The most important elements of RTI/STI case management are accurate diagnosis and effective treatment. This needs time and skill in taking a detailed sexual history for both client and his/her sexual contacts and in carrying out a comprehensive physical examination and minimal investigations in resource poor settings. In some settings where even minimal laboratory setup and facilities for clinical examinations are not available, syndromic management is recommended as per the protocols in following pages. To prevent the complications and spread, treatment must be effective. This means selecting the correct drugs for the disease, carefully monitoring its administration and carrying out regular follow up. The sexual partners must be treated so as to prevent recurrence. Clients should also receive counseling services with special reference to risk reduction, safer sex behaviour and access to testing.

The components of case management include:

- History taking
- Clinical examination
- Correct diagnosis
- Early and effective treatment
- Counseling: Risk reduction and voluntary HIV testing
- Provision of condoms
- Partner management
- Follow-up as appropriate.

Thus, quality case management consists not only of antimicrobial therapy to obtain cure and reduce infectivity, but also focus on prevention of recurrence and partner management.

History taking

- History must be taken in a language, which the client understands well. (Some examples of framed questions are given in Box 1). Clients are often reluctant to talk about these conditions due to shyness or fear of stigmatization. Hence health care providers should ensure privacy, confidentiality, be sympathetic, understanding, non-judgmental and culturally sensitive.

- Ensure privacy by having a separate room for history taking and examination, which is not stigmatized with a nameplate for STIs. There should be auditory as well as visual privacy for history taking as well as examination.
Start the conversation by welcoming your client, taking them into confidence and encouraging him/her to talk about their complaints. If a couple comes together, each of them needs to be interviewed and examined separately.

Often, because the client feels uncomfortable talking about RTIs/STIs, individuals may come to the clinic with other non-specific complaints or requesting a check-up, assuming that the health care provider will notice anything abnormal that needs treatment. Therefore, health care workers should maintain a high index of suspicion about RTIs/STIs.

Clients seeking antenatal care and family planning services should be viewed as opportunities to provide general information about RTIs/STIs and should be asked about RTI/STI symptoms and contraception.

The health care personnel should be aware of the commonly used RTI/STI related terminology as well as those used for high-risk behavior. These terms may vary in different geographical settings.

Clinical examination

Pre-requisites for clinical examination

Clients should be examined in the same conditions of privacy as those in which history was taken.

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.

Clients should be told about the examination with the help of diagrams and charts.

The examination should be done in a well-lit room while providing adequate comfort and privacy. Before you start, keep the examination table with proper illumination ready as well as sterilized speculums (for examination of female clients), collection swabs and labeled slides for smears.

As far as possible, complete body examination of the client should be carried out so that none of the skin lesions or lymph nodes is missed.
Box 4.1: Sample questions on history taking

Framing Statement
“In order to provide the best care for you today and to understand your risk for certain infections, it is necessary for us to talk about your sexual behavior.

“Screening Questions

➢ Have you recently developed any of these symptoms?

STI (Genital infections) Symptoms Checklist

For Men
i. Discharge or pus (drip) from the penis
ii. Urinary burning or frequency
iii. Genital sores (ulcers) or rash or itching
iv. Scrotal swelling
v. Swelling in the groin
vi. Infertility

For Women
i. Abnormal vaginal discharge (increased amount, abnormal odor, abnormal color)
ii. Genital sores (ulcers), rash or itching
iii. Urinary burning or frequency
iv. Pain in lower abdomen
v. Dysmenorrhoea, menorrhagia, irregular menstrual cycles?
vi. Infertility

High risk sexual behavior

➢ For all adolescents: Have you begun having any kind of sex yet?
➢ If sexually active do you use condom consistently?
➢ Do you have any reason to think you might have a sexually transmitted disease? If so, what reason?
➢ Have you had sex with any man, woman, with a gay or a bisexual?
➢ Have you or your partner had sex with more than one partner?
➢ Has your sex partner(s) had any genital infections? If so, which ones?
➢ Do you indulge in high risk sexual activity like anal sex
➢ Do you practice correct and consistent condom usage while having sex? If yes, whether every time or sometimes?
➢ Sex workers: Frequency of partner change: use of condoms with regular partners and also with clients

STI History

➢ In the past have you ever had any genital infections, which could have been sexually transmitted? If so, can you describe?

STI treatment history

➢ Have you been treated in the past for any genital symptoms? By whom? (qualified or unqualified person)
➢ Did your partner receive treatment for the same at that time?
➢ Has your partner been treated in the past for any genital symptoms? By whom? (qualified or unqualified person)

Injection Drug Use

➢ Have you had substance abuse? (If yes, have you ever shared needles or injection equipment?)
➢ Have you ever had sex with anyone who had ever indulged in any form of substance abuse?

Menstrual and obstetric history in women and contraceptive history in both sexes should be asked
General Examination

- All examinations should begin with a general assessment, including vital signs and inspection of the skin and mucous patches, to detect signs of systemic disease.

Clinical examination of female clients

While examining a female client, a male doctor should ensure that a female attendant is present. Genital examination in females must be performed with client in lithotomy position.
Box 4.2 Signs to look for during external genital examination of a female client

<table>
<thead>
<tr>
<th>a) Inspection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staining of underclothes: Vaginal and urethral discharge, exudative ulcers</td>
</tr>
</tbody>
</table>

**Inguinal region**
- Swelling, ulcer, lesions of fungal infections
- Lymph nodes: look for enlargement, number, location (horizontal or vertical group), single or multiple, scars and puckering, signs of inflammation on the surface and surrounding region
- Abrasions due to scratching and lesions on inner aspect of thighs

**Pubic area**
- Matting of hairs, pediculosis, folliculitis, or other skin lesions

**Labia majora and minora**
- Separate the labia majora with both hands and look for erythema, edema, esthiomene formation (lobulated fibrosed masses due to chronic lymphedema), fissuring, ulcers, warts or other skin lesions

**Ulcers**
- Location, number (single, multiple), superficial (erosions) or deep, edge (undermined/punched out), margins (regular/irregular) and floor (presence of exudates, slough/granulation tissue)

**Bartholin glands**
- Enlargement, ductal opening, discharge

**Introitus**
- Discharge – colour, odour, profuse or scanty, curdy or thin, back drop of redness and inflammation

**Urethral meatus**
- Discharge (pressing under the urethra with one finger may show drops of discharge), inflammation

**Perianal examination**
- Separate the buttocks with two hands for better visualization. Look for ulcer, macerated papules of condyloma lata, warts, discharge, patulous anus, haemorrhoids, fissures, fistula

<table>
<thead>
<tr>
<th>b) Palpation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inguinal region</strong></td>
</tr>
<tr>
<td>Lymphnodes: tenderness, increased warmth, superficial or deep, discrete or matted, free mobility or fixed to deeper structures, consistency (firm or soft) and fluctuant.</td>
</tr>
<tr>
<td>Rule out hernia</td>
</tr>
</tbody>
</table>

**Palpation of ulcer at any site**
- Tenderness, induration of the floor and edges, bleeding on maneuvering
Signs of various RTIs/STIs are shown as pictures in fig 4c – 4h. During external genital examination of female clients, one should look for these signs.

- Fig 4c Vesicles of Genital Herpes
- Fig 4d Abrasions of Intertrigo
- Fig 4e Extensive mucopurulent cervicitis infection
- Fig 4f Pus pouring out of endocervix in Chlamydia infection
- Fig 4g Growth of genital warts
- Fig 4h Chancre of Syphilis
Box 4.3: Speculum examination in women

How to do speculum examination in women

- Ask the woman to pass urine.
- Ask her to loosen her clothing. Use a sheet or clothing to cover her.
- Have her lie on her back, with her heels close to her bottom and her knees up.
- Wash your hands well with clean water and soap.
- Put clean gloves on both hands.
- Look at the outside genitals – using the gloved hand to gently look for lumps, swelling, unusual discharge, sores, tears and scars around the genitals and in between the skin folds of the vulva.

Speculum examination

- Be sure the speculum has been properly disinfected before you use it. Wet the speculum with clean water before inserting it.
- Put the first finger of your gloved hand in the woman’s vagina. As you put your finger in, push gently downward on the muscle surrounding the vagina (push slowly, waiting for the woman to relax her muscles).
- With the other hand, hold the speculum blades together between the pointing finger and the middle finger. Turn the blades sideways and slip them into the vagina. (be careful not to press on the urethra or clitoris because these area are very sensitive). When the speculum is halfway in, turn it so the handle is down. Remove your gloved finger.
- Gently open the blades a little and look for the cervix. Move the speculum slowly and gently until you can see the cervix between the blades. Tighten the screw on the speculum so it will stay in place.
- Check the cervix which should look pink and round and smooth. Notice if the opening is open or closed, and whether there is any discharge or bleeding. If you are examining the woman because she is bleeding from the vagina after birth, abortion or miscarriage, look for tissue coming from the opening of the cervix.
- Look for signs of cervical infection by checking for yellowish discharge, redness with swelling, or easy bleeding when the cervix is touched with a swab. If the woman has been leaking urine or stools gently turn the speculum to look at the walls of the vagina. Bring the blades closer together to do this.
- To remove the speculum, gently pull it toward you until the blades are clear of the cervix. Then bring the blades together and gently pull back. Be sure to disinfect your speculum again.
Box 4.4: Signs to look for during speculum examination

- Vaginal discharge and redness of the vaginal walls are common signs of vaginitis. Note the color, smell and characteristics of any vaginal discharge. When the discharge is white and curd-like, candidiasis is likely.
- Foreign body, IUD thread.
- Ulcers, warts, sores or blisters.
- Redness of cervical and vaginal epithelium
- Look for cervical erosions. If the cervix bleeds easily when touched or the discharge appears muco-purulent with discoloration, cervical infection is likely. A strawberry appearance of the cervix may be due to trichomoniasis. A uniform bluish discoloration of the cervix may indicate pregnancy, which needs to be kept in mind.
- When examining a woman after childbirth, induced abortion or miscarriage, look for bleeding from the vagina or tissues fragments and check whether the cervix is normal.
- Tumors or other abnormal-looking tissue on the cervix.
- PAP smear can be obtained during speculum examination
**Box 4.5: Bimanual pelvic examination**

**How to do a bimanual pelvic examination**

- **Put the pointing finger of your gloved hand in the woman’s vagina.** As you put your finger in, push gently downward on the muscles surrounding the vagina. When the woman’s body relaxes, put the middle finger in too. Turn the palm of your hand up.

- **Feel the opening of her womb (cervix) to see if it is firm** (feels like tip of the nose and round. Then put one finger on either side of the cervix and move the cervix gently. It should move easily without causing pain. If it does cause pain, she may have infection of the womb, tubes or ovaries. If her cervix feels soft, she may be pregnant.

- **Feel the womb by gently pushing on her lower abdomen with your outside hand.** This moves the inside parts (womb, tubes and ovaries) closer to your inside hand. The womb may be tipped forward or backward. If you do not feel it in front of the cervix, gently lift the cervix and feel around it for the body of the womb. If you feel it under the cervix, it is pointed back.

- **When you find the womb, feel for its size and shape.** Do this by moving your inside fingers to the sides of the cervix, and then `walk` your outside fingers around the womb. It should feel firm, smooth and smaller than a lemon. If the womb:
  - Feels soft and large, she is probably pregnant.
  - Feels lumpy and hard, she may have a fibroid or other growth.
  - Hurts when you touch it, she may have an infection inside.
  - Does not move freely, she could have scars from an old infection.
  - Feel her tubes and ovaries. If these are normal, they will not be felt. But if you feel any lumps that are bigger than an almond or that cause severe pain, she could have an infection or other emergency. If she has a painful lump, and her monthly bleeding is late, or scanty, she could be pregnant in the tube. She needs medical help right away.
  - Move your finger and feel along with inside of the vagina. If she has a problem with leaking urine or stool, check for a tear. Make sure there are no unusual lumps or sores.
  - Have the woman cough or push down as if she were passing stool. Watch to see if something bulges out of the vagina. If it does, she could have a fallen womb or fallen bladder (prolapse).
  - When you are finished, clean and disinfect your glove. Wash your hands well with soap and water.
Box 4.6: Signs to look for during a bimanual examination

- Soft enlarged uterus with missed periods suggestive of pregnant uterus
- Adnexal mass with missed periods suggestive of ectopic pregnancy
- Cervical movement tenderness and or adnexal tenderness suggestive of PID
- Adnexal mass with fever suggestive of pelvic abscess
- Any other hard pelvic mass like fibroid or malignancy

Digital rectal examination: Performed if symptoms suggestive of prostatic disease. Should not be carried out if the client has painful perianal diseases such as herpetic ulcers, fissures, haemorrhoids.

Proctoscopic examination: Indicated if history of unprotected anal intercourse, or complain of rectal discharge.

*Note: If a woman has missed periods (menses), pregnancy should be ruled out by doing a urine pregnancy test.*
Box 4.7: Signs to look for when examining men

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**a) Inspection**

- **Staining of underclothes:** due to urethral discharge, subprepuccial discharge or from exudative ulcers.
- **Inguinal region:** swelling, ulcer, candidial intertrigo, tinea, enlarged lymph nodes: look for number, location (horizontal or vertical group), single or multiple pointings, scars and puckering, signs of inflammation on the surface and surrounding region.
- **Pubic area:** matting of hairs, pediculosis, folliculitis, or other skin lesions.
- **Scrotum:** erythema, skin lesions (condyloma lata), asymmetry, scrotal swelling.
- **Penis:** size, oedema, deformity, phimosis, paraphimosis, autoamputation of genitals, foreign bodies, old scars, circumcission, retraction of prepuce.
- **Inspection of ulcers:** Number (single, multiple), superficial (erosions) or deep, edge (undermine/punched out), margins (regular/irregular) and floor (presence of exudates, slough/granulation tissue).
- **Meatal examination:** Erythema, discharge: thick, creamy or mucopurulent, wart, ulcer. If no discharge then milk the penis (urethra) and look for discharge at the meatus.
- **Prepucial skin examination:** Erosions, ulcer, warts, posthitis or other skin lesions.
- **Coronal sulcus:** Ulcer, warts, pearly penile papules.
- **Glans penis examination:** Erosions, ulcers, warts, balanitis (candidial, trichomonial).
- **Shaft of penis:** papules, nodules, ulcers or other skin lesions, fibrosis.
- **Perianal examination:** Separate the buttocks with two hands for better visualization. Look for ulcer, macerated papules of condyloma lata, warts, discharge, patulous anus, haemorrhoids, fissures, fistula.

**b) Palpation**

- **Inguinal region:** Lymphnodes: tender or not, increased warmth, superficial or deep, discrete or matted, free mobility or fixed to deeper structures, consistency: firm or soft and fluctuant. Rule out hernia.
- **Palpation of spermatic cords:** Tenderness, asymmetry, and thickening, varicocoeles.
- **Palpation of scrotum:** Asymmetry, tenderness, consistency of testes and epididymis, transillumination for hydrocoele. Rule out hernia.
- **Palpation of ulcer at any site:** Tenderness, induration of the floor and edges, bleeding on maneuvering.

**c) Digital rectal examination** Performed if symptoms suggestive of prostatic disease. Should not be carried out if the client has painful perianal disease such as herpetic ulcers, fissures, or haemorrhoids.

**d) Proctoscopic examination** Indicated if unprotected anal intercourse, rectal discharge.
Signs of various RTIs/STIs are shown as pictures in fig. During external genital examination of male clients, one should look for these signs.

Fig 4i Urethral discharge in gonorrhea

Fig 4j Herpes ulcers

Fig 4k Multiple grouped erosions over shaft of penis

Fig 4l Chancre of glans in Syphilis

Fig 4m Chancre of coronal sulcus in Syphilis
Fig 4n Ulcer of Donovanosis

Fig 4o Condyloma lata of Syphilis

Fig 4p Veneral warts

Fig 4q Candidial balanoposthitis

Fig 4r Chancroidal bubo: note the single pointing

Fig 4s LGV