REPRODUCTIVE TRACT INFECTIONS INCLUDING SEXUALLY TRANSMITTED INFECTIONS

(Extracted from National guidelines on prevention, management and control of Reproductive Tract Infections including Sexually Transmitted Infections, Aug 07)

The levels of therapeutic management and care have been formulated to facilitate simplicity of comprehension and application based on available resources in various peripheral / rural / remote settings. These levels shouldnot be construed as compartmentalisation or restriction on optimal and adequate management of patients, which should be undertaken on the merits of each case.

Introduction

Against the backdrop of the HIV epidemic, the prompt diagnosis and effective treatment of sexually transmitted infections (STIs) has gained considerable importance. The similarity of STIs and HIV transmission, along with synergism beyond a mere co-infection requires proper understanding.

The most important elements of Reproductive tract infection (RTI) and STIs case management are prompt diagnosis and effective treatment. This includes a detailed sexual history, comprehensive physical examination, relevant investigations, adequacy of management and follow up modalities. In some settings where laboratory set up and facilities for clinical examination are not available, syndromic management is recommended. To prevent complications and spread, management must be effective and include treatment of sexual partners also. Clients should also receive counseling services with special reference to risk reduction, safer sex behaviour and access to testing.

Case Definition:

RTIs are defined as any infection of the reproductive system. They include STIs and other infections of the reproductive system that are not caused by sexual contact.

STIs are infections transmitted from person to person by sexual contact.

Suspect case of RTI/STI (For level 1 facility) - Based on history and clinical examination.

Probable/confirmed case of RTI/STI (For level 2-4 facility) - Based on clinical examination and investigations.

HISTORY

While taking history ensure privacy and confidentiality, be sympathetic, understanding, non-judgmental and culturally sensitive. The history should include details of the symptoms, duration of illness, exposure to high risk sexual practices, number of sexual partners, history of STI in sexual partners, drug abuse, contraception and previous history of STIs and their treatment. Menstrual history and obstetric history should also be taken in women. Clients seeking antenatal care and family planning services should be provided with general information about RTIs/STIs.

CLINICAL EXAMINATION

A comprehensive clinical examination should be done in a well-lit room while providing adequate comfort and privacy. The examination includes general assessment, inspection of the skin and mucous patches, detection of signs of systemic disease, examination of the genital, perianal and inguinal regions. It is advisable to have an assistant of the same sex as the client present, during examination of clients of sex opposite to the doctors.

DIAGNOSTIC CRITERIA, INVESTIGATIONS, TREATMENT, REFERRAL CRITERIA

The diagnosis and management of RTIs/STIs can be simplified based on the following clinical syndromes:-

- Urethral discharge/ burning micturition in males
- Scrotal swelling
- Inguinal bubo

- Genital ulcer
- Vaginal discharge
- Lower abdominal pain in females
- Oral & anal STIs

MANAGEMENT OF URETHRAL DISCHARGE/ BURNING MICTURITION IN MALES

Causative organisms

- Neisseria gonorrhoeae
- Chlamydia trachomatis
- Trichomonas vaginalis

Level 1: at solo physician clinic

Clinical diagnosis

History of

- Urethral discharge
- Pain or burning while passing urine
- Increased frequency of urination
- Sexual exposure of either partner to high risk practices including oro-genital sex

Clinical examination

- Look for redness of urethral meatus and swelling
- If urethral discharge is not seen, then gently massage the urethra from the ventral part of the penis towards the meatus and look for thick, creamy, greenish-yellow or mucoid discharge.

Investigations

The diagnosis is mostly clinical at level 1. Refer to Level 2 for investigations.

Treatment

As dual infection is common, treat for both gonorrhoea and chlamydial infection.

- Tab Cefixime 400 mg orally, single dose **Plus** Tab Azithromycin 1 gm orally single dose under supervision
- Advise the patient to return after 7 days of start of therapy
- If allergic to Azithromycin, give Tab Erythromycin 500 mg 4 times a day for 7 days

Referral criteria

- Persistence of symptoms.
- Recurrence of symptoms after adequate treatment for gonorrhoea and chlamydia
- Exclusion of concomitant syphilis, HIV infection and /or hepatitis B by relevant investigations.

Level 2: at 6-10 bedded primary health centre

Clinical Diagnosis

Same as Level 1.

Investigations

- Urethral smear for Gram stain examination
- Urethral smear examination or examination of first void urine for neutrophil count per oil immersion field

Treatment

Same as Level 1.

When symptoms persist or recur after adequate treatment for gonorrhoea and chlamydia in the index client and partner(s), treat for Trichomonas vaginalis.

- Tab Secnidazole 2 gm orally, single dose.

Follow-up of treated cases

Patients should be followed up for 01 week. They should be referred to the next referral hospital (preferably under care of a Dermatovenereologist or gynaecologist, as applicable) if their condition shows no improvement.

Referral Criteria

- If symptoms still persist or recurrence of symptoms
- Pregnant partners
- Exclusion of concomitant syphilis, HIV infection and /or hepatitis B by relevant investigations

Level 3: at 30-100 bedded community health centre

Clinical Diagnosis

Besides urethral discharge, look for symptoms and signs of other STIs.

Pregnant partners - per speculum as well as per vaginal examination.

Investigations

- Same as level 2 for a fresh case reporting directly.
- **Counseling and testing for HIV, Syphilis and Hepatitis B.**

Treatment

- Same as level 2 for a fresh case reporting directly.
- **Pregnant partners** - treat for both gonorrhoea and chlamydial infection.

  Cephalosporins - Tab Cefixime 400 mg orally, single dose **or**

  Ceftriaxone 125 mg by intramuscular injection

  PLUS

  Tab Erythromycin 500 mg orally four times a day for 7 days or

  Cap Amoxycillin 500 mg orally, Three times a day for 7 days

  Contraindications - Quinolones (like ofloxacin, ciprofloxacin) and doxycycline.

Follow-up of treated cases

Patients should be followed up for 01 week. They should be referred to the next referral hospital if their condition shows no improvement. Repeat testing and counseling of HIV, syphilis and hepatitis B after three and six months (to cover window / incubation period).

Referral Criteria

- If symptoms still persist or recurrence of symptoms
- If the patient tests positive for HIV, Syphilis and Hepatitis B
- Systemic complications of gonorrhoea or chlamydial infection

Level 4: at 100 or more bedded district hospital

Medical and surgical management of complications of gonorrhoea or chlamydial infection.

MANAGEMENT OF SCROTAL SWELLING

Causative organisms

- Neisseria gonorrhoeae
- Chlamydia trachomatis

Level 1: at solo physician clinic

Clinical diagnosis

History of

- Swelling and pain in scrotal region
- Pain or burning while passing urine
- Systemic symptoms like malaise, fever
- Sexual exposure of either partner to high risk practices including oro-genital and anal sex

Clinical examination

- Scrotal swelling
- Redness and edema of overlying skin
- Tenderness of the epididymis and vas deferens
- Associated urethral discharge/ genital ulcer/ inguinal lymph nodes
- Transillumination test to rule out hydrocele

Investigations

The diagnosis is mostly clinical based on history and examination. Refer to Level 2 for investigations.

Treatment

Treat for both gonococcal and chlamydial infection.

- Tab Cefixime 400 mg orally twice daily for 7 days Plus Cap Doxycycline 100 mg orally twice daily for 14 days
- Supportive therapy to reduce pain - bed rest, scrotal elevation and analgesics
- Treatment of partner
- Referral to level 3 or 4

If quick and effective therapy is not given, damage and scarring of testicular tissues may result and cause sub fertility.

Referral criteria

- Complicated gonococcal and chlamydial infections require parenteral and longer duration of treatment.
- Exclusion of concomitant syphilis, HIV infection and /or hepatitis B by relevant investigations

Level 2: at 6-10 bedded primary health centre

Clinical Diagnosis

Same as Level 1.

Investigations

- Urethral smear for Gram stain examination
- Urethral smear for Gram stain examination or examination of first void urine for neutrophil count per oil immersion field.

Treatment

Same as Level 1.

Referral Criteria

- Complicated gonococcal infection requires parenteral and longer duration of treatment.
- Pregnant partners
- Exclusion of concomitant syphilis, HIV infection and /or hepatitis B by relevant investigations

Level 3: at 30-100 bedded community health centre

Clinical Diagnosis

Besides scrotal swelling, look for symptoms and signs of other STIs.

Investigations

- Same as level 2.
- **Counseling and testing for HIV, Syphilis and Hepatitis B**

Treatment

- Same as level 2.
- **Pregnant partners**

  Tab Erythromycin base 500 mg orally four times a day **or**

  Cap Amoxycillin 500 mg orally, three times a day

  Contraindications - Erythromycin estolate

Follow-up of treated cases

Patients should be followed up for 01 week. They should be referred to the next referral hospital if their condition shows no improvement. Repeat testing and counseling of HIV, syphilis and hepatitis B after three and six months (to cover window / incubation period)

Referral Criteria

- If symptoms still persist or there is recurrence of symptoms
- If the patient tests positive for HIV, Syphilis and or Hepatitis B
- Systemic complications of gonorrhoea or chlamydial infection

Level 4: at 100 or more bedded district hospital

Medical and surgical management of complications of gonorrhoea or chlamydial infection.

Differential diagnosis

Infections - Tuberculosis, filariasis, pseudomonas, mumps virus infection

Non infectious causes - Hernia, hydrocele, testicular torsion and testicular tumours.

MANAGEMENT OF INGUINAL BUBO

Causative organisms

- Chlamydia trachomatis serovars L1, L2, L3 - Lymphogranuloma venereum (LGV)
- Hemophilus ducreyi - Chancroid

Level 1: at solo physician clinic

Clinical diagnosis

History of

- Swelling in inguinal region which may be painful

- Preceding history of genital ulcer or discharge
- Sexual exposure of either partner to high risk practices including oro-genital and anal sex
- Systemic symptoms like malaise, fever

Clinical examination

- Localized enlargement of lymph nodes - tender, fluctuant
- Inflammation of overlying skin
- Presence of multiple sinuses
- Edema of genitals and lower limbs
- Presence of genital ulcer or urethral discharge

Investigations

The diagnosis is mostly clinical based on history and examination. **Refer to Level 2 for investigations to rule out HIV infection, syphilis and concomitant STIs / RTIs.**

Treatment

- Cap Doxycycline 100 mg orally twice daily for 21 days

Plus

- Tab Azithromycin 1 gm orally single dose or
- Tab Ciprofloxacin 500 mg orally twice a day for 3 days
- Referral to level 3 or 4

Referral Criteria

- Bubo not responding to therapy
- Exclusion of concomitant syphilis, HIV infection and /or hepatitis B by relevant investigations

Level 2: at 6-10 bedded primary health centre

Clinical Diagnosis

Same as Level 1.

Investigations

In case of urethral discharge -

- Urethral smear for Gram stain examination
- Urethral smear examination or examination of first void urine for neutrophil count per oil immersion field.

Treatment

Same as Level 1 for fresh case reporting directly.

A bubo should never be incised and drained at PHC, as there is a high risk of a fistula formation and chronicity. If bubo becomes fluctuant, refer to level 3 or 4 for aspiration.

Referral Criteria

- Bubo not responding to therapy
- Pregnant partners
- Exclusion of concomitant syphilis, HIV infection and /or hepatitis B by relevant investigations

Level 3: at 30-100 bedded community health centre

Clinical Diagnosis

Besides inguinal swelling, look for presence of genital ulcer or urethral discharge and symptoms and signs of other STIs.

Investigations

- Same as level 2.
- **Counseling and testing for HIV, Syphilis and Hepatitis B.**

Treatment

- Same as level 2.
- Aspiration of bubo if fluctuant
- Pregnant partners and lactating women

  Tab Erythromycin base 500 mg orally four times a day for 21 days

  Plus

  Parenteral aminoglycoside (gentamicin)
- **Contraindications** - Erythromycin estolate, Quinolones (like ofloxacin, ciprofloxacin) and doxycycline.

Follow-up of treated cases

Patients should be followed up after 7 days and 21 days.

Repeat testing and counseling of HIV, syphilis and hepatitis B after three and six months (to cover window / incubation period).

Referral Criteria

- If symptoms still persist.
- If the patient tests positive for HIV, Syphilis and Hepatitis B.
- Complications of LGV or chancroid.
- If malignancy or tuberculosis is suspected, refer to level 4 for biopsy.

Level 4: at 100 or more bedded district hospital

Medical and surgical management of complications of LGV or chancroid.

Differential diagnosis

Infections - Tuberculosis, filariasis, any acute infection of skin of pubic area, genitals, buttocks, anus and lower limbs.

MANAGEMENT OF GENITAL ULCERS

Causative organisms

- Treponema pallidum - syphilis
- Hemophilus ducreyi - chancroid
- Calymmatobacterium granulomatis - granuloma inguinale
- Chlamydia trachomatis - Lymphogranuloma venereum (LGV)
- Herpes simplex - genital herpes

Level 1: at solo physician clinic

Clinical diagnosis

History of

- Genital ulcer/ vesicles
- Burning sensation in the genital region
- Sexual exposure of either partner to high risk practices including oro-genital and anal sex

Clinical examination

- Presence of vesicles
- Presence of genital ulcer - single or multiple
- Associated inguinal lymph node swelling
- Ulcer characteristics
    - Painful vesicles/ ulcers, single or multiple - Herpes simplex
    - Painless ulcer with shotty lymph node - Syphilis
    - Painless ulcer with inguinal lymph node - Granuloma inguinale & LGV
    - Painful ulcer usually single sometimes associated with painful bubo - Chancroid

Investigations

The diagnosis is mostly clinical based on history and examination. Blood can be collected and sent for RPR and HIV screening test to the nearest laboratory facility.

Treatment

- If vesicles or multiple painful ulcers are present treat for Genital herpes - Tab Acyclovir 400 mg orally three times a day for 7 days.
- If only ulcer present : treat for syphilis and chancroid
    - Inj Benzathine penicillin 2.4 million IU IM (after test dose) in 2 divided doses (with emergency tray ready)
    - If allergic to penicillin : Cap Doxycycline 100 mg orally twice daily for 14 days

      Plus

      Tab Azithromycin 1 gm orally single dose **or**

      Tab Ciprofloxacin 500 mg orally twice a day for three days (Chancroid)

Referral Criteria

- Not responding to therapy
- If ulcers have not epithelialised after 7days.
- Exclusion of concomitant syphilis, HIV infection and /or hepatitis B by relevant investigations

Level 2: at 6-10 bedded primary health centre

Clinical Diagnosis

Same as Level 1.

Investigations

The diagnosis would be mostly clinical based on history and examination. For further investigations refer to level 3 or 4.

Treatment

Same as Level 1. If the ulcer has not completely epithelialised extend treatment for 7 days.

Referral Criteria

- Ulcers not responding to therapy
- Pregnant partners
- Exclusion of concomitant syphilis, HIV infection and /or hepatitis B by relevant investigations

Level 3: at 30-100 bedded community health centre

Clinical Diagnosis

Look for presence of inguinal bubo or urethral discharge and symptoms and signs of other STIs.

Investigations

- Same as level 2.
- Counseling and testing for HIV, Syphilis and Hepatitis B.

Treatment

- Same as level 2.
- **Pregnant women**
  - If positive for RPR - Inj Benzathine penicillin 2.4 million IU IM (after test dose) (with emergency tray ready)
  - Second dose of Inj Benzathine penicillin 2.4 million IU IM 1 week after initial dose for women with primary, secondary , or early latent syphilis
  - If allergic to penicillin, Tab Erythromycin 500 mg orally four times a day for 15 days.
  - Neonate - treat for syphilis
- **Genital herpes**
  - First episode or severe recurrent herpes -Tab Acyclovir 200 mg x five times a day x 07 days
  - If genital herpes at onset of labour - caesarean section. (Monitor newborn for co-infection)

    Contraindications - Erythromycin estolate, quinolones (like ofloxacin, ciprofloxacin) and doxycycline.

Follow-up of treated cases

Patients should be followed up after 7 days.

Repeat testing and counseling of HIV, syphilis and hepatitis B after three and six months (to cover window / incubation period).

Referral Criteria

- If symptoms still persist.
- If the patient tests positive for HIV, Syphilis and / or Hepatitis B.
- Complications of syphilis, granuloma inguinale, LGV, chancroid or herpes.
- Exclusion of concomitant syphilis, HIV infection and /or hepatitis B by relevant investigations

Level 4: at 100 or more bedded district hospital

Medical and surgical management of complications of syphilis, granuloma inguinale, LGV, chancroid or herpes.

MANAGEMENT OF VAGINAL DISCHARGE IN FEMALES

Causative organisms

Vaginitis

- Trichomonas vaginalis (TV)
- Candida albicans
- Gardnerella vaginalis, mycoplasma - Bacterial vaginosis (BV)

Cervicitis

- Neisseria gonorrhoeae
- Chlamydia trachomatis
- Trichomonas vaginalis
- Herpes simplex virus

Level 1: at solo physician clinic

Clinical diagnosis

History of

- Menstrual history to rule out pregnancy
- Nature and type of discharge (amount, smell, colour, consistency)
- Genital itching
- Burning while passing urine, increased frequency
- Presence of any ulcer, swelling on the vulva or inguinal region
- Genital complaints in sexual partners
- Low backache

Clinical examination

- Examination of genitalia - look for discharge
  - Trichomoniasis - green frothy discharge
  - Candidiasis - curdy white discharge
  - Bacterial vaginosis - adherent discharge
  - Mixed infections - atypical discharge

Investigations

The diagnosis is mostly clinical. Refer to Level 2 for investigations.

Treatment

Vaginitis (TV+BV+Candida)

- Tab Secnidazole 2 gm orally, single dose or Tab Tinidazole 500 mg orally twice daily for 5 days.
- Tab Metoclopramide taken 30 minutes before Tab Secnidazole to prevent gastric intolerance.
- Candidiasis - Tab Fluconazole 150 mg orally single dose or local Clotrimazole 500 mg vaginal pessary once.

Referral criteria

- For investigations to look for cervicitis
- Persistence of symptoms
- Exclusion of concomitant syphilis, HIV infection and /or hepatitis B by relevant investigations

Level 2: at 6-10 bedded primary health centre

Clinical Diagnosis

Same as Level 1.

Per speculum examination to differentiate between vaginitis and cervicitis.

- Vaginitis - same as in level 1.
- Cervicitis
    - Cervical erosion, ulcer, mucopurulent cervical discharge

Bimanual pelvic examination to rule out pelvic inflammatory disease.

Investigations

- Wet mount microscopy of discharge - TV, clue cells (BV)
- 10% KOH preparation - Candida albicans
- Gram stain of vaginal smear - clue cells (TV)
- Gram stain of endocervical smear - gonococci
- Pregnancy and blood sugar testing

Treatment

Same as Level 1 for vaginitis

Treat current partner only if no improvement after initial treatment.

Cervical infection

- Tab Cefixime 400 mg orally single dose

Plus

- Tab Azithromycin 1 gm, 1 hour before lunch

If both vaginitis and cervicitis present - treat for both. Instruct client to avoid douching

Follow-up of treated cases

Patients should be followed up for 01 week. They should be referred to the next referral hospital if their condition shows no improvement.

Referral Criteria

- If symptoms still persist or recurrence of symptoms.
- Pregnant women
- Exclusion of concomitant syphilis, HIV infection and /or hepatitis B by relevant investigations

Level 3: at 30-100 bedded community health centre

Clinical Diagnosis

Same as level 2

Rule out pregnancy complications - abortion, premature rupture of membranes

Investigations

- Same as level 2.
- Counseling and testing for HIV, Syphilis and Hepatitis B.

Treatment

- Same as level 2.
- **Pregnant women** - Vaginitis (TV+BV+Candida)

  First trimester

  - Local Clotrimazole vaginal pessary/ cream for candidiasis.
  - Metronidazole vaginal pessaries or cream for TV or BV.

  Second and third trimester - oral Metronidazole can be given.

  - Tab Secnidazole 2 gm orally, single dose or Tab Tinidazole 500 mg orally twice daily for 5 days.
  - Tab Metoclopramide taken 30 minutes before Tab Metronidazole to prevent gastric intolerance. **Contraindication** - Oral Fluconazole.

Follow-up of treated cases

Patients should be followed up for 01 week. They should be referred to the next referral hospital if their condition shows no improvement.

Repeat testing and counseling of HIV, syphilis and hepatitis B after three and six months (to cover window / incubation period).

Referral Criteria

- If symptoms still persist or recurrence of symptoms.
- If the patient tests positive for HIV, Syphilis and / or Hepatitis B.
- Systemic complications of gonorrhoea, herpes or chlamydial infection.
- Exclusion of concomitant syphilis, HIV infection and /or hepatitis B by relevant investigations

Level 4: at 100 or more bedded district hospital

Medical and surgical management of complications of gonorrhoea, herpes or chlamydial infection.

MANAGEMENT OF LOWER ABDOMINAL PAIN IN FEMALES

Causative organisms

- Neisseria gonorrhoeae
- Chlamydia trachomatis
- Mycoplasma, Gardnerella, anaerobic bacteria (Bacteroides sp, gram positive cocci)

Level 1: at solo physician clinic

Clinical diagnosis

History of

- Lower abdominal pain
- Fever
- Vaginal discharge
- Menstrual irregularities like heavy, irregular vaginal bleeding
- Dysmenorrhoea
- Dyspareunia
- Dysuria, tenesmus
- Low backache
- Contraceptive use like IUD

Clinical examination

General examination - temperature, pulse, blood pressure and per abdominal examination for lower abdominal tenderness or guarding.

Investigations

The diagnosis would be mostly clinical. Refer to Level 2 for further management.

Level 2: at 6-10 bedded primary health centre

Clinical Diagnosis

Same as Level 1.

General and per abdominal examination.

Per speculum examination for vaginal /cervical discharge, congestion or ulcers.

Pelvic examination for uterine/ adnexal tenderness, cervical movement tenderness.

Investigations

- Urine pregnancy test to rule out ectopic pregnancy
- Wet smear examination
- Gram stain of endocervical smear - gonococci
- Complete blood count and ESR
- Urine microscopy for pus cells

Treatment

Mild or moderate pelvic inflammatory disease (PID)

- Tab Cefixime 400 mg orally twice a day for 7 days + Tab Metronidazole 400 mg orally twice daily for 14 days (N.gonorrhoeae, anaerobes)

  PLUS
- Cap Doxycycline 100 mg orally twice a day for 2 weeks (Chlamydia)
- Tab Ibuprofen 400 mg orally three times a day for 3-5 days.
- Tab Ranitidine 150 mg orally twice a day to prevent gastritis.
- Remove intrauterine device if present under antibiotic cover of 24-48 hours.

Follow-up of treated cases

Patients should be followed up after 3 days, 7 days and 14 days to ensure compliance. They should be referred to the next referral hospital if their condition shows no improvement for inpatient treatment.

Referral Criteria

- If no improvement (i.e. absence of fever, reduction in abdominal tenderness, reduction in cervical movement, adnexal and uterine tenderness) after treatment for 3 days or earlier if condition worsens.
- Exclusion of concomitant syphilis, HIV infection and /or hepatitis B by relevant investigations

Level 3: at 30-100 bedded community health centre

Clinical Diagnosis

Same as level 2

Investigations

- Same as level 2 for a fresh case reporting directly.
- Counseling and testing for HIV, Syphilis and Hepatitis B.

Treatment

- Same as level 2.
- Inpatient treatment of patients referred from level 2.

Follow-up of Treated Cases

The patients should be referred to the next referral hospital if their condition shows no improvement or symptoms worsen.

Repeat testing and counseling of HIV, syphilis and hepatitis B after three and six months (to cover window / incubation period).

Referral Criteria

- If symptoms still persist or recurrence of symptoms.
- If the patient tests positive for HIV, Syphilis and / or Hepatitis B.
- Systemic complications of gonorrhoea, herpes or chlamydial infection.
- Exclusion of concomitant syphilis, HIV infection and /or hepatitis B by relevant investigations

Level 4: at 100 or more bedded district hospital

Hospitalization

- Diagnosis is uncertain
- Surgical emergencies
- Pelvic abscess suspected
- Severe illness precludes OPD treatment
- Pregnant women with suspected PID and treatment with parenteral regimen.

  Contraindication - Doxycycline, Metronidazole in the first trimester.
- Client unable to follow or tolerate a regimen
- Failure to respond to therapy
- Concomitant advanced HIV infection

Differential diagnosis

Ectopic pregnancy, twisted ovarian cyst, ovarian tumour, appendicitis, abdominal tuberculosis

MANAGEMENT OF ORAL & ANAL STIs

Causative organisms

- Neisseria gonorrhoeae
- Chlamydia trachomatis
- Treponema pallidum - syphilis
- Hemophilus ducreyi - chancroid
- Calymmatobacterium granulomatis - granuloma inguinale
- Herpes simples - genital herpes

Level 1: at solo physician clinic

Clinical diagnosis

History of

- Unprotected oral sex with pharyngitis
- Unprotected anal sex with anal discharge or tenesmus, diarrhea, blood in stool, abdominal cramping, nausea, bloating

Clinical examination

- Oral ulceration, redness, pharyngeal inflammation
- Genital or anorectal ulcers - single or multiple
- Presence of vesicles
- Rectal pus
- Any other STI syndrome

Investigations

The diagnosis would be mostly clinical. Refer to Level 2 for investigations.

Treatment

- Pharyngitis with history of unprotected oral sex or anal discharge, tenesmus, bloating with history of unprotected anal sex or rectal pus - treat as urethral discharge syndrome
- Genital or anorectal ulcers or vesicular eruption - treat as genital ulcer syndrome
- Diarrhoea, blood in stools, abdominal cramping, nausea, bloating with history of unprotected anal sex - treat as urethral discharge syndrome + anti-diarrhoeal medicines as required and referral to level 2.

Referral criteria

- Symptoms like diarrhoea, blood in stools, abdominal cramping, nausea, bloating.
- No improvement with therapy
- Persistence of symptoms
- Exclusion of concomitant syphilis, HIV infection and /or hepatitis B by relevant investigations

Level 2: at 6-10 bedded primary health centre

Clinical Diagnosis

Same as Level 1.

Investigations

- RPR/VDRL
- Gram stain examination of rectal swab

Treatment

Same as level 1.

Follow-up of treated cases

Patients should be followed up for 01 week. They should be referred to the next referral hospital if their condition shows no improvement.

Referral Criteria

- If symptoms still persist or recurrence of symptoms.
- Any other STI syndrome
- Exclusion of HIV infection and /or hepatitis B by relevant investigations

Level 3: at 30-100 bedded community health centre

Clinical Diagnosis

Same as level 2

Investigations

- Same as level 2.
- **Counseling and testing for HIV, Syphilis and Hepatitis B.**

Treatment

- Same as level 2.

Follow-up of treated cases

Patients should be followed up for 01 week. They should be referred to the next referral hospital if their condition shows no improvement.

Repeat testing and counseling of HIV, syphilis and hepatitis B after three and six months (to cover window / incubation period).

Referral Criteria

- If symptoms still persist or recurrence of symptoms.
- **If the patient tests positive for HIV, Syphilis and / or Hepatitis B.**
- Systemic complications of STI syndrome.

Level 4: at 100 or more bedded district hospital

Medical and surgical management of complications of STI syndrome.

MUST KNOW

- Educate and counsel client and sex partner(s) regarding RTIs/STIs, genital cancers, safer sex practices and importance of taking complete treatment
- Treat partner(s) wherever indicated
- Advise sexual abstinence during the course of treatment
- Provide condoms, educate about correct and consistent use
- Refer for voluntary counseling and testing for HIV, Syphilis and Hepatitis B
- Consider immunization against Hepatitis B
- Schedule return visit after 7 days to ensure treatment compliance as well as to see reports of tests done.
- Advise patient for follow up to repeat RPR and screening for HIV infecton
- If symptoms persist, assess whether it is due to treatment failure or re-infection and advise prompt referral.
- HIV infection can modify the clinical presentation and course of STIs / RTIs
- Proper documentation and surveillance for followup and exclusion of concomitant STIs and HIV infection (beyond window / incubation period)

Conclusion: Give to all patients the following "Cs"

- Curative treatment
- Complete instructions for medication and follow-up
- Counseling and testing for HIV, Syphilis and Hepatitis B infection
- Condoms
- Caution: Syndromic approach to STI is generally beneficial to the rural populace in resource-limited settings. However, caution should be exercised as this approach may overlook issues which may not be definitive evidence based management, follow up and cure.

** **Referral to a Dermatovenereologist is desirable for proper diagnosis, treatment, surveillance and follow up.**