptoms and signs – known as syndromes – which can be easily diagnosed. These syndromes include urethral discharge, genital ulcer, vaginal discharge in women, lower abdominal pain in women, scrotal swelling in men, inguinal swelling (Bubo) and neonatal conjunctivitis. The flowcharts in this guide have been developed to deal with each of the STI syndromes.

As any syndrome may be caused by more than one pathogen, the syndromic treatment regimen includes treatment for the commonly causing pathogens of the particular syndrome. While this may result in over-treatment in some cases, this type of treatment is still extremely effective since most cases have mixed infections and some of the infections cannot be confirmed or ruled out with simple diagnostic tests. Common causative pathogens for STI syndromes are listed in the following table.

Table 1: Common Causative Pathogens for STI Syndromes

Syndrome	Common Pathogens
Urethral Discharge	<i>Neisseria gonorrhoea, Chlamydia trachomatis</i>
Genital Ulcer	<i>Treponema pallidum, Haemophilus ducreyi, Herpes simplex virus</i>
Vaginal Discharge	<i>Neisseria gonorrhoea, Chlamydia trachomatis, Trichomonas vaginalis, Candida albicans, pathogens causing non-specific vaginitis</i>
Lower Abdominal Pain (women)	<i>Neisseria gonorrhoea, Chlamydia trachomatis, Anaerobic bacteria</i>
Scrotal Swelling	<i>Neisseria gonorrhoea, Chlamydia trachomatis</i>
Inguinal Swelling (Bubo)	<i>Lymphogranuloma venereum chlamydia, Haemophilus ducreyi</i>
Neonatal Conjunctivitis	<i>Neisseria gonorrhoea, Chlamydia trachomatis</i>

Education and Counseling

Education and counseling of patients with STIs are very important, not only for the current episode, but also to prevent future episodes. Education and counseling are an essential component of the first encounter with the STI client.

The clinical setting provides a very good opportunity for education and counseling of STI patients. Since STI patients are already at increased risk, they are more willing to receive educational messages from their health care provider.

Standardized information should be provided to all STI patients. This information is summarized as the 4Cs:

- ▶ ***Compliance,***
- ▶ ***Counseling for prevention,***
- ▶ ***Condom use and***
- ▶ ***Contact management.***

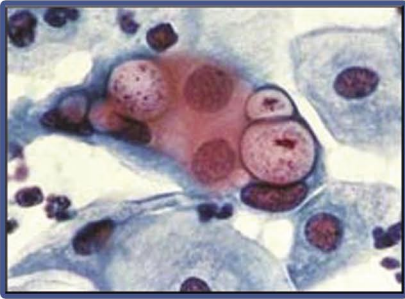
In some cases, additional information may need to be provided depending on the type of infection. This information is included in the flow-chart.

Table 2: The 4Cs - Compliance, Counseling, Condoms and Contact Management

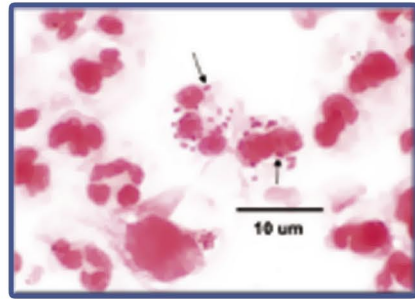
- ▶ **C**ompliance: *STI patients must be encouraged to comply to their prescribed treatment*
 - ◆ Give all necessary instructions for the patient to complete the full course of treatment. Disappearance of symptoms during treatment does not mean that the patient is cured
 - ◆ To avoid re-infection from partner or transmitting the infection to partner, the patient should avoid sexual contact during the treatment and until partner has been treated
 - ◆ Ensure a follow-up visit
- ▶ **C**ounseling for prevention: *Every patient suffering from STI must receive and understand the following educative messages tailored for each patient*
 - ◆ Sexual contact is the cause of STIs
 - ◆ Without treatment, STIs may cause severe complications
 - ◆ The mode of transmission of STIs, including HIV
 - ◆ STI augments the risk of HIV transmission
 - ◆ Information about safer sex practices and use of condom
 - ◆ Offer referrals for applicable services, such as for HIV voluntary counseling and testing (VCT) and syphilis serology
- ▶ **C**ondom use: *To minimize the further transmission of STIs, including HIV, it is essential to educate all clients on the proper use of a condom:*
 - ◆ Demonstrate to each patient how to use a condom correctly
 - ◆ Clinic should supply condoms to STI clients
- ▶ **C**ontact management: *Patients must understand the importance of partner management even if he/she is asymptomatic:*
 - ◆ Risk of re-infection from asymptomatic partner
 - ◆ Risk of complications for his/her partner
 - ◆ Possible ways of partner management include:
 - Providing additional treatment regimens for the partner
 - Encouraging partners to come to the clinic for treatment

Remember
the 4Cs

Urethral Discharge in Men



Chlamydia trachomatis



Neisseria gonorrhoea

Urethral Discharge in Men

History taking and examination: Take history and examine the patient. Inspect genital organs. Do not forget to inspect the interior part of the prepuce and the covered part of glans penis.

Reasons for medical examination:

- ▶ To confirm the presence of urethral discharge
- ▶ To rule out existence of other STIs

If there is no obvious discharge, ask the patient to milk the urethra from the ventral part of penis towards the meatus. If there is still no discharge, the patient may be mildly symptomatic or may have just urinated. Even if a discharge is not present during examination, the diagnosis of urethritis should not be excluded. Ensure that no other STIs are present.

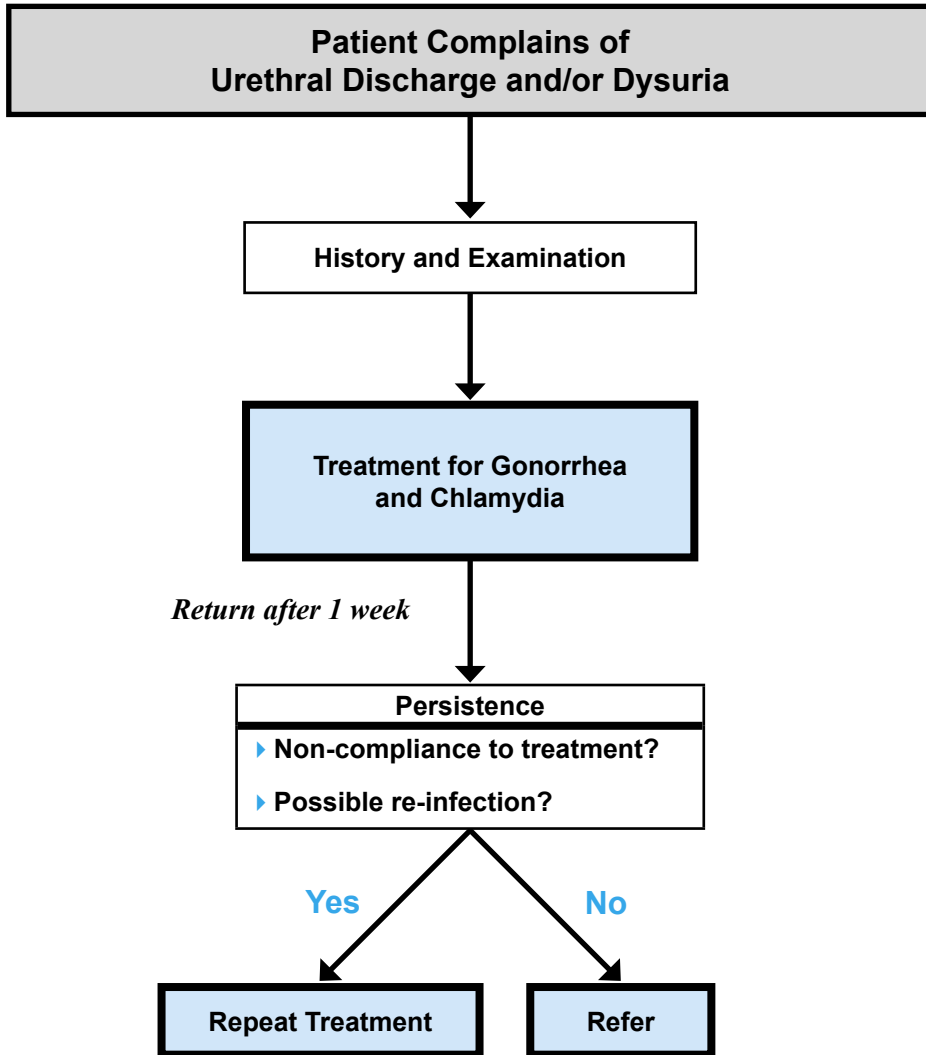
Dysuria caused by the presence of urinary salts and physiological discharge, such as prostaticorrhea can be excluded through history-taking and urine analysis.

Partners should also receive treatment even if they are asymptomatic.

Major pathogens which cause urethral discharge:

- ▶ *Neisseria gonorrhoea*
- ▶ *Chlamydia trachomatis*

URETHRAL DISCHARGE IN MEN



Remember
the 4Cs

Table 3: Treatment Regimen for Urethral Discharge in Men

Recommended Treatment for Gonorrhoea:

- ▶ Ceftriaxone 250 mg intramuscular (IM) in a single dose

Alternative Treatment for Gonorrhoea:

- ▶ 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 4 times a day for 7 days
- or
- ▶ Erythromycin 500 mg orally 4 times a day for 7 days

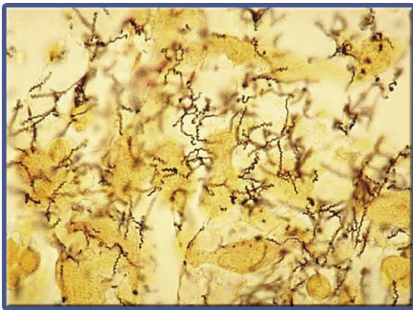
Single doses of treatment should be administered during the initial clinic visit.

Remember
the 4Cs

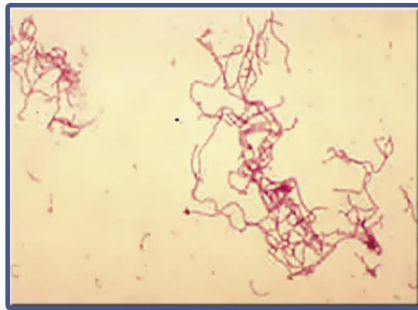
Follow-up:

- ▶ To ensure compliance to treatment, conduct a follow-up visit after one week
- ▶ Persistence of urethral discharge may be due to resistance to antibiotics, poor compliance or possible re-infection. Infection with *Trichomonas vaginalis* should also be considered

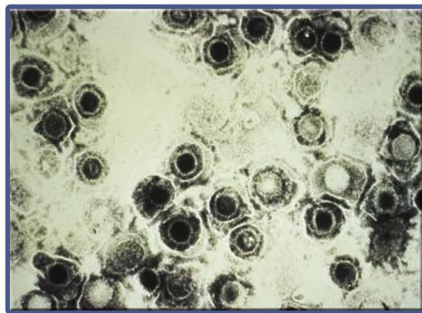
Genital Ulcer



Treponema pallidum



Hemophilus ducreyi



Herpes simplex virus

Genital Ulcer

History taking and examination: Take the client's history and conduct an examination. Inspect the genital organs. Do not forget to inspect the interior part of the prepuce and the covered part of the glans penis in men and the skin of the external genitalia, including the mucous surfaces of the labia and anus in women.

Reasons for medical examination:

- ▶ To confirm the presence of ulcer(s)
- ▶ To ensure no other STIs are present

Special Circumstances:

- ▶ If there are no ulcers, the patient may have grouped vesicular lesions with a history of recurrence that require the management of Herpes
- ▶ Ulcers due to drug intake (fixed drug eruption), scabies and trauma can be excluded by determining the patient's history and through a urine analysis
- ▶ If you have not been able to confirm the presence of STIs, reassure your patient, educate him/her and promote the use of condoms

Major Pathogens which cause genital ulcer:

- ▶ *Treponema pallidum* (Syphilis)
- ▶ *Hemophilus ducreyi* (Chancroid)
- ▶ *Herpes simplex virus* (Genital herpes)

Note: A reactive serological test may be a reflection of a previous infection and a negative test does not necessarily exclude an ulcer of primary syphilis as seroreactivity may take 1 - 4 weeks to show.

GENITAL ULCER

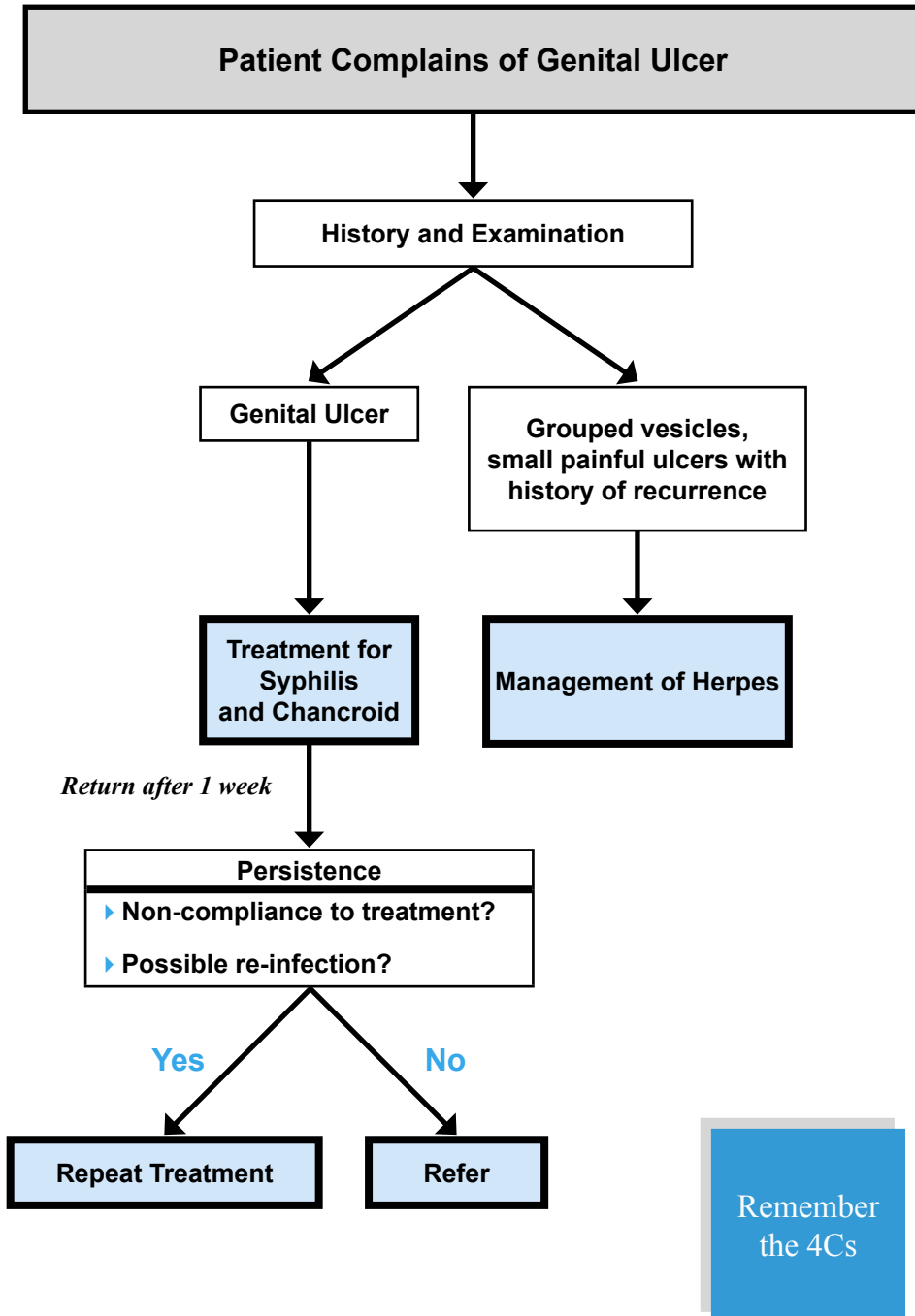


Table 4: Treatment Regimen for Herpes

Management of Herpes:

- ▶ Patients 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
or
- ▶ Acyclovir, 400 mg orally, 3 times daily for 5 days
or
- ▶ Famciclovir, 125 mg orally, twice daily for 5 days
or
- ▶ Valaciclovir, 500mg orally, twice daily for 5 days

Note:

- ▶ For pregnant females, during the first clinical episode of genital herpes, treat with acyclovir.
- ▶ Vaginal deliveries 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 caesarean sections.

Table 5: 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 15 days
or
- ▶ Doxycycline 100 mg orally twice daily for 15 days
or
- ▶ Erythromycin 500 mg orally 4 times daily for 15 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
- ▶ Ceftriaxone 250 mg IM in a single dose

Single doses of treatment should be administered during the initial clinic visit.

Note:

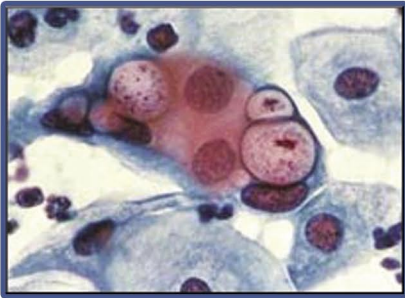
- ▶ Benzathine Penicillin G is the drug of choice for syphilis and should be given when available
- ▶ Late syphilis requires longer therapy (weekly injection for 3 weeks)
- ▶ The use of skin testing "to identify penicillin allergic patients" is dangerous and misleading. Patients should be tested in a monitored setting in which treatment for an anaphylactic reaction is available

Remember
the 4Cs

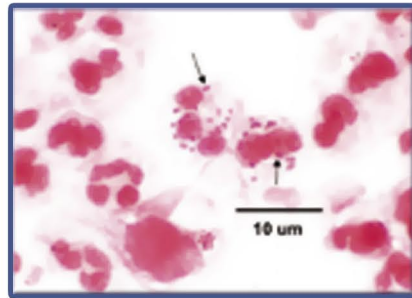
Follow-up:

- ▶ Ensure follow-up visit after 1 week
- ▶ Persistence may be due to resistance to antibiotics

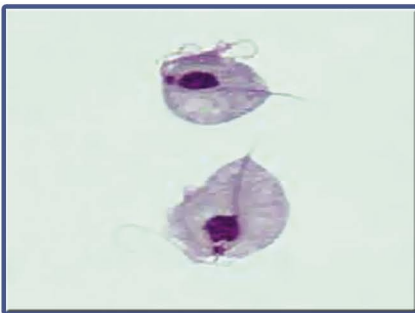
VAGINAL DISCHARGE



Chlamydia trachomatis



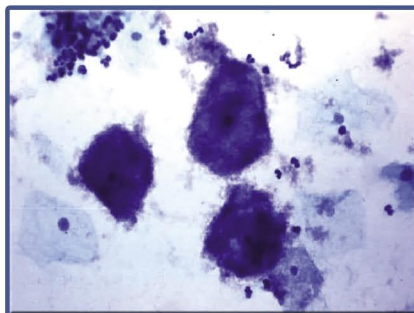
Neisseria gonorrhoea



Trichomonas vaginalis



Candida albicans



Bacterial vaginosis

VAGINAL DISCHARGE

Most cases of vaginal discharge are not of an STI origin. Candidiasis and Bacterial vaginosis are the most common causes.

History taking and examination: Take history and try to assess client's STI risks. An STI risk assessment is considered positive if the patient or her partner has an STI or a high-risk behavior. Examine the patient.

Remember: Vaginal discharges may be physiological. Using speculum, if available, inspect the cervix and the vagina to locate the origin of the discharge. Do not forget to note the type, color, odor and amount of discharge. Ask whether the patient also has pain in the lower abdomen.

Role of speculum examination is:

- ▶ To confirm the origin of the discharge
- ▶ To confirm if the discharge is vaginal and whether it is white curd-like (Candidiasis)
- ▶ To confirm if the discharge is cervical. Cervicitis is diagnosed by either presence of Cervical Mucopus and/or Erosions/Friability of the cervix
- ▶ To make sure the client does not have other STIs

Special circumstances:

- ▶ If you don't find any discharge, make sure that there are no other STIs
- ▶ If the patient has no vaginal discharge, she may be mildly symptomatic. Even if no discharge is detected during the examination, you should not exclude the diagnosis of cervicitis and vaginitis
- ▶ If you have not been able to confirm the presence of STIs, reassure your patient, educate her and promote the use of condoms

The wet mount/gram stain microscopy of vaginal specimen will help in the diagnosis of:

- ▶ Trichomoniasis: mobile trichomonads
- ▶ Candidiasis: Budding yeasts or pseudohyphae
- ▶ Bacterial vaginosis: presence of Clue cells plus pH > 4.5 or KOH positive

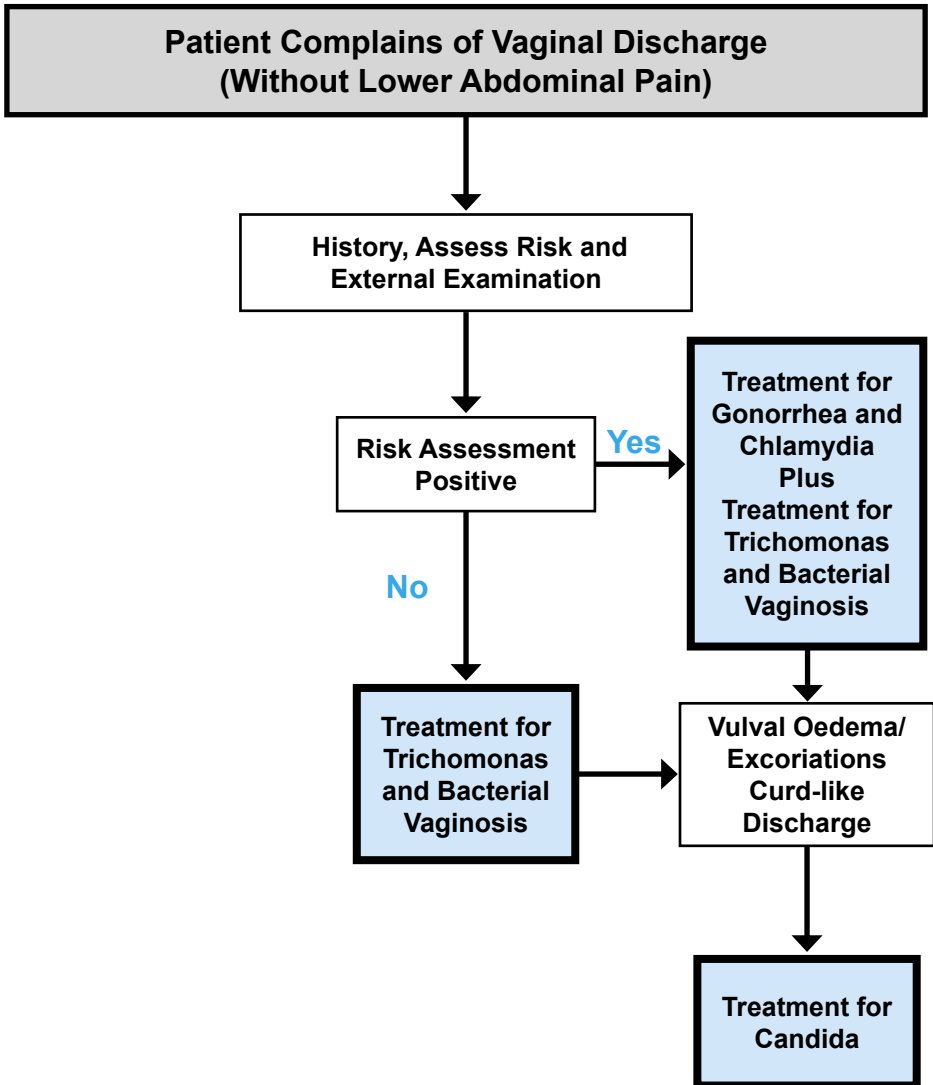
Major Pathogens that cause Vaginitis:

- ▶ *Trichomonas vaginalis*
- ▶ *Candida albicans*
- ▶ Non specific vaginitis (Bacterial vaginosis)

Major Pathogens that cause Cervicitis:

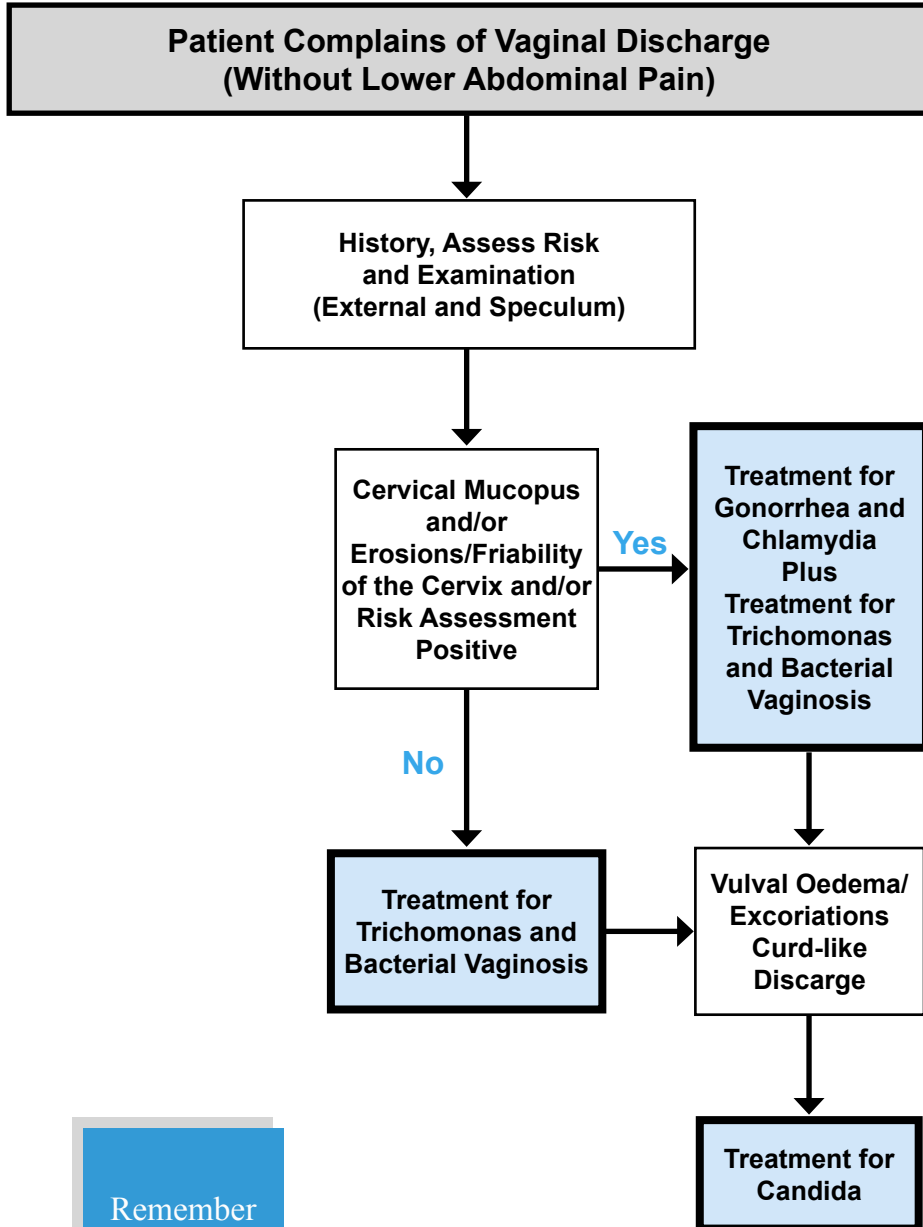
- ▶ *Neisseria gonorrhoea* (Gonorrhoea)
- ▶ *Chlamydia trachomatis* (Chlamydial infection)

VAGINAL DISCHARGE (Without Speculum)



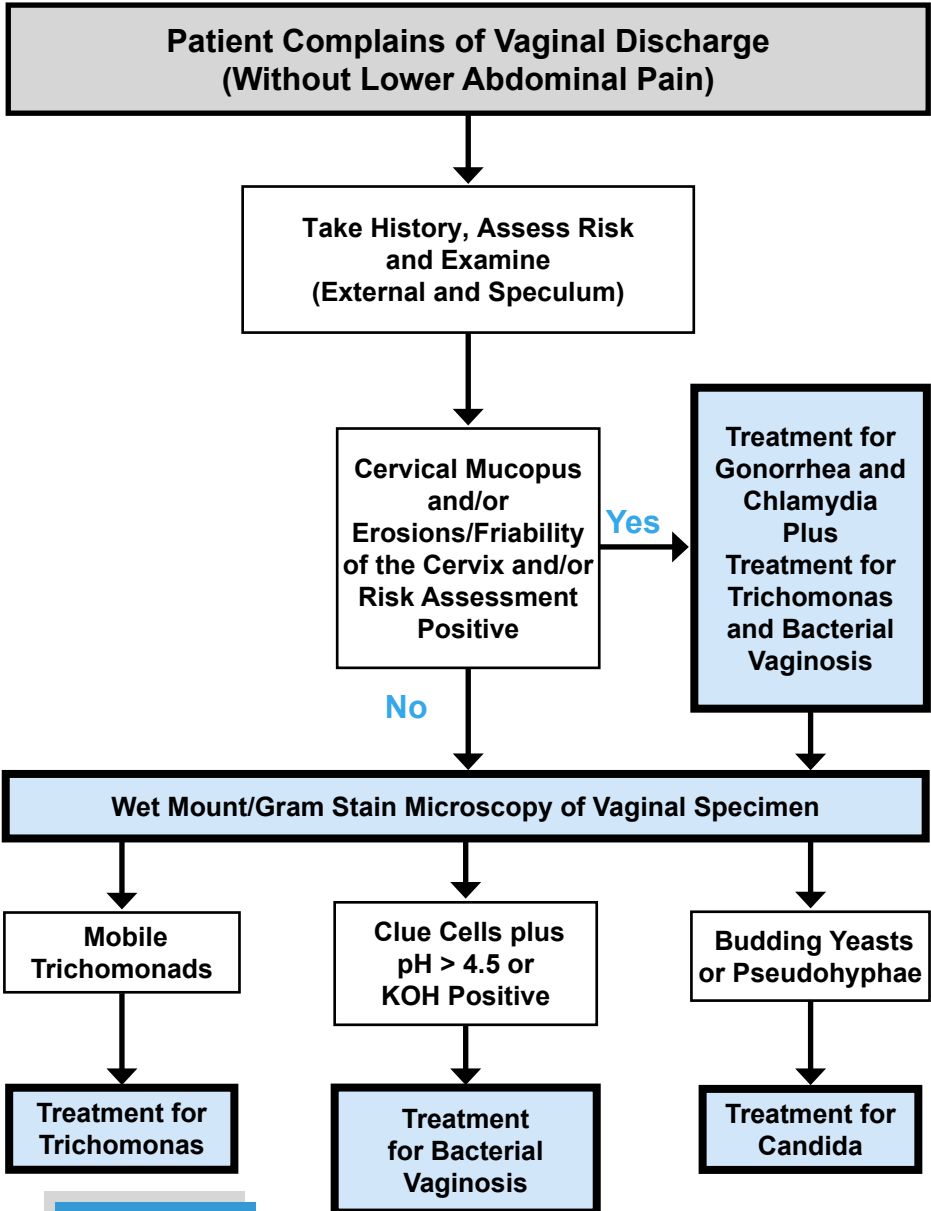
Remember
the 4Cs

VAGINAL DISCHARGE (With Speculum)



Remember
the 4Cs

VAGINAL DISCHARGE (With Speculum and Microscope)



Remember
the 4Cs

Table 6: 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.

Table 7: 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 woman (Pregnancy Category B).

Alternative treatment for Chlamydial Cervicitis:

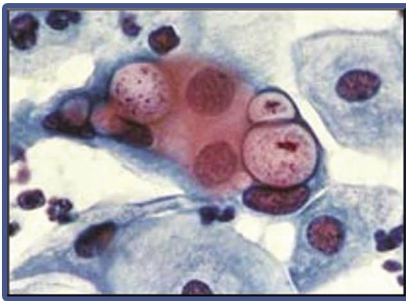
- ▶ Tetracycline 500 mg orally four times daily for 7 days
(not for pregnant/ lactating women)
- or**
- ▶ Erythromycin 500 mg orally 4 times daily for 7 days

Remember the 4Cs

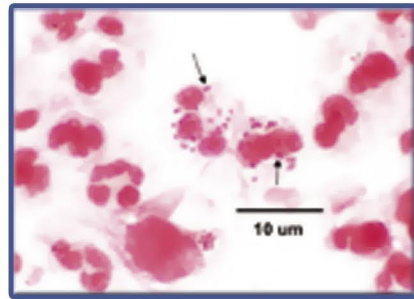
Follow-up:

- ▶ Ensure follow-up visit if the patient is not cured after taking the full course. After completion of the treatment, if the patient feels that she is cured, a follow up visit is not required
- ▶ Patients with Bacterial vaginosis and Candidiasis do not need prevention counseling for STIs, since they are not sexually transmitted
- ▶ Partner management must be emphasized in cases of cervicitis (gonococcal and chlamydial infections), even if the partner is currently asymptomatic.
- ▶ Partners of patients with vaginitis do not need to be treated

LOWER ABDOMINAL PAIN IN WOMEN



Chlamydia trachomatis



Neisseria gonorrhoea

Lower Abdominal Pain in Women

All sexually active women presenting with lower abdominal pain should be evaluated for the presence of Pelvic Inflammatory Disease (PID): salpingitis and endometritis.

History taking and examination: Take history and examine the patient. In the history, check for other symptoms, such as a missed or overdue period, recent delivery or abortion, or vaginal bleeding. During examination look for vaginal bleeding, this is a sign of ectopic pregnancy and will require a gynecological referral. Do not forget to palpate the abdomen to look for rebound tenderness and guarding. If this occurs, a surgical referral will be required. Possible causes are peritonitis and/or abdominal abscess.

Examine the patient's temperature. A high temperature indicates infection. Also look for pain during examination and abnormal vaginal discharges.

Bimanual Examination: During bimanual examination look for swelling or lumps in the patient's abdomen. Notice tenderness on cervical mobilization.

During the examination, keep the following points in mind:

- ▶ Tenderness: superficial palpation
- ▶ Rebound tenderness: deep palpation – severe tenderness when pressed slowly and pressure is suddenly removed
- ▶ Guarding: rigid abdominal muscles

Purpose of examination:

- ▶ To exclude rebound tenderness or abdominal guarding; these may require surgical referrals
- ▶ To exclude missed/overdue periods or recent delivery/abortion or vaginal bleeding, that might require gynecological referral
- ▶ To confirm the presence of an elevated temperature, pain during examination and/or abnormal vaginal discharges
- ▶ To make sure that there are no other STIs

Note: If PID should occur with an intrauterine device (IUD) in place, there is no evidence that removing the IUD will provide any additional benefits to the patient.

Major Pathogens:

- ▶ *Neisseria gonorrhoea* (Gonorrhoea)
- ▶ *Chlamydia trachomatis* (Chlamydial infection)
- ▶ Anaerobic Bacteria

LOWER ABDOMINAL PAIN IN WOMEN

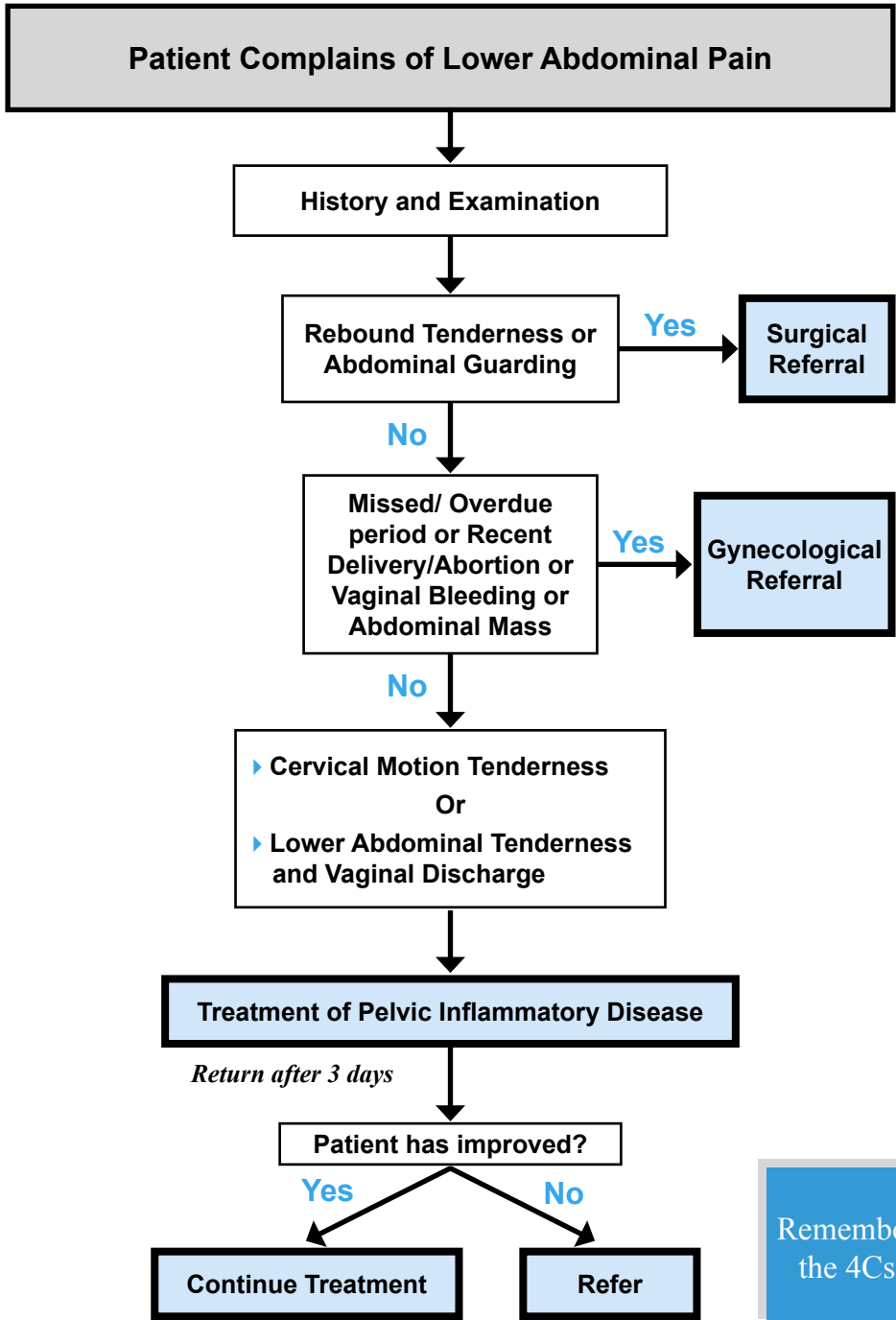


Table 8: Treatment Regimen for Lower Abdominal Pain in Women

First Regimen:

- ▶ Ceftriaxone 250 mg IM in a single dose

Plus

- ▶ Doxycycline 100 mg orally twice daily or Tetracycline 500 mg orally four 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)

Second Regimen:

- ▶ Clindamycin 900 mg by IV injection, every 8 hours

or

- ▶ Gentamycin 1.5 mg/kg by IV injection every 8 hours

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
(not for pregnant and lactating women)

Plus

- ▶ Doxycycline 100 mg orally twice daily or Tetracycline 500 mg orally four times daily for 14 days
(not for pregnant and lactating women)

Plus

- ▶ Metronidazole 500 mg mg orally or by 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.

Persistence of lower abdominal pain may be due to:

- ▶ Incorrect diagnosis
- ▶ Complicated infections
- ▶ Incorrect use of anti-microbial drugs

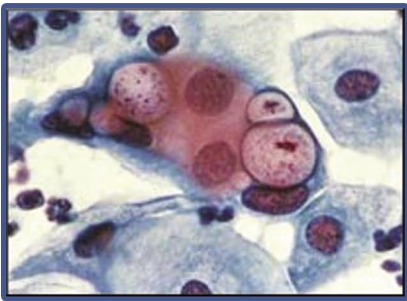
Hospitalization should be considered in the following circumstances:

- ▶ The diagnosis is uncertain
- ▶ Surgical emergencies, such as appendicitis and ectopic pregnancy
- ▶ Suspected pelvic abscess
- ▶ Severe illness
- ▶ The patient is pregnant
- ▶ The patient failed to respond to outpatient therapy

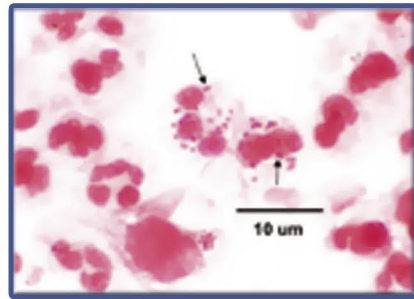
Remember
the 4Cs

- ▶ Ensure follow up visit after 3 days or earlier if the client has not observed any improvement in her condition
- ▶ Partners should receive treatment even if they are asymptomatic. The partner must receive treatment for Gonorrhoea and Chlamydia, but not for anaerobic bacterial infection

SCROTAL SWELLING AND PAIN



Chlamydia trachomatis



Neisseria gonorrhoea

Scrotal Swelling and Pain

Inflammation of the epididymis (epididymitis) usually manifests itself by acute onset of unilateral testicular pain and swelling. The adjacent testis is often inflamed (orchitis), giving rise to epididymo-orchitis.

History taking and examination: Take history and examine the patient. In the history, check whether the patient has injured himself or whether the patient has had an STI in the last six weeks. Inspect the scrotal skin for bruising. Do not forget to palpate the scrotal sac, comparing the two sides, and check for swelling and pain in the testis, position of the testis in the scrotal sac (elevation, rotation or torsion).

The reasons for examination are:

- ▶ To exclude the presence of swelling and or pain in the testis
- ▶ To exclude rotation or elevation or torsion or trauma to the testis
- ▶ To exclude inguinal hernia
- ▶ To confirm the presence of urethral discharge
- ▶ To make sure that there are no other STIs

Note: If the patient has no urethral discharge, he may be mildly symptomatic or has just urinated. Even if you do not detect a discharge during examination, you cannot exclude the diagnosis of urethritis.

Major Pathogens which can cause scrotal swelling:

- ▶ *Neisseria gonorrhoea* (Gonorrhoea)
- ▶ *Chlamydia trachomatis* (Chlamydial infection)

SCROTAL SWELLING AND PAIN

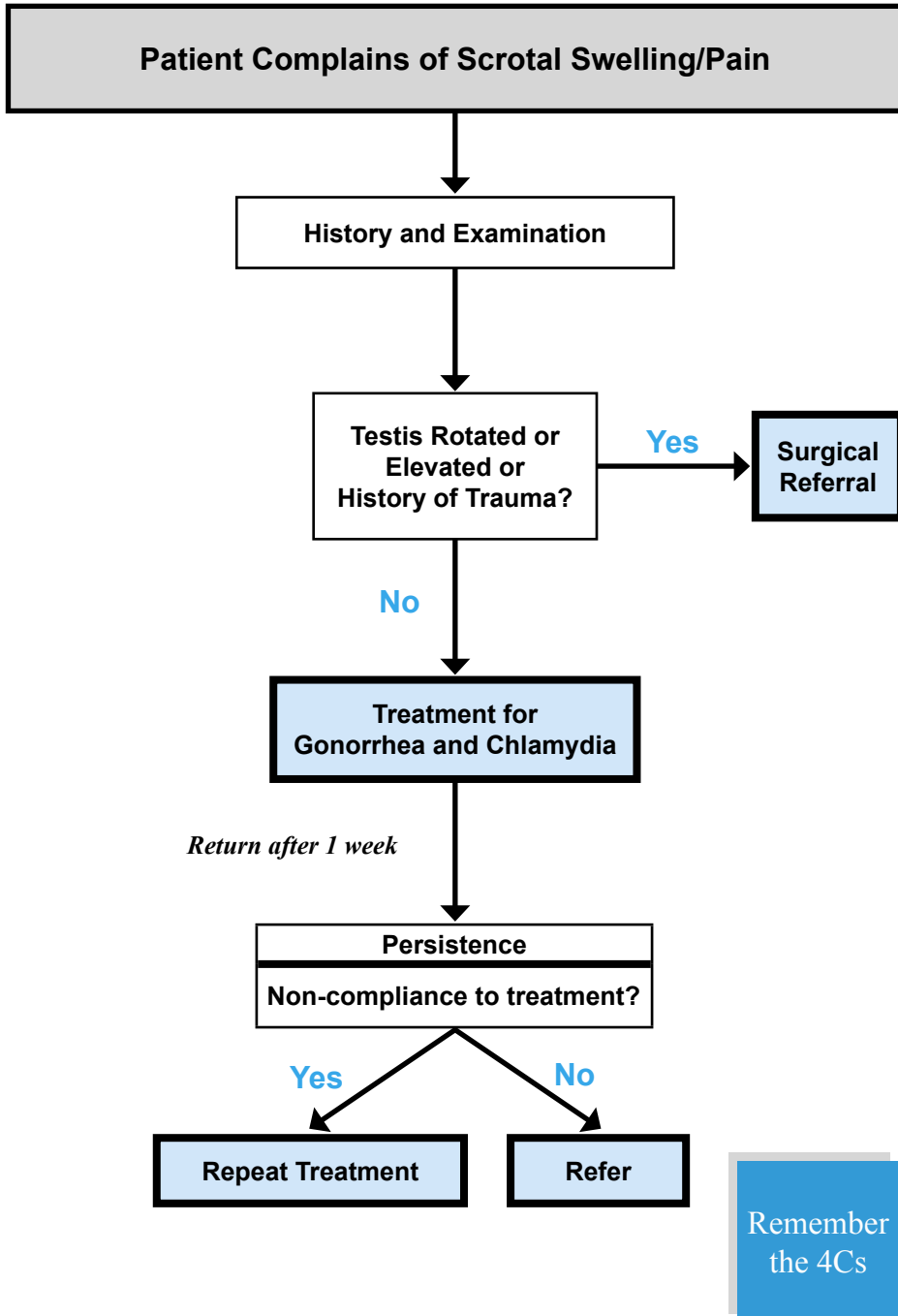


Table 9: Treatment Regimen for Scrotal Swelling and Pain

Recommended Treatment for Gonorrhoea:

- ▶ Ceftriaxone 250 mg IM in a single dose.

Alternative Treatment for Gonorrhoea:

- ▶ 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

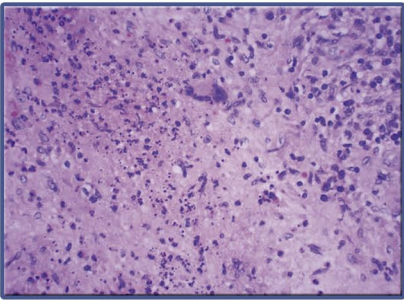
Single doses of treatment should be administered during the initial clinic visit.

Remember
the 4Cs

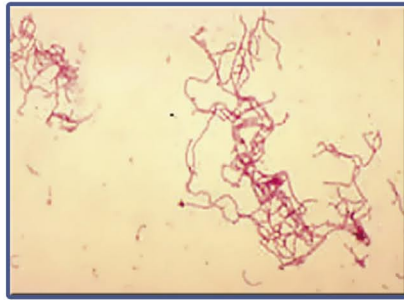
Follow-up:

- ▶ Ensure follow-up visit after one week

Inguinal Swelling (Bubo)



*Lymphogranuloma
venereum chlamydia*



Hemophilus ducreyi

Inguinal Swelling (Bubo)

Inguinal bubo is an abscess of a lymph node. It presents as a localized enlargement, which is often painful and may be fluctuant. Frequently, inguinal bubo is caused by lymphogranuloma venereum (LGV) and chancroid. Acute infection of either the lower limbs or genital region may cause inguinal adenopathy. The enlarged lymph nodes may appear in syphilitic or HIV infection. These lymph nodes are not really considered as bubo.

If the patient presents with bubo and associated ulcers, the care provider must refer to the genital ulcer flow-chart. This would include treatment for syphilis and chancroid. If a patient complains of having bubo without the presence of ulcers, use the inguinal bubo flow chart in determining proper treatment.

History taking and examination: Take history and examine the patient. When taking the history, check to determine whether the patient has groin pain, recent or past genital ulcer or swelling anywhere in the body. Inspect the lymph nodes and examine to confirm whether the enlarged node is painful, warm, tender to palpation and fluctuant.

If a bubo is present, do not forget to inspect the interior part of the prepuce and covered part of the glans penis in men and external genitalia and mucous surface of the labia in women, to exclude the presence of genital ulcer.

If the patient does not have any ulcers, the patient may have vesicular lesions. If this is the case, the care provider should provide treatment for herpes.

Reasons for the examination:

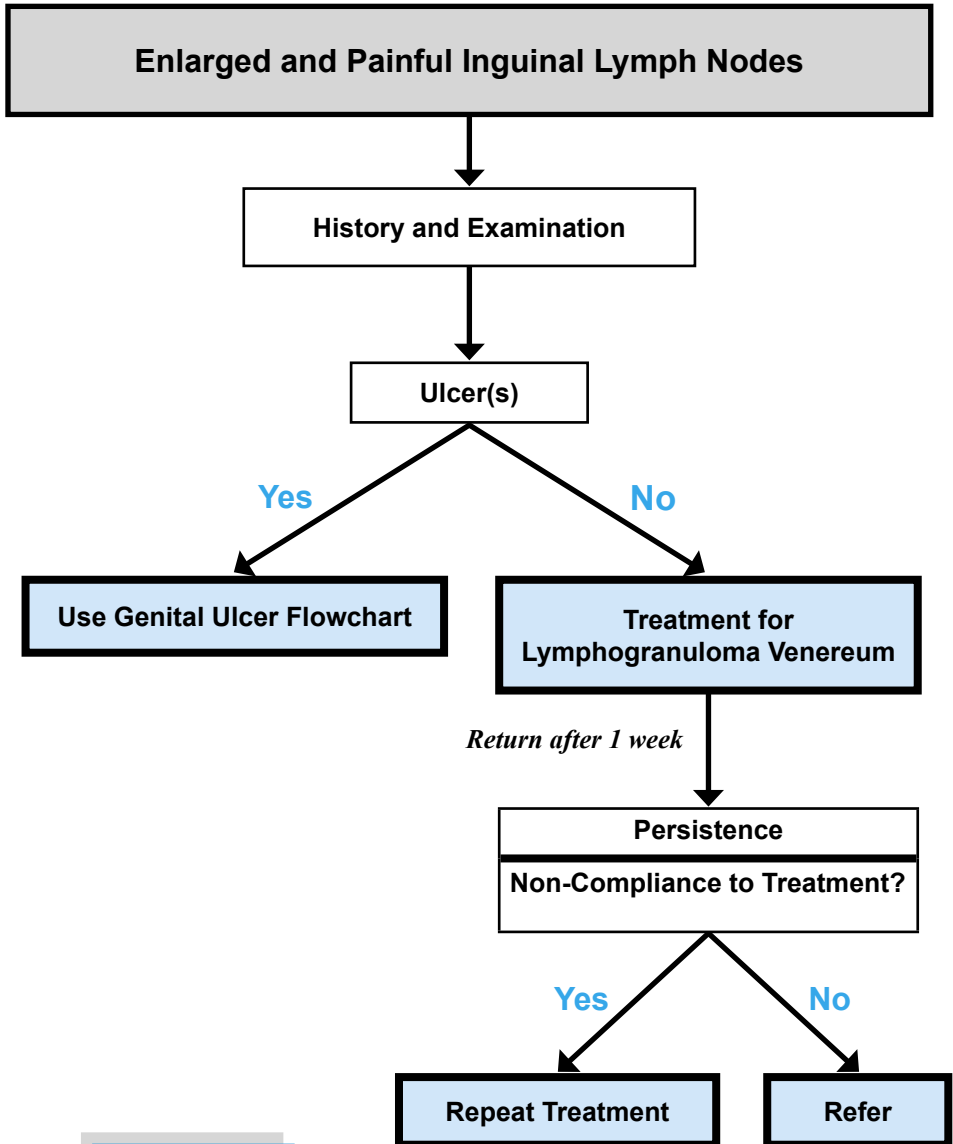
- ▶ To confirm the presence of bubo
- ▶ To exclude the presence of ulcers
- ▶ To make sure the patient does not have another STI

If you have not been able to confirm the presence of STIs, reassure your patient, educate him/her and promote the use of condoms.

Major Pathogens:

- ▶ *Lymphogranuloma venereum chlamydia*
- ▶ *Hemophilus ducreyi* (Chancroid)

INGUINAL SWELLING (BUBO)



Remember
the 4Cs

Table 10: Treatment Regimen for Inguinal Swelling (Bubo)

Treatment of Lymphogranuloma Venereum:

- ▶ Doxycycline 100 mg orally twice daily for 14 days
(not for pregnant and lactating woman)
- or**
- ▶ Erythromycin 500 mg orally four times daily for 14 days

Alternative treatment for Lymphogranuloma Venereum:

- ▶ Tetracycline 500 mg orally four times daily for 14 days

PLUS

Surgical aspiration of fluctuant bubo:

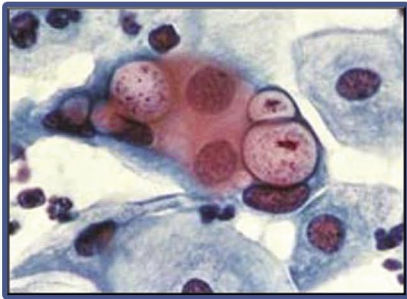
- ▶ Aspirate the pus with a needle through the adjacent healthy skin
- ▶ Repeat aspiration after 2 to 3 days if necessary
- ▶ Never incise a bubo

Remember
the 4Cs

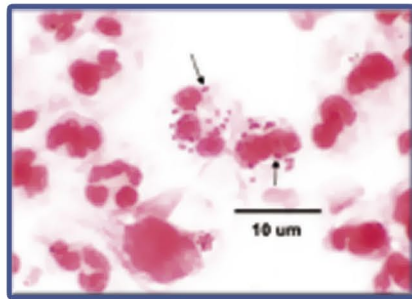
Follow-up:

- ▶ Persistence of inguinal bubo may be due to inappropriate use of antibiotics or improper dosage
- ▶ Ensure follow-up visit after 1 week

NEONATAL CONJUNCTIVITIS



Chlamydia trachomatis



Neisseria gonorrhoea

Neonatal Conjunctivitis

Conjunctivitis in a newborn may be caused by infection, a blocked tear duct, or by irritation produced by the antibiotic eyedrops given at birth. Many organisms can cause infection in the eyes of newborn infants. The most common bacterial infections with potential to cause serious eye damage are gonorrhoea and chlamydia, which can be passed from mother to child during birth. The viruses that cause genital and oral herpes can also cause neonatal conjunctivitis and severe eye damage. These viruses may also be acquired during passage through the birth canal, however herpes conjunctivitis is less common than those caused by gonorrhoea and chlamydia.

Prevention of Neonatal Conjunctivitis:

- ▶ Immediately after delivery, the eyelids are cleaned with hydrophilic cotton; before the eyes are opened
- ▶ 1% tetracycline eye ointment is applied into each inferior conjunctival sac
- ▶ Remember: Neonate's eyes are swollen immediately after delivery and are often difficult to open
- ▶ The management of neonatal conjunctivitis must be applied for any baby less than 1 month of age that is suffering from eye suppuration

History taking and examination: Take history from the mother and examine the baby. Ask the mother if she or her sexual partner(s) have any STI symptoms. Inspect the baby's eyes for a purulent conjunctival discharge. Do not forget to separate or press the eye lids, to look for pus pouring out from beneath them.

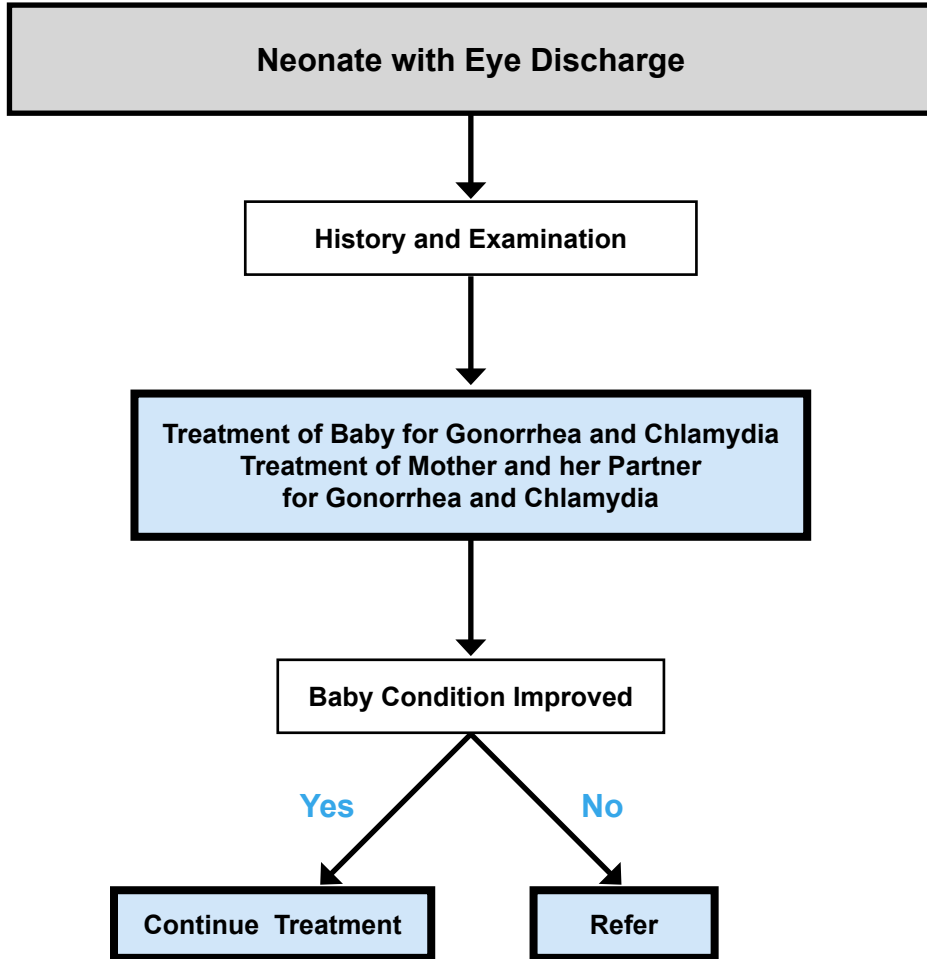
Reasons for history taking and examination:

- ▶ To confirm the presence of purulent conjunctival discharge from baby's eyes
- ▶ To make sure that the mother does not have any other STIs

Major Pathogens:

- ▶ *Neisseria gonorrhoea* (Gonorrhoea)
- ▶ *Chlamydia trachomatis* (Chlamydial infection)

NEONATAL CONJUNCTIVITIS



Remember
the 4Cs

Table 11: Treatment Regimen for Neonatal Conjunctivitis

Recommended Treatment of Baby for Gonococcal Ophthalmia:

- ▶ Ceftriaxone 50 mg/kg (maximum 125 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
- or
- ▶ Spectinomycin 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.

Remember the 4Cs

Follow-up:

- ▶ Treat mother and partner(s) for Gonorrhoea and Chlamydia, by following the treatment protocol for urethral discharge in men and vaginal discharge in women
- ▶ Ensure that the mother brings the baby for a follow-up visit after 3 days
- ▶ Counsel the mother on prevention, including educating her that she is the source of the infection in her baby
- ▶ The mother's partner(s) must receive treatment as well, even if they are asymptomatic

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