

SEXUALLY TRANSMITTED DISEASES (STD) and HIV/AIDS

LEARNING OBJECTIVES

- Enable participant to be familiar with the sexually transmitted disease syndromes, method of spread, what they can cause, method of transmission.
- Correct identification and management of specific STD syndromes
- To provide basic counseling regarding sexually transmitted diseases.
- Knowledge of when to refer a suspected STD

TEACHING STRATEGIES

- Review the participants current knowledge and perception of STD
- Present didactic material in lecture-discussion
- Use case studies to practice use of STD protocols
- Use role-play or small group discussion to discuss patient education issues

MATERIALS AND EQUIPMENT NEEDED:

- Flip charts and Markers
- Overhead projector and transparencies

LEARNING POINTS:

Introduction:

- Sexually transmitted diseases are diseases that spread by sexual contact from one person to another
- They can cause pain, infertility, and death if not treated
- Each year there are more than 330 million new cases of curable STD's, one million new cases of HIV infection, and millions of other viral STD's such as herpes and hepatitis B.
- STD's have four crucial long-term sequelae:
 1. Tubal occlusion leading to infertility and ectopic pregnancy
 2. Neonatal morbidity and mortality caused by transmission during pregnancy and childbirth
 3. Genital cancers
 4. Epidemiological synergy with HIV transmission
- There are four major syndromes (groups of symptoms) found with common STD
 1. Urethral discharge (men)
 2. Genital ulcers (men or women)
 3. Vaginal discharge (women)
 4. Lower abdominal pain (women)

COMMON STD SYNDROMES:

- **Urethral Discharge**

- Seen primarily in men
- Most commonly caused by either gonorrhea (*Nieserria gonorrhoea*) or chlamydia (*Chlamydia trachomatis*)
- Common symptoms:
 - Mucoïd or purulent discharge from penis
 - Pain on urination (dysuria)
 - Pain in testicles or scrotum
 - Symptoms usually appear within 3-5 days (gonorrhea) to 7 – 14 days (chlamydia) after sexual exposure to organisms
 - Untreated urethral discharge can lead to permanent narrowing and obstruction of the urethra and difficulty in urinating
- See “Urethral Discharge” flow chart for diagnosis and treatment

- **Genital Ulcer**
 - Can be seen in either men or women
 - Can be caused by several specific organisms, each a separate STD
 - Herpes
 - caused by *Herpes simplex* virus
 - One or more very painful small blisters around the vagina, on the penis, or around the anus
 - Blisters burst open and dry up to become scabs.
 - Sores can last for 3 weeks or more with first infection and disappear
 - Recurrent blisters usually appear from time to time, although they last a shorter time than on primary infection
 - Syphilis
 - Caused by *Treponema pallidum*, a spirochete
 - Painless ulceration (chancere) on the penis, vagina or anus. Ulceration may last only a few days, usually goes away without treatment, and a woman may not notice it.
 - Ulceration usually has raised, indurated edges, clean base, and is not painful or tender.
 - Weeks or months later, after the ulceration has disappeared, the person may have: sore throat, skin rash, mild fever
 - All these symptoms may disappear without treatment, however, syphilis eventually causes heart disease, paralysis, insanity, and eventual death
 - A pregnant woman can pass syphilis to her child before birth
 - Chancroid
 - Caused by *Hemophilus ducreyi*
 - Begins with painful papule or ulceration in genital area
 - Associated with large, swollen lymph nodes in the groin that may ulcerate and drain
 - May be difficult to distinguish from syphilis except by RPR test
 - Main differential diagnosis is to distinguish between vesicular lesion, (likely to be viral herpes); and ulcerative lesion, (likely to be syphilis or chancroid)
 - See “Genital Ulcer” flow chart for diagnosis and treatment

- **Vaginal Discharge**
 - Seen only in women
 - Discharge may be painless, or associated with vaginal burning or irritation, painful urination, or painful sexual relations

- Primary difference in treatment is to distinguish infection of vaginal mucosa alone (vaginitis); from bacterial infection of cervix (cervicitis)
- Differences between vaginitis and cervicitis can be determined by response to 4 questions:
 - a “yes” answer to ANY ONE of the 4 questions means that the woman should be treated for BOTH vaginitis and cervicitis
 - a “no” answer to ALL of the 4 questions means that the woman can be treated for vaginitis alone
- Recommended treatments cover most all of possible infecting organisms
- Differences between vaginitis and cervicitis:

Vaginitis	Cervicitis
Caused by Trichomonas, candida (yeast), or bacterial vaginosis	Caused by gonorrhea and/or chlamydia
Most common cause of vaginal discharge	Less common cause of vaginal discharge
Easy to diagnose	More difficult to diagnose
Treatment of partner not necessary	Need to treat partner

- Presence of vaginal discharge and suspected cervicitis requires simultaneous treatment with four different medications listed in flow chart
 - See “Vaginal Discharge” flow chart for diagnosis and treatment
- **Lower Abdominal Pain**
 - Lower abdominal pain can be caused by many problems, such as appendicitis, ectopic pregnancy, ovarian cyst, kidney stone; but can also be cause by STD – Pelvic Inflammatory Disease (PID)
 - PID is bacterial infection of the uterus, fallopian tubes, or ovaries caused by gonorrhea, chlamydia, and/or mixed bacteria
 - Main task is to differentiate possible PID from other potential causes of lower abdominal pain – this can be done with 4 specific questions in history and brief examination of the abdomen.
 - Examination of the abdomen should look for specific diagnostic criteria (both point toward significant abdominal infection which should be evaluated by a surgeon or other specialist):
 - Guarding on palpation – significant tightness of the abdominal muscles because of pain of palpation
 - Rebound tenderness on palpation – slowly pushing into abdomen, and suddenly releasing pressure causes significant increase in pain
 - Pelvic examination and other studies are very helpful to confirm diagnosis, but not necessary to initiate treatment in the Health Center.
 - Treatment of suspected PID should include all three different antibiotics as listed
 - See “Lower Abdominal Pain” flow chart for diagnosis and treatment

- **HIV AND AIDS**

- **Causative Agent:**

- HIV is the virus that causes the Auto-Immune Deficiency Syndrome (AIDS). AIDS reduces the body's immunity and ability to fight disease. People with HIV/AIDS are susceptible to problems such as pneumonia, tuberculosis, certain tumors, and diarrhea. A person who does not look sick can still pass HIV to others. Most people infected with HIV will have few symptoms for years before any infections common to AIDS appear.
- Other STD's increase a person's chance of getting HIV or spreading it to others. Clients with any STD need to seek treatment and, if possible, to be tested for HIV and counseled.
- HIV is transmitted by any bodily fluid which contains cells, but most commonly by blood, semen, and vaginal fluid
- Spread through:
 - o Vaginal sexual intercourse
 - o Anal intercourse
 - o Sharing intravenous hypodermic needles with an infected person
 - o Transfusion of infected blood
 - o Other activities that allow semen, blood, or vaginal fluid to enter the mouth, anus or vagina or to touch an open cut or sore
 - o A pregnant woman with HIV is able to pass HIV to her fetus during pregnancy, childbirth, or breastfeeding. In areas where many babies die from infectious diseases such as diarrhea, women with HIV should continue to breastfeed their babies.
- HIV is NOT spread by kissing, shaking hands or sharing food, clothing or toilets, or by mosquitoes

- **Typical Symptoms of HIV infection:**

- Often no symptoms are noted following infection with HIV
- Some people may have a brief viral syndrome consisting of low-grade fever, malaise, sore throat, myalgias, nausea and diarrhea

- **Diagnosis:**

- Positive HIV test, confirmed by specific tests (Western Blot). Should be done in all persons with high risk sexual behavior
- Recurrent infections with organisms typical of AIDS and positive HIV test

- **Management of HIV/AIDS:**

- Anyone with an STD of any type should be counseled to have a blood test for HIV
- Those with high-risk sexual behavior should be periodically screened for STD such as syphilis, gonorrhea, chlamydia, and HIV
- Any person with a positive HIV test should be referred to the appropriate specialist for further studies, classification, appropriate prophylaxis, and followup

- **STD and sexual assault:**

The following approach is recommended in dealing with STD risks after sexual assault or sexual abuse:

Evaluation

- If possible , the initial evaluation should be performed within 24 hours of the assault
- Take cultures for: *N. gonorrhoeae* and *Chlamydia trachomatis*
- Vaginal specimen examination for Trichomonas and bacterial vaginosis
- Pregnancy test
- Frozen serum sample kept for possible future testing
- Repeat evaluation 2 weeks later
- Blood tests at 6 weeks for RPR and HIV
- Psychological counseling and support when appropriate

Empiric Regimen for Victims of Sexual Assault

- Hepatitis B vaccination – first dose
- Ceftriaxone 125 mg given IM
- Metronidazole 2 g given orally
- Doxycycline 100 mg orally 2 times a day for 7 days and
- Condoms should be used until test results are reported

PREVENTION ISSUES, HEALTH EDUCATION MESSAGES

- **Preventing STD's - THE ABCD's**
 - **A - Abstain** from sex, this is the only guaranteed protection
 - **B - Be** mutually faithful
 - **C - Consistently** use condoms
 - **D - Do** not use unsterilized needles
- **If you have an STD:**
 - Seek care quickly
 - Do not spread the STD – abstain from sexual relations until cured, or use a condom consistently
 - Take all your medication to cure your infection
 - Your sex partner is probably also infected, even if there are no symptoms yet. Help your partner to get treatment to protect him or her, and to prevent a re-infection
 - Return if any of the symptoms persist after 7 days
 - If a female, protect your baby by frequent checkups
- Routine preventive messages:
 - Routinely tell clients how to prevent STD's and how to know if they have it.
 - Encourage people to seek care if they suspect infection,
 - Encourage people who are at risk for STD's to use condoms.
 - Make condoms freely available when possible.
 - Learn which STD's are common in your area , know their symptoms and recognize them among your clients.
 - Offer diagnosis and treatment according to the syndrome protocols, and if this is not possible, arrange for referral.
 - Know and use good infection prevention techniques in the clinic because many STD's can be spread in body fluids, especially blood.
 - Help to educate the community. Mass media and person-to-person programs help clients recognize their risk and change their sexual behavior.

CASE STUDIES:

Kim

Kim, aged 22, attended the family planning clinic for her usual check-up while on the contraceptive pill. She tells the nurse about a yellow, itchy vaginal discharge that she has had for the past four days.

Which flow-chart do you use?

Kim says she has no abdominal pain or dysuria. She had her menses two weeks ago and it was normal. Shyly, she discloses that she had sex with an old school friend a week ago, and that she did not use a condom because she was on the pill. She last had sex with her regular boyfriend a month ago, as he is out of town.

What is your diagnosis for Kim?

What treatment and what counsel would you give Kim?

Abdullah

An 18-year-old dock worker named Abdullah attends your clinic complaining that he had a discharge yesterday.

Which flow-chart do you use?

On examination, you can find no discharge, even after milking the urethra. However you do find an ulcer on his penis.

What do you do now?

What do you treat this patient for?

What medications and what counsel do you give this patient?

Puloka

Puloka, 24 years old, says that she began seeing Hopi, her new partner, three months ago. She is now experiencing a dull, persistent "belly bottom pain" which she thinks has been brought on by her excessive sexual activity with Hopi.

Which flow-chart do you use?

Puloka tells you that her periods are normal and she has never been pregnant. She thought that there might be some increase in what she considers to be normal vaginal discharge. On examination, she has no rebound tenderness or guarding, but clearly feels pain when you palpate the lower abdomen.

What treatment do you give to Puloka?

What else do you discuss with her?

Below are four case-studies to give you more practice in diagnosing the cause or causes of vaginal discharge. Please decide whether you need to treat each woman for vaginitis only, or for both vaginitis and cervicitis.

Maria

Maria moved in with her present partner four months ago. She is 22 years old. In addition to the discharge, she says her lower abdomen feels tender. Her partner has no symptoms.

Treat for:

Vaginitis only

Vaginitis and Cervicitis

Palantina

Palantina complains of a slight vaginal discharge. She is 25 years old and has been married for eight years. Her third child was born four months ago, so she has been busy caring for him at home. Apart from this discharge, she feels well and has no other symptoms.

Treat for:

Vaginitis only

Vaginitis and Cervicitis

Amy

Amy is a 17-year-old living in an urban area. She reports a slight discharge but no other symptoms. She has lived with her current boyfriend for nine months.

Treat for: *Vaginitis only*

Vaginitis and Cervicitis

Rosi

34-year-old Rosi complains of a slight yellow discharge. She has not been with anyone since her husband left home six months ago. She has no other symptoms.

Treat for: *Vaginitis only*

Vaginitis and Cervicitis

CRITICAL POINTS FOR REFERRAL TO SPECIALIST

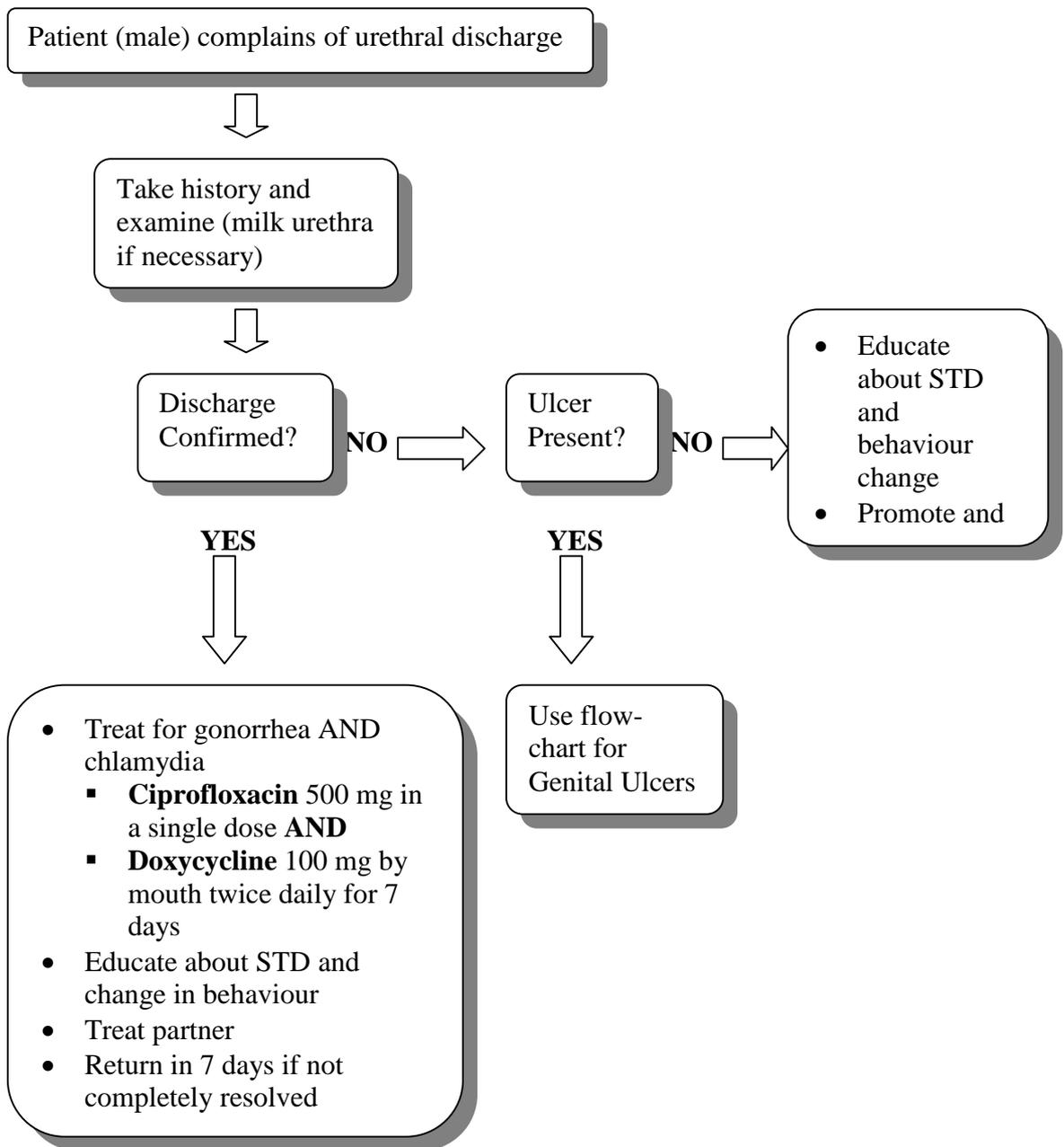
- Any suspected STD that does not quickly respond to treatment
- Suspected HIV/AIDS, or positive test for HIV
- Need for confirmatory test for STD (evaluation of ulcer, cultures, etc.)
- Severe abdominal pain with abdominal guarding or rebound tenderness
- Sign of shock, such as low blood pressure, high resting pulse, cold extremities
- Central nervous system manifestations such as confusion, drowsiness
- Abnormal vaginal bleeding

CRITICAL ELEMENT OF COMPETENCE FOR EVALUATION

- Correct use of syndromic flow charts
- Appropriate application of correct treatment based on flow chart
- Knowledge of appropriate counseling regarding prevention of STD
- When to refer to a specialist

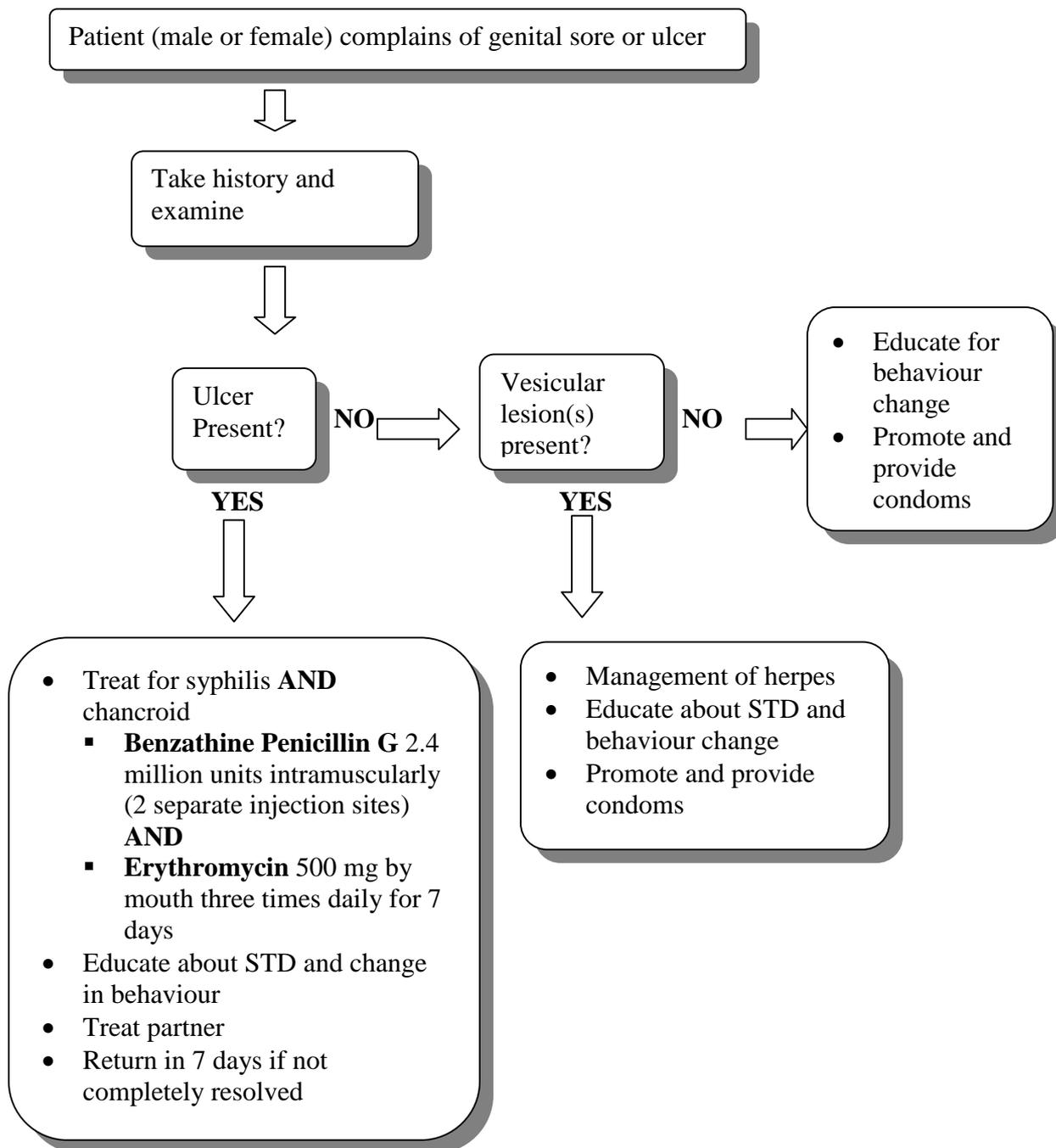
URETHRAL DISCHARGE SYNDROME FLOW CHART

Diagnosis and Management



GENITAL ULCER SYNDROME FLOW CHART

Diagnosis and Management



Alternate medications for syphilis and chancroid if allergic to penicillin:

- **Doxycycline** 100 mg by mouth twice daily for 15 days AND **Erythromycin** 500 mg. by mouth three times daily for 7 days.
- **Doxycycline** 100 mg by mouth twice daily for 15 days AND **Ciprofloxacin** 500 mg as a single oral dose
- Do NOT give doxycycline, ciprofloxacin, or tetracycline to woman who may be pregnant or breast-feeding.

VAGINAL DISCHARGE SYNDROME

Diagnosis and Management

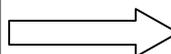
Patient (female) complains of vaginal discharge



History and Risk Assessment:

Questions	Yes	No
1. Do you have lower abdominal pain?		
2. Does your partner have any of the following?: <ul style="list-style-type: none"> • Burning on urination • Discharge from his penis • Sores or lumps in the genital area 		
3. Are you less than 21 years old?		
4. Are you single?		

If answer to **ALL** questions is **NO**



- Treat for vaginitis only:
 - Metronidazole 500 mg by mouth twice daily for 7 days AND
 - Nystatin pessary – 100,000 units into the vagina daily for 7-14 days
- Educate about STD and change in behaviour
- Promote and provide

If answer to **ANY** question is **YES**:



- Treat for cervicitis AND vaginitis (must use all 4 drugs):
 - **Metronidazole** 500 mg by mouth twice daily for 7 days **AND**
 - **Nystatin** pessary – 100,000 units into the vagina daily for 7-14 days **AND**
 - **Ciprofloxacin** 500 mg by mouth in a single dose **AND**
 - **Doxycycline** 100 mg. by mouth twice daily for 7 days
- Educate about STD and change in behaviour
- Promote and provide condoms
- Treat partner
- Return in 7 days if not completely resolved

Notes and Alternative Medications

- Do not use ciprofloxacin, doxycycline, or tetracycline in a woman who may be pregnant or breastfeeding
- Clotrimazole suppositories or cream in the vagina for 3 –5 days may be substituted for nystatin when available
- For treatment of cervicitis in pregnancy
 - **Ceftriaxone** 250 mg as a single intramuscular dose **AND**
 - **Erythromycin** 500 mg by mouth 4 times daily for 7 days

LOWER ABDOMINAL PAIN SYNDROME

Diagnosis and Management

