

# UGANDA ADS SELLER'S MANUAL

## Module 3: Treatment that the ADS can Initiate

### Sessions 16–20



## TABLE OF CONTENTS

---

---

<b>TABLE OF CONTENTS</b> .....	<b>2</b>
<b>ACRONYMS</b> .....	<b>3</b>
SESSION SIXTEEN: DISEASES AFFECTING THE REPRODUCTIVE AND URINARY SYSTEMS .....	6
SESSION SEVENTEEN: FAMILY PLANNING .....	22
SUPPLEMENT ON FAMILY PLANNING .....	41
SESSION EIGHTEEN: GENERAL CARE FOR PREGNANT WOMEN AND NEWBORNS .....	58
SESSION NINETEEN: CHRONIC CONDITIONS .....	74
SESSION TWENTY: NOTIFIABLE DISEASES.....	82

## ACRONYMS

---

ACT	artemisinin-based combination therapy
ADDO	accredited drug dispensing outlets
ADS	Accredited Drug Shop
AIDS	acquired immunodeficiency syndrome
AL	artemether-lumefantrine
ANC	antenatal care
Bp	blood pressure
COC	combined oral contraceptives
DADI	District Assistant Drug Inspector
DHO	District Health Officer
FEFO	first expiry, first out
FIFO	first in, first out
FP	family planning
GIT	gastrointestinal track
Hb	haemoglobin
HC	Health centre
HIV	human immunodeficiency virus
iCCM	integrated community case management
IMCI	Integrated Management of Childhood Illness
IM	intramuscular
IV	intravenous

Kg kilogram

LAM lactation amenorrhoea method

LC Local Council

MCH maternal/child health

Mg milligram

MOH Ministry of Health

MSH Management Sciences for Health

NDA National Drug Authority

ORS oral rehydration solution

POP progestin only pills

PNFP private not for profit

PSU Pharmaceutical Society of Uganda

RDT rapid diagnostic test

SDSI Sustainable Drug Seller Initiative

UCG Uganda clinical guidelines

UTI urinary tract infection

WHO World Health Organization

## MODULE 3: TREATMENT THAT CAN BE INITIATED AT THE ADS

---

## SESSION SIXTEEN: DISEASES AFFECTING THE REPRODUCTIVE AND URINARY SYSTEMS

---

### **FEMALE CLIENT PRESENTING WITH PAIN IN THE LOWER ABDOMEN**

Pain in a female's lower abdomen may be due to painful periods, premenstrual syndrome, or pelvic inflammatory disease (PID).

When handling a female client with this kind of symptom, please make an effort to make a proper diagnosis as per the guidelines below.

#### **Conditions commonly presenting with pain in the abdomen**

##### **Dysmenorrhoea (painful periods)**

Dysmenorrhoea is a type of pain that occurs in the lower abdomen during the time of menstruation.

It occurs at the beginning of menstruation and subsides within 3 days.

Women have dysmenorrhoea of varying severity.

##### **Classification of dysmenorrhoea**

There are two types of dysmenorrhoea namely:

- ✚ Primary dysmenorrhoea
- ✚ Secondary dysmenorrhoea

##### ***Primary dysmenorrhoea***

This is pain that occurs during menstruation without a known cause or disease.

Primary dysmenorrhoea usually begins when a young woman has just started experiencing menstruation.

It may subside when the woman gives birth.

### **Signs and symptoms**

- ✚ Lower abdominal pain
- ✚ Headache
- ✚ Backache
- ✚ Diarrhoea
- ✚ Nausea and vomiting

### **General measures**

- ✚ Advise the client to rest.
- ✚ Advise the client to wear loose fitting clothes.
- ✚ Advise the client to apply a moist warm cloth, e.g., towel to the stomach.
- ✚ Advise the client to do some exercises.
- ✚ Advise the client to limit the intake of alcohol.
- ✚ Advise the client not to smoke.

### **Drug treatment**

Ibuprofen 400 mg 3 times daily after food for 3-4 days.

*Or*

Diclofenac 50 mg 3 times daily for 3-4 days.

*Or*

Paracetamol 2 tabs 3 times daily for 3-4 days.

### **Note:**

Do not recommend ibuprofen or diclofenac to clients with peptic ulcer disease.

Begin treatment at least 1 day prior to the time of menstruation.

The client should take the medicine as frequently as recommended.

## **Guidelines for referral**

- ✚ Clients with very severe pain not responding to the painkillers.
- ✚ Clients who faint during menstruation.
- ✚ Clients with heavy and unexplained vaginal bleeding.

## ***Secondary dysmenorrhoea***

This is pain that occurs during menstruation as a result of another disease (e.g., PID).

The majority of the clients that have secondary dysmenorrhea begin having pain around the age of 30 years.

Treatment of secondary dysmenorrhoea focuses on the cause of the problem.

## **Guidelines for referral**

Refer all clients with secondary dysmenorrhoea to the health centre or hospital for proper assessment and management.

## **PREMENSTRUAL SYNDROME**

Premenstrual syndrome (PMS) is a group of symptoms that occur 1 week before menstruation begins.

The cause of premenstrual syndrome is not known; however, hormonal changes (oestrogen & progesterone levels) are suspected to be the cause.

## **Signs and symptoms**

- ✚ Breast tenderness
- ✚ Abdominal pain
- ✚ Abdominal bloating or gas
- ✚ Client gets annoyed easily
- ✚ Changes in mood
- ✚ Weight gain
- ✚ Poor concentration
- ✚ Disturbed sleep

## **General measures**

- ✚ Advise the client to participate in regular exercise.

- ✚ Advise the client to have a diet low in fats.
- ✚ Advise the client to avoid alcohol and caffeine, which can increase irritability.
- ✚ Advise the client to eat foods containing a small amount of salt.
- ✚ Advise the client to avoid anything that would cause stress.

### Drug treatment

Advise clients with severe symptoms to see the doctor for proper assessment and treatment.

## PELVIC INFLAMMATORY DISEASE

Pelvic inflammatory disease (PID) is a bacterial infection that affects the female reproductive organs.

The majority of clients who present with PID will have suffered from gonorrhoea before.

The reproductive organs most affected include the uterus, Fallopian tubes, and ovaries.



Untreated PID may lead to infertility, chronic pelvic pain (nseke), or ectopic pregnancy.

### Signs and symptoms

- ✚ Vaginal discharge that may be smelly and mixed with pus
- ✚ Pain on palpating the lower abdomen
- ✚ Lower abdominal pain

## **Risk factors for PID**

Chances of developing PID increase in persons with:

- ✚ Many sexual partners
- ✚ Previous infections from STIs, especially gonorrhoea
- ✚ Use of intrauterine devices (IUD)

## **Drug treatment**

The treatment for PID can only be prescribed by a health facility, not by an ADS.

Ceftriaxone 1 g IM to start, then cefixime 200 mg twice daily for 3 days.

### ***Plus***

Doxycycline 100 mg twice daily for 14 days.

### ***Plus***

Metronidazole 400 mg twice daily for 14 days.

### ***Note***

The male sexual partner should be treated with cefixime 400 mg single dose plus doxycycline 100 mg twice daily for 7 days.

Pregnant women should not use doxycycline since it is not safe.

Metronidazole should not be used in the first 3 months of pregnancy.

## **Guidelines for referral**

- ✚ PID can be better handled by a health centre.
- ✚ Refer all clients who complain of lower abdominal pain and vaginal discharge to the nearest health centre or hospital.

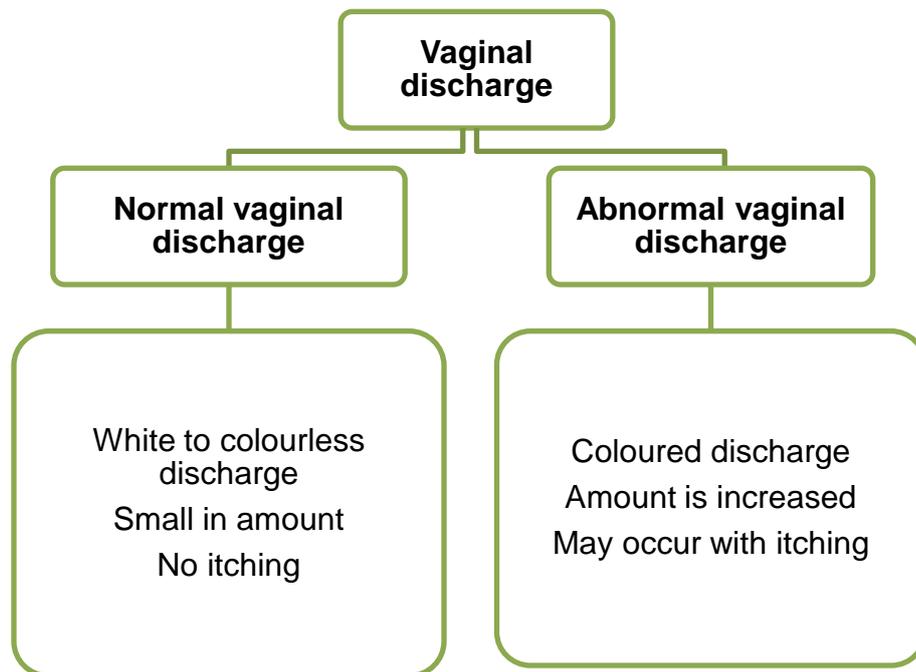
## How to assess a client with lower abdominal pain

Question	Remarks
Ask the client if she is having her menstrual period?	<ul style="list-style-type: none"> <li>✚ If yes, determine if it is primary or secondary dysmenorrhea.</li> <li>✚ Treat primary dysmenorrhea with pain killers.</li> <li>✚ <b>REFER</b> secondary dysmenorrhea to health unit.</li> </ul>
Ask the client if she is having any vaginal discharge.	<ul style="list-style-type: none"> <li>✚ Lower abdominal pain associated with vaginal discharge is usually due to PID.</li> <li>✚ <b>REFER</b> the client to health centres III or IV in case you suspect PID.</li> </ul>
Ask the client whether she is pregnant or missed her periods.	<ul style="list-style-type: none"> <li>✚ If yes, <b>REFER</b>.</li> </ul>
Ask the client about the treatment she has received so far.	<ul style="list-style-type: none"> <li>✚ Helps to guide on the choice of treatment to be given.</li> <li>✚ If client has already used your recommended treatment, <b>REFER</b>.</li> </ul>

## FEMALE CLIENT PRESENTING WITH ABNORMAL VAGINAL DISCHARGE

- ✚ Vaginal discharge is the release of fluid from the vagina.
- ✚ It can be normal or abnormal.
- ✚ Normal vaginal discharge is less in quantity and white to colourless. It tends to be less before puberty and during menopause.
- ✚ Vaginal discharge tends to increase during ovulation and pregnancy.

## Characteristics of vaginal discharge



## Some diseases that present with abnormal vaginal discharge

- ✚ Vaginal candidiasis: It produces a thick, white, very itchy discharge like sour milk; is not sexually transmitted.
- ✚ Trichomoniasis: It causes greenish yellow discharge with fishy smell and itching of the vulva; is sexually transmitted.
- ✚ Gonorrhoea: It produces a thin mucoid, slightly yellow discharge with no smell; is sexually transmitted.
- ✚ Mycoplasma and chlamydia: may cause a non-itchy thin colourless discharge with no smell; is sexually transmitted.

## VAGINAL CANDIDIASIS

Vaginal candidiasis is a condition caused by fungi called *Candida albicans*.

It occurs when there is an overgrowth of the normal flora called *Candida albicans*. This organism lives normally in the vagina but once the environment in the vagina changes, it may over grow and cause unfriendly conditions (candidiasis) to the female.

It can affect females of any age.

Vaginal candidiasis is not a sexually transmitted disease.

### **Factors that increase chances of getting vaginal candidiasis**

Any of the following factors may increase an individual's chances of getting vaginal candidiasis:

- ✚ Pregnancy (due to hormonal changes).
- ✚ Diabetes mellitus due to lowered immunity.
- ✚ Broad spectrum antibiotics that destroy the normal flora in the vagina.
- ✚ Immunosuppression, like in HIV infection, cancer.
- ✚ Use of oral contraceptives.
- ✚ Suitable environment in the vagina towards menstruation.
- ✚ Use of tight fitting nylon knickers or pants (create warm & damp environment).

### **Signs and symptoms**

- |                                   |   |
|-----------------------------------|---|
| ✚ White (milky) vaginal discharge | ✚ Soreness of the vagina and vulva      |
| ✚ Vaginal itching                 | ✚ Painful intercourse                   |
| ✚ Vaginal inflammation            | ✚ Stinging sensation when passing urine |

## **Drug treatment**

### **Nystatin pessary**

100,000 units inserted into the vagina once at night for 14 days

*or*

### **Chlortrimazole pessary**

100 mg inserted into the vagina once at night for 6 days

## **TRICHOMONIASIS (TRICHOMONAS VAGINITIS)**

Trichomoniasis is an inflammation of the vagina caused by ***Trichomonas vaginalis***.

Unlike vaginal candidiasis, trichomoniasis is sexually transmitted.

The condition affects both women and men, but most men do not have symptoms.

Trichomoniasis may increase somebody's chances of acquiring HIV infection.

It may exist together with vaginal candidiasis.

### **Mode of transmission**

Trichomoniasis may be transmitted through any of the following means:

- ✚ Sexual intercourse with an infected person.
- ✚ Sharing of contaminated articles, such as towels, toilet seats, and knickers.

### **Signs and symptoms**

- ✚ Yellow or cream discharge
- ✚ Foul (bad) smelling discharge
- ✚ Itching of the vagina
- ✚ Vaginal inflammation
- ✚ Burning sensation on urination

Question to ask	Remarks
Sexually active age group (below 12 years) or not?	✚ <b>REFER</b> all children that are not in sexually active age group with vaginal discharge.
Do you have pain in the lower abdomen?	✚ <b>YES</b> . Refer for treatment as in PID above.
No pain but itching and redness?	<p><b>If YES</b>, treat with:</p> <ul style="list-style-type: none"> <li>✚ Clotrimazole pessaries 100 mg once at night for 6 days.</li> <li>✚ Plus Metronidazole 2 g single dose.</li> </ul>
Itching persists after the above treatment?	<ul style="list-style-type: none"> <li>✚ Give cefixime 400 mg stat.</li> <li>✚ Plus doxycycline 100 mg twice daily for 7 days.</li> </ul>
Are you pregnant or have you missed your period?	✚ <b>REFER</b> all pregnant women.

### General advice to clients with vaginal discharge

- ✚ Keep the vaginal & vulva areas clean and dry.
- ✚ Encourage women to wear loose cotton knickers that allow air to circulate.
- ✚ Advise women to avoid sex during treatment.

- ✚ Encourage women to wear night gowns with no knickers during the night.
- ✚ Advise clients to take the medicine as recommended.
- ✚ Avoid sharing towels, undergarments, basins.
- ✚ Advise the client not to drink alcohol while using the medicines given.
- ✚ Metronidazole may change the taste of breast milk, therefore advise breastfeeding women to avoid high doses (2 g single dose).
- ✚ Treat the sexual partner at the same time (in the case of STIs) to avoid re-infection.

### **Guidelines for referral**

Refer the following category of clients:

- ✚ Children under 12 years
- ✚ Pregnant mothers
- ✚ Clients with HIV infection
- ✚ Clients with vaginal candidiasis associated with lower abdominal pain
- ✚ Elderly women above 60 years
- ✚ Clients who fail to respond to the recommended treatment.

## **MALE CLIENT PRESENTING WITH PUS DISCHARGE FROM THE PENIS (URETHRAL DISCHARGE)**

The most common cause of pus discharge from the penis is gonorrhoea.

The majority of clients will admit having had unprotected sex outside marriage or with a new girlfriend in the last 2 days.

Clients may complain of too much discharge from the penis or staining of the underwear.

### **Signs and symptoms**

- ✚ Pus discharge

✚ Painful urination

✚ Mucus staining of underwear

### Assessing a client with urethral discharge

Question to ask	Reason for asking
What is the nature of the discharge, i.e., do you pass out urine with pus or feel pain on urination?	<ul style="list-style-type: none"><li>✚ Pus discharge with pain on urination is common with gonorrhoea.</li><li>✚ REFER to nearby health unit.</li></ul>
How many sexual partners do you have?	<ul style="list-style-type: none"><li>✚ Urethral discharge is associated with STIs.</li><li>✚ Helps to give treatment to all sexual partners.</li><li>✚ Acts as a guide to counselling on sexual behaviour.</li></ul>
Have you received any treatment so far? If yes, how was the response?  Was/were the sexual partner(s) also treated?	<ul style="list-style-type: none"><li>✚ Helps to guide on treatment to be given.</li><li>✚ Helps to know the cause of treatment failure in case of re-infection from untreated partner.</li></ul>

### General measures

✚ Teach the client about the use of condoms and their importance.

✚ Treat the sexual partner at the same time.

✚ Advise the client to avoid sex or use a condom during treatment.

✚ Ensure that the client takes the medicines as prescribed by the doctor to prevent re-infection.

✚ Re-assure the client that the condition is curable.

✚ Advise the client on the need for an HIV test.

### Drug treatment

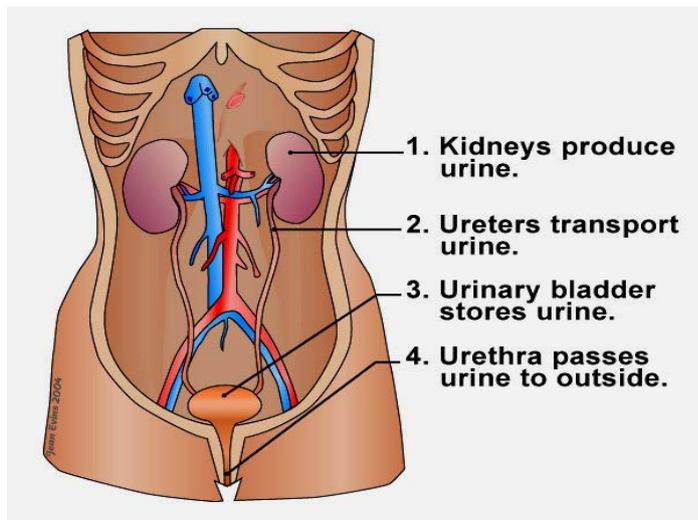
Cefixime 400 mg single dose + doxycycline 100 mg twice daily for 7 days.

Cefixime is not on the ADS list. **REFER** to a nearby health unit for treatment.

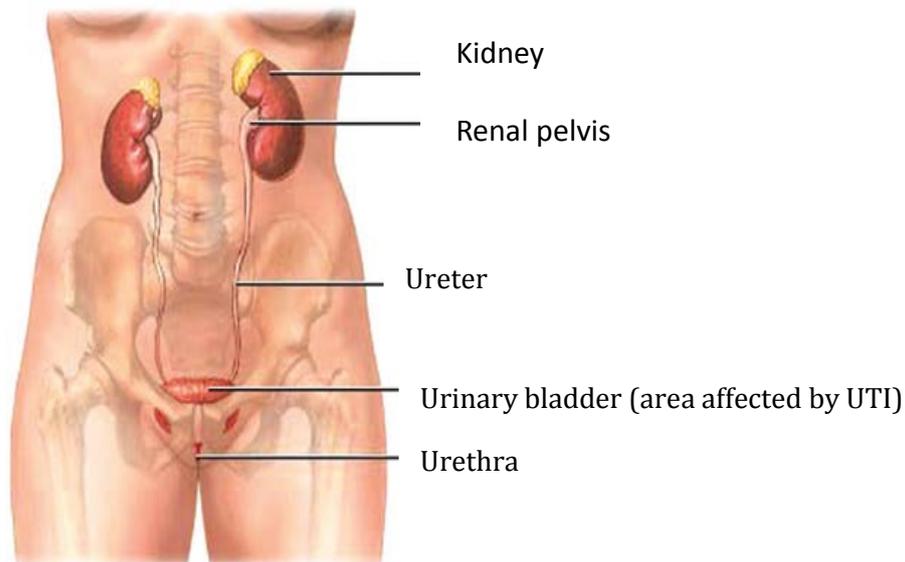
## URINARY TRACT INFECTION

Urinary tract infection (UTI) is a condition in which a client has a burning feeling due to the presence of bacteria in the urinary tract.

### The urinary tract system



## Female urinary tract



## CLIENT PRESENTING WITH PAIN ON URINATION

Pain on urination is the burning feeling during urination.

It is commonly associated with UTIs.

A burning feeling on urination tends to be more common in women than in men.

### Common causes

✚ Urinary tract infections

✚ Gonorrhoea

### *Note:*

The majority of clients with burning sensations without vaginal discharge have UTIs (cystitis).

### Signs and symptoms

✚ Pain on urination.

- ✚ Increases in urinary frequency.
- ✚ Need to urinate immediately.
- ✚ Bad smell of urine.
- ✚ The urine may appear cloudy with blood.
- ✚ Loin pain.

### General measures

- ✚ Advise women to wipe from the front to the back to avoid introducing bacteria into the urethra.
- ✚ Encourage the client to drink plenty of fluids.
- ✚ Advise women to urinate immediately after sex to flush out bacteria.
- ✚ Advise women to avoid using vaginal deodorants or perfumed soap to wash the vagina.
- ✚ Encourage the client to swallow the medicine as recommended.
- ✚ Wash your genital area every day.
- ✚ Wear cotton rather than synthetic underwear.

### Drug treatment

#### Cotrimoxazole

Dose	Dosage
4 tablets	480 mg – Single dose

OR

#### Doxycycline

Dose	Dosage
100 mg	Two times daily (every 12 hours) for 7 days

Question to ask	Reason for asking
For how long have you had symptoms?	<ul style="list-style-type: none"> <li>✚ Helps to know whether the UTI is acute or chronic.</li> <li>✚ <b>REFER</b> if symptoms have been present for more than 7 days.</li> </ul>
How old are you?	<ul style="list-style-type: none"> <li>✚ Determine dose of treatment.</li> </ul>
Do you have fever?	<ul style="list-style-type: none"> <li>✚ Fever usually suggests kidney infection (Pyelonephritis).</li> <li>✚ If yes, <b>REFER</b>.</li> </ul>
Are you pregnant?	<ul style="list-style-type: none"> <li>✚ If yes, <b>REFER</b>.</li> <li>✚ UTIs during pregnancy need immediate referral.</li> </ul>
Do you have a vaginal/urethral discharge?	<ul style="list-style-type: none"> <li>✚ Vaginal discharge usually suggests gonorrhoea, PID, or trichomoniasis but not UTIs.</li> <li>✚ Treat as recommended.</li> </ul>
Have you received any treatment so far? If yes, which one?	<ul style="list-style-type: none"> <li>✚ Helps to guide on treatment selection.</li> <li>✚ If recommended treatment already given, <b>REFER</b>.</li> </ul>

## SESSION SEVENTEEN: FAMILY PLANNING

---

### Learning Objectives

As a result of actively participating in this session, the individual will be able to:

1. Name their responsibilities in providing family planning (FP) counselling and FP methods to their clients.
2. Describe each of the following FP methods: combined oral contraceptives (COC), progestin-only pills (POP), male condoms, female condoms, breastfeeding, and safe days method.
3. Explain the need for screening clients for COCs and POPs.
4. Explain how to use the pregnancy screening and COC checklists.
5. Know about other FP methods, such as IUDs, tubal ligation, and vasectomy that require referral.

### Tasks expected to be performed by ADS attendants regarding FP:

#### 1. Educate and counsel clients for oral pills and condoms:

- ✚ Counsel those that are interested in FP.
- ✚ Conduct and evaluate individual and/or couple counselling sessions for FP.
- ✚ Give clear information about all FP methods to enable clients to make voluntary informed choice.

#### 2. Manage clients for oral pills and condoms:

- ✚ Initiate oral pills and condoms based on client's informed choice, medical and social history, and checklist assessment.
- ✚ Instructs clients on the use of oral pills and condoms.
- ✚ Counsel and refer clients for contraceptive methods she/he cannot provide.
- ✚ Correctly prescribe and dispenses oral pills and condoms.
- ✚ Refer clients with contraceptive-related side effects and complications to trained health workers.

#### 3. Manage FP services in the drug shop:

- ✚ Establish provision of oral FP methods and condom services as an integral part of other drug sales.

- ✚ Procure and maintain stocks of oral pills and condoms in the drug shop.
- ✚ Maintain accurate records of FP services and submit drug shop FP service returns/reports to the appropriate authority.
- ✚ Use data from monthly reports to monitor and evaluate FP integration into drug shop activities.

### **Family planning**

Family planning is a basic human right for an individual/couple to exercise control over their fertility, make voluntary and informed decision on the number of children they want to have, when to have the first and last pregnancy, and the space between pregnancies.

### **Voluntary informed choice**

Client makes his/her own choice of method upon receiving all information without being coerced/forced.

### **Informed choice**

This is when a client is given correct and complete information about FP methods, and explores her reproductive goals, FP needs, ability to use a method, and makes a selection of what to use.

### **Clients' rights in relation to FP and provider needs**

**Information:** To receive clear, accurate, and complete information in order to learn about the availability and benefits of all maternal/child health (MCH)/FP services.

**Access:** To obtain MCH/FP services regardless of the client's age, marital status, socio-economic class, and HIV status.

**Choice:** To decide whether to use MCH/FP services, and what FP method to use that best meets their needs, goals, and lifestyles.

**Safety:** To receive all FP information and MCH/FP services that will prevent unwanted pregnancies without harm.

**Privacy:** To have both a visual and auditory private environment during counselling and service delivery.

**Confidentiality:** To be assured that any personal information will not be shared in public or with any member of the client's family or other members of the staff without her/his consent.

**Dignity:** To be treated with courtesy, enthusiasm, attentiveness, and respect, regardless of their socio-economic status.

**Comfort:** To feel comfortable while receiving MCH/FP services.

**Continuity:** To receive appropriate MCH/FP services, drugs, and FP commodities for as long as is needed.

**Opinion:** To express an opinion about the services being offered without fear and with confidence that the opinion will be considered and respected.

### **Guidelines for describing family planning methods**

1. What is it?
2. Effectiveness in preventing pregnancy, including the user's role.
3. Mechanism of action.
4. Advantages and non-contraceptive benefits.
5. Protection against STIs and HIV and AIDS.
6. Common side effects and disadvantages.
7. Who can use the method?
8. Who cannot use a method?
9. Signs of problems that require urgent medical attention.

### **CONDOMS (Male and Female)**

A **condom** is a thin rubber sheath worn on an erect penis (by men) or inserted into the vagina (by women) to prevent the male ejaculate from mixing with the female vaginal secretion.

A condom serves a dual purpose. It protects the woman from pregnancy by preventing entry of sperm into the vagina and also protects both the male and female from contracting STIs

and HIV because it provides a barrier that prevents the male and female fluids from meeting during sexual intercourse.

If used correctly, condoms keep sperms and any disease organisms in the semen out of the vagina and likewise they also stop any disease organisms in the vagina from entering the penis.

### **Types of condoms**

Male condoms, which have different brand names (Life Guard, Protector, condom O, etc.) and female condom (Femidom).

### **Effectiveness**

It is very important to use the condom correctly and consistently to be highly effective. When used correctly every time, only 3 pregnancies may occur per 100 women in the first year of use (1 in every 33).

When not used consistently and correctly every time, 14 pregnancies may occur per 100 women in the first year of use (1 in every 8).

### **Mechanism of action**

Condoms prevent the entry of sperm into the vagina by causing a physical barrier.

### **Advantages and non-contraceptive benefits**

- ✚ Prevents STIs, including HIV and AIDS, as well as pregnancy when used correctly with every act of sexual intercourse.
- ✚ Can be used alone or with another FP method as dual protection.
- ✚ Helps prevent conditions caused by STIs (e.g., PID, infertility in both men and women, and possibly cancer of the cervix).
- ✚ Safe; no hormonal side effects.
- ✚ Offers occasional contraception with no daily upkeep.
- ✚ Involves men to take responsibility for contraception and for prevention of STIs.
- ✚ Increased sexual enjoyment because there is no worry about STIs or pregnancy.
- ✚ Helps men with premature ejaculation maintain an erection.
- ✚ Easy to obtain; sold in many places, including vending machines.

- ✦ Can be used immediately after childbirth.

### **Disadvantages and common side effects**

- ✦ Deteriorates (loses potency) quickly if storage is poor.
- ✦ May slip off, break, and spillage of sperm can occur, especially among inexperienced users and users with inadequate vaginal lubrication.
- ✦ Couple must take time to put the condom on the erect penis before sex.
- ✦ User must be highly motivated to use correctly and consistently.
- ✦ A man's co-operation is required for a woman to protect herself from pregnancy and disease.
- ✦ May embarrass some people to buy, ask partner to use, put on, take off, and throw away.
- ✦ Latex condoms may cause itching for a few people who are allergic to rubber. Some people may be allergic to the lubricant in some brands.

### **Who can use condoms?**

Condoms may be used by any man or woman regardless of his or her health status. People who may want to consider condom use include:

- ✦ Men wishing to participate more actively in FP.
- ✦ Couples who have sexual intercourse infrequently.
- ✦ People in casual sexual relationships where pregnancy is not desired.
- ✦ Couples needing a back-up method while waiting for another contraceptive method to become effective or when the woman has forgotten to take the pill.
- ✦ Couples who need a temporary method while waiting to receive another contraceptive method.
- ✦ Those who are at increased risk of STIs, (e.g., when one or both partners have other partners).
- ✦ Couples where one or both partners are HIV positive.

### **Who should not use?**

- ✦ Men or women who have allergy to rubber.

- ✚ Men who are unwilling to use condoms consistently and correctly.
- ✚ Men who cannot maintain an erection when using a condom.

### **Signs of problems that requires urgent medical attention**

- ✚ Severe reaction to the rubber or the lubricant in some brands of condoms.

### **Instructions for clients on how to use condoms**

- ✚ Check condom packet to ensure that the packet is intact and there are no holes.
- ✚ Check condom packet for expiry date to make sure that the condom has not expired.
- ✚ Open the condom packet carefully and take the condom out.
- ✚ Squeeze the tip of the condom to remove the air; this will create space at the tip of the condom. This will be the space for the semen. Roll the condom on to the erected penis up to the hairline before it comes into any contact with the woman's private parts.
- ✚ Immediately after the man ejaculates, and while he is still hard, he should withdraw his penis from the vagina while holding the condom on. This stops the semen from spilling out.
- ✚ Remove the condom from the penis carefully, making sure the semen does not spill.
- ✚ A new condom should be used for each new act of sexual intercourse.
- ✚ Wrap the used condom in a piece of paper and throw it in a pit latrine or burn it.

### **How to keep unused condoms**

- ✚ Keep condoms in a cool, dry place away from the sun, insects, and rodents.
- ✚ Keep condoms where children cannot reach them.

### **How to make the condom more effective**

- ✚ Condoms are more effective if the woman uses foaming tablets or jelly.
- ✚ **Never** use a petroleum-based lubricant (such as Vaseline) with condoms because they can use cause condoms to break.

# COMBINED ORAL CONTRACEPTIVES

## Definition of COCs

Combined oral contraceptives are pills that contain two hormones, i.e., artificial oestrogen and progestin. They are taken orally and daily to prevent pregnancy.

## Available brands of COCs

Lo-feminal

Microgynon

New Fem

Pilplan plus

## Mechanism of action of COCs

The COC pills prevent pregnancy by:

- ✚ Stopping the eggs from maturing (suppressing ovulation).
- ✚ Thickening the cervical mucus, thus making sperm entry difficult.

## Effectiveness of COCs

COCs are very effective when used properly; about 3 in 1,000 women become pregnant (0.3%)

## Advantages and non-contraceptive benefits of COCs

- ✚ Cause periods to be regular and predictable.
- ✚ Reduces menstrual blood loss, which prevents anaemia.
- ✚ Pills help to reduce painful periods where pain is not caused by infection.
- ✚ Can be used as emergency contraception.
- ✚ Are very effective if taken correctly.
- ✚ Woman can get pregnant again after stopping the use of COCs(easily reversible).

- ✚ Are safe for most women.
- ✚ Are independent of intercourse.

### **Disadvantages and common side effects of COCs**

- ✚ Must be taken daily.
- ✚ Require regular and dependable supply.
- ✚ Reduces breast milk, especially in the first 6 months after delivery.
- ✚ Minor side effects may include: spotting, amenorrhea, nausea, breast tenderness, headaches, weight gain, depression, and/or acne (common in the first 3 months).

### **Protection of COCs against STD/HIV infection**

Does not protect against STIs, including HIV.

### **Who can use COCs?**

- ✚ All women of reproductive age who desire to use COCs.
- ✚ Women with:
  - Anaemia, but the basic problem causing anaemia must be evaluated and treated.
  - Painful periods not caused by infection.
  - Irregular cycles.
  - History of ectopic pregnancies.

### **Who should not use COCs?**

Women who:

- ✚ Are pregnant.
- ✚ Are breastfeeding babies less than 6 months old.
- ✚ Smoke cigarettes when older than 35 years.
- ✚ Are taking other medicines for conditions like TB, epilepsy.
- ✚ Are forgetful or mentally confused.
- ✚ Women with:

- Heart disease
- High blood pressure
- Diabetes
- Headache with blurred vision
- Yellow colouring of the eyes

### **Signs of problems that require urgent medical attention**

- ✚ Severe headaches with blurred vision.
- ✚ Severe constant pain in the chest with difficulty breathing.
- ✚ Acute abdominal pain.
- ✚ Pain in the calf muscles.
- ✚ Eyes or skin becoming unusually yellow.

## **PROGESTIN-ONLY PILLS**

### **Definition**

These are oral pills that contain only one hormone called progestin.

Common available brands of POPs include:

- ✚ Overette
- ✚ Softsure

### **Mechanism of action of POPs**

Prevent pregnancy mainly in two ways:

- ✚ Thickening the cervical mucus within 24 hours, making it difficult for sperm to enter the uterus.
- ✚ Inhibiting ovulation.

### **Effectiveness**

- ✚ Most effective when taken at the same time every day; delaying to take the pill for only

three hours may result in pregnancy if the woman has unprotected sexual intercourse in that time period.

- ✚ For breastfeeding women, POP is very effective when taken correctly because breastfeeding itself provides protection against pregnancy. Only one pregnancy may occur per 100 women in the first year of use.
- ✚ POPs are also very effective when used correctly and consistently in both breastfeeding and non-breastfeeding women. 0.5 pregnancies (1 in every 200 women) may occur in the first year of use.

### **Advantages and non-contraceptive benefits**

- ✚ Very effective if taken correctly.
- ✚ Can be very effective during breastfeeding; start 6 weeks after delivery.
- ✚ Does not suppress lactation.
- ✚ Does not have side effects similar to COCs.
- ✚ Can take one pill of the same colour everyday with no break, so it is easier to understand.
- ✚ Suitable for those with hypertension, and cardiac or sickle cell disease.
- ✚ Does not increase blood clotting.

### **Common side effects and disadvantages**

Women who are not breastfeeding may have:

- ✚ Spotting or bleeding between periods
- ✚ Amenorrhea
- ✚ Mild headache
- ✚ Breast tenderness
- ✚ If not breastfeeding, even taking a pill a few hours late increases the risk of pregnancy
- ✚ Does not protect against STIs or HIV

### **Women with the following conditions can use POPs**

- ✚ Post abortion (anytime)
- ✚ Breastfeeding mothers; can be started after six weeks postpartum.
- ✚ Women with sickle cell disease.

- ✚ Diabetics, without evidence of hypertension or history of a heart attack.
- ✚ Smokers
- ✚ Women undergoing treatment with:
  - antibiotic griseofulvin
  - ARVs, although effectiveness may be reduced
- ✚ Who have not yet had a child/pregnancy
- ✚ Obesity

### **Who should not use POPs**

POPs are generally not recommended or are contraindicated for women with the following conditions:

- ✚ Breastfeeding less than six weeks postpartum.
- ✚ Pregnant mothers (although there is no harm to women or the foetus if POPs are accidentally used during pregnancy).
- ✚ Women with current breast cancer or history of breast cancer.
- ✚ Women undertaking treatment for epilepsy with phenytoin or TB with rifampicin.
- ✚ Current deep venous thrombosis.
- ✚ Active viral hepatitis.
- ✚ Severe cirrhosis or liver tumours.
- ✚ Undergoing treatment with rifampicin, anticonvulsants, e.g., phenytoin.

### **Signs of problems that need urgent medical attention**

- ✚ Repeated severe headaches that start or become worse while client is on POCs.
- ✚ Missed or delayed menstrual period after several months of regular menses.
- ✚ Severe lower abdominal pain, which may be a sign of ectopic pregnancy.
- ✚ Very heavy vaginal bleeding, twice as much or twice as long as the client usually bleeds during a menstrual period.

# SCREENING CLIENTS FOR AND INITIATING THEM ON ORAL PILLS

## Purpose of screening clients who have selected oral pills

A drug shop operator needs to screen FP clients so as to:

- ✚ Rule out contraindications/precautions against FP method use.
- ✚ Determine eligibility for method of choice, according to WHO criteria
- ✚ Ensure that the client is not pregnant before beginning to use any method of contraception.

## What is involved in screening clients for FP?

A drug shop operator will use the checklist, “**Checklist for Screening Clients Who Want Start Using Combined Oral Contraceptives**” to ask questions that will help to ensure that the client does not have medical conditions that may prevent her from taking oral pills, and another checklist to exclude pregnancy: “**How to be reasonably sure a client is not pregnant.**”

## INITIATING CLIENTS ON ORAL PILLS

COCs and POPs are initiated after proper screening and you are reasonably sure a client is not pregnant. To apply the World Health Organization (WHO) eligibility criteria in an easy way, the Ministry of Health has developed simple checklists. The checklists are based on WHO guidance and are designed to identify medical conditions and high risk behaviours that would prevent use of some contraceptive methods.

## When to initiate FP methods

COC	POP	Condoms	LAM
<ul style="list-style-type: none"> <li>✚ Any time in the cycle when certain the client is not pregnant.</li> <li>✚ After 6 months postpartum with LAM</li> </ul>	<ul style="list-style-type: none"> <li>✚ Any time in the cycle when certain the client is not pregnant.</li> <li>✚ Postpartum</li> </ul>	<ul style="list-style-type: none"> <li>✚ Any time of the cycle.</li> <li>✚ As back up when starting COCs or</li> </ul>	<ul style="list-style-type: none"> <li>✚ Immediately postpartum</li> <li>OR</li> <li>✚ Any time</li> </ul>

COC	POP	Condoms	LAM
<p>and pregnancy ruled out.</p> <ul style="list-style-type: none"> <li>✚ Changing from Depo Provera, or POP even if having no periods.</li> <li>✚ 1 week after abortion (1<sup>st</sup> trimester)*.</li> <li>✚ 2 weeks post abortion (2<sup>nd</sup> trimester) or **post delivery and <u>not</u> breastfeeding.</li> </ul>	<p>period with LAM if client not pregnant.</p> <ul style="list-style-type: none"> <li>✚ At 6-8 weeks postpartum.</li> <li>✚ Changing from Depo Provera, or COC.</li> <li>✚ Immediately postpartum or post abortion.</li> </ul>	<ul style="list-style-type: none"> <li>✚ Missing pills</li> <li>✚ Drug interaction</li> </ul>	<p>before first 4 weeks postpartum.</p>

\* When method is started before ovulation occurs, it increases protection against pregnancy by suppressing/preventing ovulation.

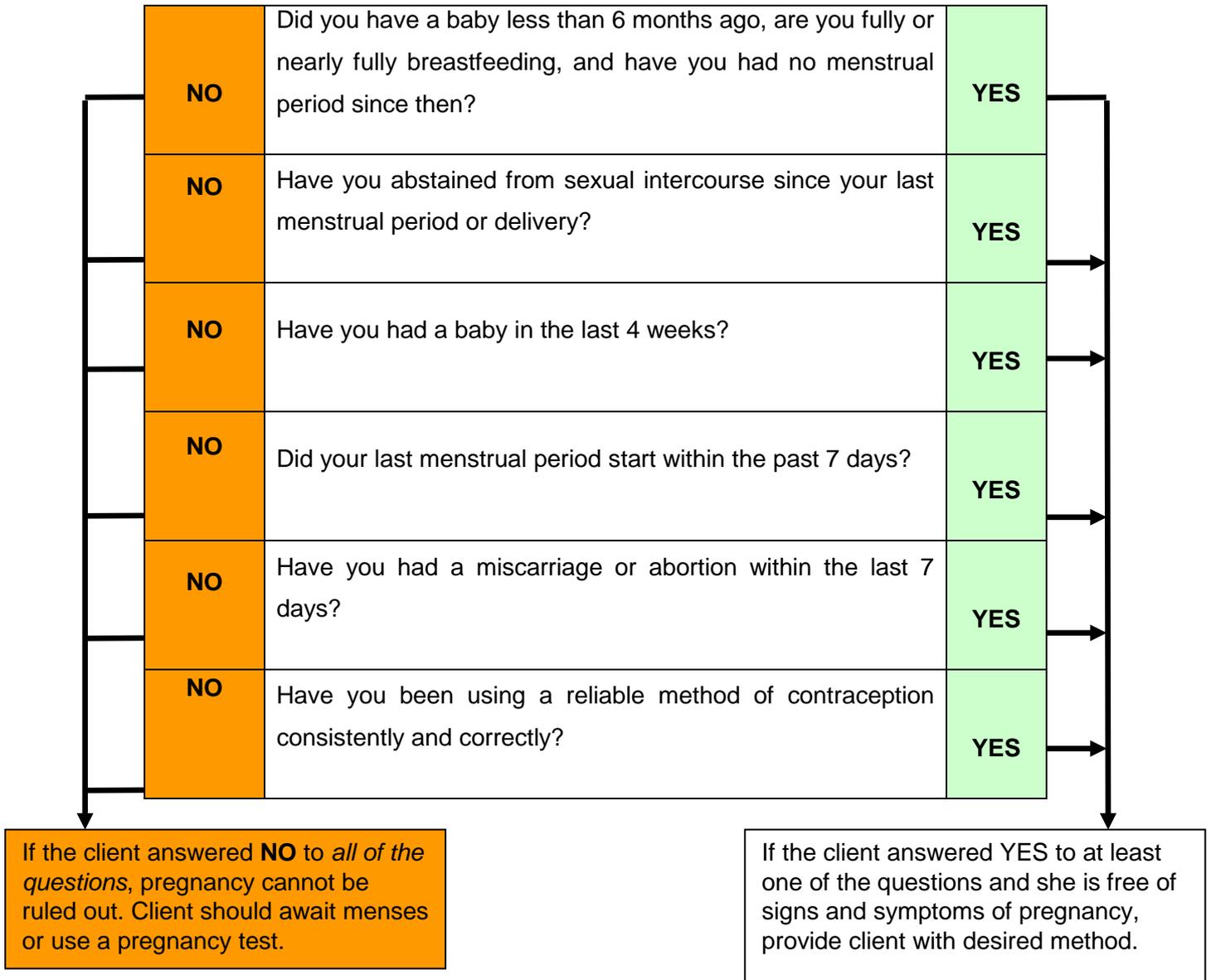
### Ways to be reasonably sure the woman is not pregnant

The Ministry of Health has developed a simple checklist for use by FP providers to help non menstruating clients safely initiate their method of choice. The checklist is based on a criteria endorsed by the WHO to determine with reasonable certainty that a woman is not pregnant. The tool is very effective and can be used by any health care provider who needs to determine that a woman is not pregnant.

## HANDOUT

### Pregnancy Checklist: How to be reasonably sure a client is not pregnant

Ask the client questions 1-6. As soon as the client answers **YES** to *any question*, stop, and follow the instructions.



## HANDOUT

### Checklist for Screening Clients Who Want to Initiate Combined Oral Contraceptives

To determine if the client is medically eligible for COCs, ask questions 1-9. As soon as the client answers **YES** to **any question**, stop and follow the instructions after question 9.

NO	1. Are you currently breastfeeding a baby under six months of age?	YES
NO	2. Do you smoke cigarettes <i>and</i> are you over 35 years of age?	YES
NO	3. Do you have severe repeated headaches, often on one side, and/or pulsating, causing nausea, and which are made worse by light, noise, or movement?	YES
NO	4. Do you have serious liver disease or jaundice (yellow skin or eyes)?	YES
NO	5. Have you ever had a stroke, blood clot in your legs or lungs, or heart attack?	YES
NO	6. Do you regularly take any medicine for tuberculosis (TB) or seizures (fits)?	YES
NO	7. Have you ever been told you have breast cancer or do you have an abnormal breast lump?	YES
NO	8. Have you ever been told you have high blood pressure?	YES
NO	9. Have you ever been told you have diabetes (high sugar in your blood)?	YES

If the client answered **NO** to *all of the questions 1-9*, the client can use COCs. Ensure that you ask questions to be reasonably sure that she is not pregnant.

If the client answered **YES** to **any of the questions 1-7**, she is not a good candidate for COCs. Counsel about other available methods or refer.

If the client answered **YES** to **question 8 or 9**, COCs cannot be initiated without further evaluation. Evaluate or refer as appropriate, and give condoms to use in the meantime.

## Instructions to clients on COCs or POPs

- ✚ Start taking your first pill on days 1 to 7 of your menstrual cycle.
- ✚ Take your pills daily at the same time, preferably at bed time. This will help you remember to take the pills and prevent any discomfort, such as nausea.
- ✚ Do not miss taking the pill any day.
- ✚ If you start taking pills after day 5 of your cycle, you need to use another method, such as condoms, or abstain from sex for one week.
- ✚ Seven days of pill taking are enough to suppress follicular development (i.e., protect you from pregnancy).
- ✚ Use condoms in addition to the pill if you think there is any chance that you or your partner is at risk of exposure to STIs, including HIV.
- ✚ You will have your period when you are taking the brown pills. Do not stop taking the pills. Continue swallowing them.
- ✚ When you finish one packet, start on a new packet.
- ✚ Store the pills and all other medicines in a dry place and out of reach of children.
- ✚ Return to the drug shop for more pills before you have finished your last pack of pills.

*Note: It is recommended to give 3 cycles of COCs to clients at the initial visit.*

## What to do when you miss taking COCs or POPs

- ✚ **If you miss one white pill**, take it as soon as you remember, then continue to take one daily until you finish that packet.
- ✚ **If you miss two or more days in a row of taking the white pill**, start taking them as soon as you remember and continue doing so until you finish the packet, but use condoms and/or jelly or abstain from sexual intercourse until you have taken one white pill each day for 7 days in a row. A woman must take hormonal pills for seven days continuously in order to prevent ovulation reliably.
- ✚ **If you miss taking the brown pill**, do not worry. Skip the missed brown pill and continue to take a brown pill until the end of the packet.
- ✚ **If you keep forgetting to take pills** you may need to use another method that is easier for you to use. You should return to the drug shop or go the health facility for counselling on another method.

### **Minor side effects of oral contraceptives**

- ✚ Nausea
- ✚ Headaches
- ✚ Spotting
- ✚ Breast tenderness
- ✚ Headaches
- ✚ Weight gain
- ✚ Depression
- ✚ Acne
- ✚ If any of these last more than 3 months, you should come back to the drug shop.

### **What to do if you have diarrhoea or vomiting**

If you have severe diarrhoea or vomiting for any reason, your pills may not work as well as they ought to. Therefore, if you have severe diarrhoea or vomiting, you should use condoms or abstain from sexual intercourse until you are well and have taken the white pills for 7 days after the vomiting and diarrhoea stops. (This also applies to POPs.)

### **What to do when you are taking other drugs**

If you are taking medicines, specifically rifampicin, griseofulvin, or anticonvulsants such as phenytoin, carbamazepine, barbiturates, and primadone, the pill may not work as well as is ought to, and you should use condoms or jelly for the time you are taking medicines and for 7 days after you have finished taking them. (This also applies to POPs).

### **Go urgently to a health centre or hospital if you have any of these signs**

- ✚ Severe abdominal or chest pain or shortness of breath.
- ✚ Severe headaches.
- ✚ Sight problems, such as blurred vision or loss of vision.
- ✚ Severe leg pain on the calf or thigh.

## **Pills and medical care**

- ✚ Bring the pill packets with you on each return visit.
- ✚ Mention that you are taking the pill (combined oral contraceptives) any time you make a visit to a health provider/doctor, because certain medicines may interfere with the effectiveness of COCs.
- ✚ Tell the provider that you are on anti-TB treatment or antibiotics or ARVs. (*This also applies to POPs.*)

## **Guidelines on dose /Quantity to be given at initial visit**

The Ministry of Health has approved evidence-based strategies on initiation of FP to improve uptake of oral contraceptives (OC). However, these guidelines may not be applicable in drug shops because most clients can only take the number of cycles they are able to buy.

1. **Advance provision of OCs** is an important strategy for clients who want to initiate use of OCs but are not able to rule out pregnancy and are not currently menstruating. Although such a client must wait for menses to begin her first pack of pills, she does not need to return to the drug shop at menses to receive her supply of pills. As a provider, you may give her the pills to take home with her and begin swallowing when she gets her menses.

2. **Provide more than one pack of pills during the initial and return visits.** The number of packs provided in advance depends upon the available supply. If supplies allow, the WHO recommends providing up to a one-year supply (13 packs) of pills for new and returning COC users. Restricting the number of pill packs given to a client may result in discontinuation of the method when a woman is not able to come back for re-supply, and may increase her risk for pregnancy.

## **Help continuing users on a second or subsequent visit:**

### ***COCs/POPs***

- ✚ Ask how the client is doing with the method and whether she is satisfied. Ask if she has any questions or anything to discuss.
- ✚ Ask especially if she is concerned about bleeding changes. Give her any information or help that she needs.
- ✚ Ask if she often has problems remembering to take a pill every day. If so, discuss ways to

remember, review what to do in case she misses the pill, and/or counsel her for another method.

- ✚ Ask a long-term client if she has had any new health problems since her last visit. Address problems, as appropriate. For any new health problem that may require switching the method, counsel the client.
- ✚ Ask a long-term client about major life changes that may affect her needs, particularly plans for having children and STI/HIV risk. Follow-up as needed.

## **SUPPLEMENT ON FAMILY PLANNING**

---

### **The need for family planning in African countries**

The contraceptive prevalence rate in Uganda has slightly risen from 23% in 2001 to 24% in 2009, yet it is estimated that 41% of women have an unmet need for family planning, both for spacing and limiting births. The Contraceptive Prevalence Rate varies from region to region and for urban and rural settings. However, the total demand for family planning is estimated at 64.2% (UDHS 2006).

Uganda's Total Fertility Rate (TFR) has remained among the highest in the world, moving from 6.9 (2001) to 6.7 percent in 2009.

In regard to the modern contraceptive method mix, the use of pills has been on a steady decrease over the past 15 years. The use of injectables, implants, and condoms has risen rapidly and are now the dominant methods. The provision of permanent methods is low.

The Ministry of Health, Reproductive Health Division has put in place a Committee which is composed of policy makers, researchers, government officials, donors, and program managers to revitalize family planning in the country.

In order to achieve the goal of revitalizing family planning at all levels of service delivery, there is need to train and update different cadres of family planning service providers in basic family planning.

Uganda has one of the fastest growing populations in the world:–

- ✚ Total Population – 30.6 million (2009)
- ✚ Population Growth Rate – 3.2%
- ✚ Total Fertility Rate – 6.7
- ✚ Contraceptive Prevalence Rate — 24%
- ✚ Unmet need for FP – 41%
- ✚ Low utilization of FP services, which is worse at the community level in comparison to urban areas for various reasons such as:
  - Lack of trained FP service providers
  - Lack of FP supplies and methods

- Shortage of human resource leading to work overload
  - Lack of awareness about FP services in the communities
  - Rumours and misconceptions
- 

## **Family Planning Methods that are Available through Health Services**

### **DEPO PROVERA (DMPA)**

#### *Definition*

Injection Depo Provera is a family planning method that has only one hormone called progestin. It is effective within 48 hours and is repeated every 12 weeks. The common name is injection Depo Provera and it is marketed as Injecta-plan.

#### *Effectiveness*

Depo Provera is very effective; only 1 in every 33.3 women can get pregnant when injections are given regularly, every 12 weeks.

#### *Advantages and non-contraceptive benefits*

- ✚ It is very effective.
- ✚ Does not suppress breast milk.
- ✚ Client only has to remember the return date for subsequent injections, i.e., it is private; no one has to know that the woman is on it.
- ✚ Can be used at any age.
- ✚ No oestrogen side effects.
- ✚ May reduce the frequency of epileptic and sickle cells crisis

#### *Disadvantages and common side effects*

- ✚ The woman may experience the following changes in menstrual bleeding:
  - Spotting (most common at first)
  - Amenorrhea (normal after first year of use)
  - Heavy bleeding (rare)
- ✚ Weight gain
- ✚ Delayed return of fertility; about 4 months longer wait for pregnancy after stopping use

- ✚ Mild headaches
- ✚ Breast tenderness
- ✚ Some women may experience loss of libido
- ✚ Moodiness
- ✚ Nausea
- ✚ Acne or hair loss
- ✚ Requires injection every three months
- ✚ Does not protect against STIs or HIV

## **IMPLANTS**

Implants are effective within 48 hours and their effectiveness depends on proper insertion under the skin. There are so far 2 types of implants in Uganda, i.e., Implanon, and Jadelle.

- ✚ Implanon is a one-rod capsule and is effective for 3 years.
- ✚ Jadelle is a 2-rod capsule and is effective for 5 years.

The side effects are temporal and wear out usually within 3 months when the body gets used to the method.

### ***Mechanism of action***

Prevents pregnancy mainly in two ways:

- ✚ Thickening the cervical mucus within 24 hours, making it difficult for sperm to enter the uterus.
- ✚ Inhibiting ovulation

### ***Effectiveness***

Implants are very effective, only 0.1 pregnancies per 100 women (1 in every 1,000) may occur in the first year of use. Pregnancy rates have been slightly higher among women weighing more than 70 kgs.

### ***Advantages and non-contraceptive benefits***

- ✚ Very effective, even in heavier women.
- ✚ Effective within 24 hours after insertion.
- ✚ No delay in return to fertility after removal.

- ✚ Long acting; needs replacement after 3 years for Implanon and 5 for Jadelle.
- ✚ No repeat clinic visits required.
- ✚ Helps to prevent: iron deficiency, anaemia, ectopic pregnancy.
- ✚ Makes sickle cell crisis less frequent and less painful.
- ✚ No effect on breast milk.
- ✚ No oestrogen side effects.
- ✚ Insertion involves only minor pain of the anaesthesia needle. Not painful if anaesthesia is given properly.

### *Common side effects and disadvantages*

- ✚ Changes in menstrual bleeding:
  - Spotting
  - Heavy bleeding (rare)
  - No periods (amenorrhea)
  - Minor surgical procedure required for insertion and removal
  - Discomfort in the arm after insertion
  - Does not protect against STIs, including HIV and AIDS
- ✚ While being on implants, some women may develop:
  - Weight gain
  - Headaches
  - Dizziness
  - Breast tenderness
  - Moodiness
  - Nausea
  - Acne/skin rash
  - Change in appetite
  - Hair loss or more hair growth on the face
  - Client cannot start or stop using an implant on her own; the capsules must be inserted and removed by a specially trained health care provider.

### *Who can use implants?*

Women with the following conditions can use implants

- ✚ Post abortion (anytime)

- ✚ Breast feeding mothers, and can be started after six weeks postpartum.
- ✚ Women with sickle cell disease.
- ✚ Diabetics, without evidence of hypertension or history of a heart attack.
- ✚ Smokers
- ✚ Those with congenital heart disease.
- ✚ Cervical, endometrial, or ovarian cancer (awaiting definitive treatment).
- ✚ Women undergoing treatment with:
  - antibiotic griseofulvin
  - ARVs, although effectiveness may be reduced.
- ✚ Who have not yet had a child or pregnancy.
- ✚ Obesity

### ***Who should not use implants?***

Women with the following conditions:

- ✚ Breastfeeding less than six weeks postpartum.
- ✚ Pregnant mothers (although there is no harm to women or the foetus if implants are accidentally used during pregnancy).
- ✚ Women with current breast cancer or history of breast cancer.
- ✚ Women undertaking treatment for epilepsy with phenytoin or TB with rifampicin.
- ✚ Current deep venous thrombosis.
- ✚ Active viral hepatitis.
- ✚ Severe cirrhosis or liver tumours.
- ✚ Undergoing treatment with rifampicin, anticonvulsants, e.g., phenytoin.

### ***Signs of problems that need urgent medical attention***

- ✚ Repeated severe headaches that start or become worse while client is on implants.
- ✚ Missed or delayed menstrual period after several months of regular menses.
- ✚ Severe lower abdominal pain, which maybe a sign of ectopic pregnancy.
- ✚ Very heavy vaginal bleeding, twice as much or twice as long as the client usually bleeds during a menstrual period.

Additional signs of problems that require urgent medical attention for implants:

Client should report back to the clinic if any of the following occur at injection or insertion site:

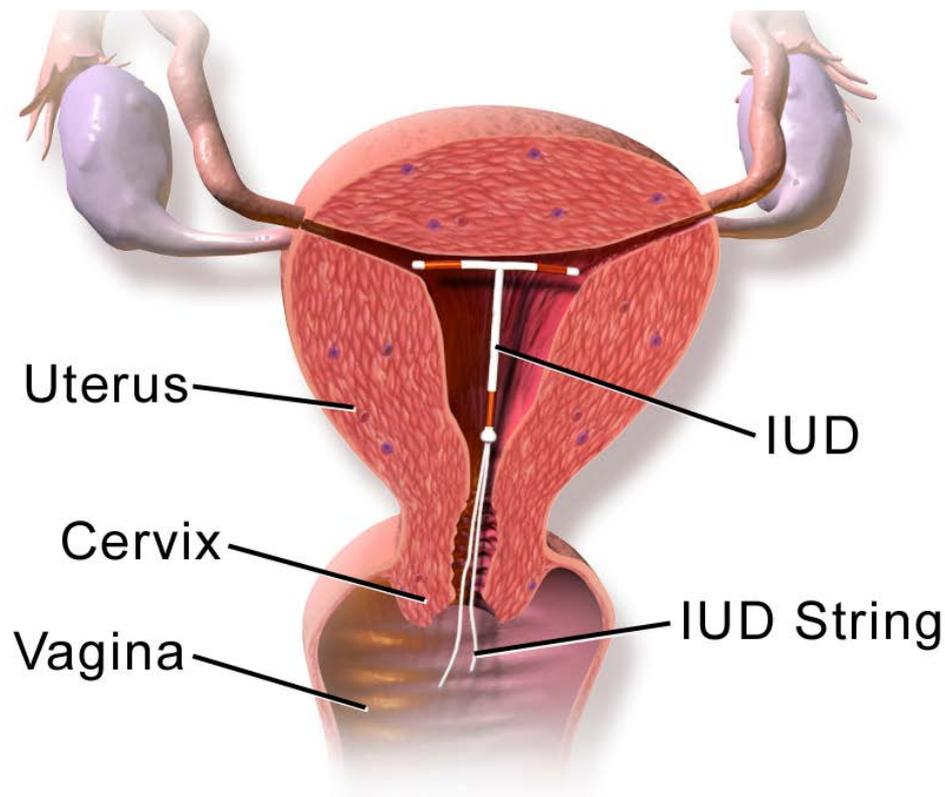
- ✚ Pus
- ✚ Prolonged pain
- ✚ Smelling
- ✚ Heat
- ✚ Redness
- ✚ Bleeding

Specifically, for implants, if the capsule comes out or skin or eyes become unusually yellow.

## **INTRAUTERINE DEVICE (IUD)**

### ***Definition of IUD***

The IUD is a plastic device that may have copper and is inserted into the uterine cavity to prevent pregnancy.



## **Intrauterine Device (IUD)**

**Available brands in Uganda:** In Uganda, copper T 380A is the common IUD used. It is a T-shaped device with copper on its stem and arms. It can protect a woman from pregnancy for twelve (12) years.

### ***Mechanism of action of the IUD***

Copper-bearing IUDs, like the copper T 380A, act primarily by preventing fertilization. The copper ions emitted from the IUD decrease sperm motility and functioning by altering the uterine and tubal fluid environment (Harcher et al 2004), which means that sperm rarely reach the Fallopian tubes and are unable to fertilize the ovum.

### ***Effectiveness of IUD***

Copper T 380A IUDs are 96-99% effective. However, their effectiveness depends on the skilfulness of the service provider during insertion.

### ***Advantages of IUDs (copper T 380A)***

IUDs have the following advantages:

- ✚ They are easily reversible.
- ✚ They offer long-term contraception.
- ✚ They have no hormonal related side effects.
- ✚ The user has only one responsibility of checking for the expulsion of the IUD, by checking on the strings and using pads during menstrual periods.
- ✚ Can be inserted as early as six (6) weeks after delivery and immediately after delivery up to 48 hours.
- ✚ They are safe for most women.
- ✚ Only one follow-up visit after insertion is required unless a client has problems.
- ✚ IUDs are more economical than other methods.
- ✚ IUDs are not related to intercourse and offer privacy.
- ✚ IUDs do not interact with medications a woman may use.

### ***Disadvantages and side effects of IUDs***

These include:

- ✚ Mild cramps during the first few days (3-5) after insertion.
- ✚ Clients may experience longer and heavier menses in the first 3 months after insertion.
- ✚ Increased normal vaginal discharge in the first 3 months post insertion.
- ✚ Spotting or bleeding between menstrual periods.
- ✚ Increased menstrual cramps.
- ✚ Exposure to infection during insertion and removal.
- ✚ IUDs are service provider dependent.
- ✚ May be partially or completely expelled from the uterus.
- ✚ Do not protect against endometrial or ovarian cancer.

### ***Protection against STIs and HIV and AIDS***

- ✚ IUDs do not offer protection against STIs or HIV.
- ✚ If a client is at a risk of STIs, there is an increased risk of pelvic inflammatory diseases and subsequent infertility if an IUD is inserted.

***Women who may want to consider an IUD include:***

- ✚ Women of reproductive age who prefer a non-hormonal, highly reliable method of contraception that does not require daily action.
- ✚ Women and couples who have reached their desired family size and do not want undergo sterilization.
- ✚ Women who have trouble with correct and consistent use of other contraceptive methods (e.g., remembering to take pills on time, negotiating condom use with a partner).
- ✚ Women at low risk of STIs.

***Who can use an IUD?***

The IUD may be used without restrictions or generally used by women of any age and parity who may also have the following conditions:

- ✚ Breastfeeding
- ✚ Current or history of cardiovascular disease or stroke
- ✚ Headaches, including migraine

***Who should not use the IUD?***

Women with the following conditions:

- ✚ Pregnancy
- ✚ Distorted uterine cavity incompatible with IUD insertion (including uterine fibroid)
- ✚ Unexplained vaginal bleeding (before evaluation)
- ✚ Cervical, endometrial, or ovarian cancer
- ✚ Current PID
- ✚ High individual likelihood of exposure to gonorrhoea and chlamydia

***Signs of problems that warrant immediate return to the clinic***

- ✚ Severe lower abdominal pain
- ✚ Pain during intercourse
- ✚ Fever
- ✚ Foul smelling vaginal discharge
- ✚ Missed periods

- ✚ Missing strings
- ✚ Prolonged vaginal bleeding
- ✚ Spotting

## NATURAL FAMILY PLANNING METHODS

### Lactational Amenorrhea Method (LAM)

#### *Definition of LAM*

The Lactational Amenorrhea Method (LAM) is a contraceptive method that relies on the condition of lactational infertility, which results from specific breastfeeding patterns. There are three criteria and core parameters that must be met to use LAM.

These are:

1. Woman's menses have not returned.
2. Woman exclusively breastfeeds infant.
3. Infant is less than 6 months old.

If any one of these three criteria change, a complementary contraceptive must be started immediately.

- ✚ However, once the first menses has resumed, lactation will no longer protect a woman from pregnancy.
- ✚ Six months after delivery, the chance that ovulation will occur before the first menstruation increases significantly, even in a fully lactating woman who has not seen menstruation yet.
- ✚ Any factor that causes a decrease in suckling can result in the return of ovulation and decreased milk production. These factors include: a) use of supplemental feeding, b) reduction in the number of breastfeeds or increasingly long intervals between breastfeeds, and c) maternal stress or maternal/child illness.
- ✚ As the time after delivery increases, and as supplemental feeding is introduced and suckling decreases, or when the feeding pattern is changed, prolactin levels will diminish leading to ovarian follicle development, ovulation, and menses.

### ***Effectiveness of LAM***

- ✚ Effectiveness is 97-98% in the first six months postpartum if the client is still without menstruation and exclusively breastfeeding (no more than 4 hours between feeds in the day and 6 hours at night with no supplementary baby food).

### ***Advantages and non-contraceptive benefits of LAM***

- ✚ Very effective contraceptive method, particularly during the first 6 months in exclusively breastfeeding women before the return of menses.
- ✚ Requires no medical or chemical substances.
- ✚ Available and convenient.
- ✚ Protects baby against diarrhoea and other infectious diseases by providing antibodies and by avoiding exposure to contaminated milk.
- ✚ Provides important nutrients to the baby.
- ✚ Promotes bonding with the mother.

### ***Disadvantages and side effects***

Effectiveness decreases: a) after six months; b) once the mother's menses have returned; or c) once the baby starts having foods other than breast milk. Ovulation precedes a period and therefore the client could become pregnant before having a period.

### ***Protection against STIs and HIV infection***

No protection against STIs and HIV.

### ***Who should use LAM?***

There are three conditions that must be met if a woman wishes to use LAM as a sole method of contraception. When any one of these conditions is no longer met, her chances of getting pregnant are increased and she must start a complementary FP method to prevent an unwanted pregnancy.

- ✚ ***Woman must be less than six months after delivery.*** We know that even if she is fully breastfeeding and her menses have not returned, the effectiveness of LAM diminishes over time.
- ✚ ***Woman's menses must not have returned:*** We know that while the chance of ovulation preceding the first menses in fully breastfeeding women is small, ovulation preceding the second and subsequent cycles is more common, even when fully breastfeeding. An alternative and appropriate contraceptive method compatible with breastfeeding must be discussed with a woman well in advance of this time frame.
- ✚ ***Woman must be exclusively breastfeeding.*** The woman should use both breasts to breastfeed her baby on demand with no more than a 4-hour interval between any two daytime feeds and no more than a 6-hour interval between any two night-time feeds.

### ***Who should not use LAM?***

As soon as any one of the following conditions are not met, your client is at risk for pregnancy and will need another complementary contraceptive method (compatible with breastfeeding):

- ✚ Baby reaches six months.
- ✚ Woman has menstrual bleeding.
- ✚ Baby is not exclusively breastfeeding.

### ***Reasons to initiate client on another FP method***

- ✚ Woman's menses have resumed.
- ✚ Mother cannot breastfeed exclusively.
- ✚ Baby cannot suckle well for any reason (e.g., illness).
- ✚ It is six months since after delivery.
- ✚ Mother is supplementing baby's food.
- ✚ Mother desires another method.

### ***Instructions for clients on LAM***

Allow the client to ask questions at intervals and answer her questions factually.

✚ For LAM to work effectively, you should:

- Breastfeed your baby on both breasts on demand at least 10 times during the day and night.
- Not give any solid foods or liquids to the baby other than breast milk.

*Note: Supplementary feeding makes the baby suckle less and breastfeeding will no longer be effective as a contraceptive method.*

✚ LAM will no longer be an effective method when:

- The baby does not breastfeed exclusively for any reason.
- Menstrual periods have resumed.

✚ There are other FP methods, such as IUD, condoms, Depo Provera, implants, and POPs that you can use while breastfeeding. These methods do not decrease breast milk.

✚ You will need to use another contraceptive method when the baby cannot breastfeed exclusively for any reason, such as:

- You begin to work.
- When you or the baby is very ill.
- When you are not producing enough breast milk.
- When your menstrual periods resume.
- When the baby is being given solid foods or other liquids.

✚ Use condoms in addition to LAM if you think there is any chance that you or your partner(s) are at risk for STIs, including HIV.

✚ A woman can switch to another method anytime she wants while using LAM. If she still meets all 3 LAM criteria, it is reasonably certain she is not pregnant. She can start a new method with no need for a pregnancy test, examinations, or evaluation.

✚ To continue preventing pregnancy, a woman must switch to another method as soon as any one of the 3 LAM criteria no longer applies.

✚ Help the woman choose a new method before she needs it. If she will continue to breastfeed, she can choose from several hormonal or non-hormonal methods, depending on how much time has passed since childbirth.

***Note: Emphasize that all clients should come back to you or go the nearest health facility as soon as they notice any problem or concern at any time.***

***NOTE: For all complaints about bleeding on FP methods, refer the client to trained health providers.***

## PERMANENT METHODS OF CONTRACEPTION

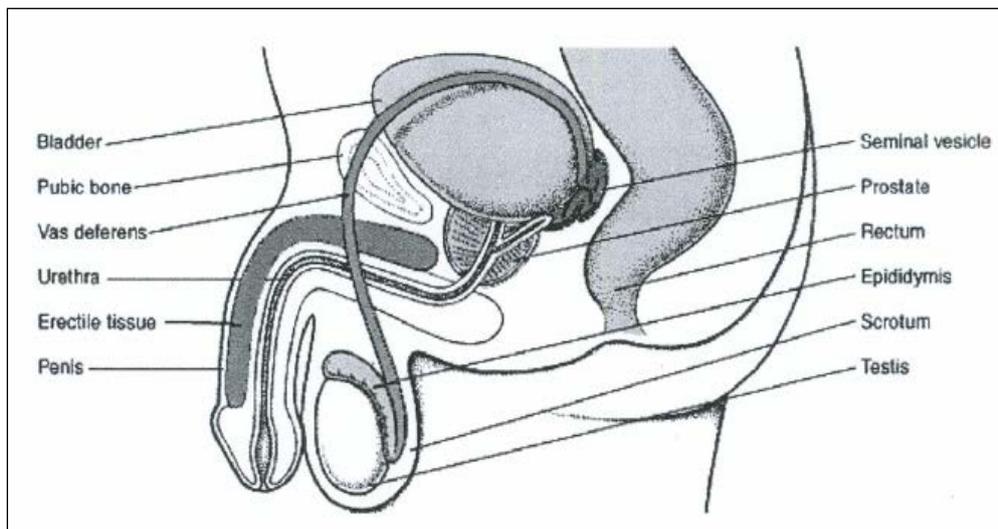
**Vasectomy:** Is a permanent method of contraception in which the tubes (Vas deferens) through which sperm travel from the testes to the penis are tied and cut so that sperm can no longer enter the semen that is ejaculated.

**Tubal ligation:** Is permanent method of contraception whereby both Fallopian tubes are tied and cut using a modern operation (minilap) so that the ovum cannot travel through them to meet the sperm and be fertilized.

These methods are called voluntary because the decision is made by an individual/couple after receiving proper counselling and without any bias of influence from anyone else.

The advantages of both methods are that they are almost 100% effective; however, they are also both permanent, not reversible.

## PARTS OF A MAN



### Male reproductive organs

**PENIS:** The part of man's body that deposits the man's sperm into the vagina and also the organ for urination. The condom is worn over the penis.

**Urethra:** This is a single tube approximately 15 cm running from the bladder through the penis and is a passage for urine and also for seminal fluid.

**VAS DEFERENS:** Two tubes that carry sperm from the testicles to the penis. This is the site for vasectomy; these tubes are tied and cut so that they can no longer carry the man's sperm from the testicles to the penis.

Vasectomy does not affect sperm production; they continue to be produced by the testis but after maturing, they degenerate and are absorbed into the body.

### **SEMINAL VESICLES**

These two accessory glands lie posterior to and at the base of the urinary bladder that secrete the liquid portion of the semen, which contributes to the viability of the sperm. Mature sperm are stored here until they are ejaculated during sexual intercourse or passed out during wet dreams.

The seminal vesicle continues to produce semen even after vasectomy. This information helps to dispel the myth that a man will continue to ejaculate but the ejaculation will have no sperm.

**TESTIS:** Two balls inside the scrotum; they produce sperm and sex hormones.

They store sperm. The mature sperm can live to about 3-5 days in a woman's genitals after ejaculation.

**EPIDIDYMIS:** These are two comma-shaped coiled tubes about 5-6 meters or 20 feet long coiled on top of each of the testis. It stores sperm (for about 10 days) until they mature. But after 4 weeks, if sperm are not passed to the vas deferens, they are absorbed into the body.

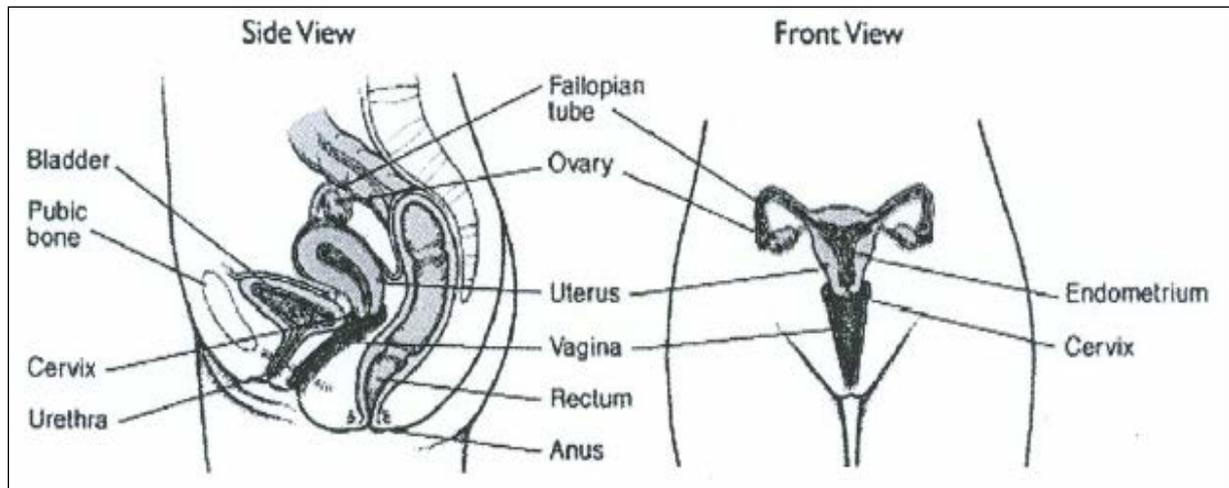
**Prostate gland:** One of the accessory glands that secretes a fluid that helps sperm move and neutralizes the acidity in the penile urethra and the vagina.

**Cowper's glands** are two accessory glands about the size of peas, lying beneath the prostate; they produce semen and an alkaline secretion, which protects sperm against the acid secretions of the male urethra and vagina. After removal of the prostate gland, the Cowper's glands continue to secrete alkaline.

## SCROTUM

It is a sac that contains and protects the testes. It regulates the temperature of the testes, which is critical for normal function of the testes.

## Internal female reproductive organs



## PARTS OF A WOMAN: Organ, structure, functions and clinical application to FP

**VAGINA:** This is the passage from outside the female body to the uterus. It is outlet for menstrual flow, entry for the penis during sexual intercourse, and passage for a baby at birth. This is where the female condom is applied and can be found here if it slips off during intercourse. Threads for the IUD can be felt in the vagina.

**CERVIX:** This is the mouth of the uterus (womb). It allows menstrual blood to come out from the uterus and sperm to enter the uterus from the vagina. It dilates and permits the birth of a baby from the uterus.

**UTERUS:** A muscular, pear-shaped organ where the baby grows and is nourished until ready to be born. Every month, the womb prepares itself for a baby by making a thick lining. If there is no baby, the womb throws away the lining, that is, monthly bleeding comes from here. The baby grows in the womb during pregnancy.

**FALLOPIAN TUBES:** Two tubes connecting the ovaries to the womb. One egg travels along the tube from the ovary to the womb every month and if it meets the man's sperm, then they join to start making a baby.

In the surgical methods performed on a woman, the Fallopian tubes are tied and cut so that the passage is blocked and the woman's egg and male sperm cannot meet to make a baby.

**OVARIES:** Two sacks on each side of the womb. Contain 300,000–500,000 egg cells at birth. One egg (ovum) matures and is released into the Fallopian tube every month. Ovaries secrete female hormones, oestrogen and progesterone, which change a girl into a woman at puberty and continue to secrete female hormones after puberty.

When a woman is using a hormonal FP method, the eggs do not mature and are not released from the ovary. Therefore, there is no union of the female egg and the male sperm to make a baby.

## SESSION EIGHTEEN: GENERAL CARE FOR PREGNANT WOMEN AND NEWBORNS

---

### Learning Objectives

As a result of actively participating in this session, the individual will be able to:

1. Describe the role of the ADS in caring for newborns and pregnant women in the community.
2. Describe danger signs in a newborn that require URGENT REFERRAL.
3. Describe danger signs in a pregnant woman that require URGENT REFERRAL.
4. Describe the benefits of antenatal care.
5. Explain how to manage minor disorders that occur during pregnancy.
6. Counsel a mother on postnatal care

### Tasks to be performed by ADS regarding newborns and pregnant women

An ADS seller should offer the following services to **newborns and pregnant women**:

- ✚ Assessment and referral in case of danger signs in newborns.
- ✚ Assessment and referral in case of danger signs in pregnant women.
- ✚ Information about antenatal care offered at health facilities.
- ✚ Counselling about management of minor disorders during pregnancy.
- ✚ Information about facility-based deliveries.
- ✚ Referral for regular HIV testing and care.
- ✚ Information about FP methods.

## **Why are the home and community very important in the care of mothers and babies?**

A significant proportion of births in poor resource countries take place at home.

Even when deliveries take place at the facility, mothers and babies are discharged early, sometimes only 2 hours after the birthing process.

Mothers tend to stay at home. There are many traditional practices that do not permit mothers to leave the house readily in the first few weeks after birth, even to seek care for problems.

Sickness or problems, especially in the baby, are often attributed to “mystical” causes and hence families tend to seek traditional or spiritual “cures.”

In addition, 50% of the deaths in babies take place within 24 hours after delivery or on the first day, and 75% by the end of the first week or 7 days.

Integrated Community Case Management (ICCM) was designed to enlist community members to manage diarrhoea, malaria, and pneumonia in children under 5 years.

These guidelines are used to guide the management of such cases and have been used in public health facilities, village health teams, and will now be extended to ADS. ADS sellers should be careful in managing the selected cases in order not to run into trouble with the authorities. They should always refer complicated cases and all children **less than 2 months of age** to health facilities that are around their communities and with a referral note.

### **Steps in the assessment process**

*NOTE:* See Module 3: Session 4: “Assessment and care for a sick child.”

### **Advice for a pregnant woman**

#### *Antenatal visits*

These are visits to the health facility that a mother makes during her pregnancy to help ensure that she and her unborn child are healthy and are growing well.

#### *What the ADS seller should tell the pregnant mothers about ANC visits*

The ADS seller should always tell a pregnant woman about when to begin her visits and how many she should have. It is recommended that each pregnant woman has at least four ANC visits during a pregnancy. The first visit should be done when the mother misses at least two menstrual periods. Additional visits should be done at least three or more times as advised by the health worker.

### Services offered during antenatal care

Services offered	Examples
Disease screening	<ul style="list-style-type: none"> <li>✚ HIV, syphilis, etc.</li> </ul>
Laboratory investigations	<ul style="list-style-type: none"> <li>✚ Blood group</li> <li>✚ Rhesus grouping</li> <li>✚ Haemoglobin level</li> <li>✚ Urine for glucose to rule out diabetes, etc.</li> </ul>
Maternal checks	<ul style="list-style-type: none"> <li>✚ Blood pressure measurement</li> <li>✚ Foetal movements</li> <li>✚ Weight measurements</li> <li>✚ Assess risk of complication</li> <li>✚ Vaginal examination</li> </ul>
Prevention and treatment	<ul style="list-style-type: none"> <li>✚ Tetanus vaccination</li> <li>✚ Malaria prevention using Fansidar</li> <li>✚ Anaemia prevention using iron and folic acid</li> </ul>
Client education and advice	<ul style="list-style-type: none"> <li>✚ Good nutrition</li> <li>✚ How to prevent malaria</li> <li>✚ How to prepare for the baby</li> <li>✚ Avoid smoking, alcohol, and drugs</li> <li>✚ Importance of enough rest and sleep</li> <li>✚ Care for the newborn baby</li> <li>✚ Danger signs to look out for</li> </ul>

## Suggested wording

### Telling the pregnant woman what to expect at ANC visits

During the ANC visit, the pregnant woman can expect:

- ✚ Blood and urine testing (to test for disease).
- ✚ Physical examination (to see whether the mother and baby are healthy)
  - Blood pressure
  - Weight
  - Vaginal exam
  - Movement of the baby
- ✚ Vaccinations (to help keep the mother and baby healthy).
- ✚ General advice about how to have a healthy pregnancy and a safe delivery:
  - Eating well
  - Getting enough rest and sleep
  - Preventing malaria
  - Seeking care in case of danger signs
- ✚ Advice about newborn care (so that the mother will be ready to take care of her baby).

At the health facility, the pregnant woman will be given medicines to prevent malaria and vaccines against tetanus. During ANC visits, urine tests will be done to check for sugar diabetes and for kidney disease. High risk pregnancies can be easily identified and managed to avoid dangers. Mothers will be counselled and tested to prevent transmission of HIV to their unborn babies while treating any STIs that may be present to ensure a healthy pregnancy.

**At each encounter with a pregnant woman, the ADS should look out for the following DANGER SIGNS for referral:**

- ✚ Breaking of water before expected time
- ✚ Excessive vaginal bleeding
- ✚ High temperature
- ✚ Severe headache or dizziness
- ✚ Swollen feet, hands, and face
- ✚ Fits or convulsions
- ✚ Paleness or fatigue
- ✚ Baby has stopped moving

### Nutrition in pregnancy

Type of food	Sources	Importance
Proteins	Milk, beans, peas, eggs, millet, chicken, meat etc.	✚ Proteins help the baby to grow well.
Vitamins	Pineapples, avocados, carrots, mangoes, oranges, green leafed vegetables like dodo, sukuma wiki, cabbages, etc.	✚ Vitamins help in the development of the gums, eyes, bones, and skin.
Carbohydrates	Rice, sweet potatoes, bread, matooke, posho, etc.	✚ Carbohydrates provide energy to the mother and her unborn baby.
Calcium	Milk, yoghurt, silver fish, dried beans	✚ Helps in the development of strong bones and teeth.
Folates	Dried peas and beans, bananas, tomatoes, passion fruit juice, dark leafed vegetables like nakati, buuga, etc.	✚ Folates help in the formation of blood for both the mother and unborn baby. ✚ Prevents birth defects.

# Illustration



## Management of minor disorders during pregnancy

Complaint	Action
Morning sickness (vomiting that occurs during the first trimester)	<ul style="list-style-type: none"> <li>✚ Avoid cooking fried spicy foods.</li> <li>✚ Eat dry snacks (e.g., biscuits, popcorn, etc.).</li> </ul>
Constipation	<ul style="list-style-type: none"> <li>✚ Eat more vegetables and fruits.</li> <li>✚ Drink lots of water.</li> </ul>
Haemorrhoids	<ul style="list-style-type: none"> <li>✚ Eat more vegetables and fruits.</li> <li>✚ Drink lots of water.</li> </ul>
Lower backache	<ul style="list-style-type: none"> <li>✚ Encourage simple exercises, like walking.</li> </ul>
Heartburn	<ul style="list-style-type: none"> <li>✚ Eat small quantities of food.</li> <li>✚ Elevate the head of the bed using pillows or blocks.</li> <li>✚ Eat at least 3 hours before going to bed.</li> </ul>
Food craving	<ul style="list-style-type: none"> <li>✚ Eat a balanced diet.</li> <li>✚ Do not eat soil or clay.</li> <li>✚ Eat more fruits and vegetables.</li> </ul>
Excessive salivation	<ul style="list-style-type: none"> <li>✚ Don't worry, it will disappear.</li> </ul>
Swelling of the legs	<ul style="list-style-type: none"> <li>✚ Reassure the mother that it is harmless.</li> <li>✚ Advise the mother to elevate the legs for at least 1 hour.</li> </ul>

## ADS ROLE IN NEWBORN CARE

### The newborn burden

Half of the deaths in babies take place within 24 hours after birth (DAY ONE). Up to three out of four or 75% by the end of the first week or 7 days.

### Assessment checklist for the newborn

The following should be used as routine checks for any newborn baby brought to the ADS.

Part of the body	What to check for	Remarks
Eyes	Discharge from the eyes	<ul style="list-style-type: none"> <li>✚ Newborn should not have pus/any form of discharge.</li> <li>✚ Presence of discharge in the eye indicates infection.</li> <li>✚ Refer the mother/caregiver to health centres III or IV.</li> </ul>
Skin	Colour of the skin	<ul style="list-style-type: none"> <li>✚ Newborn baby should have pink skin.</li> <li>✚ A yellow skin indicates jaundice, therefore, refer immediately to health centres III, IV, or the hospital.</li> </ul>
Umbilical cord	Discharge, redness & swelling of umbilical stump	<ul style="list-style-type: none"> <li>✚ The umbilical cord of a newborn is supposed to be dry, without any swelling.</li> <li>✚ Presence of redness, discharge, or swelling is a sign of infection.</li> <li>✚ Refer immediately to health centres III, IV, or the hospital.</li> </ul>
Respiratory system	Count the respiratory rate	<ul style="list-style-type: none"> <li>✚ Respiratory rate above normal for the age indicates infection.</li> <li>✚ Refer immediately to health centres III, IV, or the hospital.</li> </ul>
Body	Measure body temperature with a thermometer	<ul style="list-style-type: none"> <li>✚ Temperature above 37.5°C may indicate an infection.</li> </ul> <p>Refer all sick newborns.</p>
Not able to breastfeed	Observe or ask the mother	<ul style="list-style-type: none"> <li>✚ Refer immediately.</li> </ul>

## National Recommendations for Breast Feeding Babies

- Start breastfeeding within 1 hour of birth
- Breastfeed exclusively from 0-6 months



- Give complementary foods to all children from 6 months



- Continue breastfeeding up to 2 years or beyond

### The advantages of a baby having breast milk include:

1. It contains the exact nutrients that a baby needs
2. It is easily digested and efficiently used by the baby's body.
3. It protects a baby against infection.
4. It costs less than replacement feeding.
5. It helps a mother and baby to bond, that is, to develop a close, loving relationship.

### How to care for the newborn

#### *Keep the baby warm*

Advise the mother on the following:

- ✚ Wrap the baby in warm, dry clothes, including the head and feet.

- ✚ Put the baby in skin-to-skin contact with the mother, as shown in the picture.

- ✚ Do not bathe the newborn until after 1 day.



### *Breast feeding*

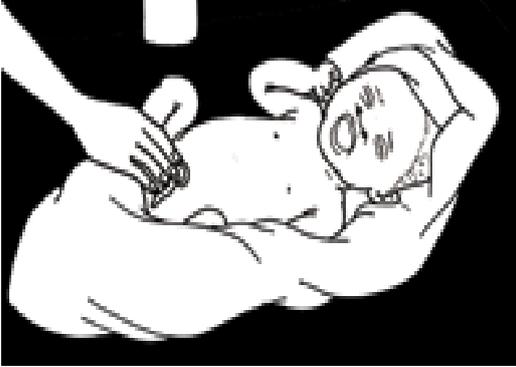


Advise the mother on the following:

- ✚ Start breastfeeding immediately after birth.
- ✚ Feed the baby only breast milk, on demand, at least 8 times a day.
- ✚ Ensure that the baby is well positioned and attached on the mother's breast.

### Care for the skin and cord

Advise the mother on the following:

Activity	Illustration
Wash hands with soap and water before handling the baby.	
Daily care of the cord with boiled and cooled water.	
Do not apply anything like herbs or chemicals to the cord.	

### Key points to remember

- ✚ Baby should be kept in a safe, clean, and quiet environment.
- ✚ Advise the mother to regularly bath the baby, at least five times a day, if necessary.

- ✚ Clean the eyes of the baby with a soft clean cloth or cotton wool/swab. Do not use soap or any other cleanser since it may irritate the baby's eyes.
- ✚ Encourage the mother to immunize her baby in time.
- ✚ Educate the mother about the danger signs that require immediate attention at a healthy facility.

### **Danger signs**

- ✚ Difficulty breathing.
- ✚ Reddened area around the cord with a discharge.
- ✚ Discharge from the eyes.
- ✚ Failure to breastfeed well.

**Management of illness in young infants** (NOTE: See “Assessing a child that is under 5 years”).

## **BREASTFEEDING**

Breastfeeding is an act where a woman feeds her baby the milk from her breasts.

**Exclusive breastfeeding** means giving breast milk only and nothing else, not even water.

It is recommended for the first six months of the baby's life.

### **Advantages of breastfeeding for the baby**

- ✚ Protects the baby from infection, especially diarrhoea and inflammation of the middle ear.
- ✚ Provides all the required nutrition for optimal growth during the first six months of infancy.
- ✚ Reduces the chances of allergies and diabetes.
- ✚ Promotes proper jaw, teeth, and speech development.
- ✚ Colostrum (yellow milk) provides antibodies to the baby.

### **Advantages for the mother**

- ✚ Decreases the risk of postpartum haemorrhage.
- ✚ Offers natural family planning to the mother by delaying onset of menstruation.
- ✚ Helps protect the mother against anaemia by delaying onset of menses.
- ✚ Enhances mother-infant bonding.
- ✚ Decreases the risk of breast and ovarian cancers.
- ✚ Helps return the uterus to its normal size.

### **Advantages for the family**

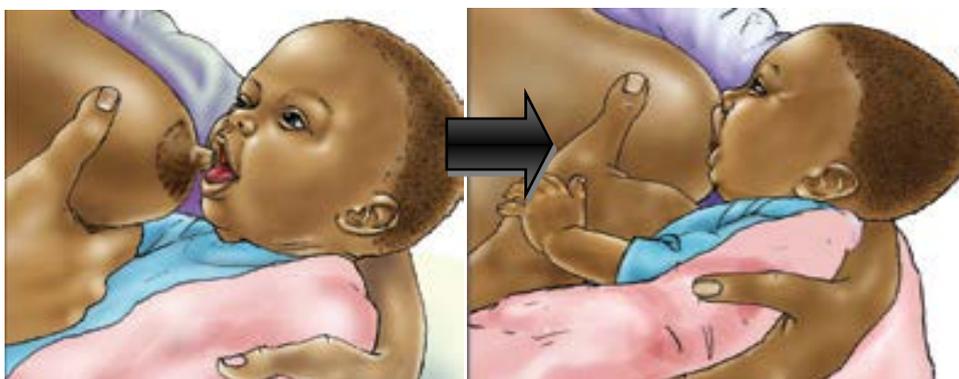
- ✚ It is cheap.
- ✚ Saves medical expenses by preventing illnesses and allergies.
- ✚ No preparation needed, therefore it is time saving.

### **Positioning and attachment**

The mother should ensure that the baby is well-positioned i.e.:

- ✚ Baby's stomach should face the mother's stomach.
- ✚ Head and body of the baby should be in line.
- ✚ The baby's whole body should be supported.
- ✚ Baby's nose should face the nipple.

### **Illustration**



## Minor conditions in breastfeeding mothers and action taken

The common disorders encountered during breastfeeding in Uganda include:

- ✚ Breast engorgement
- ✚ Cracked nipples
- ✚ Sore nipples
- ✚ Insufficient milk supply
- ✚ Mastitis

## Management of minor conditions in breastfeeding

Disorder	Management
Insufficient milk supply: This may be due to infrequent breast feeding, early introduction of supplementary foods.	<ul style="list-style-type: none"> <li>✚ If the baby urinates frequently, reassure the mother that the milk production is enough.</li> </ul>
Cracked nipples: This is usually due to prolonged suckling from incorrect positioning.	<ul style="list-style-type: none"> <li>✚ Assist the mother to correctly position the baby on the breast.</li> <li>✚ Advise mother to apply a warm towel or cloth to the breast before breastfeeding.</li> <li>✚ Encourage the mother to continue breast feeding on both breasts.</li> <li>✚ Advise the mother not to use antibiotic ointments or creams.</li> <li>✚ Apply expressed milk on the cracked nipple.</li> <li>✚ Give mother paracetamol to reduce pain.</li> </ul>
<p>Breast engorgement: This is usually due to over accumulation of breast milk.</p> <p>Find out if the baby is breast feeding well or well positioned at</p>	<ul style="list-style-type: none"> <li>✚ Increase the frequency and efficiency of breastfeeding</li> <li>✚ Express the breast milk to decrease the amount.</li> <li>✚ Apply a warm piece of cloth to the breast.</li> </ul>

Disorder	Management
the breast.	<ul style="list-style-type: none"> <li>✚ Encourage the mother to bath in warm water.</li> <li>✚ Wear a supportive bra, but not tightly.</li> <li>✚ Give paracetamol to relieve the pain.</li> </ul>
<p>Mastitis: Bacterial infection of the breast associated with fever, redness &amp; heat, tenderness, swelling.</p> <p>Usually affects one breast.</p>	<ul style="list-style-type: none"> <li>✚ Encourage the mother to continue breast feeding on both breasts but start the infant on the unaffected one first.</li> <li>✚ Advise on bed rest.</li> <li>✚ Advise the mother to take plenty of fluids.</li> <li>✚ Encourage the mother to wear a supportive bra.</li> <li>✚ Apply heat or cold to the breast, whichever the mother prefers.</li> <li>✚ Give antibiotics like erythromycin for at least 2 weeks.</li> <li>✚ Give a pain killer like paracetamol.</li> </ul>

### Postnatal care

- ✚ All mothers and babies need at least four postnatal check-ups in the first 6 weeks.
- ✚ Promote early and exclusive breastfeeding for 6 months.
- ✚ Mothers should apply chlorhexidine solution or gel daily to the umbilical cord stump during the first week of life.
- ✚ Mothers should take iron and folic acid supplementation for at least 3 months after delivery.

### Danger signs in newborns

Newborns can become sick and die very quickly and must be REFERRED IMMEDIATELY—day or night—with the following danger signs:

- ✚ Difficulty in breathing or in-drawing
- ✚ Fits
- ✚ Fever

- ✚ Feels cold
- ✚ Bleeding
- ✚ Not feeding
- ✚ Yellow palms and soles of the feet
- ✚ Diarrhoea

The mother and family should go to the health centre as soon as possible if a baby has any of the following signs:

- ✚ Difficulty feeding (poor attachment, not suckling well), pus coming from the eyes or skin pustules.
- ✚ Irritated cord with pus or blood.
- ✚ Yellow eyes or skin.
- ✚ Ulcers or thrush (white patches) in the mouth. Explain that this is different from normal breast milk in the mouth.

***No management of newborns should be carried out at the ADS.***

## SESSION NINETEEN: CHRONIC CONDITIONS

---

### Learning Objectives

As a result of actively participating in this session, the individual will be able to:

- ✚ Name at least three signs or symptoms of each of the following chronic conditions:
  - hypertension (high blood pressure)
  - diabetes mellitus
  - asthma
- ✚ Locate the complete list of signs and symptoms of each of these chronic conditions in the ADS Seller's Manual.
- ✚ REFER clients who have signs and/or symptoms of any of the three conditions.
- ✚ Advise clients on how to prevent hypertension/high blood pressure, diabetes mellitus, and asthma
- ✚ Advise clients on how to manage hypertension/high blood pressure, diabetes mellitus, and asthma.

Chronic conditions are diseases/conditions characterized by:

- ✚ Long course of illness.
- ✚ Slow recovery.
- ✚ Rarely cured completely.
- ✚ Multiple contributing factors to their onset.
- ✚ Having a long development period, for which there may be no symptoms.
- ✚ May lead to other health complications.
- ✚ Associated with functional impairment or disability.

## **HYPERTENSION**

Hypertension is persistently high blood pressure above normal, i.e.,140/90mmHg.

It is also called high blood pressure.

The majority of clients with hypertension are old.

High blood pressure rarely occurs in children.

High blood pressure is sometimes called a “silent killer.”

### **Risk factors**

Hypertension tends to be associated with some of the following:

- ✚ Being too fat or obese.
- ✚ Excessive drinking of alcohol.
- ✚ Eating too much salt or adding salt to sauce when eating.
- ✚ Smoking cigarettes.
- ✚ Not doing exercises, at least like walking some distances.
- ✚ Having chronic stress.

### **Signs and symptoms**

Most clients with hypertension don't have symptoms, but sometimes they present with:

- ✚ Severe headache
- ✚ Increased heart beat
- ✚ Bleeding from the nose
- ✚ Difficulty in breathing
- ✚ Dizziness

### **General measures**

- ✚ Tell the client to reduce the amount of salt in the sauce or food.
- ✚ Tell the client to do some exercises, like walking, riding a bicycle for at least 5 days in a week.

- ✚ Tell the client to eat more fruits and vegetables.
- ✚ Tell the client to avoid eating foods with a lot of fat.
- ✚ Tell the client to stop smoking if he or she is a smoker.
- ✚ Advise the client to reduce the amount of alcohol taken if she/he does drink.
- ✚ Advise the client to lose weight through regular exercise.
- ✚ Encourage the client to take their medicine every day without missing a dose.
- ✚ Encourage the client to visit their doctor as per appointment.

### **Role of ADS operators**

- ✚ Identify and refer suspected cases of high blood pressure.
- ✚ Advise the client to put into practice all the general measures.
- ✚ Encourage the client to swallow the medicine daily as recommended by the doctor.
- ✚ Inform the client that high blood pressure is not curable but that medicines can be used to control the blood pressure.
- ✚ Encourage the client to monitor their blood pressure at the nearest health centre.

## **DIABETES MELLITUS**

Diabetes is a chronic disease that occurs when the blood sugar is consistently above normal.

It is more common in adults above 40 years.

### **Signs and symptoms**

- |  |                      |
|--|----------------------|
| ✚ Excessive thirst                         | ✚ Increased appetite |
| ✚ Excessive hunger                         | ✚ Vaginal itching    |
| ✚ Excessive urination, especially at night | ✚ Tiredness          |

**Note:** Suspect diabetes if a client complains of excessive urination and thirst. Refer the client to the health centre IV or hospital.

### **Risk factors for diabetes mellitus**

The following factors put a person at increased risk for diabetes mellitus:

- ✚ Having diabetes in the immediate or extended family.
- ✚ Being overweight or very fat.
- ✚ Having high blood pressure.
- ✚ Getting little exercise or staying seated in one place for long periods of time.
- ✚ Prolonged use of medicines, such as dexamethasone or prednisolone.
- ✚ (Females only): Having given birth to a big baby weighing 4 kg or more.

### **General measures**

Advise all clients to:

- ✚ Do regular exercises, such as walking or riding a bicycle.
- ✚ Reduce the amount of alcohol taken to 1 bottle of beer per day or less.
- ✚ Lose weight if they are overweight.
- ✚ Add little or no sugar to their tea.
- ✚ Drink water, rather than sodas and other sweetened drinks.

Advise all clients who have diabetes to:

- ✚ Take their medicine every day without missing a dose. (Diabetes is not curable but medicines control the blood sugar and symptoms.)
- ✚ Regularly check their blood sugar from home or at a nearby clinic.
- ✚ Put on properly fitting shoes to avoid getting wounds.

- ✚ Visit the eye specialist every year for an eye check-up.
- ✚ Eat lots of vegetables and fruits.
- ✚ Store their insulin (if they use it) in a cool place (such as in a pot or refrigerator).

## **LOW BLOOD SUGAR (HYPOGLYCAEMIA)**

Hypoglycaemia occurs when the blood sugar is excessively lower than normal (<2.2mmol/L).

It occurs in clients using insulin to help control their diabetes mellitus and those using oral drugs, like glibenclamide.

The ADS seller should advise the client who has diabetes how to recognize, manage, and avoid low blood sugar.

### **Signs and symptoms of low blood sugar**

- |                         |                                  |
|-------------------------|----------------------------------|
| ✚ Excessive sweating    | ✚ Excessive hunger               |
| ✚ Tiredness             | ✚ Palpitations (rapid heartbeat) |
| ✚ Trembling and shaking | ✚ Confusion                      |
| ✚ Tingling of the lips  | ✚ Coma                           |

### **Management of low blood sugar**

Tell the client:

- ✚ Drink anything containing sugar (safi juice, splash, honey, glass of milk, solutions containing sugar or glucose, or even soda).
- ✚ If the symptoms of low blood sugar are severe, go to a health centre for treatment.

### **Prevention of low blood sugar**

Advise the client to:

- ✚ Eat on time.

- ✚ Reduce the amount of alcohol taken to 1 bottle of beer per day or less.
- ✚ Be sure to eat when taking alcohol.
- ✚ Inject insulin at the right time and with the right dose.
- ✚ Always carry glucose powder or packed juice as first aid for low blood sugar.

## **ASTHMA**

### **Definition and overview**

- ✚ Asthma is a chronic lung disease characterized by difficulty in breathing and whistling sound (wheezing).
- ✚ Asthma is more common in children than adults.
- ✚ The majority of clients with asthma also have a family history of allergy of the nose, asthma, or eczema.

### **Signs and symptoms**

- ✚ Shortness of breath
- ✚ Wheezing (whistling sound) when breathing out
- ✚ Night coughs (especially in children)
- ✚ Chest tightness

**Note:** These symptoms tend to be severe at night and early morning.

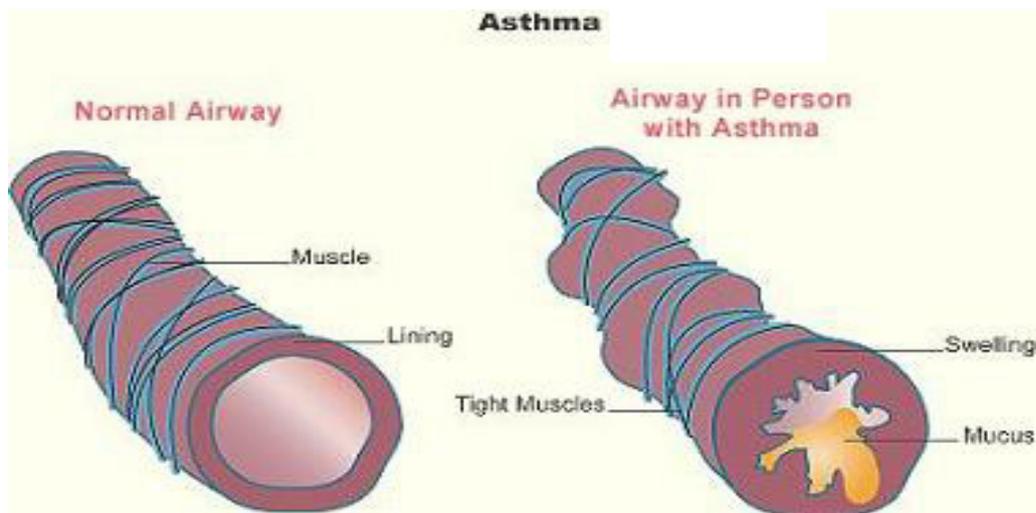
**REFER** all suspected cases of asthma.

## Causes of asthma

The cause of asthma is not known but any of the following may trigger an asthma attack:

- ✚ Presence of cats in the house
- ✚ Presence of cockroaches
- ✚ Cigarette smoking
- ✚ House dust mites
- ✚ Exercise
- ✚ Use of perfumes
- ✚ Cold weather

## What happens during an attack of asthma?



## Information for the client

Advise the client who has been diagnosed with asthma:

- ✚ Asthma is chronic and not curable.
- ✚ Minimize exposure to substances, such as perfumes and insecticide sprays.
- ✚ Remove cats from the house.

✚ Do not smoke cigarettes (and avoid exposure to cigarette smoke).

### **Drug treatment**

Medicines used in the treatment of asthma include:

✚ Salbutamol

✚ Aminophylline

**Note:** These medicines should only be prescribed by health centres or clinics.

## SESSION TWENTY: NOTIFIABLE DISEASES

---

As a result of actively participating in this session, the individual will be able to:

✚ Name two common notifiable diseases:

- Cholera
- Haemorrhagic fever caused by the Ebola virus or the Marburg virus
- Crimean-Congo haemorrhagic fever
- Dengue and Chikungunya fevers
- Meningitis
- Yellow fever
- Rift Valley fever
- Lassa fever

✚ State the signs and symptoms of:

- Cholera
- Haemorrhagic fever caused by the Ebola virus or the Marburg virus
- Crimean-Congo haemorrhagic fever
- Dengue and Chikungunya fevers
- Meningitis
- Yellow fever
- Rift Valley fever
- Lassa fever

✚ State the mode of transmission of:

- Cholera

- Haemorrhagic fever caused by the Ebola virus or the Marburg virus
- Crimean-Congo haemorrhagic fever
- Dengue and Chikungunya fevers
- Meningitis
- Yellow fever
- Rift Valley fever
- Lassa fever

✚ State the basic preventive measures for:

- Cholera
- Haemorrhagic fever caused by the Ebola virus or the Marburg virus
- Crimean-Congo haemorrhagic fever
- Dengue and chikungunya fevers
- Meningitis
- Yellow fever
- Rift Valley fever
- Lassa fever

✚ State whom to contact in case of the appearance of any notifiable disease.

### **Introduction**

Notifiable diseases are diseases that affect a large number of people at a time.

They spread easily in the community and kill very fast.

Suspected cases of any of these diseases should be reported to the appropriate authority in order to get district or government support.

Timely reporting minimizes spread and death.

### ***Examples of notifiable diseases***

- ✚ Cholera
- ✚ Haemorrhagic fevers caused by Ebola and Marburg viruses or Crimean-Congo haemorrhagic fever
- ✚ Dengue and chikungunya fevers
- ✚ Meningitis
- ✚ Yellow fever
- ✚ Rift Valley fever
- ✚ Lassa fever

## **CHOLERA**

Cholera is a severe diarrhoeal disease caused by bacteria *Vibrio cholerae*.

The disease has a sudden onset and the client presents with profuse watery stool.

The severe diarrhoea leads to rapid dehydration.

Cholera kills rapidly within hours to a few days.

### **How do you get cholera?**

Cholera is spread through:

- ✚ Eating contaminated food.
- ✚ Drinking contaminated water or juice.
- ✚ Touching an infected person without protective gloves.

### **Signs and symptoms**

The incubation period ranges from 2 hours to 5 days.

It presents with sudden onset of symptoms, such as:

- ✚ Profuse rice water stools
- ✚ Vomiting
- ✚ Rapid dehydration
- ✚ Muscle cramps
- ✚ Body weakness

### **General measures**

- ✚ Rehydrate the client with ORS and refer immediately to the health centres III or IV.
- ✚ Use gloves to touch the client.
- ✚ Isolate the client from others.
- ✚ Sprinkle JIK solution on all items that have come into contact with the vomitus or stool of a cholera client.

### **Drug treatment**

Drugs such as doxycycline or ciprofloxacin may be prescribed by the doctor from a health centre IV.

### **Prevention of cholera**

- ✚ Encourage people to wash their hands with soap and water after visiting the latrine and before eating.
- ✚ Encourage the community to use pit latrines to dispose of faeces.
- ✚ Report all suspected cases of cholera to the LC1 (local council).
- ✚ Advise the community to always reheat leftover food before eating it.
- ✚ Advise the community to keep their latrines clean and covered.

- ✚ Encourage the community to boil water or use water purifying solutions/tablets like water guard, PUR, etc.
- ✚ Avoid eating foods and drinks that are prepared, sold, or served in dirty places or by the roadside.
- ✚ Encourage the community to cook food well and eat it while it is still hot.
- ✚ Instruct caregivers to wash their hands with soap and water after taking care of their patients.
- ✚ Advise the caregiver to put all the client's clothes and bed sheets in boiling water or a solution containing JIK and dry them under the sun.
- ✚ Bury the dead body of a person who has died of cholera immediately and avoid communal burying.

## **HAEMORRHAGIC FEVERS (Ebola and Marburg)**

These fevers are mostly caused by Ebola and Marburg viruses.

They are killer diseases.

The disease spreads quickly from person to person and can kill a person within a short period of time.

### **How do you get the diseases?**

Direct contact with wounds, blood, saliva, vomitus, stool, and urine from an infected person.

Direct physical handling of persons who have died of Ebola or Marburg.

Eating dead animals, especially monkeys.

### **Signs and symptoms**

A person suffering from haemorrhagic fever gets a sudden onset of signs and symptoms, which include:

- ✚ Fever

- ✚ Headache
- ✚ Body weakness
- ✚ Vomiting
- ✚ Diarrhoea
- ✚ Bleeding through the body openings, (i.e., eyes, nose, gums, ears, and anus) may or may not be present.

## **Management**

- ✚ **Avoid** any contact with this client.
- ✚ Immediately **REFER** the client to the nearest health centre for better management.
- ✚ Report the suspected case to the LC1 and the health inspector.

## **Preventive measures**

### *Protecting yourself*

- ✚ Avoid direct contact with body fluids, blood, saliva, vomitus, urine, and stool by wearing protective materials, such as gloves and goggles.
- ✚ Dip all clothes and bedding used by the infected person in JIK solution,- diluted 1 in 10.
- ✚ Wash your hands with soap and water containing JIK after removing your protective materials.

### *Protecting others*

- ✚ Do not allow anybody to touch the person as you arrange for transfer to the hospital.
- ✚ Report the suspected case to the authorities.
- ✚ Advise whoever might have touched the suspected case to minimize movement in the community.

- ✚ Advise community leaders to restrict movement into and out of the homesteads where suspected cases have been identified until further instructions are issued by health staff.

### *Dealing with the bodies of victims*

- ✚ Do not participate in communal burying of persons who have died of Ebola or Marburg disease.
- ✚ Bury all dead bodies immediately. Use body bags or polyethylene materials, where available.
- ✚ Health personnel should supervise the burial of dead bodies.
- ✚ Throw in the pit latrine or burn immediately all materials used by the person, including clothes and cleaned materials.

## **CRIMEAN-CONGO HAEMORRHAGIC FEVER**

Crimean-Congo haemorrhagic fever (CCHF) is caused by the Nairovirus.

It kills from 10% to 40% of people in an outbreak.

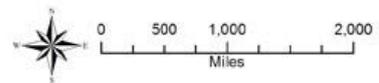
The disease spreads quickly from person to person and can kill a person within a short period of time.

## Countries at Risk for CCHF



CRIMEAN-CONGO HEMORRHAGIC FEVER DISTRIBUTION MAP

Areas endemic for CCHF



### How do you get the disease?

Bite from a tick.

Contact with blood of infected animals (especially during slaughter).

Human-to-human transmission can occur through close contact with the blood, secretions, or other bodily fluids of infected people.

People who work with animals (abattoir, herding, etc.) are at high risk.

### Signs and symptoms

A person suffering from CCHF gets a sudden onset of signs and symptoms, which include:

✚ Fever

✚ Headache

- ✚ Body pain
- ✚ Neck stiffness
- ✚ Eye pain and light sensitivity
- ✚ Dizziness

The next symptoms that come may be:

- ✚ Nausea
- ✚ Vomiting
- ✚ Diarrhoea
- ✚ Stomach pain
- ✚ Sore throat
- ✚ Mood swings and confusion

After 2–4 days symptoms may include:

- ✚ Sleepiness, depression, and fatigue.

Other signs include:

- ✚ Fast heart rate
- ✚ Enlarged lymph nodes
- ✚ Bleeding from all body openings and into the skin

## Management

- ✚ **Avoid** any contact with this client and isolate him or her from others.
- ✚ Immediately **REFER** the client to the nearest health centre for better management.
- ✚ Report the suspected case to the LC1 and the health inspector.

## Preventive measures

### *Protecting yourself*

- ✚ Do not eat dead bush animals (especially monkeys and bats)

- ✚ Avoid direct contact with body fluids, blood, saliva, vomitus, urine, and stool by wearing protective materials, such as gloves and goggles.
- ✚ Dip all clothes and bedding used by the infected person in JIK solution diluted 1 in 10.
- ✚ Wash your hands with soap and water containing JIK after removing your protective materials.
- ✚ Reduce the risk of tick bites:
  - Wear protective clothing (long sleeves, long trousers).
  - Wear light-coloured clothing to allow easy detection of ticks on the clothes.
  - Use insect repellent on the skin and clothing.
  - Regularly examine clothing and skin for ticks and remove them.
  - Control tick infestations on animals or in barns.
  - Avoid areas where ticks are abundant and seasons when they are most active.
  - Reduce the risk of animal-to-human transmission by wearing protective clothing while handling animals or their tissues, notably during slaughtering or butchering.

### ***Protecting others***

- ✚ Do not allow anybody to touch the person as you arrange for transfer to the hospital.
- ✚ Report the suspected case to the authorities.
- ✚ Advise whoever might have touched the suspected case to minimize movement in the community.
- ✚ Advise community leaders to restrict movement into and out of the homesteads where suspected cases have been identified until further instructions are issued by health staff.

### *Dealing with the bodies of victims*

- ✚ Do not participate in communal burying of persons who have died of CCHF.
- ✚ Bury all dead bodies immediately. Use body bags or polyethylene materials, where available.
- ✚ Health personnel should supervise the burial of dead bodies.
- ✚ Throw in the pit latrine or burn immediately all materials used by the person, including clothes and cleaned materials.

## **DENGUE AND CHIKUNGUNYA FEVERS**

These viral fevers are spread by mosquitoes.

They are major causes of illness in the tropics and sub-tropics.

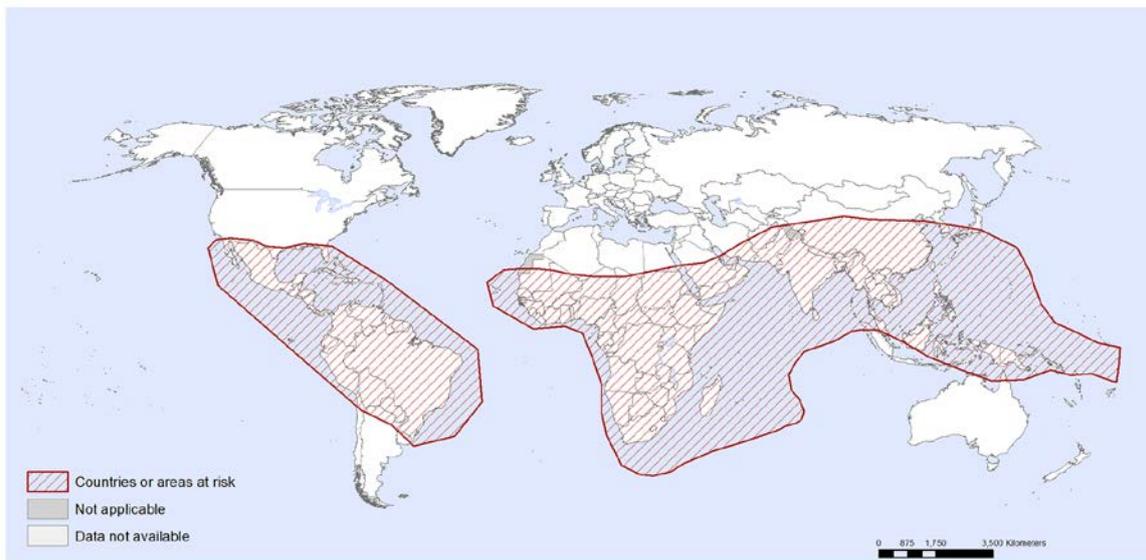
They have similar symptoms and not treatment.

Dengue can be severe in children, but mainly in Asia and South America.

### **Countries at Risk for Dengue Fever**



## Countries at Risk for Chikungunya Fever



### How do you get the diseases?

Bite from an infected mosquito.

### Signs and symptoms

A person suffering from dengue or chikungunya fever gets symptoms 4-7 days after the mosquito bite. Symptoms last 3-10 days and include:

- ✚ Fever
- ✚ Joint pain and swelling
- ✚ Headache
- ✚ Rash
- ✚ Muscle pain
- ✚ Joint pain from chikungunya may last for months

### Severe dengue symptoms

- ✚ Occurs 1-2 days after the end of the initial fever
- ✚ Patients (usually children) suffer from:
  - Severe abdominal pain

- Persistent vomiting
- Fever
- Bleeding
- Breathing difficulty

✚ Potentially lethal

## Management

✚ No medicines to treat dengue or chikungunya

✚ Treat symptoms by advising:

- Plenty of rest
- Drinking fluids to prevent dehydration
- Paracetamol for fever and pain

✚ In the case of severe dengue, immediately **REFER** the client to the nearest hospital.

✚ Report the suspected case to the LC1 and the health inspector.

## Preventive measures

✚ Avoid mosquito bites

- Eliminate breeding sites (standing water)
- Use insecticide-treated mosquito nets
- Wear proper clothing to reduce bites
- Be aware of peak mosquito hours and limit outdoor activity

✚ These diseases are not spread from person-to-person (only rarely from pregnant mother to baby in womb).

## MENINGITIS

Caused by bacteria called *Neisseria meningitides*.

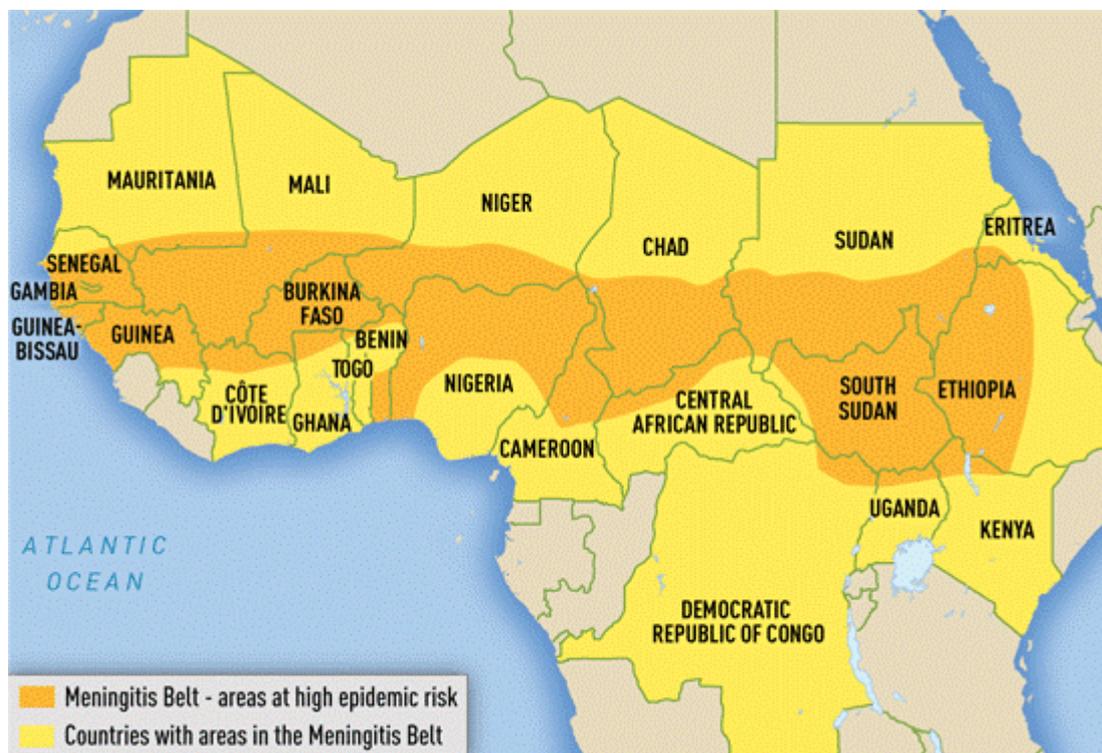
Serious infection of the lining of the brain and spinal cord.

High attack rates in people up to 30 years old.

Fatal in 50% of cases without treatment.

A vaccine is available to prevent meningitis.

Highest incidence in the “meningitis belt” from Gambia to Ethiopia; epidemic during the dry season (December-June).



### How do you get the diseases?

Spread through close contact with another person:

- ✚ Kissing
- ✚ Sneezing or coughing
- ✚ Sharing eating utensils
- ✚ Living in a crowded place

## Signs and symptoms

- ✚ A person suffering from meningitis gets symptoms 2-10 days after exposure (average of 4). Symptoms include sudden onset of:
  - High fever
  - Stiff neck
  - Headache
  - Sensitivity to light
  - Confusion
  - Vomiting
- ✚ Even with early diagnosis and treatment, 5-10% of patients die, usually within 24 to 48 hours after symptoms start.
- ✚ 10-20% of survivors may have brain damage or hearing loss.
- ✚ A less common form of the disease is septicaemia, which causes a bleeding rash and often death.

## Management

- ✚ Meningitis is a medical emergency! **REFER** immediately to a health facility.
- ✚ Treat with ceftriaxone (first choice), penicillin, ampicillin, or chloramphenicol.
- ✚ Patient isolation is not needed.
- ✚ In an outbreak, community members at high risk should receive vaccines.
- ✚ Close contacts (family) should receive antibiotics to prevent illness.
- ✚ Report the suspected case to the LC1 and the health inspector.

## Preventive measures

- ✚ Get a vaccine, especially during an outbreak.

## **YELLOW FEVER**

Yellow fever is a viral disease spread by mosquitoes.

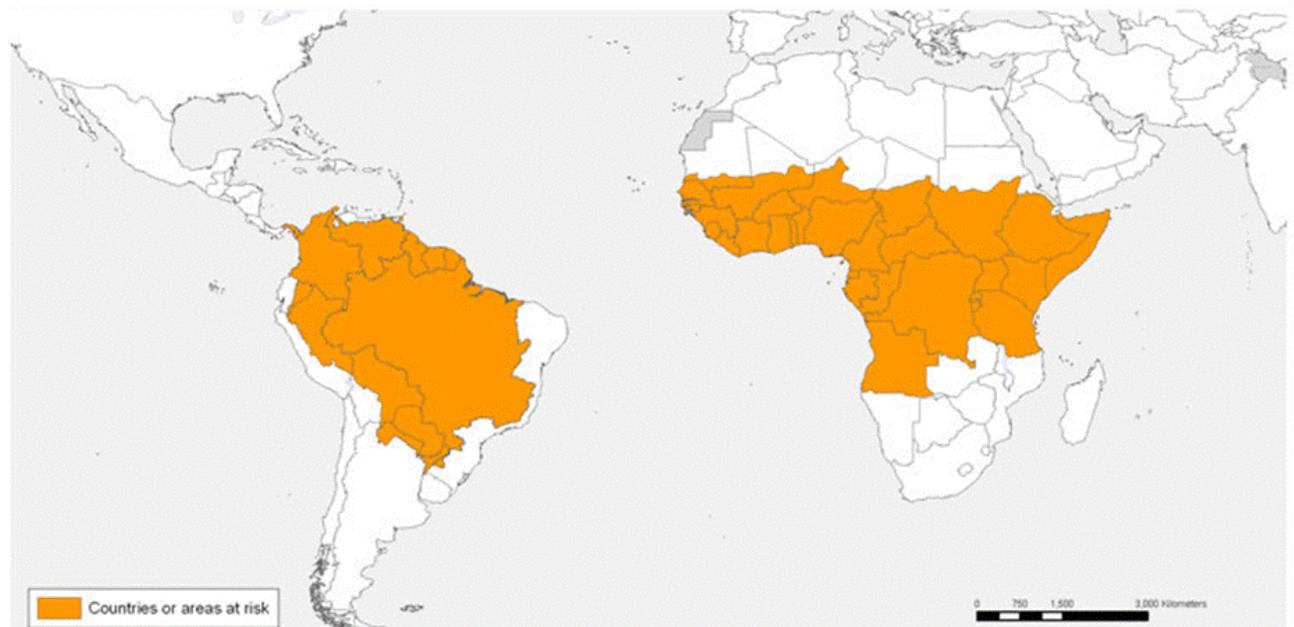
Causes an estimated 200,000 of cases and 30,000 deaths per year, with 90% occurring in Africa.

The true number of cases may be 10-250 times more.

Up to 50% of those with severe illness will die without support.

Most infected people have few or no symptoms at all.

### **Countries at Risk of Yellow Fever**



Adapted from World Health Organization

### **How do you get the disease?**

Bite from an infected mosquito.

### **Signs and symptoms**

✚ A person suffering from yellow fever gets symptoms 3-6 days after the mosquito bite.

Initial symptoms include:

- Sudden fever

- Chills
- Severe headache
- Nausea and vomiting
- Back pain and general body aches
- Fatigue and weakness

✚ Most people improve after the initial illness, but 15% develop a severe form of the disease with these symptoms:

- High fever
- Jaundice (yellow skin)
- Bleeding
- Shock and organ failure

✚ Yellow fever is difficult to diagnose. It is often confused with:

- Severe malaria
- Dengue fever
- Ebola and other haemorrhagic fevers
- Leptospirosis
- Viral hepatitis
- Poisoning

## **Management**

✚ No medicines to treat yellow fever; reduce symptoms through:

- Plenty of rest
- Drinking fluids to prevent dehydration
- Paracetamol for fever and pain
- Avoid medication such as aspirin that increase bleeding risk

- ✚ Immediately **REFER** the client to the nearest health facility.
- ✚ Patients should avoid mosquito exposure for 5 days after start of fever to break the transmission cycle and reduce risk to others.
- ✚ Report the suspected case to the LC1 and the health inspector.

### **Preventive measures**

- ✚ Prompt detection of yellow fever and emergency vaccination campaigns control outbreaks.
- ✚ Avoid mosquito bites:
  - Eliminate breeding sites (standing water)
  - Use insecticide-treated mosquito nets
  - Wear proper clothing to reduce bites
  - Be aware of peak mosquito hours and limit outdoor activity

### **RIFT VALLEY FEVER**

Rift valley fever (RVF) is a viral disease that affects humans and domesticated animals.

Outbreaks in animals can lead to outbreaks in humans.

Most illness in humans is mild and self-limiting.

About 1% of infected humans die of RVF.

## Countries at Risk of Rift Valley Fever



**RIFT VALLEY FEVER DISTRIBUTION MAP**

-  Countries reporting endemic disease and substantial outbreaks of RVF
-  Countries reporting few cases, periodic isolation of virus, or serologic evidence of RVF infection
-  RVF status unknown



### How do you get the disease?

-  Almost all human infections come from contact with the blood or organs of infected animals during slaughtering or butchering, assisting births, or disposing of carcasses.
-  Infections can also come from drinking uncooked milk or blood or eating tissue from infected animals.
-  Bites from infected mosquitoes or blood-feeding flies can cause infection.
-  RVF cannot pass from human to human.
-  No outbreaks of RVF in urban areas.

## Signs and symptoms of the mild form of RVF

A person suffering from RVF gets symptoms 2-6 days after infection. Symptoms last from 4-7 days and include:

- ✚ Sudden fever
- ✚ Muscle pain
- ✚ Headache
- ✚ Joint pain
- ✚ High fever

## Signs and symptoms of severe forms of RVF

- ✚ Eye disease (0.5-2% of patients)
  - Eye lesions occur 1-3 weeks after first symptoms.
  - Blurred or decreased vision can end in 10-12 weeks or be permanent in up to 10%
- ✚ Meningoencephalitis (<1% of patients)
  - Occurs 1-4 weeks after first symptoms.
  - Intense headache, memory loss, hallucinations, confusion, vertigo, convulsions, coma.
  - Neurological complications can be permanent.
- ✚ Haemorrhagic fever (<1% of patients)
  - Jaundice occurs 2-4 days after first symptoms.
  - Bleeding in skin and from nose and gums; blood in stool and vomit.
  - 50% with haemorrhagic fever die 3-6 days later.

## Management

- ✚ No specific treatment for the mild form of disease.
- ✚ Supportive treatment for severe forms of RVF.
- ✚ Report the suspected case to the LC1 and the health inspector.

## **Preventive measures**

✚ Encourage people to:

- Wear gloves and protective clothing when handling sick animals or slaughtering any animal.
- Not eat or drink fresh blood, raw milk, or uncooked animal meat.

✚ Avoid mosquito bites:

- Eliminate breeding sites (standing water)
- Use insecticide-treated mosquito nets
- Wear proper clothing to reduce bites
- Be aware of peak mosquito hours and limit outdoor activity

## **LASSA FEVER**

Lassa fever is a viral haemorrhagic illness that lasts from 1-4 weeks.

Disease occurs in Guinea, Liberia, Sierra Leone, Nigeria, and other West African countries.

20% of infections result in severe disease, and 15% of patients with severe disease die.

Lassa is very serious in late pregnancy (third trimester), with maternal and/or foetal death occurring in over 80% of the cases.

### **How do you get the disease?**

- ✚ Contact with food or household items contaminated with urine or faeces of the multimammate rat (photo below)
- ✚ Breathing contaminated dust
- ✚ Eating an infected rat
- ✚ Contact with an infected person's bodily fluids (blood, urine, faeces)
- ✚ Sexual contact with an infected person

## Multimammate Rat



## Signs and symptoms of Lassa fever

A person suffering from Lassa fever gets gradual symptoms 6-21 days after infection that start with:

- ✚ Fever and weakness
- ✚ After a few days, symptoms progress to headache, sore throat, muscle pain, chest and stomach pain, nausea, vomiting, diarrhoea, cough
- ✚ Severe cases: facial swelling, fluid in chest, bleeding from body openings
- ✚ Late stages: shock, seizures, tremor, disorientation, coma
- ✚ Loss of hearing occurs in 1 in 3 patients who survive; half of these effected patients get partial hearing back after 1-3 months
- ✚ Death usually occurs within 14 days in fatal cases

## Management

- ✚ Lassa fever is difficult to distinguish from other diseases such as Ebola, severe malaria, and yellow fever.
- ✚ The antiviral drug, ribavirin, can be effective early in the illness.
- ✚ Patients with severe disease should be **REFERRED** to receive supportive care in a hospital.

✚ Report the suspected case to the LC1 and the health inspector.

### **Preventive measures**

✚ Encourage people to:

- Avoid contact with rats and minimize rats' presence around the home
- Store food in rodent-proof containers
- Keep the home clean to discourage rats.
- Not eat the rats.

✚ Patients should be isolated until the disease runs its course.