National Guidelines on

the Syndromic Management of

Sexually Transmitted Infections (STI)
and other

Reproductive Tract Infections (RTI)

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PREFACE

Sexually transmitted infections (STIs) remain a very important public health problem. With the emergence of the HIV and AIDS pandemic, the imperative for a more coordinated plan to bring STIs under control has become increasingly urgent. The Federal Ministry of Health (FMoH) has, since 1980, constituted a technical committee to work on control measures to reduce the incidence of STIs. In 1992 the FMoH published the *Manual on Sexually Transmitted Diseases* under the auspices of the National AIDS and STD Control Programme. This manual contains algorithms for the management of the different syndromes associated with STIs. Problem-solving operations suitable for use in facilities with or without laboratories were included in that publication. With the increasing recognition of the risk and association of HIV with STIs and its rising trend in Nigeria in the 1990s, there was a concerted effort by the FMoH to expand the syndromic treatment of STIs as a group of symptoms which consistently occur together.

The World Health Organization (WHO) initiated the idea of meeting the needs of individuals who may be at risk of reproductive tract infections (RTIs), other than STIs after the meeting of international experts in Dar es Salam, Tanzania. There, it was decided that there are several advantages in integrating STIs/RTIs care. Following this meeting an expert committee was convened to review the guidelines, leading to the publication of the *National Guidelines on Syndromic Management of STIs and RTIs*. This manual is designed for use at all the three health care levels.

ACKNOWLEDGEMENT

FOREWORD

The syndromic approach to the management of sexually transmitted diseases and other reproductive tract infections is an idea that has been waiting to happen — simple but brilliant — it solves the problem of the lack of diagnostic tools by using easy to follow flow charts, which village level health care workers can be trained to understand and effectively utilize.

One of the main obstacles to the rapid treatment of STIs/RTIs in Africa is the proximity of the patient to good diagnostic services, trained personnel, laboratory equipment and drugs. Time is of the essence in the treatment of any infection and to prevent its spread . Rapid treatment breaks the chain of disease and makes individual recovery easier. Indeed, as most cases of infertility are related to RTIs, it is imperative for young women and men to receive fast and effective treatment to avoid future complications.

Symdronic management is based on the use of easy-to-follow flow charts. This will increase the number of patients being diagnosed and treated for common urinary tract and vaginal infections without recourse to expensive tests, which may not even be available. If prompt treatment occurs at first point of contact — the primary health care level — the number of STIs and RTIs should decrease dramatically. We congratulate the Nigerian Federal Ministry of Health in taking this bold new approach to the treatment of sexually transmitted diseases and reproduction tract infections.

Abbreviations and Acronyms

AIDS	Acquired Immunodeficiency Syndrome
GOPD	General outpatient department
GUD	Genital ulcer disease
HIV	Human immunodeficiency virus
HSV	Herpes simplex virus
IM	Intramuscular
IV	Intravenous
KOH	Potassium hydroxide
LAP	Lower abdominal pain
OHP	Overhead projector
PHC	Primary health care
PMTCT	Prevention of mother-to-child transmission
PID	Pelvic inflammatory disease
RPR	Rapid protein reaginic test
RTIs	Reproductive tract infections
qds	Four times daily
STIs	Sexually transmitted infections
STS	Serological test for syphilis
tds	Three times daily
WHO	World Health Organization

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1.0 Background

Reproductive tract infections (RTIs) are caused by organisms normally present in the reproductive tract, or introduced from the outside during sexual contact or medical procedures, or as a result of an imbalance in vaginal bacterial flora. RTIs could be caused by *endogenous organisms*, that is the normal bacteria present in the female genital tract following abortion (post abortion) or childbirth (postpartum); *iatrogenic causes*, that is after an obstetric or gynaecological examination, and instrumentation; or after the application of chemicals or drugs into the vagina by the patient; or as the result of sexually transmitted infections(STIs)

Globally, it is estimated that 340 million new cases of curable STIs occur each year. These consist of 12 million cases of syphilis, 62 million cases of gonorrhoea, 98 million cases of chlamydia and 170 million cases of trichomonasis. In Nigeria there are about 3 million reported annual cases of STIs mainly caused by *chlamydia, N. gonorrhoeae and trichomonas vaginalis*. There are also increasing reports of genital ulcer disease (GUD) due to chancroid, herpes, and primary syphilis.

Common complications of STIs are pelvic inflammatory disease (PID), tubal blockage, infertility and cervical cancer in women. In men they may lead to infertility and urethral stricture. Pelvic infections account for 17-40% of all gynecological admissions in Africa. Abortion accounts for 7-29% of maternal deaths in developing countries. Infection following vaginal deliveries is up to 10 times more common in developing countries than developed countries. Most cases of infertility are related to RTIs; while up to 32 ectopic pregnancies occur per 1000 live births in Africa.

1.1 Common STI/RTI

Most STI/RTI are linked with definite syndromes such as genital discharge, genital ulcer or lower abdominal pain (table 1). The common organisms that cause STI/RTI include *Neisseria gonorrhoeae, Chlamydia trachomatis and Trichomonas vaginalis*. Other STIs are HIV, cytomegalovirus, and hepatitis B. Bacteria such as streptococci species, and staphylococci species.

2.0 Syndromic Approach to Management of STI/RTI

2.1 Rationale for Standard Treatment

- Effective management of STI/RTI
- Prevention of complications
- Treatment of partners
- Promotion of safe health habit
- Facilitation of training and supervision of health care providers
- Use of commonly available, cheap and effective drugs at all levels of health care delivery
- Prevention of mother-to-child transmission of infection

Table 1. Common STIs/RTIs

Syndrome	STI/RTI	Organism	Type
Discharge	Bacterial vaginosis	*Gardnerella vaginalis*, Anaerobes	Bacterial
	Yeast infection	*Candida albicans*	Fungal
	Gonorrhoea	*Neisseria gonorrhoae*	Bacterial
	Chlamydia	*Chlamydia trachomatis*	Bacterial
	Trichomoniasis	*Trichomonas vaginalis*	Protozoan
Genital ulcer disease (GUD)	Syphilis	*Treponema pallidum*	Bacterial
	Chancroid	*Hemophilus ducreyi*	Bacterial
	Herpes rash	2 herpes simplex virus (HSV-2)	Viral
	Granuloma inguinale (donovanosis)	*Inguinale granulomatis*	Bacterial
	Lymphogranuloma venereum (LGV)	*Chlamydia trachomatis*	Bacterial
	molluscum contagiosum	M. contagiosum	Viral
Lower abdominal pain (LAP)	Chlamydia	*Chlamydia trachomatis*	Bacterial
	Gonorrhoea	*Neisseria gonorrhoeae*	Bacterial
Others	Scabies (crab)	*Sarcoptes scabies*	Tick
	body lice	*Phthirus pubis*	Tick
	Genital warts	Human papilloma virus	Viral

Adopted from WHO (2005)

2.2 Rationale for Syndromic Approach to STIs/RTIs Management

In order to make STI/RTI control more effective, provision of appropriate health care services, including the prompt and effective treatment of patients and their partners, as well as the provision of health education and counselling must be accessible to everyone who needs it. These services must be available at the point of first contact with the health service providers (public or private) such as the primary health care centres, dispensaries, out-patient departments and outreach posts, irrespective of whether laboratory facilities for the diagnosis of STI/RTI are available.

At secondary and tertiary health institutions where laboratory facilities and experts should be available, aetiologic and clinic-based approaches to STIs/RTIs management are often affected by a variety of problems. These include a lack of appropriate drugs, laboratory equipment and personnel. Long waiting times, the high cost of services and limited population coverage also reduce the number of people served.

The syndromic approach to diagnosis and management of STIs/RTIs make treatment accessible and affordable to a large majority of the population because trained health workers at all levels can use it. The syndromic approach does not require sophisticated equipment. It works through the use of FLOW CHARTS, which have been prepared, using signs and symptoms (i.e., the syndrome) presented by the patient. It ensures that patients and partners are treated at the point of first contact by making diagnosis based on signs and symptoms without having to wait for laboratory results. The patients are educated and counselled on compliance with the full course of treatment, the importance of partner notification and risk-reduction through.

2.3 Steps in Syndromic Management

Step 1: Taking a good history to determine STI/RTI symptoms

Step 2: Assessing personal risk of patient (i.e. inquire if patient is sexually active, the number of sexual partners, gender and regular use of condom)

Step 3: Selecting the appropriate flow chart based on the presented symptoms

Step 4: Examining patient for signs of infection or disease as directed by the flow chart

Step 5: Following the selected flow chart to make a syndromic-based diagnosis

Step 6: Provision of the recommended treatment and/or refer patient depending on the flow chart's instructions

Step 7: Not forgetting the four Cs (4cs) (table 2) as the points of treatment (i.e. encourage patient to comply with treatment, counsel patient, promoting the use of condom and treatment of contact(s)).

Step 8: Following up patient to ascertain outcome of treatment. If better, discharge from clinic, otherwise review/refer.

Step 9: Counsel patient on risk reduction and attending HIV counselling and testing, promoting and providing condom use and stressing the importance of partner notification and treatment.

3.0 Options on the National Guidelines on Syndromic Management of STIs and RTIs

3.1 Components of the National Guidelines on Sexually Transmitted Infections (STIs) and other Reproductive Tract Infections (RTIs)

- Recording the history of STIs and RTIs symptoms, spontaneous abortion and preterm delivery
- Using aetiologic approach of management in tertiary health care level and research settings where facilities are well coordinated
- Identifying and treating all cases of syphilis, thus; preventing the development of tertiary and congenital syphilis
- Provision of counselling service and testing for HIV on site or through referral
- Prevention of ophthalmia neonatorum
- Prevention of STIs and HIV
- Prevention of mother-to-child transmission of HIV, syphilis and other STIs

3.2 Initial Assessment at Antenatal Clinic

- Checking for STI/RTI symptoms and providing treatment if found
- Screening for bacterial vaginosis and trichomoniasis in case of patient with history of spontaneous abortion or preterm delivery
- Screening for syphilis
- Offering counselling and voluntary HIV testing
- Discussing STI/RTI prevention with patient, as well as risk reduction counselling
- Discussing birth plan and postpartum family planning. HIV and *herpes simplex virus* (HSV) infection may influence birth plan
- Carrying out pap smear for early detection of cervical cancer

Table 2. The 4cs of good STIs/RTIs management (counselling, compliance, condoms contact treatment)

Health care provider should:	Health care manager should encourage patient to:	Health care provider should:	Health care manager should encourage patient to:
Show empathy for patient	Avoid self medication	Inform patient of proper use of condom as the only alternative	Inform all sexual partner(s) in the last three months to seek medical treatment
Listen to patient and engage in dialogue	Ensure completion of treatment regimen even after all the symptoms have disappeared and not to share the medication with partner(s)	Educate patient on consistent and proper use of condom	Avoid further spread of the infection to others
Counsel patient on the need to change from risky behaviour	Abstain from sex until treatment is completed and infection cured	Demonstrate the proper use of condom	Avoid reinfection
Educate patient on STI prevention	Follow other instructions	Provide condoms to patient	
Educate patient on the implications of untreated STI			

Note. The 4cs should be adhered to in handling all patients regardless of diagnosis, in order to encourage safe sexual practices.

Table 3. The syndromic approach: Strengths and limitations

Syndromic algorithm	Strengths	Limitations
The approach is both effective and practical for the treatment of **urethral discharge** in men and **genital ulcers** in men and women.	If properly used, these algorithms permit health care workers to provide effective treatment for symptomatic patients. They are simple and can be used in remote areas as long as the necessary medicines are available. Syndromic management of the problems prevents new infections by providing curative treatment without delay and breaking the chain of infections.	Every flow chart represents a compromise between diagnostic accuracy, technical and financial realities.
The syndromic approach is widely used in treating **lower abdominal pain** in women, even in developed countries.	This approach is designed to offer effective treatment to women with symptoms that could indicate pelvic inflammatory disease. Can be integrated into other services	Health care providers should realize that some women managed with this algorithm might not actually have PID (false positives). Treatment is still justified however because of the severe consequences-including infertility and ectopic pregnancy-that often follow an instance of untreated PIDs or not treated early.
Syndromic approach works well in treating women with symptoms/signs of vaginal discharge and vaginal infections, but not generally for cervical infections.	Helps in behavioural change Makes provision for follow up	Vaginal discharge algorithms are not designed to detect the more serious and often symptomatic cervical infections. At present, accurate detection of gonorrhoea and chlamydia cervicitis requires expensive laboratory tests, which are not available in most settings. In some special situations, treatment for cervical infection is justified Offering treatment when there is no STI/RTI may lead to marital discordance or serious embarrassment to an unmarried patient whose symptoms are not due to STI Can easily be misused or abused by untrained personnel

3.3 Follow-up Assessment

- Assessing STIs/RTIs symptoms and treating when found
- Screening for syphilis and treating when the result of screening is positive. Repeating syphilis screening an treatment one month after first visit
- Counselling on the prevention mother-to-child transmission (PMTCT) and referring HIV-positive case to PMTCT site
- Discussing STIs/RTIs prevention and offering risk-reduction counselling
- Reviewing birth plan

3.4 Labour and Delivery

- Assessing STIs/RTIs symptoms and treating when found
- When active herpes is found, review birth plan and refer for abdominal delivery
- Reviewing syphilis results; discuss treatment of newborn if mother is STS positive
- Counselling on prevention of mother-to-child transmission if HIV positive.
- Provision of eye prophylaxis against ophthalmia neonatorum

3.5 Post-partum assessment

- Assessing for STI/RTI symptoms and treating any postpartum infections found
- Counselling on PMTCT in HIV-positive case
- Counselling on infant feeding options.
- Counselling on STI/RTI protection and contraception

3.6. Prevention and Management of STI/RTI in the Newborn

- Giving all babies prophylaxis against *ophthalmia neonatorum*
- Assessing for signs of congenital syphilis, when mother is STS positive.
- Treating syphilis when mother is STS-positive.
- Counseling on PMTCT when mother is HIV-positive

3.7 Initial Assessment at other clinics

- Assessing for STI/RTI symptoms
- Taking the history of present complaints
- Assessing the risk of STI/RTI
- Taking note of contraceptive method (if any)
- Screening for syphilis (where necessary)
- Offering counselling and HIV testing

3.8 Risk Assessment of STI Patients

A patient is considered to have a status of 'risk assessment positive' if:

- Sexual partner has genital discharge or genital ulcer disease

OR

- Patient answers 'yes' to any 2 of the following:
  - unmarried
  - under 21 years and sexually active
  - more than one partner in the last 12 months
  - new partner in the past 3 months

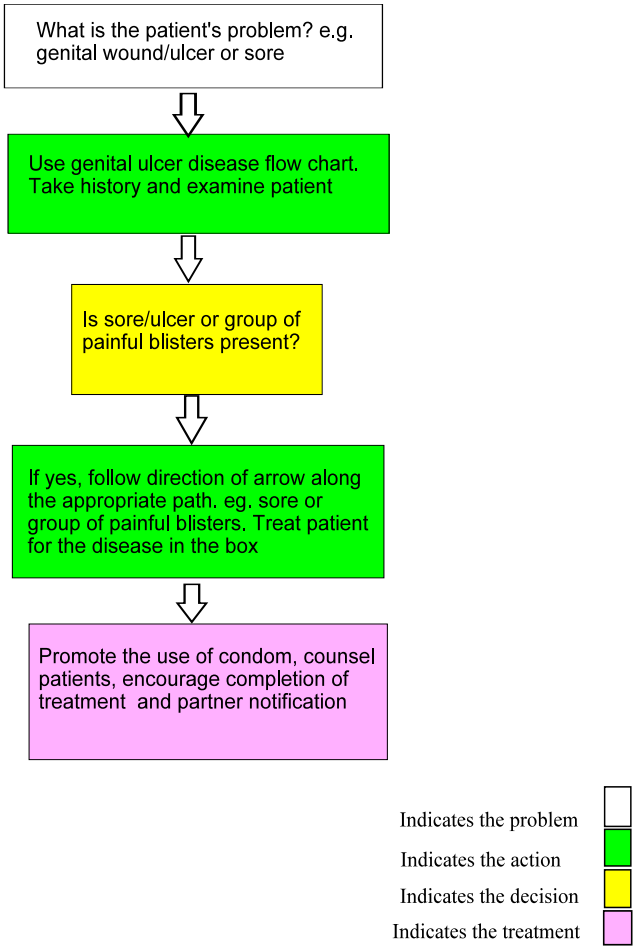

Figure 1. How flow charts work

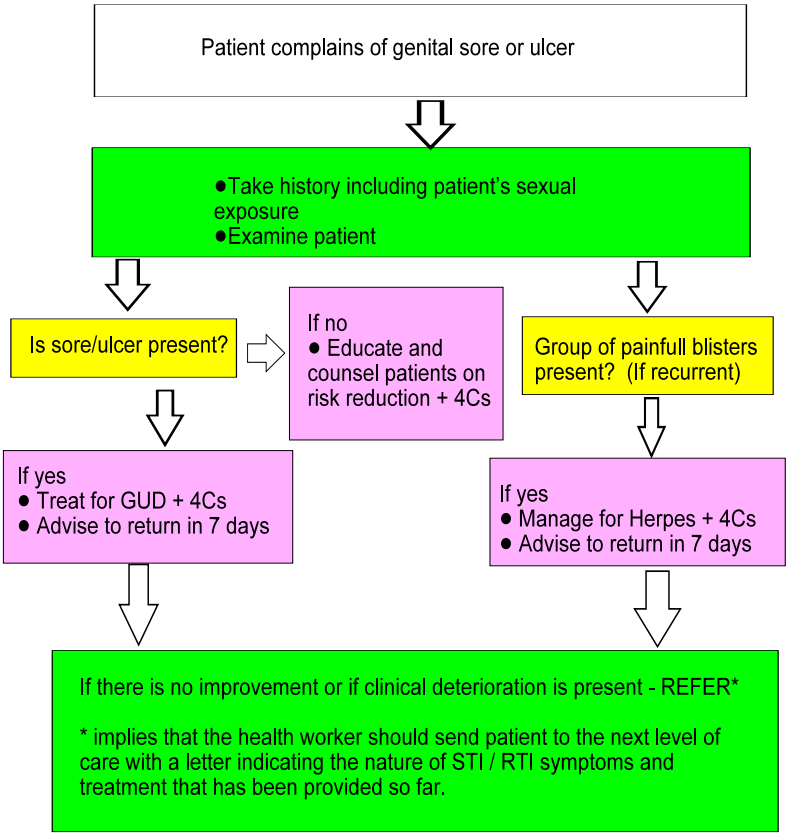

Figure 2. Management of genital ulcer diseases (GUDs)

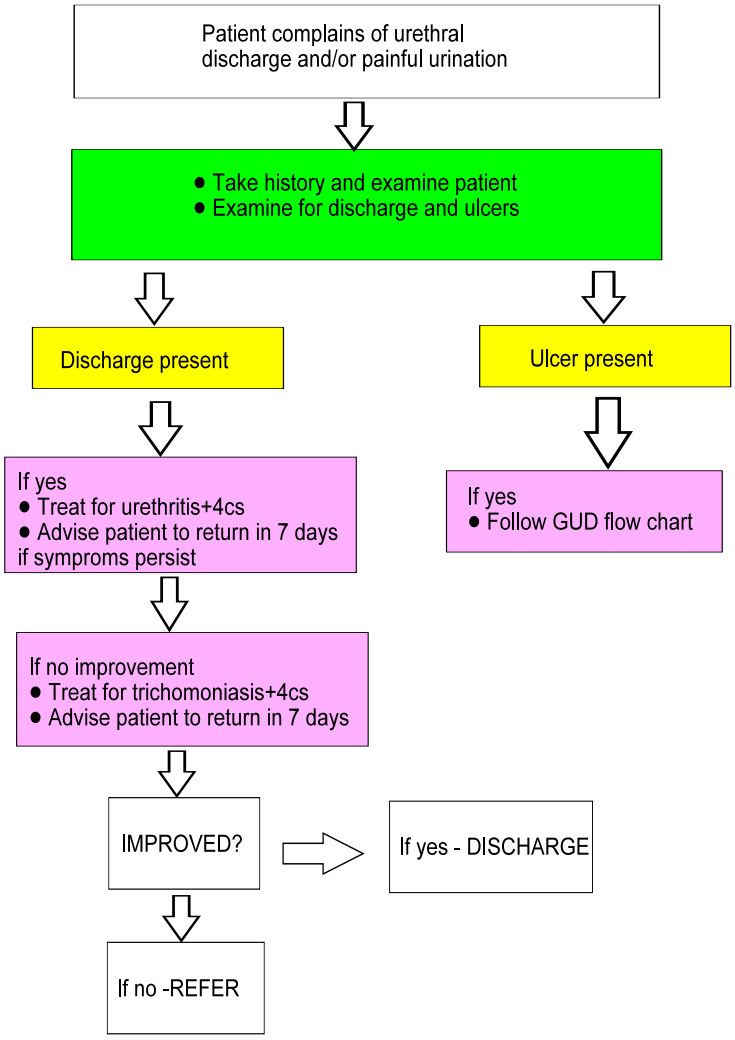

Figure 3. Management of urethral discharge (urethritis)

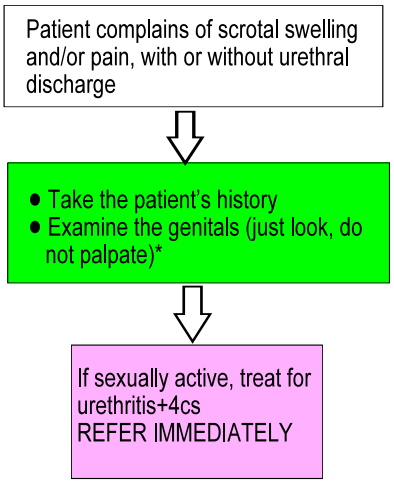

Figure 4. Management of scrotal swelling

** Because of the risk of more serious surgical emergencies*

Drug treatment for GUD:
Benzathine penicillin G. 2.4 mu IM. Erythromycin 500 mg tablets in a single session orally 6 hourly (4 times a day) for 7 days

Drug treatment for herpes:
Acyclovir tab 400 mg tds orally for 7 days (also in pregnancy)
Use analgesics and keep lesion dry and avoid sex during relapse

Drug Treatment for Urethritis:
Ciprofloxacin 500 mg tablets as a single oral dose
Doxycyline 100 mg cap. To be taken orally twice daily for 7 days

Drug Treatment for Trichomoniasis:
Metronidazole 2 g orally in a single dose

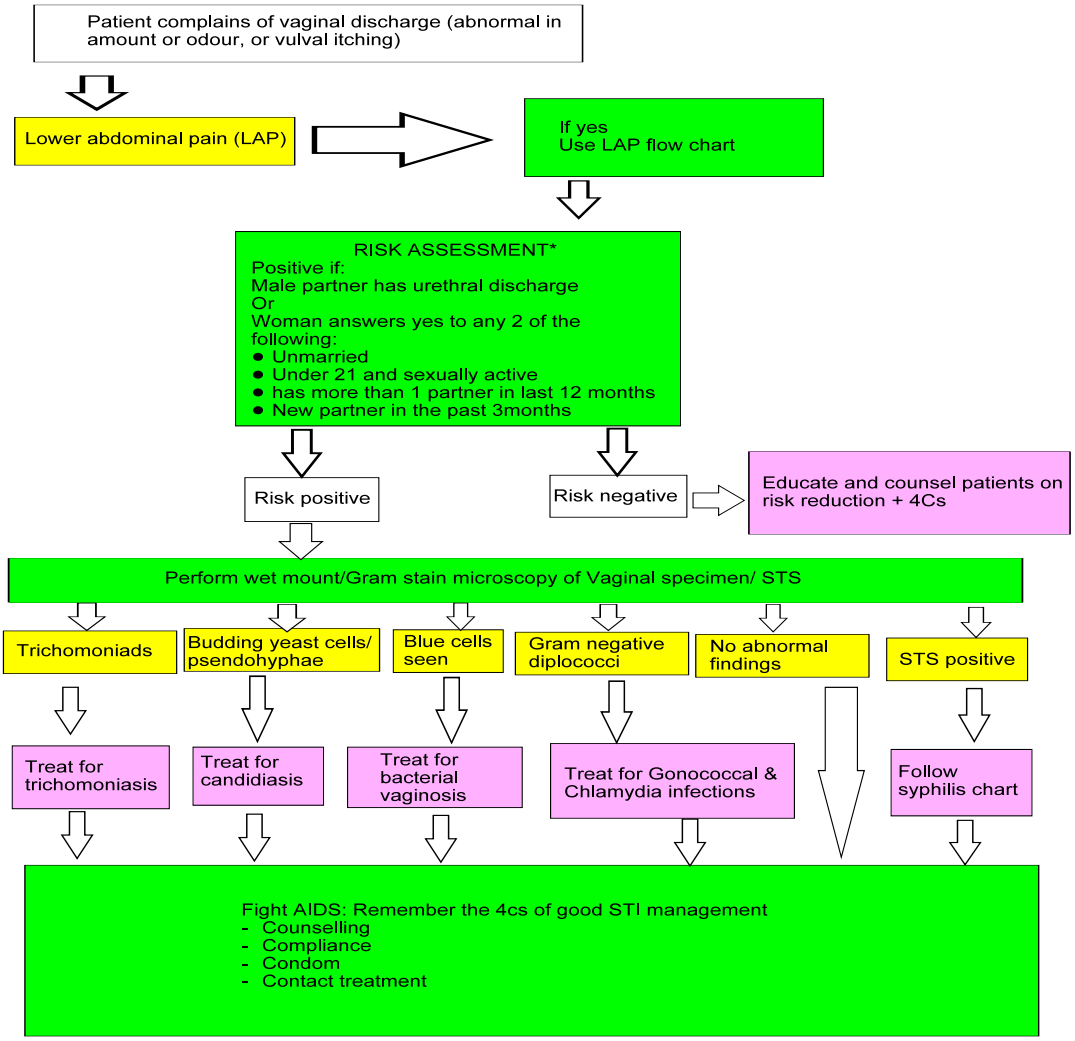

Figure 5. Management of abnormal vaginal discharge (with availability of diagnostic facilities)

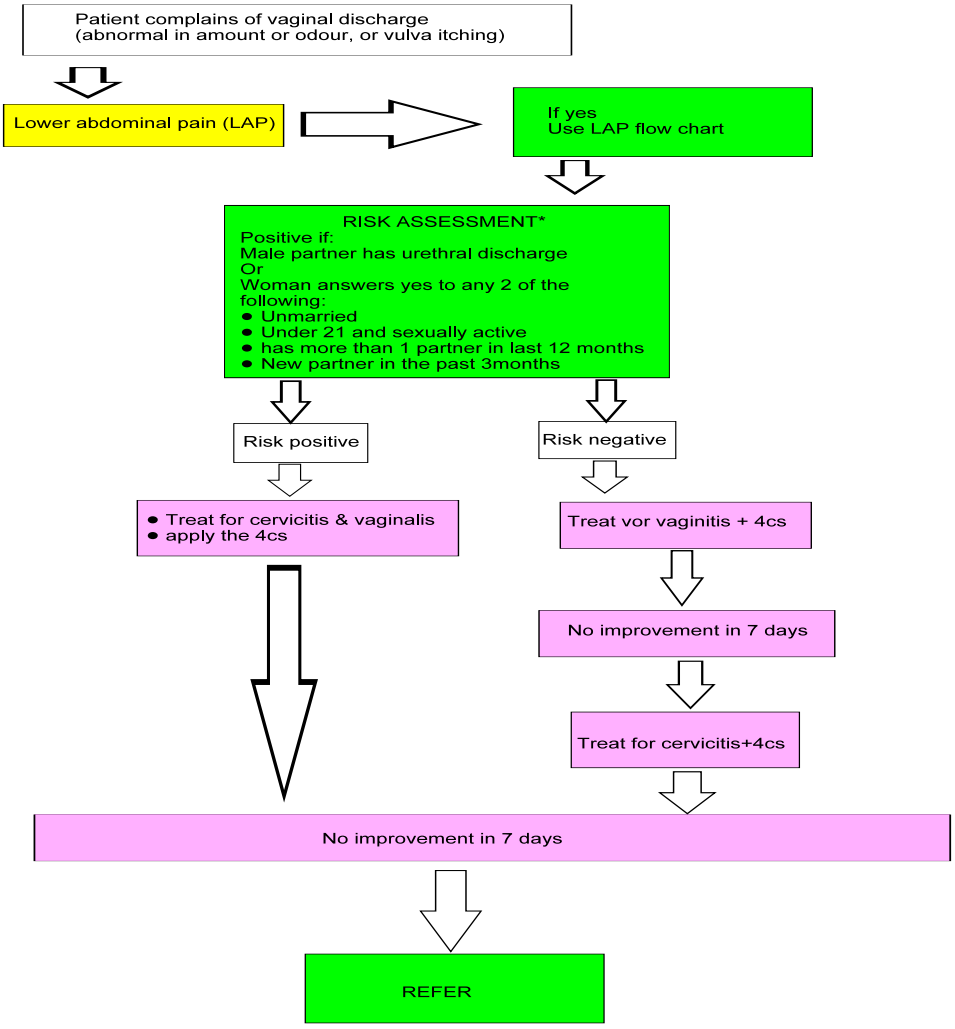

Figure 6. Management of abnormal vaginal discharge (with unavailability of diagnostic facilities)

** Risk Assessment might change after validation of flowchart*

Drug Treatment for Cervicitis:

Ciprofloxacin 500 mg tablets as a
single oral dose
Doxycyline 100 mg cap orally
twice daily for 7 days

Drug treatment for vaginitis:

Nystatin vaginal pessaries
100,000 Units inserted every
night for 14 days
Metronidazole 2 g orally in a
single dose or 400mg twice daily for 7days

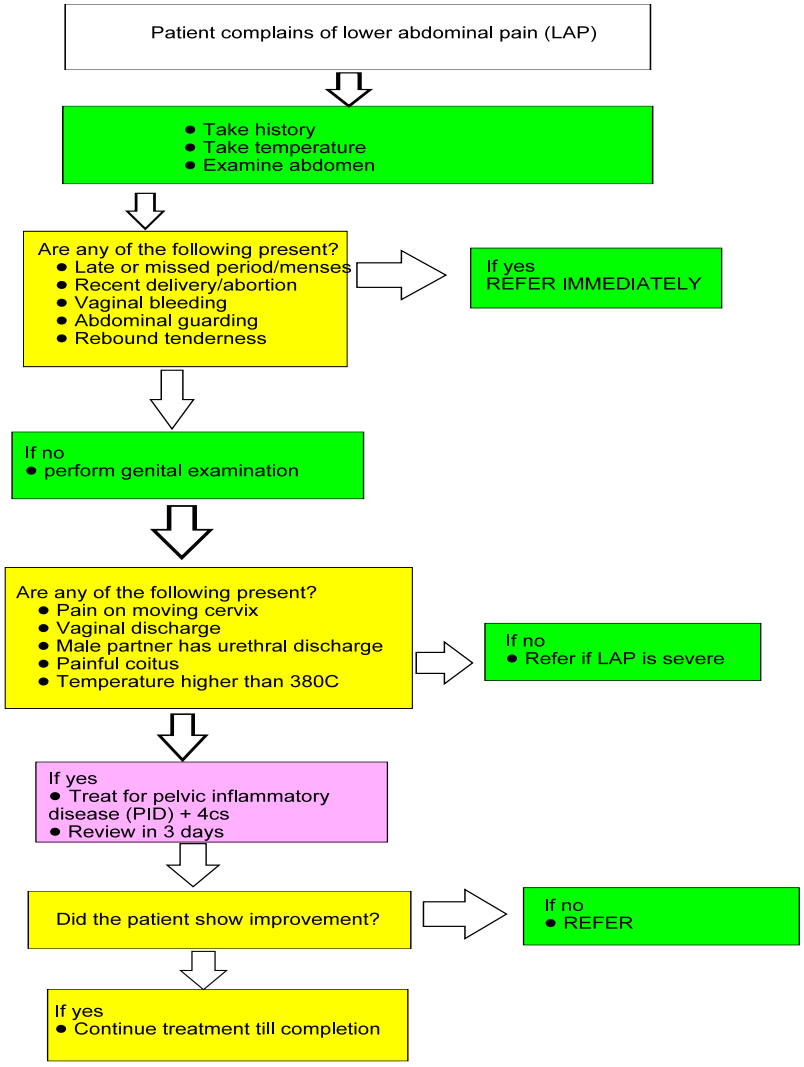

Figure 7. Management of female lower abdominal pain

Drug Treatment for PID:

Ciprofloxacin 500mg tab as a single oral dose;
Doxycyline 100mg tab. orally twice daily for 7 days
Metronidazole 400mg tab orally twice daily for
14 days

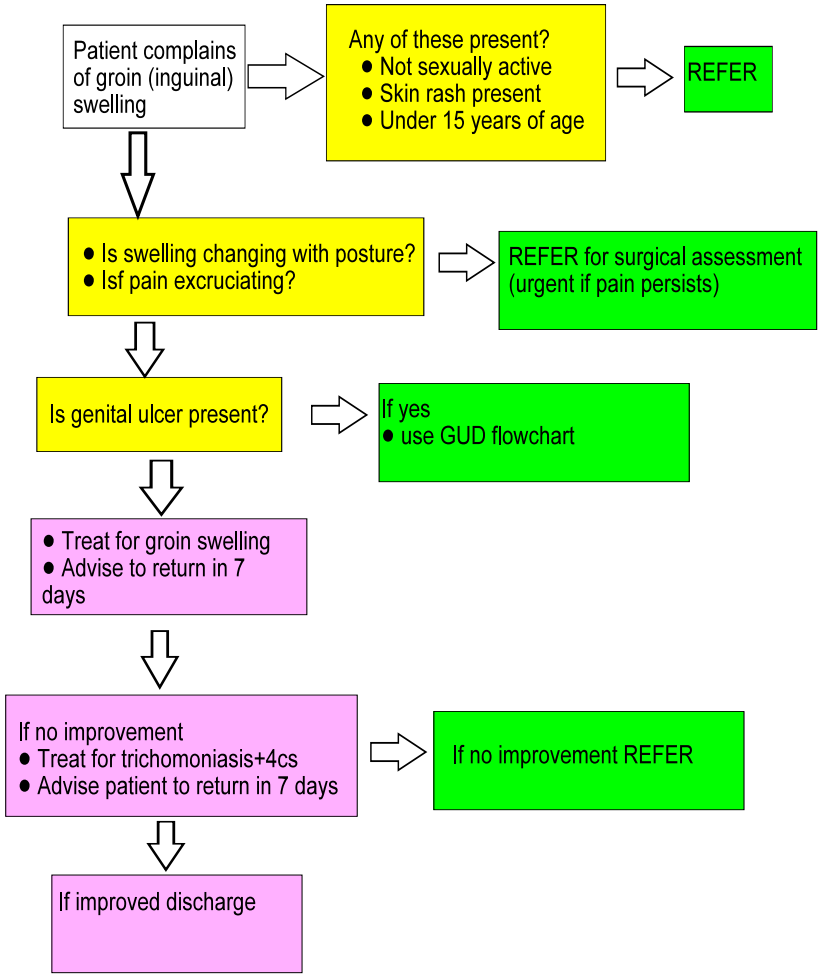

Figure 8. Management of swelling in the groin (Inguinal Bubo)

Drug Treatment for Groin Swelling

Ciprofloxacin 500 mg tab as a single oral dose
Doxycyline 100 mg cap. Orally twice daily for 7 days

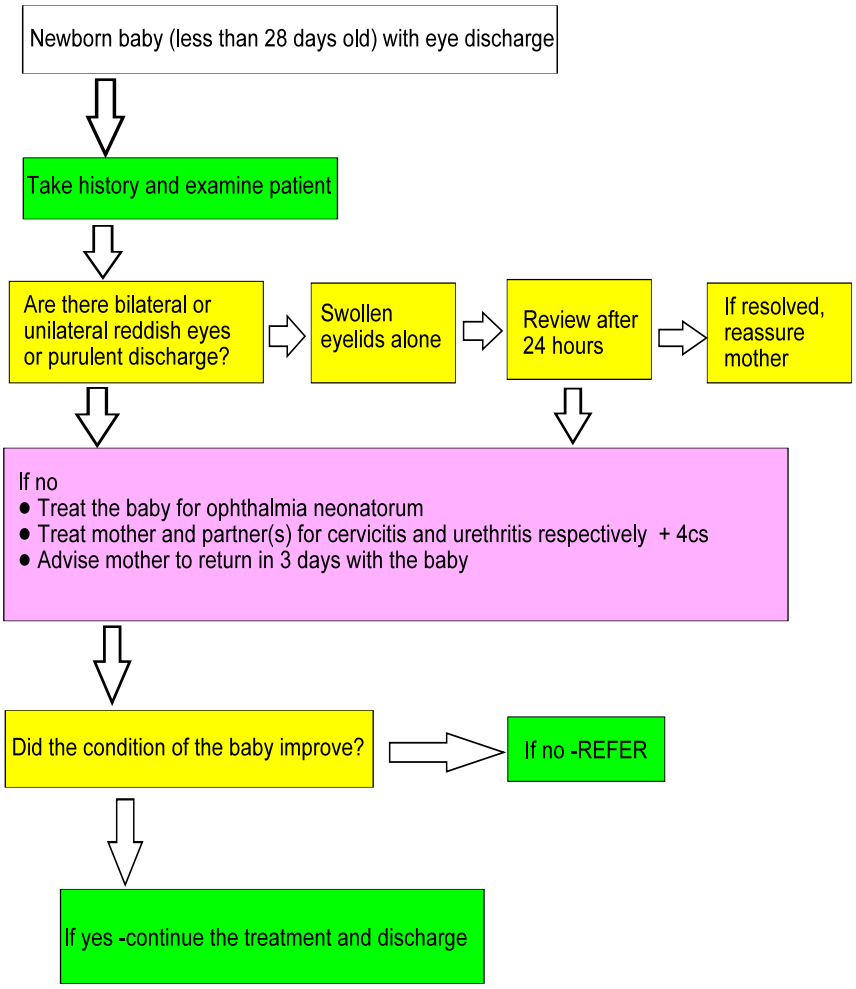

Figure 9. Management of eye discharge in newborn baby

Drug Treatment for Ophthalmia Neonatorum:

Ceftriaxone 50 mg/kg body weight

(max. dosage 125 mg) I M. in a single session

Erythromycin syrup 50 mg/kg per day in 4 divided doses for 10 days

Tetracycline 1% eye ointment for 10 days;

Eye hygiene

Drug Treatment for Vaginitis:

Ciprofloxacin 500 mg tab as a single oral dose

Doxycyline 100 mg tablets orally twice daily for 7 days

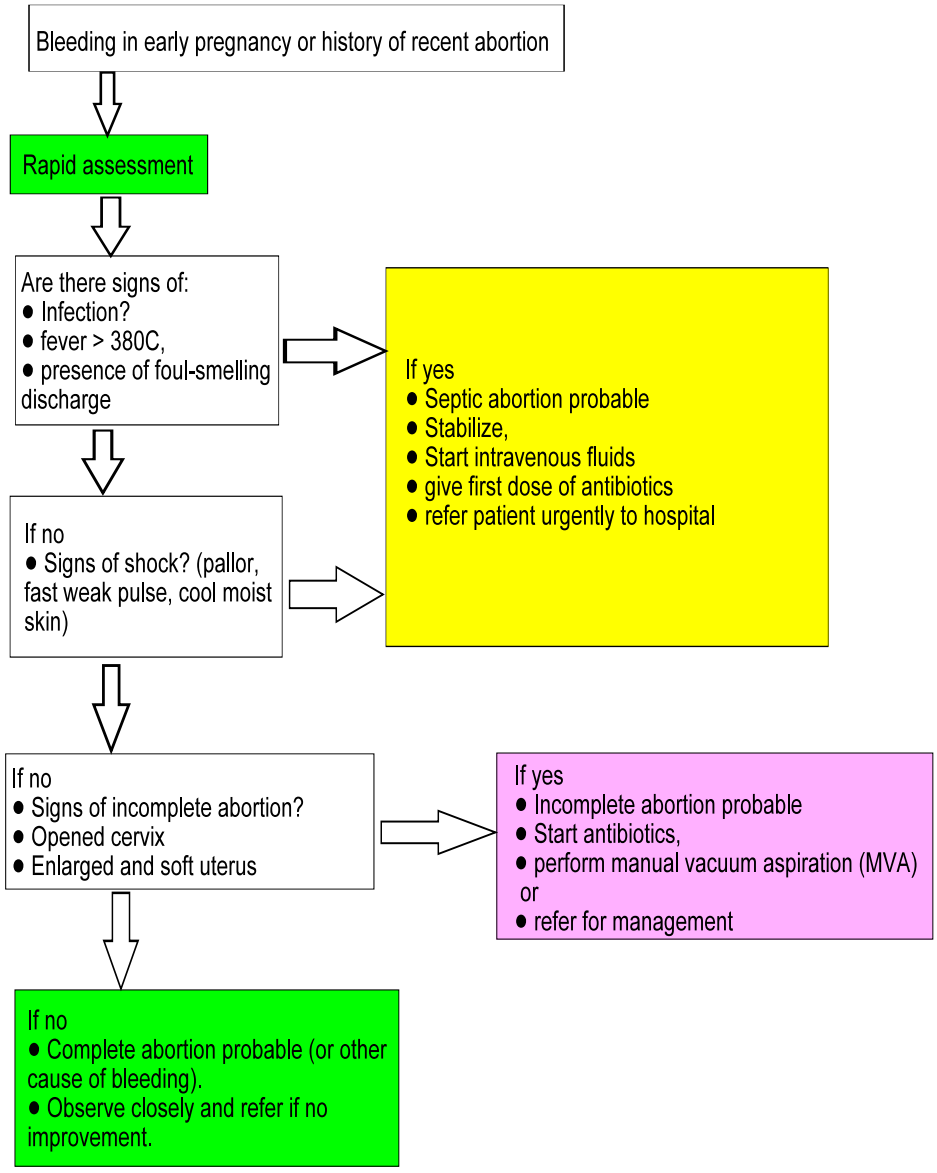

Figure 10. Management of complications as a result of abortion

Note: Ergomentrine (0.2 mg) or oxytocin (10 IU) intramuscularly or by slow intravenous infusion is recommended for control of heavy bleeding

For information on manual vacuum aspiration (MVA) and other methods of uterine evacuation, see reference below. All women who undergo MVA should be followed closely to detect signs of possible infection early. The publication below also indicates appropriate stabilizing fluids and recommended antibiotics.
Follow-up at: 24-72 hours (see patient sooner if worse and/or consider immediate referral or hospitalization).
For more information, see: *Managing Complications in Pregnancy and Childbirth: A guide for midwives and doctors*. Geneva, World Health Organization, 2000.

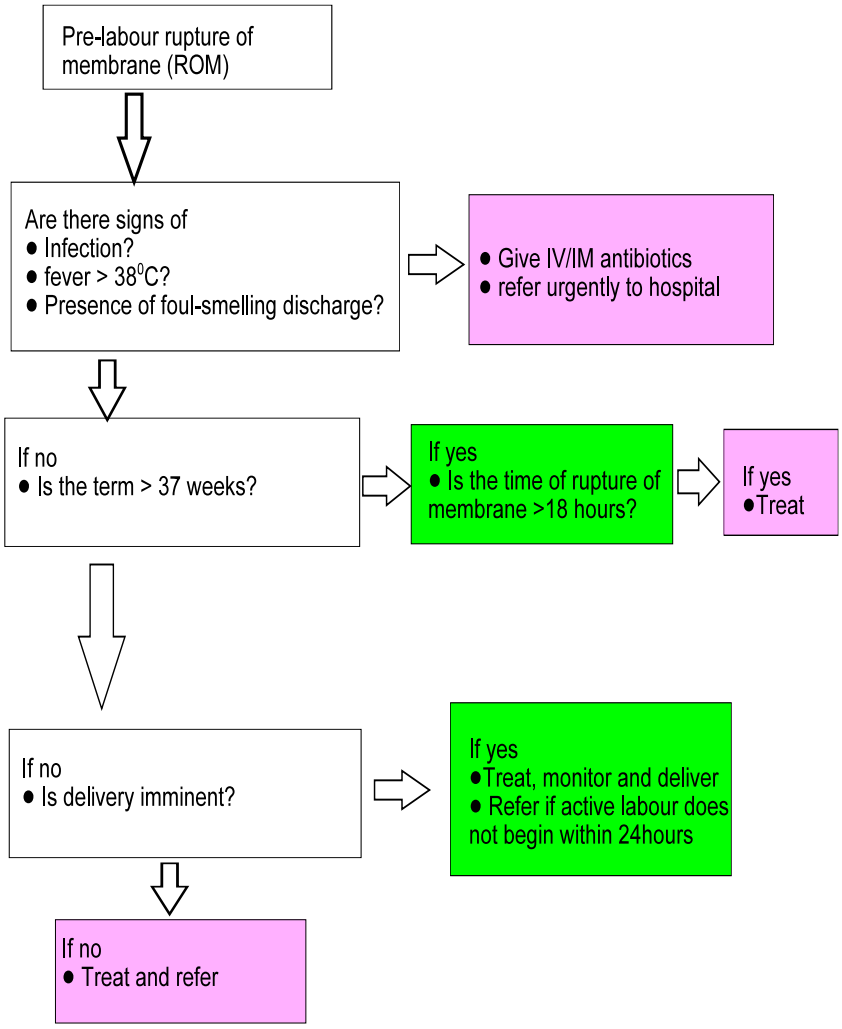

Figure 11. Management of premature rupture of membrane (RoM)

Consider immediate referral or hospitalization.

Refer also to World Health Organization (WHO) (2000). Managing Complications in pregnancy and childbirth: A guide for midwives and doctors. Geneva: World Health Organization.

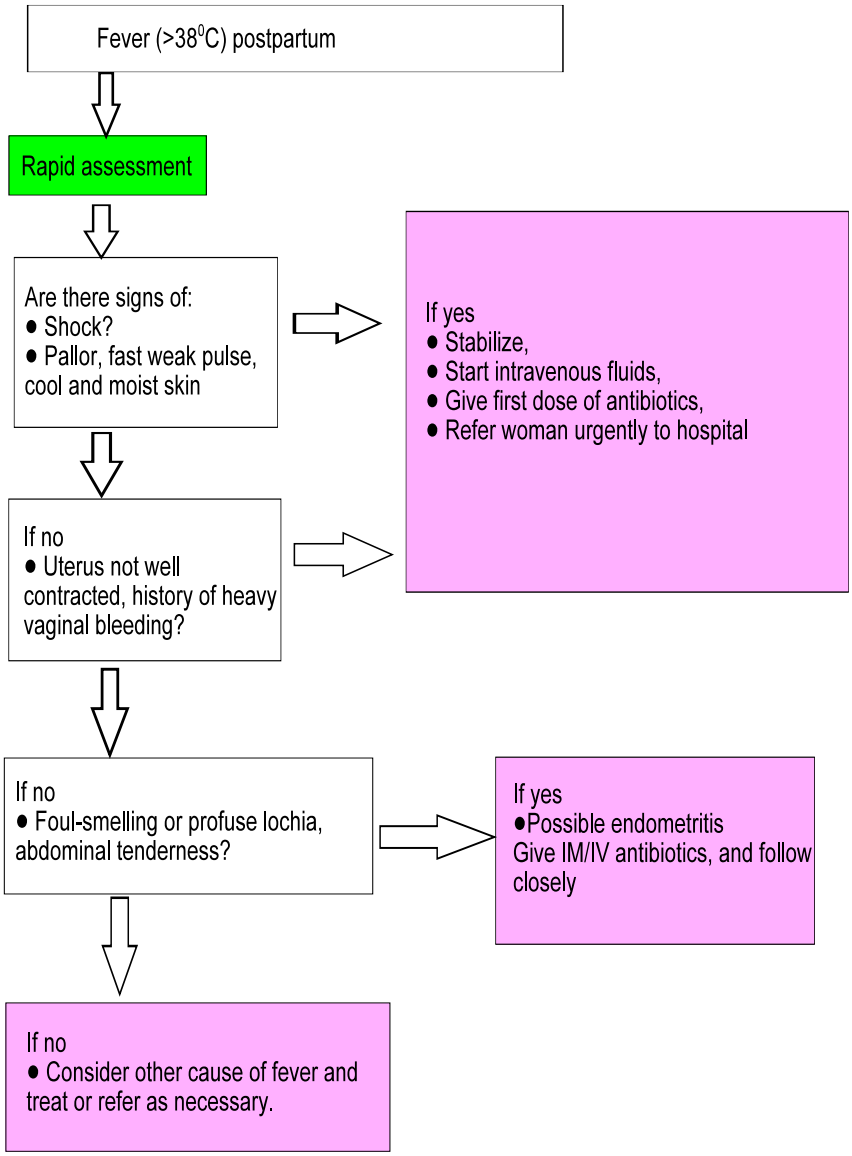

Figure 12. Management of post-partum infections

Follow-up at: 24-72 hours (see patient sooner if worse and/or consider immediate referral or hospitalization).
Refer also to: World Health Organization (WHO) (2000). *Managing Complication in Pregnancy and Childbirth: A guide for midwives and doctors.* Geneva: World Health Organization

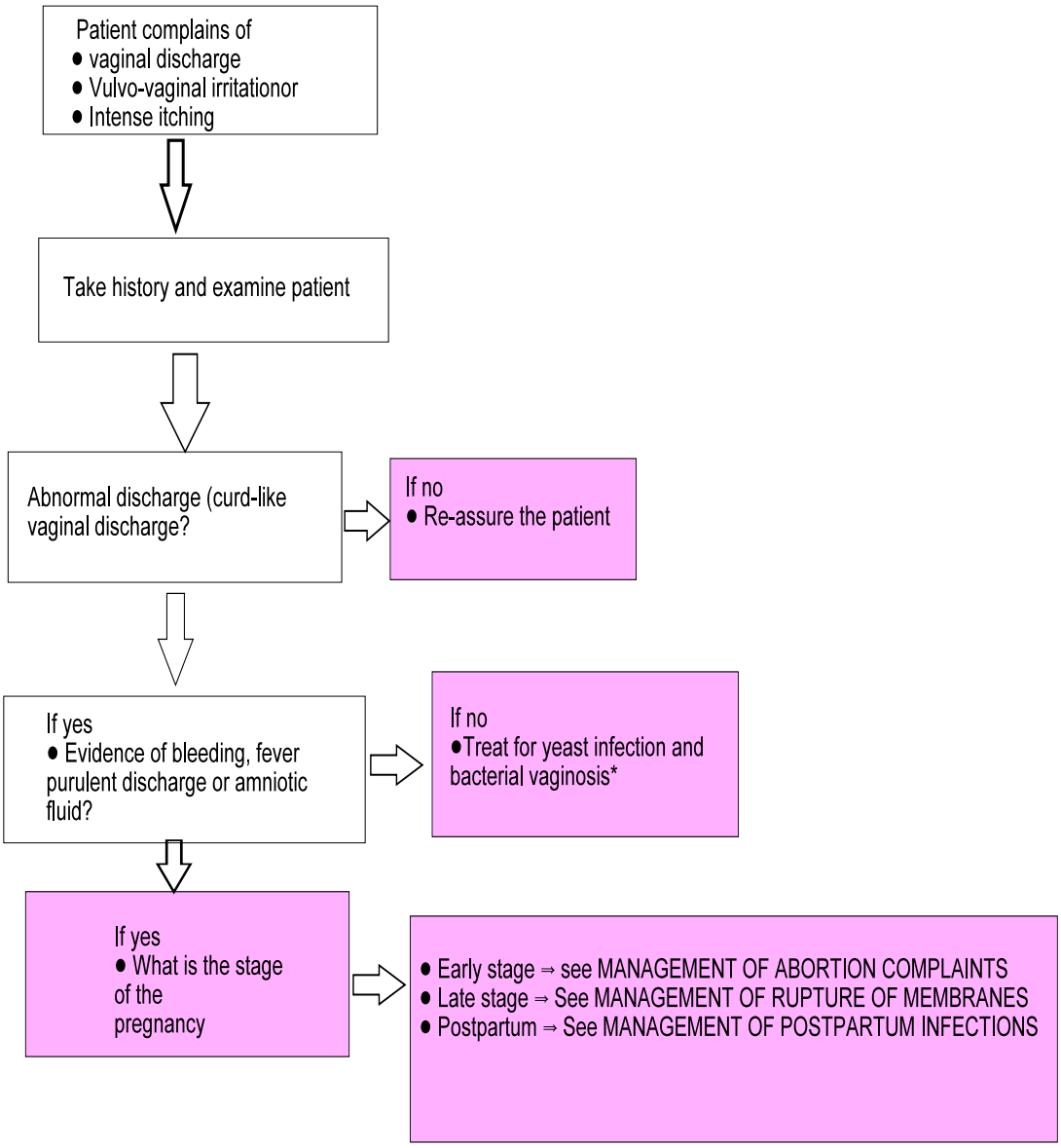

Figure 13. Management of vaginal discharge in pregnancy and postpartum

* When to add treatment for cervical infection
1. If the patient says:
   - her partner has symptoms
   - she is a sex worker
   - she thinks she was exposed to any form of STIs
2. In the postpartum period, if a transcervical procedure is planned
3. If she comes from an area with high prevalence of gonorrhea and chlamydia.
4. If speculum exam reveals:
   -muco-purulent discharge
   -cervix bleeds easily when touched.

4.0 Key Points in the Syndromic Management of STI/RTI

Women with vaginal discharge (i.e., abnormal in amount, odour, colour and vulval itching**)** should be treated for the common vaginal infections (bacterial vaginosis and trichomoniasis). Treatment for yeast infection should be included if relevant clinical signs (vulval itching and redness) are present.

Women with lower abdominal pain should be treated for gonorrhoea, chlamydia and anaerobic infection. Hospitalization or referral should be considered if infection is severe or if there are signs of deterioration. Women and men with genital ulcers should be treated for syphilis and chancroid. Management of genital herpes, including antiviral treatment where available, should be added in regions where HSV-2 is common. Men with urethral discharge should be treated for gonorrhoea and chlamydia. Women whose partners have urethral discharge should receive the same treatment regardless of symptoms

All symptomatic patients should receive counselling on compliance with treatment, risk reduction, and condom use. Treatment should be given to partners of patient with genital ulcer or urethral discharge. Partners of women who are treated for PID or cervicitis should be counselled and offered treatment. Routine follow-up visits are not necessary for most syndromes, provided the medicines supplied are of high efficacy (above 95%) and the patient completed the treatment and feels better. Women treated for PID should be re-examined 2-3 days after the commencement of treatment or sooner if they have fever or getting worse clinically.

4.1 Genital Discharge in Pre-pubertal Girls

Neonatal vulvovaginitis usually results from contamination of the vulva by secretions from the mother's genital tract during delivery. Gonococcal vulvovaginitis has an incubation period of 3 days to one week, while chlamydial vulvovaginitis has an incubation period of two weeks. In older children vulvovaginitis usually results from contamination of the vulva by the organism infecting the mother or care giver. Particularly implicated are infected mother or care giver who share towels with their wards.

Vulvovaginitis could result from sexual assault or sexual abuse in children. Ideal cultures for *Neisseria gonorrhoeae* should be carried out along with biochemical test to confirm the diagnosis in such medico-legal cases. Additionally serological tests for syphilis, HIV, and hepatitis are required. All children with vulvovaginitis should be treated using the vulvovaginitis flowcharts. But in treating vulvovaginitis, also treat for gonorrhea and Chlamydia.

Parents of these children should be given appropriate treatment using the flowchart for urethral discharge in males and vaginal discharge in females. In all cases of sexual abuse or sexual assault, children should be referred for adequate medical management, and for psychological and social support.

5.0 Sexual Violence

Sexual violence is defined as any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts of trafficking people for sexual purposes, using coercion, threats of harm or physical force, by any person regardless of relationship to the victim, in any setting, including but not limited to home and work.

5.1 Medical and other Cares for Victims of Sexual Assault

All reproductive health facilities should be backed up with up-to-date policies and procedures for managing persons who have experienced sexual violence. Such policies and procedures must, at their best, be in line with local laws. Whether comprehensive services are provided on site or through referral, providers need to be clear about the protocol to be followed and how to manage crisis situation. They should have the necessary supplies, materials and referral contact information in order to deal confidentially, sensitively and effectively with people who have experienced sexual violence.

5.2 Emergency Contraception

Emergency contraceptive pills can be used up to 5 days after unprotected sexual intercourse. However, the sooner they are taken, the more effective they are. Several regimens exist- using levonorgestrel or combined oral contraceptive pills. The second option for emergency contraception is insertion of copper bearing intrauterine contraceptive device (IUCD) within 5 days after an instance of rape. This is capable of preventing more than 90% of pregnancies. The IUCD may be removed during the woman's next menstrual period or left in place for continued contraception. It is important to give full STI treatment after an IUCD is inserted. If more than 5 days have passed, there is need to counsel the woman on availability of abortion services (in most countries, post-rape abortion is legal). A woman who has been raped should first be tested for pregnancy, so as to rule out the possibility of an existing pregnancy before the instance of rape.

5.3 Post-exposure Prophylaxis of STIs

Another concrete benefit of early medical intervention following an instance of rape is the possibility of treating the victim for different STIs. STI prophylaxis can be started on the same day as emergency contraception, although the doses should be spread out (and taken with food) to reduce side effects such as nausea.

The incubation periods of different STIs vary from a few days for gonorrhoea and chancroid to weeks or months for syphilis and HIV. Treatment may thus relieve a source of stress, but the woman should be allowed to make the decision on whether to accept prophylactic treatment or wait for results of STI tests.

5.4 Recommended Treatment for other Conditions

5.4.1 Anogenital Warts

- 0.5% podophyllotoxin applied with cotton-tipped applicator twice daily for 3 days.
- After 4 days break of no treatment, repeat treatment for another 3 days.
- Repeat cycle 4 times until warts drop off.
- 10-20% podophylin to be applied by provider
- It should be washed thoroughly after 1 hours of application.
- Repeat treatment twice a week until warts drop off

5.4.2 Scabies

- 25 % benzyl benzoate lotion applied to the entire body at bed time for 2 nights.

5.4.3 Pubic lice

- Gammabenzene hexachloride sprinkled on affected parts repeat procedure after one week.

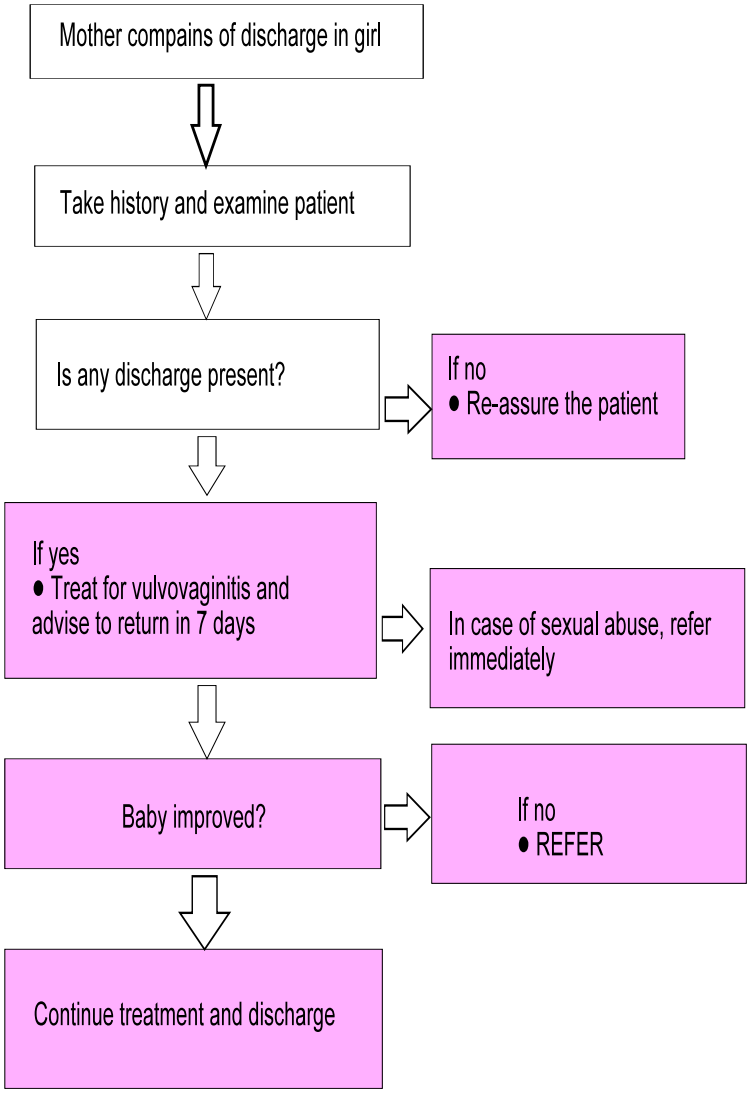

Figure 14. Management of vulvovaginitis in pre-pubertal girls

Drug Treatment for vulvovaginitis
Cephtriaxone 50mg /kg body weight (max. dose 125mg/i.m. in a single session
Erythromycin syrup 50mg/kg per day in 4 divided doses for 10days

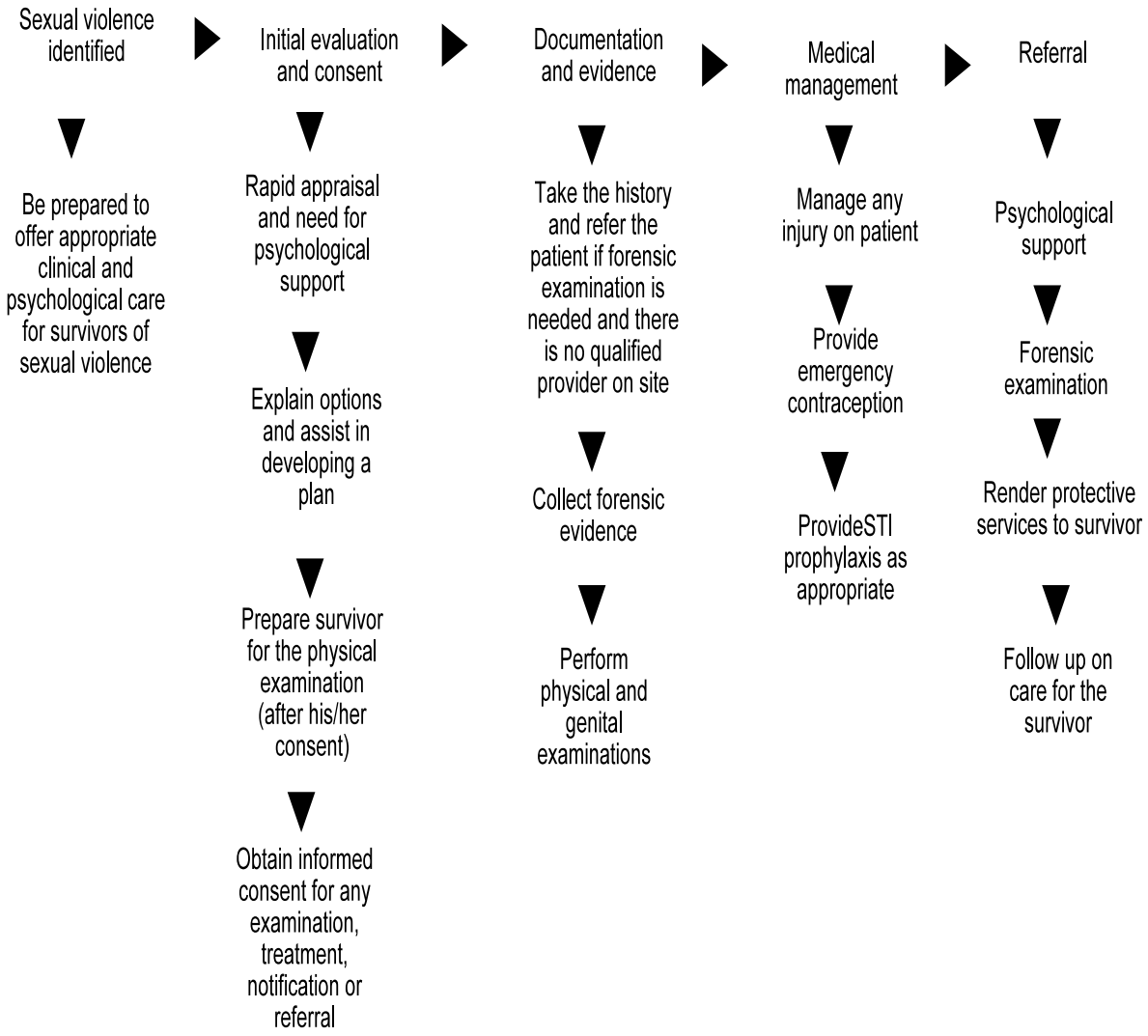

Figure 15. Management of victim of sexual assault

Table 4. Treatment regimen for STIs/RTIs

STI/RTI	What to treat patient for	Drugs of choice	Alternative	Pregnancy and breastfeeding
Urethritis	Gonorrhoea AND Chlamydia	Ciprofloxacin 500 mg tablet as a single oral dose AND Doxycycline 100 mg tablet Orally twice daily for 7 days	Azithromycin 2 g orally stat only OR Ofloxacin 400 mg tablet orally as a single dose AND Erythromycin 500 mg tablet. Orally four times a day (6 hourly) for 7 days	Not Applicable
Cervicitis	Gonorrhoea AND Chlamydia	Ciprofloxacin 500 mg tab. as a single oral dose AND Doxycycline 100mg tab. Orally twice daily for 7 days	Azithromycin 2g orally stat only OR Ofloxacin 400 mg tablets orally as a single dose AND Erythromycin 500 mg tablets. Orally for 4 times a day (6 hourly) for 7 days	Azithromycin 2g orally stat OR Erythromycinbase 500mg tab. Orally four times a day (6 hourly) for 7 days
Genital ulcer disease (GUD)	Chlamydia AND Syphilis Genital Herpes	Erythromycin 500mg tab. Orally for 4 times daily (6 hourly) for 7 days AND Benzathine penicillin G2.4 MU IM in a single session Acyclovir 200mg 5 times daily for 7 days	Doxycycline 100mg tab. Orally twice daily for 14 days AND Ciprofloxacin 500mg tablet as a single oral dose	Erythromycin 500mg tab. Orally four times a day (6 hourly) for 7 days AND Benzathine penicillin G2.4 MU IM in a single dose
Vaginitis	Bacterial vaginosis, Trichomonas AND Candidasis	Metronidazole 2g orally in a single dose AND Nystatin vaginal pessaries 100,000 units inserted every night for 14 days	Metronidazole 400 mg tds for 7 days dose AND Clotrimazole vaginal pessaries 100mg inserted every night for 6 days	Tinidazole orally stat as a single dose AND Tioconazole 300 mg vaginal ovule as a single dose
Groin swelling		Erythromycin 500mg tab. Orally four times a day for 14 days	Doxycyline 100 mg tablets. Orally twice daily For 14 days Ciprofloxacin 500 mg tablets. Twice daily for 3 day.	Erythromycin 500 mg tablets Orally for 4 times a day for 14 days

Note: * Manufacturers' advice is to avoid Trinidazole in first trimester of pregnancy and high doses in second and third trimesters
* Avoid the use of Metronidazole

5.1 Treatment regimens

Table 5. Treatment regimens for septic abortion

First choice	Second choice
Ampicillin 2 g stat. iv or in, then 1 g 6 hourly PLUS Gentamycin 80 mg 8 hourly PLUS Metronidazole 500 mg orally/iv. 8 hourly	Ceftriaxone 250 mg im daily PLUS Doxycycline 100 mg orally or iv twice daily PLUS Chloramphenicol 500 mg orally/iv qds

Table 6. Treatment regimen for peripartum sepsis

First choice	Second choice	With pregnancy
Ampicillin 2 g stat. iv or in, then 1g 6 hourly PLUS Gentamycin 80 mg 8 hourly PLUS Metronidazole 500 mg Orally/iv. 8 hourly	Ceftriaxone 250 mg im daily PLUS Doxycycline 100 mg orally or iv twice daily PLUS Chloramphenicol 500 mg Orally/iv qds.	Ampicillin 2 g iv or im start, then 1g 6hoursly. PLUS Gentamycin 80 mg i.m 8 hourly Plus Metronidazole 500 mg orally or iv 8 hourly

References

Federal Ministry of Health (FMoH) (1992). *Manual for the management of Sexually Transmitted Diseases*. Lagos: FMoH

Onile, B.A (2003.) *AIDS and other Sexually Transmitted Diseases*. Ilorin: University press, Ilorin. Nigeria.

Federal Ministry of Health (FMoH) (2001). *Syndromic Management of Sexually Transmitted Infections: A manual for health workers*. Lagos: FMoH

World Health Organization (WHO) (2003). *Guidelines for the Management of Sexually Transmitted Infection*. Geneva: WHO, Geneva, Switzerland

World Health Organization (WHO) (2005). *Integrating STI/RTI Care for Reproductive care: Sexually transmitted and other reproductive tract infections*. Geneva: WHO, Geneva, Switzerland

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APPENDICES

Instructions on the Use of STI/RTI Forms

The forms in this manual are designed to assist health workers to keep good records on their patients and to transmit accurate records to notification centres.

STI/RTI-01: STI/RTI Clinic Form

This form is the STI/RTI patient's personal record at a primary health care facility.
This form should be completed for every new STI/RTI patient and kept in his/her records.

STI/RTI-02: Syndromic STI/RTI Reporting Form

Sexually transmitted infections (STIs), other reproductive tract infections (RTIs) and acquired immunodeficiency syndrome (AIDS) are notifiable diseases. Notification forms for notifiable diseases are to be completed on monthly basis from all health facilities. In the case of STI/RTI and AIDS, the correct notification form to be completed at the PHC level is STI/RTI-02. Data from patient's personal records (STI/RTI-01) are extracted in relation to all STI/RTI patients attending a public health centre (PHC) facility and summarized on form STI/RTI-02 at the end of every month by the responsible officer at the health facility. The same officer enters information summarized in STI/RTI-02 forms into DSN-002 forms in triplicates. Two copies are sent to the LGA health office, while the third copy is retained at the health facility.

STI/RTI-03:Aetiologic STI/RTI Reporting Form

This is the correct form to be completed on monthly basis by STI/RTI facilities in secondary and tertiary institutions. Information collated in STI/RTI-03 forms is entered into DSN-002 forms in triplicate. Two copies are sent to the LGA Health office while the third copy is retained at the health facility. The LGA Health office collates all the DSN-002 data from all health facilities in the local government and deals with them as described above.

Responsibility of the State Epidemiology Units

It is the responsibility of the state epidemiology units to collate all DSN-002 forms from all local governments in the states in triplicate on monthly basis. Copies of the report from all the states are sent to the Federal Epidemiology Division of the Federal Ministry of Health and the state planning departments for the purpose of health planning. The state epidemiology units retain the third copy of the report.

Responsibility of the Epidemiology Division of the Federal Ministry of Health

The Federal Epidemiology Division is to collate on monthly basis all the DSN-002 forms from the States on all notifiable diseases, in this case STI, and other RTI, HIV and AIDS. The unit is expected to publish these monthly reports for health workers, policy makers and the STI/RTI facilities nationwide.

STI/RTI Clinic Form [STI/RTI-01]

CLINIC NO: ……

DATE: ……

Clinic: ……LGA: …… State: ……..

Name of Patient: ……..

Address: ……

Date of Birth: ……

(*Circle appropriate answer where applicable)*
5. Sex: Male/Female

6.Occupation: ……..

7.Education level attained: Nil/Primary/Secondary/Tertiary/Post-tertiary

8.Marital Status: Single/Married/Divorced/Separated/Widowed

Number of wives/partners: ……..

Reason for attending (comment): ……

Asymptomatic check-up: ……..

Symptomatic self-reporting: ……..

Others: ……

Referred by: ……

Sexual history
13. Number of sexual partners in the last 3 months:

Is/Are partner(s):	Wife (wives)/Husband	[ ]
	Boyfriend/Girlfriend	[ ]
	Others/Casual	[ ]

14. Previous history of STI? Yes/No Type of STI: ……..
If yes, was it within the last 1 year?

15. Condom use: How often? (Always/ Usually/ Sometimes/ Never)
With whom (which of the partner)? ……

16. Use of other contraceptives: Which type?.....
How often (Always/ Usually/ Sometimes/ Never)

17. Last menstrual period.....

18. Are you pregnant? Yes/No

19. Previous history of abortion/miscarriage: Yes/No
If yes, when was the last pregnancy?

20. Previous history of preterm delivery: Yes/No (If yes when was the baby delivered?.....)

21. Any history of sexual abuse? Yes/No

22. Any history of insertion of materials into the vagina? Yes/No

23. **COMPLAINTS** **PHYSICAL EXAMINATION**

Tick box, if yes and describe		*Tick box, if abnormality is observed and describe*	
Discharge	[ ]…….	Mouth	[ ] ……
Dysuria	[ ]…….	Eyes	[ ]…….
Urinary frequency	[ ]……	Skin	[ ]……
Ulcer	[ ]……	Abdomen	[ ]……
Pain	[ ]……	Groin	[ ]……
Swelling	[ ]……	Lymph nodes	[ ]……
Rash	[ ]……	Perineum	[ ]……
Itching	[ ]……	Discharge	[ ]……
Abdominal pain	[ ]……	Penis	[ ]……
Eyes	[ ]……	Scrotum	[ ]……
		Vulva	[ ]……
		Vagina	[ ]……
		Cervix	[ ]……

Others: …… 24. Syndrome based diagnosis: ……

25. Treatment: …… 26. Referral: ……

Signed: …… Date: ……

Follow-up Visits

Date	Note	Treatment

Syndromic STI/RTI Reporting Form [STI/RTI-02]

Health Facility …… Location …… LGA ……State ……

Day …… Month …… Year ……

	NUMBER OF CASES														GRAND TOTAL
	MALE (Age in years)							FEMALE (Age in years)							
	<1	1-4	5-14	15-24	25-39	>39	TOTAL	<1	3908 5	5-14	15-24	25-39	>39	TOTAL	
Urethral discharge															
Vaginal discharge															
Lower abdominal pain															
Genital ulcers															
Genital warts															
Eye discharge in infants															
Scrotal swelling															
Swelling in the groin															
Vaginal discharge in pregnancy/postpartum															
Bleeding in early pregnancy															
Premature rupture of membrane															
Postpartum infection															
Genital discharge in the pre-pubertal girl															
Sexual violence															
Other STI/RTI															
TOTAL															

Total number of cases seen in the month ……

Name of Reporting Officer …… Designation ……Signature……

Name of Supervisor ……...Designation …… Signature ……

Aetiologic STI/RTI Reporting Form (for secondary and tertiary facilities) [STI-03]

Health facility …… Location ……LGA …… State ……..

Day ……Month: …… Year ……

STI	NUMBER OF NEW CASES SEEN														LAB-CONFIRMED CASE		GRAND TOTAL
	MALE							FEMALE									
	<1	1-4	5-14	15-24	25-39	>39	TOTAL	<1	1-4	5-14	15-24	25-39	>39	TOTAL	M	F	
Gonorrhoea																	
Urethritis																	
Trichomoniasis																	
Candidiasis																	
Primary syphillis																	
Secondary syphillis																	
Chancroid																	
Granuloma inguinale																	
Lymphogranuloma venereum																	
Genital warts																	
Gonococcal ophthalmia neonatorum																	
Non-Gonococcal ophthalmia neonatorum																	
HIV infection																	
AIDS																	
Herpes simplex																	
Post-abortion sepsis																	
Peripartum sepsis																	
Sexual violence																	
Vulvovaginitis																	
Others																	
TOTAL																	

Total number of new cases seen in the month: ……..

Name of Reporting Officer …….. Designation ……Signature ……..

Name of Supervisor …….. Designation ……Signature ……..