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Training Materials
"Quick Reference Material for Frontline Health Workers"
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Improved Availablility and Quality of PPHC Services in Health Facilities
IR 4.1.4

Quick Reference Material For Frontline Health Workers

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Awassa, SNNPR, Ethiopia

About the Quick Reference Material

This Quick Reference Materials were jointly developed by the Regional Health Bureau in the SNNPR and the ESHE/JSI Project in order to accompany Integrated Refresher Training (IRT) for front line health workers. After pre-testing the materials in the SNNPR, it was recommended that health workers would benefit from having access to the Quick Reference Materials even prior to the IRT training. The Quick Reference Materials are designed in such a way that the health worker can easily refer to and understand the contents and utilize the information.

It is believed that the materials will be of considerable assistance to health workers, and will help to improve the quality of service provided. Junior and new workers, as well as those with many years of experience, will find the Quick Reference Materials to be of considerable assistance in providing guides and answers to medical procedures and treatments- especially those that are not easy to memorize or that have been updated. Having Quick Reference Materials to refer to should assist health workers in managing cases in the clinic or dealing with a particular service in the field.

It is the goal to eventually provide each health worker with his/her own copy of the Quick Reference Material. It is important that the Quick Reference Materials be readily available for use at all times. Some of the tables or attachments can be covered with a plastic sheet to protect them and can be enlarged and posted on the health facility walls for ready reference. Tabs and color pages are designed to help users to easily and quickly identify the topic areas needed for reference.

Materials of this sort need to be useful and helpful to health workers. The materials also need to be updated from time to time. We invite your comments, corrections and suggestions and we will try to accommodate constructive feedback in order to improve future editions. Your comments should be communicated to the SNNPR Regional Training Center.

Many of the content areas are borrowed from already existing national or international sources. We acknowledge the sources' original work.

Finally, we acknowledge the United States Agency for International Development (USAID), the ESHE/JSI Project and the Regional Health Bureau and the Regional Training Center in the SNNPR for their contributions in the development of the Quick Reference Materials.

Tab Guide

BASIC ACTIVITIES FOR FRONT LINE HEALTH WORKERS

ANC, LABOR AND DELIVERY AND PNC (*PAGE 1*)

Things to do	Details of the activities
Decide on the frequency and timing of ANC	- A minimum number of visits during pregnancy is four times; first visit at 16 wks, second at 24-28 wks, third at 32 wks and fourth at 36 wks. Women with problems/risk factors should have ANC early and more often.
Care for a woman coming for first visit (Use IE material attached on common and minor discomforts))	- Book the mother, take vital signs including weight and height, take past and present medical and obstetric history, carry-out physical examination, order basic laboratory tests with the aim of: screening for risk factors and medical conditions; screening and treating anemia and syphilis, TT immunization, conduct IE, appoint for next visit. Discuss birth planning at this and every subsequent visit.
Care for subsequent ANC visits	- On second visit do follow-up of the first visit, on third visit follow-up + screen for pre-eclampsia, multiple gestation and anemia, and on fourth visit check for fetal lie/presentation and anemia.
Identify risk factors during pregnancy and decide	- Very short (<150cm), age <15yrs and >35 yrs, multiple gestation, abnormal lie/presentation, poor obstetric history, pre-term labor in previous pregnancy, medical problems like diabetes, hypertension, heart and kidney diseases, TB, etc. - Decide and advise woman /husband/families on whether identified cases simply need attendance by skilled personnel (eg. TTBA) during delivery or institutional delivery/ referral is mandatory.
Assess and care for women in labor (use partograph attached)	- Welcome, take present labor and past medical and labor history; do physical examination, pelvic examination, monitor progress of labor. - Maintain cleanliness and comfort, prepare the bowel, hot bath helps to relieve pain, change clothing, support woman emotionally, explain every step to the mother.
Observe second stage of labor (use partograph attached)	- Observe for uterine contraction, progress of descent, fetal condition, pushing by mother, bladder care, position the mother in semi recumbent (half-sitting), squatting, kneeling or standing, left-lateral or hand and knee position
Prepare equipment for delivery	- Sterile delivery set of – 2 artery forceps, 1 scissor, needle holder, suturing needle, cat-gut, cord-tie, kidney dish, gloves, ergometrine, antiseptic solution, cotton and cotton pad, clothes for the baby - follow procedure for conducting normal delivery (Please, see attachment 3) - manage third stage of labor (please, see attachment 3)

ANC, LABOR AND DELIVERY AND PNC (*PAGE 2*)

Things to do	Details of the activities
Recognize and refer women with complications arising during labor and delivery to hospital or well-equipped health center	- Strong labor lasting >12 hours; head not coming first (arm, foot, etc), loss of >2 cupfuls of blood, placenta not coming out within 30 minutes of the birth of the baby, convulsions or loss of consciousness, ruptured membrane but no labor within 12 hours, meconium seen after membranes ruptured, inversion of the uterus, laceration of the perineum.
Care for a mother during the first 24 hours after delivery (PNC)	- Prevent further loss of blood, prevent infection, support mother in establishing breast-feeding, advise on family planning, provide information, screening and management of STI and HIV/AIDS. - Check for hypertension, puerperal infection, thromoboembolic disorder, urinary, perineal and vulval complications
Arrange for a second postnatal visit	- Usually in six weeks postpartum. Maintain care given during the first visit above. Where possible, arrange an in-home PNC visit in 3-6 days postpartum.
Recognize danger signs during the PN period	- Fainting, bleeding that increases rather than decrease, fever, vomiting and diarrhea, vaginal discharge, paleness, severe chest pain/shortness of breath, pain/swelling in the leg/breast, redness and discharge at the site of incision, urine/feces leaking out of vagina, pain during urination.
Conduct information and education (IE) during the postnatal period-both on the care of mother and the newborn	- Advise women on nutrition and diet, adequate rest, breast feeding, personal and perineal hygiene, family planning, sexual relations, care of the newborn (including immunization) and establishing healthy living habits.

Early Pregnancy and Self-Care

DOS:
PREGNANT WOMEN SHOULD:

- Go for antenatal care as soon as they know they are pregnant and at least three or four times during pregnancy
- Sleep 6-10 hours each night
- Rest as much as possible; for example, lie down for one hour every day
- Keep your personal cleanliness
- Get regular exercise, for example by walking for half an hour every day
- Wear loose, comfortable clothing and low-heeled shoes that support the feet
- Continue to have sexual relations as long as they want to, unless there is bleeding from the vagina, contractions have started, or the bag of water has broken
- Drink plenty of liquids and eat enough food, especially the right kinds of food (energy-giving, body-building, and Protective)

DO NOTS:
PREGNANT WOMEN SHOULD NOT:

- Lift or carry heavy loads
- Smoke- smoking cigarettes or marijuana can harm the baby
- Take medicines, drugs, or herbs unless a doctor or nurse who knows about pregnancy says it is all right
- Be exposed to chemicals such as hair dyes, pesticides to kill insects, or herbicides to destroy weeds

A. Minor Discomfort During Pregnancy

Most of them can be taken care of within the home; none of them is life threatening. The most common ones, when to expect them and what to do about them are:

1. MORNING SICKNESS: *(First trimester)* Eat smaller meals more frequently, instead of several big meals.
2. URINARY DISCOMFORT: *(First, third trimester)* Drink lots of water and urinate often. If there is pain, go to a health facility.
3. HEARTBURN: *(Second and third trimester)* Avoid spicy foods and eat frequent, small meals. Do not lie down immediately after eating.
4. INCREASED VAGINAL FLUIDE: *(second and third trimester)* If it is green or yellow and has an unpleasant odor, seek treatment at a clinic.
5. BACKACHE: *(second and third trimester)* Keep back straight when sitting and standing; do exercises.
6. CONSTIPATION: *(Third trimester)* Drink water, eat vegetables and fruits.
7. VARICOSE VEINS: *(Third trimester)* Prop up feet when sitting; avoid standing for long periods of time.
8. LEG CRAMPS: *(Third trimester)* Stretch the muscle out slowly by straightening the leg and pointing the toe back.
9. SWELLING IN THE ANKLES AND FEET: *(Third trimester)* Avoid tight clothing, shoes, and jewelry. If the swelling is sudden, go to a clinic.
10. SHORTNESS OF BREATH: *(Third trimester)* If prolonged, go to a health facility.
11. HAEMORRHOIDS: Avoid sitting for long periods. Eat fruits and vegetables.

B. Serious Complications During Pregnancy

If a woman develop any of the following signs, she should go

1. <u>To health facility IMMEDIATELY</u>

- high fever
- sever pain in the abdomen
- Bleeding from the vagina
- very bad headaches, blurred vision, spots before the eye or fits- contractions or rupture of membranes 3 weeks or more before the due date (before 37th week)
- Sever jaundice

2. <u>To health facility AS SOON AS POSSIBLE</u>

- Pale eye lids, tongue, gums or palms; always feeling tired and short of breath.
- Swollen hands, ankles and especially the face
- Sever vomiting or vomiting that does not stop
- Too much weight gain
- Not enough weight gain

<u>N.B</u>: Counsel the woman /husband/families/ on danger signs during pregnancy and on the need to plan for means of transport and/or funds to pay for medical fee in the event complications arise and referral is a must.

ANC, L&B AND PNC ATTACHMENT 3

Procedure for conducting normal labor	Management of third stage of labor
- Put on gown and gloves - Prepare sterile delivery kit and antiseptic solutions - Clean the perenium - Put clean cloth under the mother's buttock - Prepare clean cotton and cotton pads if possible - Check FHR between contractions - Encourage and reassure the mother - Position the mother in an appropriate position - Observe the perenium closely - When the prenium distends and becomes very tight perform episitomy, if indicated - Once the head is crowned, place the left hand to control it - Put the right hand on a pad or gauze over the anus to keep away stool - After head is born check for cord around the neck - If the cord is loosened, gently slip it over the baby's head - If it is not possible, double clamp the cord with forceps 3 cm apart and cut between the forceps - Wipe the eyes and the mouth with dry swab - The delivery of the shoulder by downward traction releases anterior shoulder and an upward curve allows the posterior shoulder to escape - Deliver the body - Clean the airway - Clamp the cord when it turns white and stops pulsating - To cut the cord • Measure 2 fingers width from the baby's navels and clean • Cut the cord between the two clamps • Leave the cord clean until it falls - Dry and take care of the newborn and put him on his mother's breast - Make the mother comfortable.	- Starts immediately after the baby is born and lasts until the placenta is born - It is the shortest, easiest and the most dangerous stage - Watch the sign of placental separation • Uterus becomes hard, round and movable • the uterus rises to the level of umbilicus • the cord seems to lengthen • there is a gush of blood • placenta can be flat on vaginal examination - If you see the above signs, decide to deliver the placenta actively by controlled cord traction or physiologically by gravity and material effort. - In controlled cord traction, the lateral surface of one hand is placed firmly over the lower segment of the uterus and counter traction is applied while the cord is gently pulled with the other hand until the placenta and membranes are delivered. - The right hand receives the placenta and when it is almost out, use both hands - Massage the uterus to contract and give ergometrine 0.5 mg IM after checking the uterus - Check for BP when giving ergometrine as it is contraindicated in cases of raised BP or cardiac disease. - Examine the vulva - Clean the mother and make her comfortable - Show the mother her baby, check sex and identification - Examine the placenta, membrane - Remove clots if any - Make sure the uterus is contracted - Check vital signs.

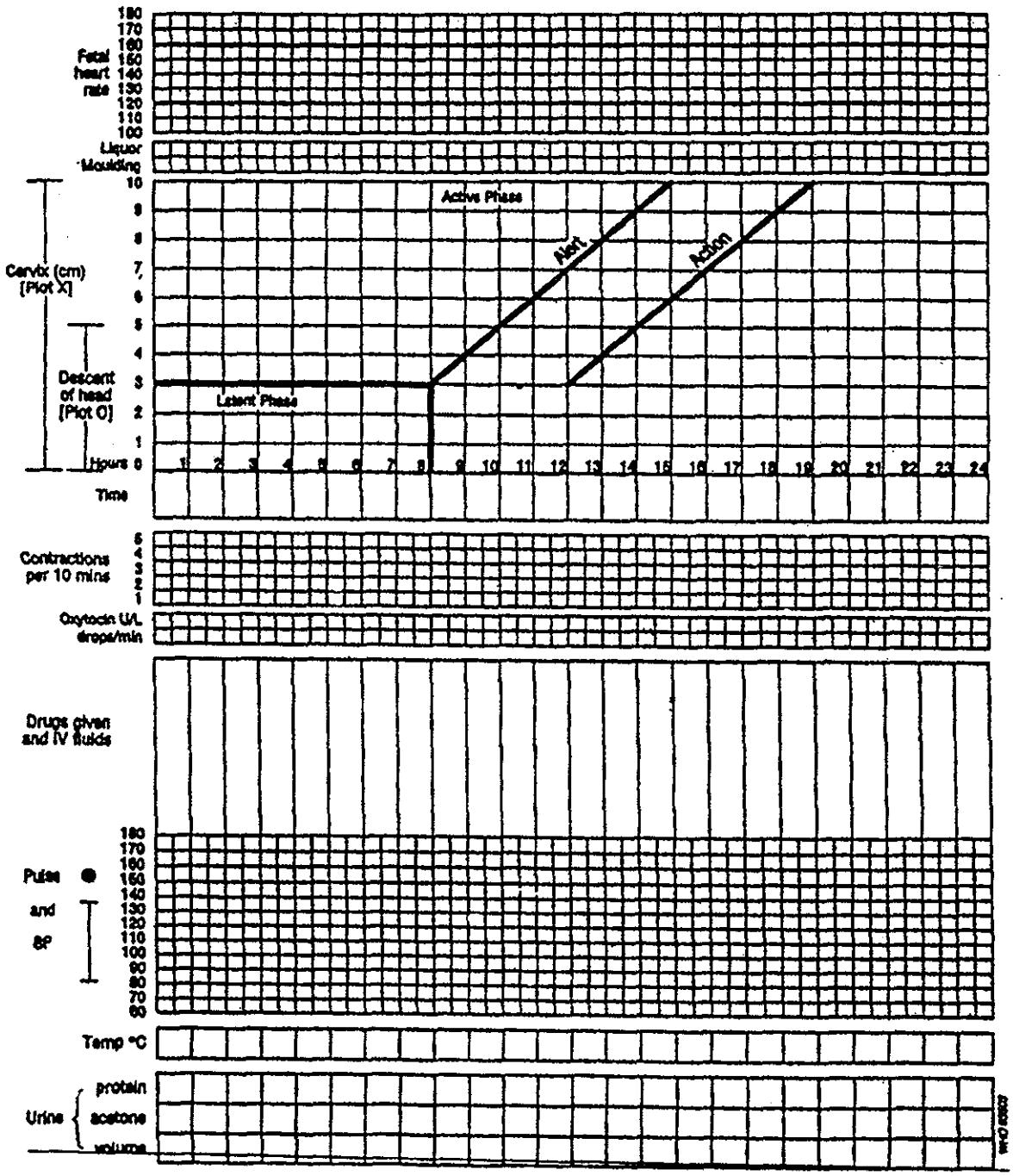
STAGES OF LABOR

	First Stage	Second stage	Third stage
1. What is it?	Dilation of the cervix	Expulsion of the fetus	Separation of and expulsion of the placenta
2.Duration	In primi= completed in 12 hrs In multi= Completed in 6 hrs	▪ May take 2 hrs ▪ As little as 5 minutes	▪ 5 to 15 minutes ▪ Should not take >30 minutes
3. Recognize signs	▪ Show ▪ Contractions ▪ Rapture of membranes	▪ Explosive uterine contraction ▪ Dilation and gaping of the anus ▪ Rupture of the fore water ▪ Appearance of the presenting part ▪ Congestion of the vulva	<u>Signs of placental separation</u> ▪ Uterus becomes hare, round and movable ▪ Uterus rises to the level of the umbilicus ▪ Cord seems to lengthen ▪ Gush of blood ▪ Placenta can be felt on vaginal examination

PARTOGRAPH

Name _____ Gravida _____ Para _____ Hospital no. _____

Date of admission _____ Time of admission _____ Ruptured membranes _____ hours



Using the Partograph

The partograph is a chart designed to follow events during labor, i.e. conditions of the mother and the baby, so that appropriate measures are taken promptly.

You will now learn how to record, observe and interpret your findings on three conditions using the partograph. .You will also be able to explain the principles of the partograph as a tool for prevention of prolonged and obstructed labor which is an important cause of maternal and fetal death.

1. Fetal condition:

a) Fetal Heart(FH) Rate

Should be taken every 15 minutes for minimum of 30 seconds, during and after contraction in the first stage, and every five minutes in the second stage.

- Normal HR is 120 to 160 beats/min
- Border line HR is 160 to 180bpm- upper, and 100 to 120 bpm- lower
- Abnormal HR is> 180bpm- upper and<100bpm- lower

b. Membranes and liquor

- The observations are made at each vaginal examination.
  - If the membrane are intact- mark (I)
  - If the membranes are ruptured;
    - The liquor is clear mark (C)
    - The liquor is blood stained mark (B)
    - The liquor is meconium stained mark (M)

c. Molding of the skull of the newborn

- No molding ( ) The two bones do not touch each other
- Molding (++) The bones just touch each other
- Molding (++) The bones overlap but separate digitally
- Molding (+++) The bones overlap but not separated digitally→signifies CPD

2. Progress of Labor

a. Cervical dilatation

First stage of labor is divided into two phases:

- The latent phase: (slow period of cervical dilatation) is from 0-3 cm with gradual shortening of the cervix
- The active phase (faster period of cervical dilatation) is from 3-10 cm which should be at the rate of at least 1cm/hour.

Plotting Cervical Dilatation

- The dilatation of cervix is marked by (x)

- PV is done at least every four hours
- The vertical line reminds whether labor is in latent or active phase.
  1 When a woman is admitted in the ACTIVE PHASE, dilatation is plotted on the ALERT LINE.
  2 When admission is in the LATENT PHASE, dilatation is plotted on the line marked 0(zero)
  3 When labor goes from LATENT to ACTIVE PHASE plotting is immediately moved from LATENT PHASE area to ACTIVE PHASE area on the ALERT-LINE using broken line.

Decisions:

- If labor progress line lies to the left of the alert line, it is NORMAL.
- If labor progress lies between the ALERT and ACTION lines, it is a WARNING sign. That means,
  - if you are in health center, prepare the woman for referral, and
  - if in hospital prepare the OR.
- If labor progress line lies to the right of the action line →take ACTION or intervention.

b) Descent of the fetal head

- For labor to progress well, dilatation of the cervix should be accompanied by descent of the head.
- Descent of the head should always be assessed by abdominal examination.
- For convenience, the width of the five fingers is a guide to the expression in fifths of the head above the brim. A head which is mobile above the brim will accommodate the full width of five fingers (5/5)
- As the head descends, the portion of the head remaining above the brim, will be represented by fewer fingers ($4/5^{th}$, $3/5^{th}$, etc.). It is generally accepted that the head is engaged when the portion above the brim is represented by two fingers' width or less.
- Descent of the head is marked by (0).

c. Uterine Contraction

Good uterine contractions are necessary for progress of labor. Normally contraction becomes more frequent and last longer as labor progresses.

RecordingContraction on the Partograph

Below the line and at the left hand side is written "contraction per 10 min". Effective uterine contractions are characterized by:

- Frequency (3-4/10min)
- Duration lasts 45-90 seconds
- Intensity: 20-60 mmHg

Squares are numbered from 1-5. Each square represents one contraction so that if two contractions are felt in 10 minutes, two squares will be shaded. The squares below show the key to the three ways the strength of contractions are recorded on the partograph.

 Dots represent mild contraction of less than 20 seconds duration

 Diagonal lines indicate moderate contractions of 20 –40 seconds duration

 Solid color represents strong contractions of longer than 40 seconds.

In latent phase, contractions, must be one or more in 10 minutes, each lasting 20 seconds or more, in active phase, contractions must be 2 or more in 10 minutes, each lasting 20 seconds or more.

3. Maternal Conditions

a. Vital signs

1. Blood pressure should be taken every 1-2 hours (o)
2. Pulse pressure every 1-2 hours (•)
3. Temperature every 1-2 ours (0^0C)

b. Laboratory results on urine

Ask the mother to pass urine every 2-4 hours
Look at the urine for:
1. Volume –to detect dehyderation
2. Protein- to detect pre-ecclampsia
3. Acctone- to detect ketoacidoses.

c. Drugs & IV fluids
Write whatever she took during labor; Iv fluids, oxytocin, pethedine and others.

BASIC ACTIVITIES FOR FRONT LINE HEALTH WORKERS

ASSESS AND CLASSIFY AND TREAT THE SICK YOUNG INFANT AGE 1 WEEK UP TO 2 MONTHS - ARI/FEVER

ASSESS **CLASSIFY** **IDENTIFY TREATME**

ASK THE MOTHER WHAT THE YOUNG INFANTS PROBLEMS ARE

- If initial visit, assess the young infant as follows:

SIGNS **CLASSIFY AS** **TREATMENT**

CHECK FOR POSSIBLE BACTERIAL INFECTION

ASK:	*LOOK, LISTEN, FEEL:*	Classify ALL YOUNG INFANTS		
• Has the infant had convulsions?	• Count the breaths in one minute Repeat the county if elevated. • Look for severe chest indrawing. • Look for nasal flaring. • Look and listen for grunting. (YOUNG INFANT MUST BE CALM) • Look and feel for bulging fontanelle. • Look for pus draining from the ear. • Look at the umbilicus. Is it red or draining pus? Does the redness extend to the skin? • Measure temperature (or feel for fever or low body temperature). • Look for skin pustules. Are there many or severe pustules: • See if the young infant is lethargic or unconscious. • Look at the young infant's movements. Are they less than normal?			

• Convulsions or • Fast breathing (60 breaths per minute or more) or • Severe chest indrawing or • Nasal flaring or Grunting or • Bulging fontanelle or • Pus draining from ear or • Umbilical redness extending to the skin or • Fever (37°C* or above or feels hot) or low body temperature (less than 35.5°C* or feels cold) or • Many or severe skin pustules or • Lethargic or unconscious or • Less than normal	POSSIBLE SERIOUS BACTERIAL INFECTION	▶ Give first dose of intramuscular antibiotic ▶ Treat to prevent low blood sugar. ▶ Advise mother how to keep the infant wa on the way to the hospital. ▶ Refer URGENTLY to hospital.*
• Red umbilicus or draining pus or • Skin pustules.	LOCAL BACTERIAL INFECTION	▶ **Give an appropriate oral antibiotic.** ▶ Teach the mother to treat local infections home. ▶ Advise mother to give home care for the young infant. ▶ Follow - up in 2 days.

BASIC ACTIVITIES FOR FRONT LINE HEALTH WORKERS

ASSESS AND CLASSIFY THE SICK CHILD AGE 2 MONTHS UP TO 5 YEARS-ARI

ASSESS **CLASSIFY** **IDENTIFY TREATMENT**

THE MOTHER WHAT THE CHILD'S PROBLEMS ARE

al visit, assess the child as follows:

CHECK FOR GENERAL DANGER SIGNS

ASK:

- *Is the child able to drink or breast feed?*
- Does the child vomit everything?
- Has the child had convulsions?

LOOK:

- See if the child is lethargic or unconscious.
- See if the child is convulsion now.

If the child is convulsing now, manage the airways and treat the child with diazepam.

A child with any general danger sign needs URGENT attention: complete the assessment and any pre referral treatment immediately so that referral is not delayed.

THEN ASK ABOUT MAIN SYMPTOMS:

Does the child have cough or difficult breathing?

IF YES, ASK:

- For how long?

LOOK, LISTEN, FEEL:

- Count the breaths in one minute.
- Look for chest indrawing
- Look and listen for stridor.

CHILD MUST BE CALM

Classify **COUGH or DIFFICULT BREATHING**

SIGNS	CLASSIFY AS	TREATMENT
• Any general danger *sign or* • Chest indrawing or • Stidor in calm child.	SEVERE PNEUMONIA OR VERY SEVERE DISEASE	▶ Give first dose of an appropriate antibiotic. ▶ Refer URGENTLY to hospital.
• *Fast breathing.*	PNEUMONIA	▶ Give an appropriate antibiotic for 5 days. ▶ Soothe the throat and relieve the cough with a safe remedy. ▶ Advise mother when to return immediately. ▶ Follow - up in 2 days.
• No signs of pneumonia or very sever disease	NO PNEUMONIA: COUGH OR COLD	▶ If coughing more than 30 days; refer for assessment. ▶ soothe the throat and relieve the cough with a safe remedy. ▶ Advise mother when to return immediately. ▶ Follow-up in 5 days if not Improving.

TREATMENT SCHEDULE FOR ARI

ARI ATTACHMENT

▸ *Give an Antibiotic*

- ▸ Give first dose of antibiotic in clinic
- ▸ Instruct mother on how to give the antibiotic for five days at home (or to return for daily procaine Penicillin injection)

AGE or WEIGHT	COTRIMOXAZOLE Trimethoprim+ sulphamethoxazole ▸ Two times daily for 5 days			AMOXYCILLIN ▸ Three times daily for 5 days		AMPICILLIN ▸ Four times daily for 5 days		PROCAINE PENICILLIN ▸ Once daily for 5 days
	Adult Tablet Singlel strength (80 mg trimethoprim + 400 mg sulphamethoxazole)	Pediatric Tablet (20 mg trimethoprim + 100mg suphamethoxazole)	Syrup (40 mg trimethoprim + 200mg sulphamethoxazole per 5ml)	Tablet 250 mg	Syrup 125mg in 5 ml	Tablet 250 mg	Syrup 250 mg in 5 ml	Intramuscular injection
Less than 2 months (<5kg)*	¼*	1*	2.5ml*	¼	2.5 ml	½	2.5 ml	200,000 units
2 months up to 12 months (5-9 kg)	½	2	5 ml	½	5 ml	1	5 ml	400,000 units
12 monts up to 5 years (10-19 kg)	1	3	7.5 ml	1	10 ml	1	5 ml	800,000 units

*Give oral antibiotic for 5 days at home only if referral is not feasible.

*If the child is less than 1 month old, give ½ pediatric tablet or 1.25 ml syrup twice daily.

▸ *Treat Fever*

PARACETAMOL doses:

→ Every six hours

Age or weight	100 mg tablet	500 mg tablet
2 months up to 12 months 6-9 kg	1	¼
12 monts up to 3 years 10-14 kg	1	¼
3 years up o 5 years 15-19 kg	1½	½

▸ *Treat Wheezing*

RAPID ACTING BRONCHODILATOR	
Nebulized Salbutamol (5 mg/ml))	0.5 ml Salbutamol plus 2.0 ml sterile water
Subcutaneous Elnephrine (adrenaline) (1:1000 = 0.1%)	0.01 ml per kg body weight

ORAL SALBUTAMOL ▸ Three times daily for five days		
AGE or WEIGHT	2 mg tablet	4 mg tablet
2 months up to 5 years (< 10 kg)	½	¼
12 months up to 5 years (10-19 kg)	1	½

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BASIC ACTIVITIES FOR FRONT LINE HEALTH WORKERS

FOR A CHILD WITH DIARRHEA

Things to do	Detail of Activities
Take history on the illness	Take history on presenting illness: onset and duration; frequency, volume and consistency of diarrhea; whether or not there is mucus and/or blood in the stool. Inquire about fever, loss of appetite, urination, thirst, etc. Note relevant social, environmental and nutritional(breast, formula, complementary feeding) information.
Assess and classify diarrhea and treat	Use assessment, classification and treatment plan attached; severity increases from A to B to C
Demonstrate/instruct mother on: ♦ Preparation of home-made food based ORT (atmit)	Boil one liter of water from 10-20 minutes; put two palms level of any flour (wheat, barley, maize, teff, etc) and add one finger pinch of coarse salt
Screen for immunization status and act.	Whether or not the child is ever vaccinated or had been vaccinated for the age. Talk to the caregiver, study records and start immunization as appropriate. Give advice on next immunization
Assess nutritional status	Take weight, record on growth chart, look for signs of malnutrition, arrange follow-up visit later
Advise care taker on (continued) feeding during diarrhea	Give more fluid and plenty of food; continue breast-feeding or other feeds including formula during diarrhea, advise on complementary feeding (6-24 months) and feeding more during recovery.
Provide vitamin A supplement for diarrhea	Diarrhea depletes vitamin A stores. For children with night blindness and signs of xerophthalmia give vitamin A 200,000 I.U on day 1,2 and 7 and for children < 1-year give vitamin A 100,000 I.U. For children with measles and severe PEM one month ago give single dose of vitamin A as above.
Differentiate persistent from acute diarrhea and manage	Acute: usually, watery diarrhea starts suddenly and may continue for several days but <14 days. Persistent: lasts > 14 days. Dysentery is a diarrhea that has visible blood in stools. Give antibiotics for bacterial and antiprotozoals for giardia or E. histolytic infections depending on lab results. "Antidiarrheal" drugs should not be given. Check for other associated illnesses like measles, pneumonia and fever.
Prevent diarrhea	Wash hands, give breast milk and improved weaning practice, give freshly prepared food, clean water supply, use cup and/or spoon instead of bottle feeding, safely dispose child's stool, immunize against measles.

DIARRHEA ATTACHEMTN 1a

Does the child have diarrhea?

IF YES, ASK:

- For how long?
- Is there blood in the stool?

LOOK AND FEEL

- ***Look at the child's general condition.***

Is the child:

Lethargic or unconcious?
Restless and irritable?

- ***Look for sunken eyes.***
- ***Offer the child fluid. Is the child:***

Not able to drink or drinking poorly?
Drinking eagerly, thirsty?

- ***Pinch the skin of the abdomen.***

Does it go back:

Very slowly (longer than 2 seconds)?
Slowly?

Classify DIARRHEA

For DEHYDRATIION

Two of the following signs: • Lethargic or unconscious • Sunken eyes • Not able to drink or drinking poorly • skin pinch goes back very slowly	**SEVER DEHYDRATION**	▸ If child has no other sever classification: - Give fluid for sever dehydration (Plan C) OR ***If child aslo has another sever classification:*** ***- Refer URGENTLY to hospital with mother giving frequent sips of ORS on the way.*** ***Advise the mother to continue breasfeeding.*** ▸ ***If child is 2 years or older and there is cholera in your area, give antibiotic for cholera.***
Two of the following signs: • Restless, irritable • Sunken eyes • Drinks eagerly, thirsty • Skin punch goes back slowly	**SOME DEHYDRATION**	▸ Give fluid and food for some dehydration (Plan B) ▸ ***If child aslo has a seve classification:*** ***- Refer URGENTLY to hospital with mother giving frequent slips of ORS on the way.*** ***Advise the mother to continue breastfeeding.*** ▸ Advise mother when to return immediately. ▸ Follow-up in 5 days if not improving.
Not enough signs to classify as some or sever dehydration.	**NO DEHYDRATION**	▸ Give fluid and food to treat diarrhea at home (Plan A). ▸ Advise mother when to return immediately. ▸ Follow-up in 5 days if ot improving.

and if diarrhea 14 days or more

• Dehydration present	**SEVERE PERSISTENT DIARRHEA**	▸ Treat dehydration before referral unless the child has another severe classification ▸ ***Give Vitamin A*** ▸ **Refer to hospital**
• No dehydration	**PERSISTENT DIARRHEA**	▸ Advise the mother on feeding a child who has PERSISTENT DIARRHEA. ▸ Give vitamin A. ▸ Follow up in 5 days.

and if blood in stool

• **No Blood in stool**	**DYSENTRY**	▸ ***Treat for 5 days with an oral antibiotic recommended for Shigella in your area.*** ▸ Follow-up in 2 days

Does the young infant have diarrhea?

IF YES, ASK:	*LOOK AND FEEL:*
• For how long? • Is there blood in the stool?	• Look at the young infant's general condition. Is the infant: Lethargic or unconscious? Restless and irritable? • Look for sunken eyes. • Pinch the skin of the abdomen. Does it go back?Very slowly (longer than 2 seconds)? Slowly?

Classify DIARRHEA

for DEHYDRATION	Two of the following signs: • Lethargic or unconscious • Sunken eyes • Skin pinch goes back very slowly.	**SEVERE DEHYDRATION**	▶ If infant does not have POSSIBLE SERIOUS BACTERIAL INFECTION: ▶ Give fluid for sever dehydration (Plan C) or ▶ If infant also has POSSIBLE SERIOUS BACTERIAL INFECTION: ▪ Refer URGENTLY to hospital with mother giving frequent sips of ORS on the way. Advise mother to continue breastfeeding.
	Two of the following signs: • Restless, irritable • Sunken eyes • Skin pinch goes back slowly.	**SOME DEHYDRATION**	▶ Give fluid and food for some dehydration (Plan B). ▶ If infant also has POSSIBLE SERIOUS BACTERIAL INFECTION: ▪ Refer URGENTLY to hospital with mother giving frequent sips of ORS on the way. Advise mother to continue breastfeeding.
	• Not enough signs to classify as some or severe dehydration.	**NO DEHYDRATION**	▶ Give fluids to treat diarrhea at home (Plan A).
and if diarrhea 14 days or more	• Diarrhea lasting 14 days or more.	**SEVERE PERSISTENT DIARRHOEA**	▶ If the young infant is dehydrated, treat dehydration before referral unless the infant has also POSSIBLE SERIOUS BACTERIAL INFECTION. ▶ Refer to hospital
and if blood in stool	• Blood in the stool	**DYSENTERY**	▶ *Refer URGENTLY to hospital*

GIVE EXTRA FLUID FOR DIARRHEA AND CONTINUE FEEDING

▶ *Plan A: Treat Diarrhea at Home*

Counsel the mother on the 3 Rules of Home Treatment: Give Extra Fluid, Continue Feeding, When to Return

1. **Give Extra Fluid** (as much as the child will take)

▶ **TELL THE MOTHER**

- Breastfeed frequently and for longer at each feed.
- If the child is exclusively breastfeed, give one or more of the following: **ORS solution, food-based fluids** (such as soup, rice water and yogurt drinks), or **clean water.**

It is especially important to give ORS at home when:

- the child has been treated with Plan B or Plan C during this visit.
- The child cannot return to a clinic if the diarrhea gets worse.

▶ **TEACH THE MOTHER HOW TO MIX AND GIVE ORS. GIVE THE MOTHER 2 PACKETS OF ORS TO USE AT HOME.**

▶ **SHOW THE MOTHER HOW MUCH FLUID TO GIVE IN ADDITION TO THE USUAL FLUID INTAKE:**

Up to 2 years	50 to 100 ml after each loose stool
2 years or more	100 to 200 ml after each loose stool

Tell the mother to:

- Give frequent small sips from a cup.
- If the child vomits, wait 10 minutes. Then continue, but more slowly.
- Continue giving extra fluid until the diarrhea stops.

▶ Plan B: Treat Some dehydration with ORS

Give in clinic recommended amount of ORS over 4-hour period

▶ **DETERMINE AMOUNT OF ORS TO GIVE DURING FIRST 4 HOURS.**

AGE	up to 4 months	4 months up to 12 months	12 months up to 2 years	2 years up to 5 years
WEIGHT	< 6 kg	6 - 10 kg	10 - 12 kg	12 - 19 kg
In ml	200 - 400	400 - 700	700 - 900	900 - 1400

* *Use the child's age only when you do not know the weight. The approximate amount of ORS required (in ml) can also be calculated by multiplying the child's weight (in kg) times 75.*

- If the child wants more ORS than shown, give more.
- For infants under 6 months who are not breastfed, also give 100-200 ml clean water during this period.

▶ **SHOW THE MOTHER HOW TO GIVE ORS SOLUTION.**

- Give frequent small sips from a cup.
- If the child vomits, wait 10 minutes. Then continue, but more slowly.
- Continue breastfeeding whenever the child wants.

▶ **AFTER 4 HOURS**

- Reassess the child and classify the child fro dehydration.
- Select the appropriate plan to continue treatment.
- Begin feeding the child in clinic.

▶ **IF THE MOTHER MUST LEAVE BEFORE COMPLETING TREATMENT:**

- Show her how to prepare ORS solution at home.
- Show her how much ORS to give to finish 4-hour treatment at home.
- Give her enough ORS packets to complete rehydration. Also give her 2 packets as recommended in Plan A.
- Explain the 3 Rules of Home Treatment:

DIARRHEA ATTACHMENT 3

GIVE EXTRA FLUID FOR DIARRHOEA AND CONTINUE FEEDING

▶ *Plan C: Treat severe Dehydration Quickly*

▶ **FOLLOW THE ARROWS. IF ANSWER IS "YES", GO ACROSS. IF "NO", GO DOWN.**

START HERE

Can you give intravenous (IV) fluid immediately?

- **YES** →
  - Start IV fluid immediately. If the child can drink, give ORS by mouth while the drip is set up. Give 100 ml/kg Ringer's Lactate Solution (or, if not available, normal saline), divided as follows:

AGE	First give 30 ml/kg in:	Then give 70 ml/kg in:
Infants (under 12 months)	1 hour *	5 hours
Children (12 months up to 5 years)	30 minutes *	2 ½ hours

  - Repeat once if radial pulse is still very weak or not detectable.
  - Reassess the child every 1-2 hours. If hydration status is not improving give the IV drip more rapidly.
  - Also give ORS (about 5 ml/kg/hour) as soon as the child can drink usually after 3-4 hours (infants) or 1-2 hours (children).
  - Reassess an infant after 6 hour and a child after 3 hours. Classify dehydration. Then choose the appropriate plan (A, B, or C) to continue treatment.
- **NO** ↓

Is IV treatment available nearby (within 30 minutes)?

- **YES** →
  - Refer Urgently to hospital for IV treatment.
  - If the child can drink, provide the mother with ORS solution and show her how to give frequent sips during the trip.
- **NO** ↓

Are you trained to use a naso-gastric (NG) tube for rehydration?

- **YES** →
  - Start rehydration by tube (or mouth) with ORS solution: give 20 ml/kg/hour for 6 hours (total of 120 ml/kg).
  - Reassess the child every 1-2 hours:
    - If there is repeated vomiting or increasing abdominal distension, give the fluid more slowly.
    - If hydration status is not improving after 3 hours, send the child for IV therapy.
  - After 6 hours, reassess the child. Classify dehydration. Then choose the appropriate plan (A, B, or C) to **continue** treatment.
- **NO** ↓

Can the child drink?

- **NO** ↓

Can the child drink?

- **NO** ↓

Refer URGENTLY to hospital for IV or NG treatment

NOTE:

- If possible, observe the child at least 6 hours after rehydration to be sure the mother can maintain hydration giving the child ORS solution by mouth.

IMMUNIZE EVERY SICK CHILD, AS NEEDED

TREAT THE CHILD

Give an Appropriate Oral Antibiotic

▶ **FOR DYSENTERY:**
Give antibiotic recommended for Shigella in your area for 5 days.
FIRST - LINE ANTIBIOTIC FOR SHIGELLA: **COTRIMOXAZOLE**
SECOND - LINE ANTIBIOTIC FOR SHIGELLA: **NALIDIXIC ACID**

	COTRIMOXAZOLE (trimethoprim + sulphamethoxazole) ▶ Give two times daily for 5 days	**NALIDIXIC ACID** ▶ Give four times daily for 5 days
AGE or WEIGHT		**TABLET** 250 mg
2 months up to 4 months (4-6 kg)	**See doses above**	¼
4 months up to 12 months (6-10 kg)		½
12 months up to 5 months (10-19 kg)		1

▶ **FOR CHOLERA:**
Give antibiotic recommended for Cholera in your area for 3 days.
FIRST-LINE ANTIBIOTIC FOR CHOLERA: **TETRACYCLINE**
SECOND-LINE ANTIBIOTIC FOR CHOLERA: **COTRIMOXAZOLE**

	TETRACYCLINE ▶ Give FOUR times daily for 3 days	**COTRIMOXAZOLE** (trimethoprim + sulphamethoxazole) ▶ Give four times daily for 3 days
AGE or WEIGHT	TABLET 250 mg	**TABLET** 250 mg
2 months up to 4 months (4-6 kg)		
4 months up to 12 months (6-10 kg)	½	
12 months up to 5 months (10-19 kg)	1	

BASIC ACTIVITIES FOR FRONT LINE HEALTH WORKERS

MANAGING MALNUTRITION

	Things to do	Details of the activities
	Recognize the main forms of malnutrition	- Protein – energy malnutrition: marasmus and kwashiorkor - Vitamin and mineral deficiencies: vitamin A deficiency (VAD), nutritional anemia, iodine deficiency disorder (IDD)
DIAGNOSE MALNUTRITION CLINICALLY	Marasmus:	- Muscle wasting, no subcutaneous fat, old man's face, weight <60% of expected WFA
	Kwashiorkor	Brown-red sparse, dry and brittle hair, oedema of face and feet, flaky paint skin, weight is between 60%-80% of expected WFA
	Marasmic-Kwash	Features of both marasmus and kwashiorkor, <60% WFA
	Vitamin A deficiency	- night blindness: inability to see as night falls (dusk) - bitots spot: cheesy and foamy material on conjunctiva and sclera - corneal xerosis: surface of the cornea is cloudy and dry - keratomalacia: total melting of the cornea - corneal scar: scar on the cornea; person can see little through it
	IDD	- goiter: swelling of the thyroid gland (on the neck), usually in older children and adults. - Hypothyroidism in children: causes mental retardation and slowing of physical growth. - Endemic cretinism: IDD during pregnancy can lead to cretinism in infancy. Child is slow to grow and develop, small in size, mentally dull.
	Nutritional anemia	- Pallor, palpitation, dizziness, tiredness and fatigue, breathlessness, oedema on chronic and sever cases. Hemoglobin levels in g/100ml; children 6mo to 5 years 11; 6 to 14 years 12, pregnant women 11. Levels below these values means anemia and if <7g/100ml it is severe anemia.
TREAT MALNUTRITION	Severe PEM	If possible such children should be referred: management should include diet; often based on dried, skimmed milk (DSM); rehydration; treatment of hypothermia; medication; antibiotics often recommended; malaria, anemia, intestinal parasites, tuberculosis, should be investigated and treated.
	VAD	200,000 IU of Vitamin A oral capsule on day 1,2 and 7 for those with signs of deficiency. (for infants 100,000 IU on days 1,2 and 7). Vitamin A in a single dose should be given as above for children with measles and sever PEM but no sign of VAD.
	Nutritional anemia	Ferrous sulphate is effective and cheap to Rx iron deficiency anemia.
	IDD	For simple goiter, potassium iodide (6mg daily) or Lugol's iodine (one drop daily for ten days , then one drop weekly) lead to fairly rapid reduction in the size of the goiter.

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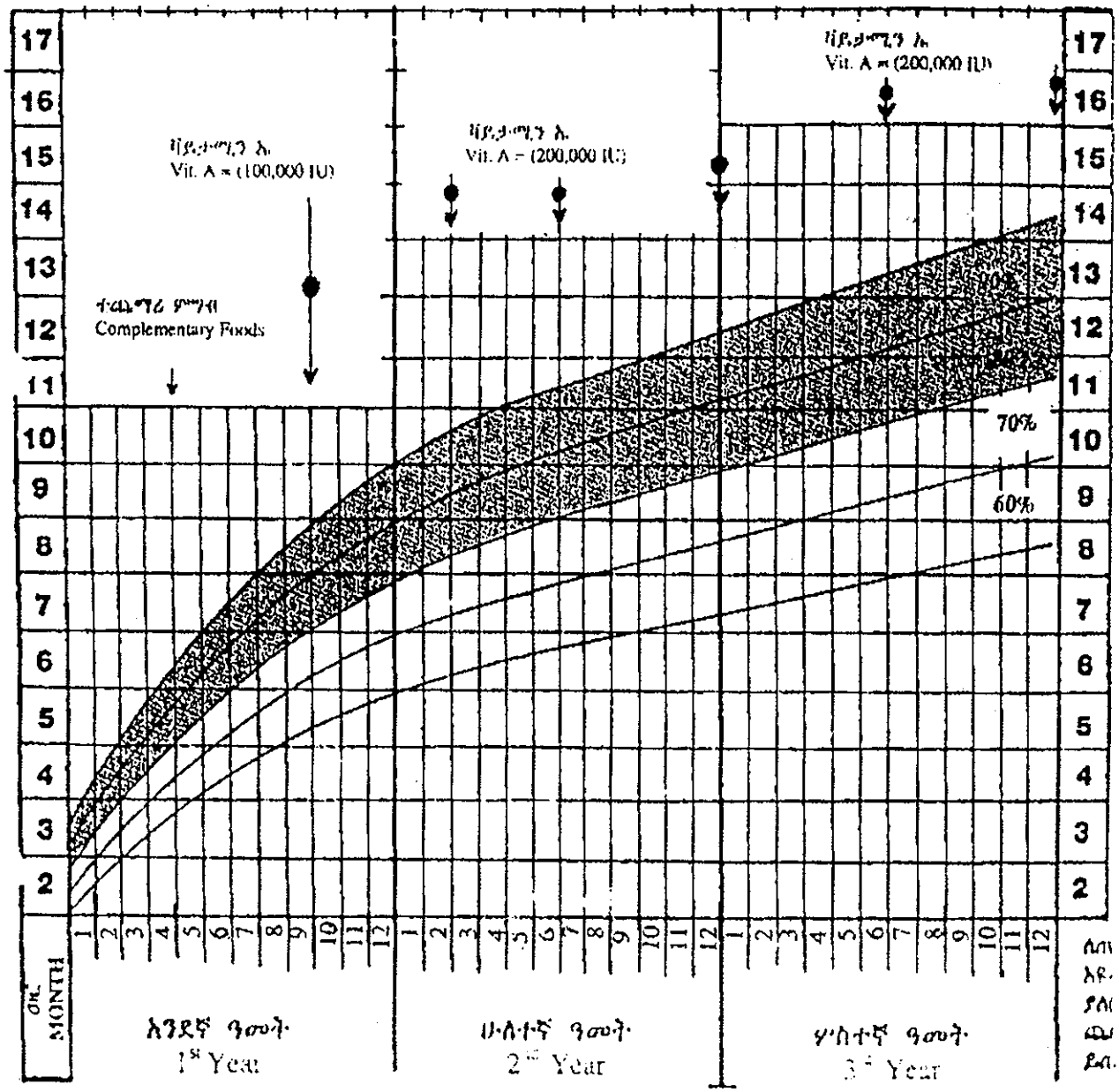
GROWTH MONITORING AND PROMOTION CHART



Using the Growth Monitoring Chart

- It helps to mark the weight in kilograms of a male/female child up to age 36 months against its age in months

- The chart also shows the percentage point within which the child's weight lies by comparing against the expected weight for that age in a reference weight for (WFA) table (median)

- After weighing a child you put an (x) mark at the point where the age in months corresponds to the weight measured.

- If the mark lies within the shaded path, the child has normal growth, i.e. between the 80 and 100% of the expected WFA.

- If the x mark lies just below the shaded area the child is undernourished, i.e. child is between 70-80% of the expected WFA

- If the x mark is below the bottom most line (curve) the child has weight below 60% of the expected WFA, which means sever malnutrition.

Recording the weight of a child on the growth chart at certain time intervals, and connecting the series of x marks by a line, enables the health worker and the mother to visualize the nutritional development of the child. If the line remains within the shaded area, which is between 80-100% of the standard, the mother has to be praised and advised to continue caring for the child.

CHECK FOR MALNUTRITION AND ANAEMIA

LOOK AND FEEL:

- Look for visible severe wasting.
- Look for palmar pollor. Is it:
  Severe palmar pallor?
  Some palmar pallor?
- Look for oedema of both feet.
- Determine weight for age.

Classify NUTRITIONAL STATUS

• Visible severe wasting or • Severe palmar pollor or • Oedema of both	**SEVERE MALNUTRITION OR SEVERE ANAEMIA**	▶ Give vitamin A. ▶ Refer URGENTLY to hospital
• Some palmar pallor or • Very low weight for age.	**ANAEMIA OR VERY LOW WEIGHT**	▶ Assess the child's feeding and counsel the mother on feeding. ▶ If feeding problem, follow - up in 5 days ▶ If pallor: – Give iron. – Give oral antimalarial if high malaria risk. – Give mebendazole if child is 2 years or older and has not had a dose in the previous 6 months. ▶ Advise mother when to return immediately. ▶ If pallor, follow-up in 14 days.
• Not very low weight for age and no other signs of malnutrition	**NO ANAEMIA AND NO VERY LOW WEIGHT**	▶ If child is less than 2 years old, assess the child's feeding and councilthe mother on feeding. If feeding problem, follow-up in 5 days. ▶ Advise mother when to return immediately.

Give vitamin A

- For **MEASLES** give three doses
  - Give firs dose in clinic.
  - Give mother one dose to give at home the next day.
  - Give third dose in clinic after one month.
- For child with ***SEVERE MALNUTRITION OR SEVERE ANAEMIA*** *or* ***SEVERE COMPOLICATED MEASLES*** *or* **SEVERE PERSISTENT DIARRHOEA** give one dose in clinic and then refer.
- For PERSISTENT DIARRHOEA give one dose in clinic
- For a routine vitamin A supplemenation for children 9 months up to 5 years give one dose in clinic if the child has not received a dose within the last 6 months.

AGE	VITAMIN A CAPSULES		
	200000 IU	100000 IU	50000 IU
Up to 6 months		½ capsule	1 capsule
6 months up to 12 months	½ capsule	1 capsule	2 capsule
12 months up to 5 years	1 capsule	2 capsule	4 capsule

Give Iron

- Give one dose daily for 14 days.

AGE or WEIGHT	IRON TABLET Ferrous sulfate 300 mg (60 mg elemental iron)	IRON SYRUP Ferrous fumarate 100 mg per 5ml (20 mg elemental iron per ml)
2 months up to 4 months (4-6 kg)		1.00 ml (15 drops)
4 months up to 12 months (6-10 kg)		1.25 ml (20 drops)
12 months up to 3 years (10-14 kg)	½ tablet	2.00 ml (30 drops)
3 years up to 5 years (14-19 kg)	½ tablet	2.5 ml (35 drops)

BASIC ACTIVITIES FOR FRONT LINE HEALTH WORKERS

IMMUNIZATION

Things to do	Details of the activities
Prevent vaccines from damage	Damaged vaccines loss potency, i.e., they loss their ability to make a child immune. Heat, sunlight, freezing, chemicals, disinfectants, spirits, detergents, soap damage vaccine
Look after vaccines: The cold chain	Vaccines must stay cold all the way from the manufacturer until they reach the child. Correct temperature range to maintain the potency of vaccines is between 0^0c and $+8^0$c in a refrigerator.
Handle vaccines at the health center	Keep vaccines at the correct temperature in a refrigerator, carry vaccines to the immunization session in a vaccine carrier with ice. Stand the vaccine on ice while you immunize the children. Use reconstituted vaccine in the same immunization session; otherwise throw it out.
Make sure the health center's refrigerator works well	Look and use the refrigerator correctly, check the temperature twice daily and record the temperature reading on a chart; defrost the refrigerator regularly.
Use sterile instruments for immunization	Heat is the best way to kill microorganisms. Heat instruments for 20 minutes in a steam from boiling water.
Immunize the children and women at the right age, dose and route of administration	See attached table
Recognize contraindication to immunization	There is almost no contraindication. However, do not give the second or third dose of DPT to a child who had sever reactions to a previous dose, and do not give BCG for HIV symptomatically positive children. All vaccines have minor side effects, assure mothers these will not harm the children
Estimate the size of the target population for immunization services in your area	Roughly 2.7% of total population of an area are children under the age of one and two respectively while 3% of total population gives size of pregnant women, with variation between urban and rural areas. Calculate the expected number of children to be immunized according to immunization service delivery strategies, i.e., how many will be vaccinated at the static (health center) site, how many outreach villages are to be reached monthly to immunize how many children. Immunization campaigns also help to create awareness and acceptance of the EPI program within communities.
Monitor for progress of immunization service a. using EPI monitoring chart b. measuring incidence of vaccine preventable diseases	- By carefully recording and reporting the number of children immunized and plotting that on the EPI monitoring chart for each vaccine, you can judge what portion of the estimated and planned size of the target population is being immunized monthly, quarterly, annually. Good disease notification system involving community health services, health institutions, etc., help monitor the success of the EPI program over time.

IMMUNIZATION ATTACHMENT

The immunization schedule for children

Vaccine	*Dose*	*Age*	*Route*
BCG	0.05ml (before 1 year of age) 0.10ml after 1 year of age	At birth or any time after	Intradermal
Polio (OPV)	2 drops per dose	At birth, at 6, 10 and 14 weeks	Oral
DPT	0.5ml	At 6, 10 and 14 weeks	I.M
Measles	0.5ml	At 9 months or soon after	Subcutaneous

Tetanus Toxoid (TT) immunization schedule for a woman

Vaccine	*When to give*	*Dose*	*Route*	*Duration of protection*
TT1	At first contact or early during pregnancy	0.5ml	I.M	0
TT2	At least 4 weeks after TT1	0.5ml	I.M	3 years
TT3	At least 6 months after TT2	0.5 ml	I.M	5 years
TT4	At least 1 year after TT3	0.5 ml	I.M	10 years
TT5	At least 1 year after TT4	0.5 m	I.M	Lifelong

BASIC ACTIVITIES FOR FRONT LINE HEALTH WORKERS

PROVIDING FAMILY PLANNING SERVICE

Things to Do	Detail of the Activities
1. Counsel a Family Planning client	By counseling you help clients (partners included as appropriate) make and carry out their own choices, i.e. decide on when to have children, number of children they want and the interval between pregnancies
2. Follow the principles of the counseling process (6 points	Treat each client well; interact, listen and respond; tell information to clients; avoid too much information; provide the method the client wants; help the client understand and remember
3. Topics to be covered during the counseling process	Effectiveness of methods, advantages and disadvantages of each method, side effects and complications, clear instruction on how to use, use of condoms for STD prevention, return to clinic any time for any reason.
4. Starting use of (temporary) contraceptive methods	Use WHO medical eligibility criteria. Category 1(c 1) can use the method. No restriction C2 can use the method. A nurse or doctor may make clinical judgment on risk-benefit. More than usual follow up may be needed. C3 Should not use the method unless a doctor makes a clinical judgment. Regular monitoring may be needed. C4 should not use method. Represents an unacceptable health risk if method used.
5. Inform about the nature and instruct on the use of the different modern (technical) contraceptive methods	Please see attachment

MODERN FAMILY PLANNING METHODS

FAMILY PLANNING ATTACHMENT PAGE 1

CONTRACEPTIVE METHOD	MECHANISM OF CONTRACEPTION	ADVANTAGE (MAJOR)	DISADVANTAGE	SIDE-EFFECTS	EFFECTIVENESS FOR TYPICAL USE	USE/ ADMINISTRATION
1. Condom (male)	♦ Barrier method ♦ Soft tube made of latex rubber	♦ Protection against STD including AIDS ♦ No systemic effects	♦ Interrupts sexual intercourse ♦ Can fail if not used correctly ♦ May be difficult for woman to negotiate	None	88%, 97% with spermicide (79% female condom)	Put on man's erect penis before intercourse
2. Diaphragm	♦ Barrier method ♦ A shallow rubber cup with a flexible rim	♦ No systemic effects ♦ Is controlled by the woman		None	82%	Put spermicide inside cup, then insert into vagina before intercourse
3. Spermicide	♦ Inactivates sperm and blocks the way the sperm to the uterus	♦ No systemic effects		None	74%	Inserted into the vagina and spreads over cervix
4. Combined oral contraceptives (COC)	♦ Hormonal contraceptives ♦ Contain small amount of both hormones (estrogen and Progestrogene) ♦ Prevent ovulation, reduce growth of endometriam, make cervical mucus thick and impenetrable to sperm	♦ Periods are regular, lighter and fewer days of bleeding, milder menstrual cramps ♦ Used for longer period, no need of rest period ♦ Used at any age-adolescence to menopause ♦ Fertility returns soon after stopping ♦ Can prevent or decrease iron deficiency anemia ♦ Protection against endometrial and ovarial cancer	♦ Mild nausea (very common first 3 months) ♦ Mild headaches ♦ Breast tenderness ♦ Slight weight gain ♦ Amenorrea ♦ Not recommended for breast feeding mothers ♦ Occasional mood changes and decreased interest in sex	Safe, rare serious problems are CVA, MI, PE, HTN, Trhomboembol-ism	95%	One pill swallowed everyday
5. Progestin only pill (POP) (minipill)	♦ Hormonal contraceptive ♦ Contain only progesterone ♦ Work in same way as above	♦ POP are useful for lactating mothers	♦ Must be taken everyday ♦ Commonly cause absent, irregular and prolonged or heavy periods	None	95%	One pill swallowed everyday at the same time

CONTRACEPTIVE METHOD	MECHANISM OF CONTRACEPTION	ADVANTAGE (MAJOR)	DISADVANTAGE	SIDE-EFFECTS	EFFECTIVENESS FOR TYPICAL USE	USE/ ADMINISTRATION
6. Injectables	♦ Hormonal long acting contraceptive ♦ Contain only progesterone ♦ Work the same way as POPs	♦ Useful for women who want no more children ♦ Does not affect milk supply ♦ Decreased blood loss ♦ Long acting ♦ Nothing to remember daily ♦ Can be given by any health worker	♦ Amenorrhea may occur ♦ Prolonged or heavy bleeding in some the first 2-3 months ♦ Mild nausea ♦ Slight weight gain	Same as progesterone only pills Takes longer time to return menstruation	99.7%	*Given a deep IM injection* First injection should be given 1-5 days *during menstruation* Later depo given every third or sixth month
7. Implants	♦ Hormonal long acting contraceptive ♦ A set of six small thin plastic tubes containing progesterone	♦ Full fertility returns immediately after removal ♦ Can be used for up to 5 years ♦ Decreased menstrual blood loss	♦ Minor surgical procedures needed ♦ Must be done by a trained person ♦ Spotting and irregular bleeding in some users	Same as for progesterone only pills or Depo-Provera	99.01%	Placed under the skin of the upper arm through a small cut
8. Intra uterine Devices (IUD)	♦ Are hormone releasing devices inserted into uterus ♦ Prevent implantation	♦ Nothing to constantly remember ♦ Does not interfere with intercourse ♦ Does not affect breast feeding ♦ Can be removed any time by a trained person	♦ No protection against STD/HIV ♦ Bleeding between periods ♦ Increased cramps during periods		99.9%	Inserted preferably at the end of menses Is fitted into the fundus of the uterus CUT is effective for 10 years
9. Emergency Contraceptives ♦ COCs ♦ POPs ♦ IUD	♦ Are hormonal contraceptive	♦ Prevents pregnancy after unprotected intercourse ♦ Prevents unwanted pregnancies and minimizes abortion	♦ Effective if only used within 72 hours of intercourse	♦ Minor nausea or vomiting ♦ Breast tenderness	COCs+ 97% POPs+ 99% IUD+ 99%	COCs low dose 4 tabs within 72 hours + 4 tabs after 12 hours. Total = 8 tabs *POPs 1 postinor or 20* overette within 48 hours + 1 postinor or 20 overette after 12 hours. Total = 20 postinor or 40 overette IUD is effective if inserted within 5 days

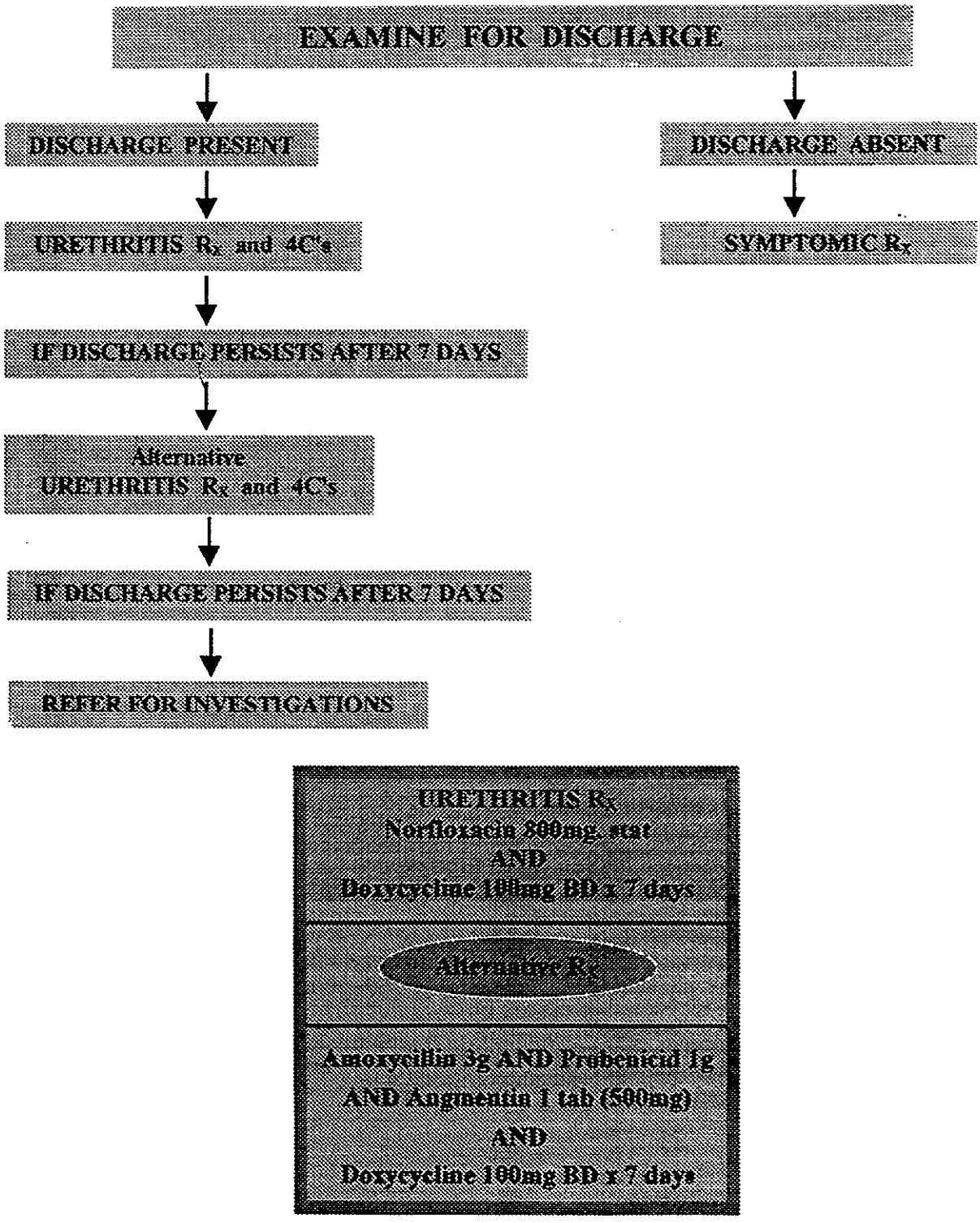
BASIC ACTIVITIES FOR FRONT LINE HEALTH WORKERS

IN RELATION TO STI AND HIV/AIDS

Things to do	Detail of the Activities
Classify presenting lesion (illness) into syndrome	Urethral and vaginal discharge, ulcer, bubo, PID or combinations of them, according to WHO syndromic approach
Treat illness (STI)	Use WHO syndromic STI management protocol attached
Counsel patient with STI	Risk of acquiring STI increases with unprotected sexual behavior; STI is a risk factor for HIV/AIDS. Help client to identify and bring contacts for screening and treatment.
Watch out drug Rx during pregnancy	Do not give metronidazole in the first trimester and in cases of its intolerance; substitute with clotrimazole pessary 200 mg BD x 3 days. Also, do not give Co-trimoxazole or doxycycline in pregnancy; substitute with Erythromycin 5oo mg TDx7 days.
Follow patient with STI	Approach client to return to clinic for treatment evaluation; determine whether there is change or no change and act according to WHO STI management Protocol
Diagnose AIDS using the national clinical diagnostic criteria	*Minor Signs and Symptoms*: Lymmphadenopathy, persistent cough (>1mo), skin rashes, Tuberculosis, recurrent herpes zoster, dermatitis, pneumonia, kaposis sarcoma, body weakness, chronic herpes simplex, CNS derangement. *Major signs and symptoms*: loss of >10% body weight, fever, diarrhea for >1 month
Provide counseling service	Counsel AIDS patients against fear of death and social stigmas to reduce feeling of helplessness and loss of control. Counsel their relatives, friends and sexual partners as well
Socially support individuals with HIV/AIDS	These individuals have a number of social problems; health workers should help them get such support as financial, material, shelter, psychological, legal, etc. Support can be provided at homes, neighborhoods, community, health facilities, etc.

Urethral Discharge

Urethritis, usually caused by gonorrhea and chlamydia



URETHRITIS Rx
Norfloxacin 800mg, stat
AND
Doxycycline 100mg BD x 7 days

Alternative Rx

Amoxycillin 3g AND Probenicid 1g
AND Augmentin 1 tab (500mg)
AND
Doxycycline 100mg BD x 7 days

4c's: COUNSELLING, COMPLIANCE, CONDOMS, AND CONTACT TREATMENT

Vaginal Discharge or Pruritus

Vaginitis, usually caused by candida and trichomonas
Cervicitis, uaually caused by gonorrhea and chlamydia

ENQUIRE ABOUT LOWER ABDOMINAL PAIN AND EXAMINE FOR LOWER ABDOMIAL TENDERNESS

NO LOWER ABDOMINAL PAIN OR TENDERNESS

VAGINITIS R_x and 4C's

IF NO IMPROVEMENT AFTER 7 DAYS

CERVICITIS R_x and 4C's

IF DISCHARGE PERSISTS AFTER 7 DAYS

REFER FOR INVESTIGATIONS

LOWER ABDOMINAL PAIN OR TENDERNESS

FOLLOW THE FLOWCHART FOR LOWER ABDOMINAL PAIN

VAGINITIS Rx

Nystatin 1 pessary BD x 5 days
Metronidazole 2g stat

If pregnant

Clotrimazole 1 tab (500mg) intra-vaginally daily x 6 days

CRVICITIS Rx

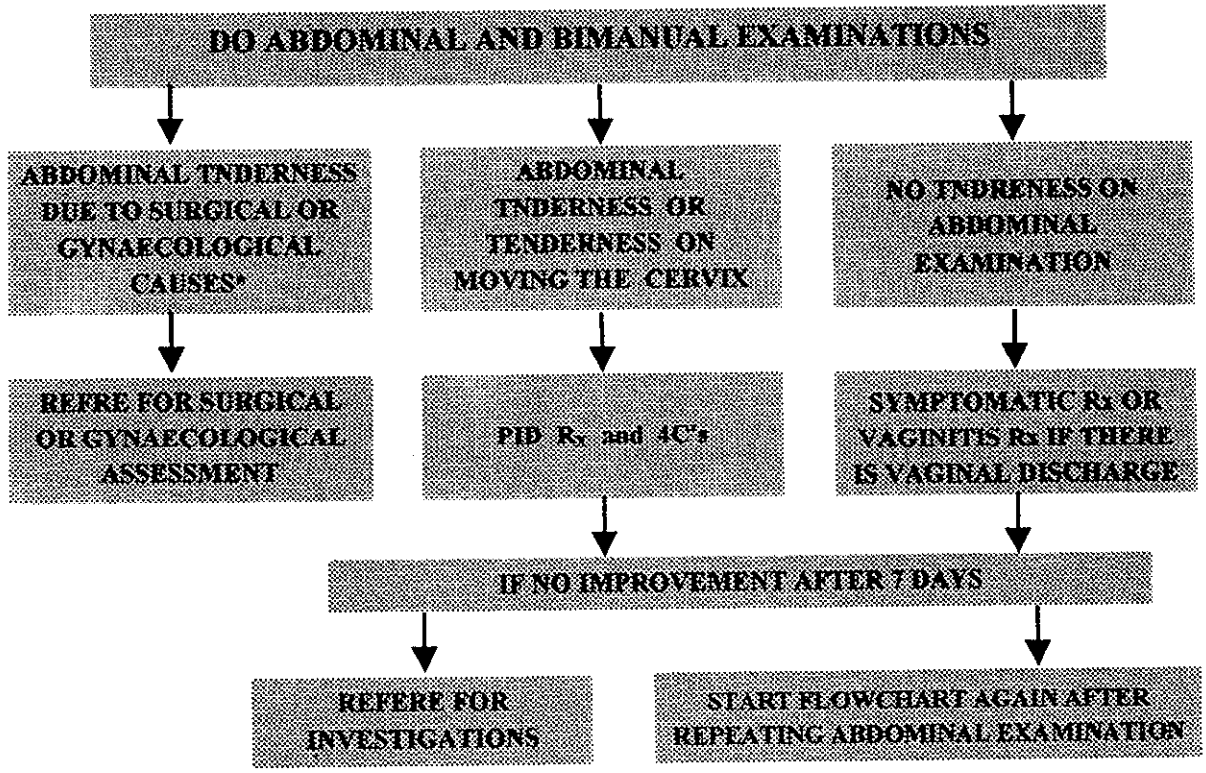
Norfloxacin 800mg stat AND Doxycycline 100mg BD x 7 days

If pregnant

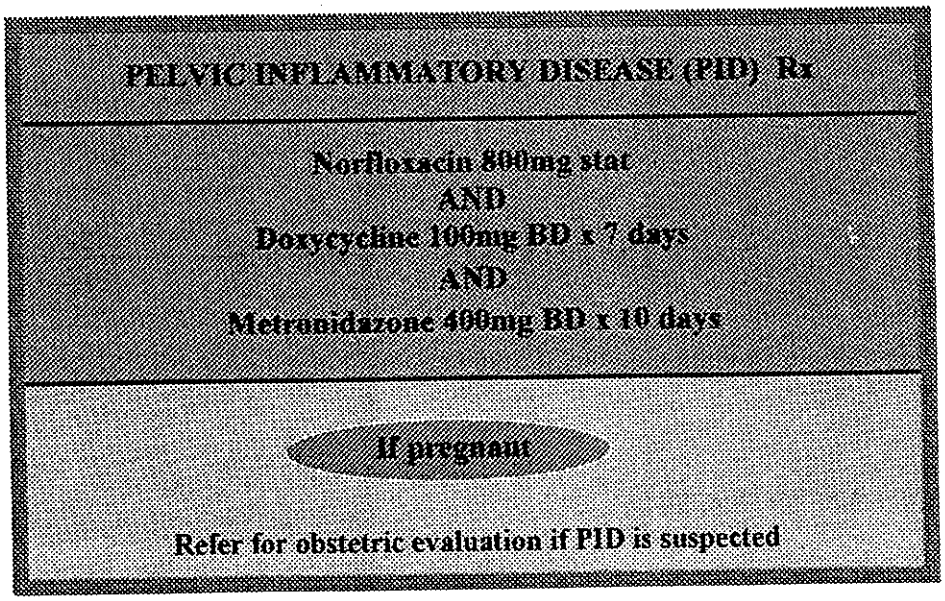
Amoxycillin 3g AND Probenicid 1g AND Augmentin 1 tab (500mg) AND Erythromycin 500mg QID x 7 days

Lower Abdominal Pain in Women

PID, caused by gonorrhea, chlamydia and anaerobes
Surgical and obstetrical conditions



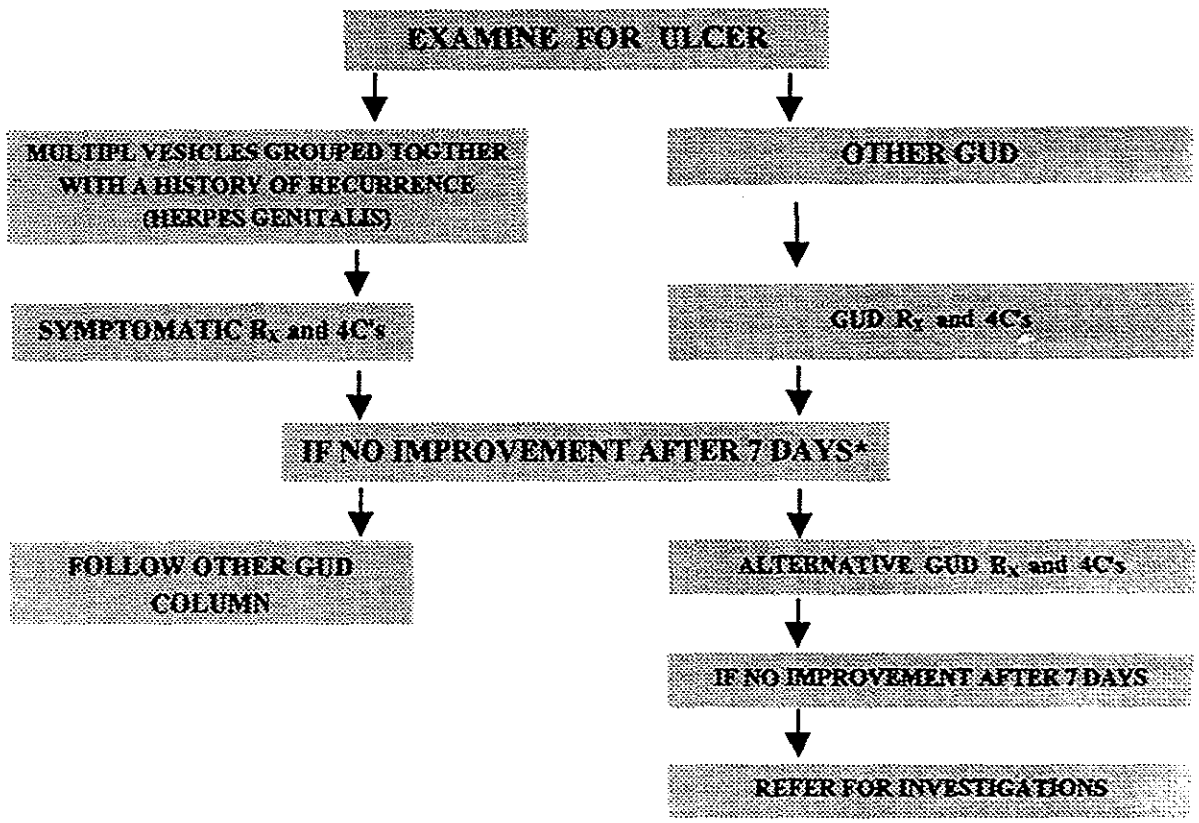
* Surgical or gynecological causes are determined by rebound tenderness and/or guarding; last menstrual period overdue; recent abortion or delivery; menorrhagia or metrorrhagia.



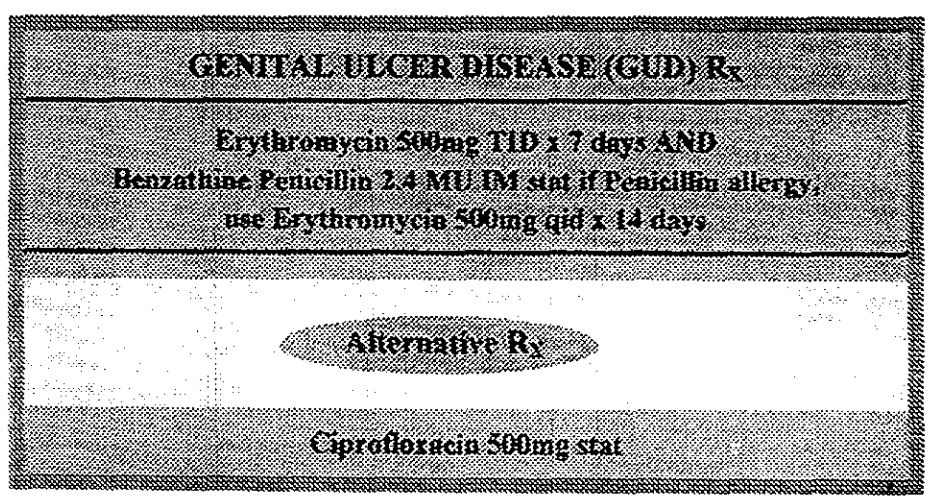
STI/HIV/AIDS ATTACHMENT 4

Genital Ulcer Disease (GUD)

GUD, usually caused by chancroid, syphilis and herpes genitalis



* GUD heals slowly, improvement is defined as signs of healing and reduction of pain. People with HIV infection will be slower in responding to GUD treatment.

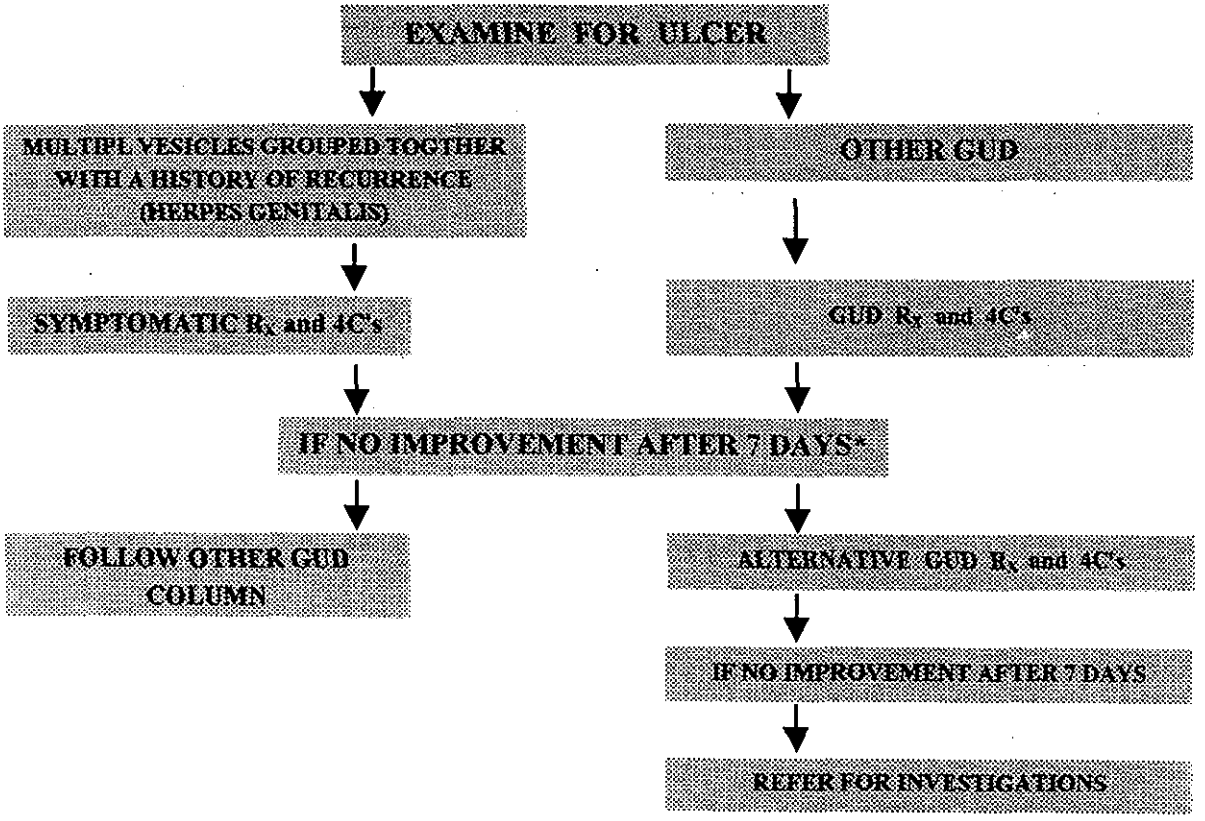


* Alternative Rx are to be used when there is no improvement with the first-line drugs.

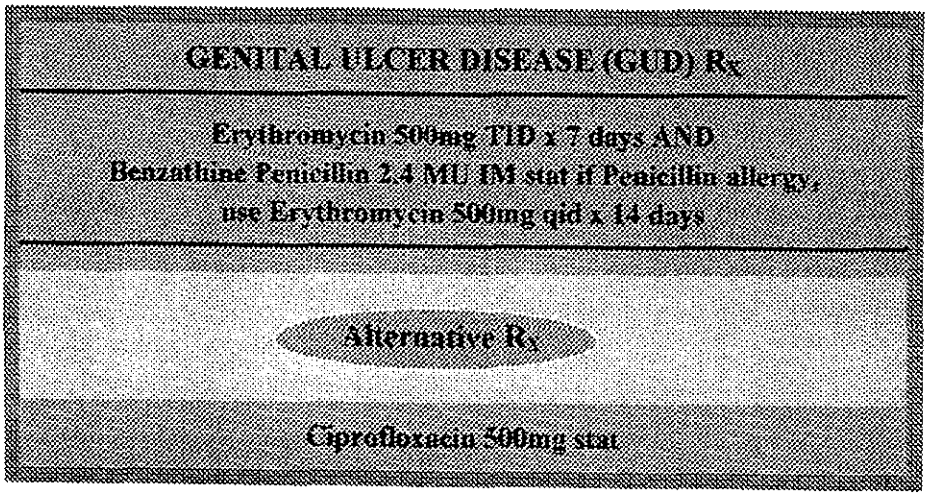
STI/HIV/AIDS ATTACHMENT 4

Genital Ulcer Disease (GUD)

GUD, usually caused by chancroid, syphilis and herpes genitalis



* GUD heals slowly, improvement is defined as signs of healing and reduction of pain. People with HIV infection will be slower in responding to GUD treatment.



* Alternative Rx are to be used when there is no improvement with the first-line drugs.

BASIC ACTIVITIES FOR FRONT LINE HEALTH WORKERS

MANAGEMENT AND CONTROL OF TB/LEPROSY *(PAGE 1)*

Things to Do	Details of the Activity
Follow the National TB control strategy	Interrupt transmission of infection and reduce incidence; treat patients, prevent development of complications; - Main activity is case-finding, i.e., to diagnose and treat TB cases that includes microscopic examination of sputum at health institutions, and assessment of close contacts of PTB+ cases, especially <5 children and spouses. - Treatment strategy is to provide short course chemotherapy under direct observation (DOTS) with special emphasis given to smear positive TB cases.
Diagnose TB	Clinical: Major symptoms are cough for more than three weeks, coughing blood, pain in the chest for >3 weeks, fever for >3weeks. Minor signs of pulmonary TB: very weak and thin, pale, chest finding, and fever.
	Laboratory: 3 sputum specimens (spot-morning-spot) collected and examined in two consecutive days. PTB+= at least 2 AFB +ve smear results or 1AFB +ve smear and radiologic abnormalities.
	In children: Strongly suggestive TB symptoms, Hx of close contact with a PTB+ patient, radiologic findings, positive tuberculosis test in non-BCG vaccinated children.
Classify TB patient	Category 1: Smear Positive Pulmonary TB (PTB+). TB in a patient with: i. At least two initial smear examination positive by direct microscopy for AFB. ii. One initial smear examination positive by direct microscopy and positive by culture. iii. One initial smear examination positive by direct microscopy for AFB and x-ray abnormalities suggestive of active TB as determined by a physician. Category 2: Smear negative Pulmonary TB (PTB-). TB in a patient with: i. Three initial negative smear examination by direct microscopy for AFB and who has failed to respond to a course of broad-spectrum anti-biotics. ii. Three initial smear examination negative by direct microscopy but positive by culture. Category 3: Extra-pulmonary TB(EPTB). i. TB based on strong clinical evidence consistent with active extra-pulmonary TB and decision by a physician to treat a full course of anti-TB therapy. ii. TB in organs other than the lungs proven by one culture-positive specimen from an extra-pulmonary site or histopathological evidence from a biopsy.

BASIC ACTIVITIES FOR FRONT LINE HEALTH WORKERS

MANAGEMENT AND CONTROL OF TB/LEPROSY *(PAGE 2)*

Things to Do	Details of the Activity
Treat TB patients: (See attached table for details)	*Two phases of Rx, Intensive*-consists of 3 or more drugs taken in the first 8 weeks and *continuation phase*- consists of at least 2 drugs taken for 6 to 10 months. (For children <6yrs of age continuation phase Rx is given for only 4 months) *1. Short course chemotherapy* regimen, *2[S(RHZ)]/6EH or 2E(RHZ)/6EH*, is prescribed for new PTB+ patients, new PTB$^-$ and EPTB patients who are seriously ill, returns from default, who are PTB$^-$ after DOTS and all forms of TB in children. (Never give EH for children <6years) *2.Short course chemotherapy (new) regimen,* 2(RHZ)/6EH, is prescribed for PTB$^-$, EPTB patients who are not seriously ill. *3. Regimen for children< 6 years;* 2S(RHZ)/4RH or 2RHZ/$RH *4. Long course chemotherapy* (LCC) regimen, [2S(EH)/10 (EH)] is prescribed to new patients with PTB, new patients with EPTB, returns after default who are PTB$^-$ after LCC, new PTB+ but have no access to DOTS Rx center. (For children <6yrs replace EH by TH or by RH if available) *5. Re-treatment* regimen: 2SE(RHZ) 1E (RHZ)/5E3R3H#, is prescribed to: relapses, treatment failure and returns after default who are PTB+. *6. Treatment of chronic cases:* These patients are mostly resistant to both isoniazid and rifampicin and are considered incurable. They may be given isoniazid for the rest of their lifetime.
Follow up TB patient	• Educate on the importance of regularly taking the prescribed medications, side effects of drugs, • Monitor by lab examinations of the sputum: - All sputum +ve on DOTS should have sputum examined at the end of the 2nd, 5th and 7th month. - Those on LCC should have sputum examined at the end of the 2nd, 5th and 11th month. (Please refer to the hand out on the interpretations of these sputum examination results.)
Strategies of the National leprosy control program	Passive case finding, adequate chemotherapy, case holding (i.e. tracing default) contact tracing, prevention of disabilities, rehabilitation and reintegration

BASIC ACTIVITIES FOR FRONT LINE HEALTH WORKERS

MANAGEMENT AND CONTROL OF TB/LEPROSY *(PAGE3)*

Things to Do	Details of the Activity
Make clinical examination for leprosy	*Look for* macules, plaques, infiltration and altered skin color, burns and scars. *Palpate nerves* for enlargement and tenderness of great auricular, supraorbital, ulnar, median, cutaneous branch of radial, peroneal and posterior tibial Test for anesthesia by touching each site using finger or wisp of cotton.
Identify cardinal signs of leprosy	Anesthetic skin lesion, enlarged and tender peripheral nerves. AFB positive slit skin smear.
Treat leprosy patients (Please see attached table for details)	Multiple drug therapy (MDT) the standard Rx consists of 1) Rifampicin (R) 2) Clofazimine, and 3) Dapsone (D). Counsel patients to return if lesions recur.
Recognize signs of leprosy reactions	Two types: Type 1 or reversal reaction and Type 2 or Errythema Nodosum Leprosum (ENL) Signs of reactions (See attached table)
Treat reactions	Mild reaction: Rest with sedatives and analgesics; if no improvement in 6 weeks treat as severe case. Severe reversal reaction: Prednisolone 40mg tapered by 5 to 10mg every 4 weeks in MB and 2 weeks in PB patients. Refer any patient a) in whom nerve function deteriorates during Rx, b) who responded to Prednisolone, but developed reaction for 3rd time, c) with sever ENL reaction.

N.B. According to the new NTBLCP, LCC is administered only in non-DOTS areas; otherwise DOTS is prescribed for all TB patients including PTB-, EPTB, etc.

TB/LEPROSY ATTACHMENT I

Short course chemotherapy regimens: 2S(RH) Z/6(EH) for PTB+ and seriously ill PTB⁻/EPTB; (2S (RHZ)/4RH or 2(RHZ)/4RH for children; 2RHZ/6EH for PTB⁻/EPTB

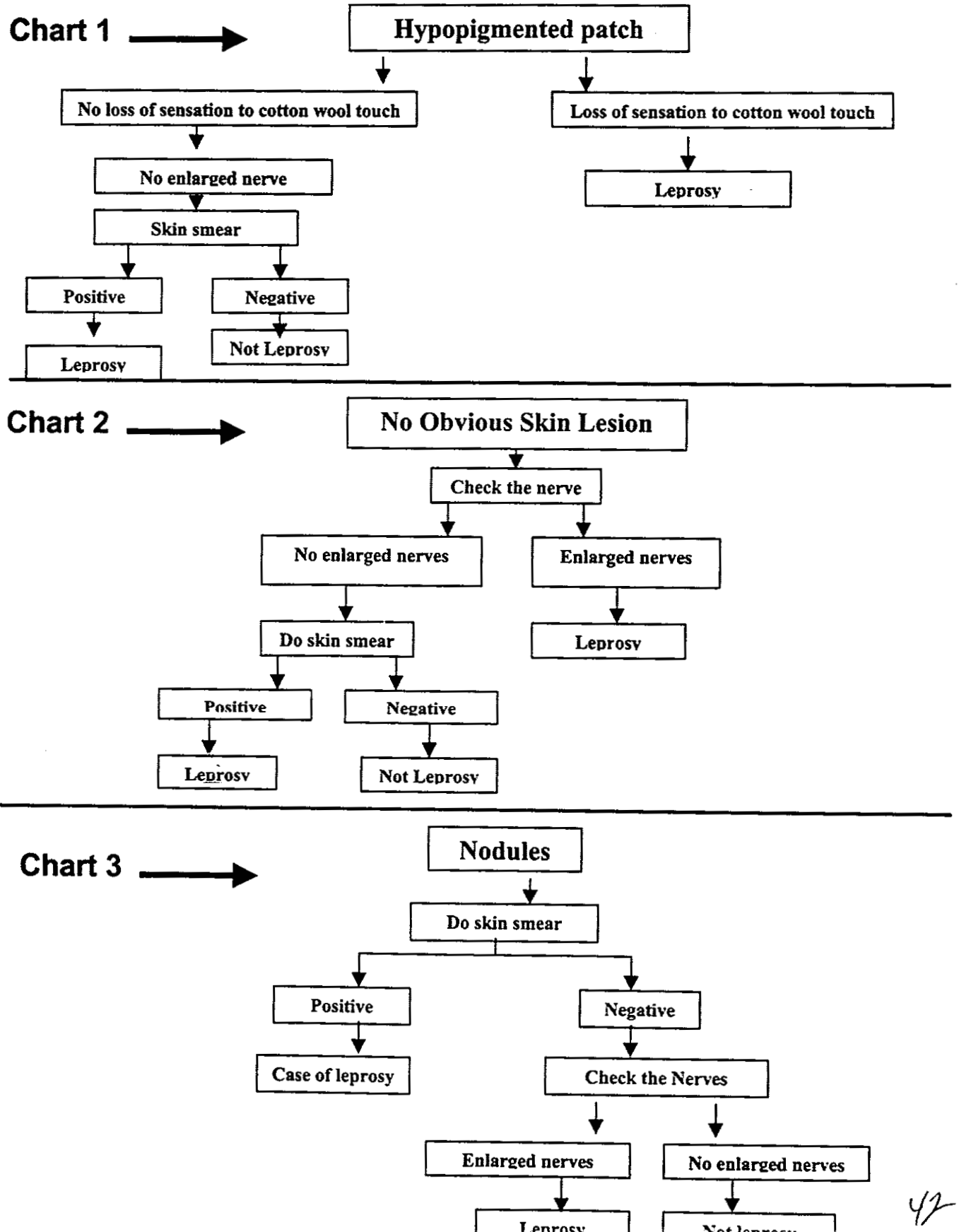
Duration of Treatment		Drugs	Child pre-treatment weight				Adolescents and Adult pre-treatment Weight			
			<7kg	7-9kg	10-12kg	13-19kg	20-29kg	30-37kg	38-54kg	>55kg
Intensive Phase (8 weeks)		(RHZ 150/75/400	1/3	1/2	3/4	1	1½	2	3	4
		S	0.125gm	0.125gm	0.250gm	0.250gm	0.50gm or 1	0.75gm or 1	0.75gm or 1½	1gm or 3
		Or E 400								
Continuation Phase	6 months	(EH 400/150)					1	1½	2	3
	4 months	(RH 150/75)	1/3	1/2	3/4	1				

N.B. :- STM is not given for pregnant mothers, and its dose has to be <0.75gm for the elderly (age >50 years)

Chemotherapy for the different forms of Leprosy

Chemotherapy for MB Leprosy-12 months			
Drug	**0 – 5 years**	**6 – 14 years**	**≥ 15 years**
- Refampicin (4 weekly supervised)	300 mg	450 mg	600 mg
- Clofazimine (4 weekly supervised)	100 mg	150 mg	300 mg
- Colfazimin (Unsupervised)	50 mg twice a we	50 mg every other day	50 mg daily
- Dapsone daily (unsupervised)	25 mg	50 mg	100 mg
Chemotherapy for PB Leprosy-6 months			
- Rifampicin (4 weekly) Supervised	300 mg	450 mg	600 mg
- Dapsone (daily) Unsupervised	25 mg	50 mg	100 mg
Pure Neural Leprosy Regimen			
- Should be treated as PB			
- If two or more nerves are affected or the skin smear is positive- should be treated as MB			

Flow Chart for Diagnosis of New Cases of Leprosy



BASIC ACTIVITIES FOR FRONT LINE HEALTH WORKERS

MANAGEMENT AND CONTROL OF MALARIA

Things to Do	Details of the Activity
1. Define the local occurrence of malaria and factors related to its transmission in your own area	Obtain the following information from relevant sources in the area including visiting the malaria control office. and compile a malaria profile of your own. Demography, altitude, seasonal (monthly) malaria morbidity, type of parasite, epidemic occurrence, anti-malarial resistance, vector species and major breeding sites, organization of malaria control activity, etc.
2. Make clinical diagnosis of uncomplicated malaria	History of travel to malarious area during the last 15 days or previous history of malaria, fever. Exclude other major causes of fever (measles, tonsillitis, pneumonia, otitis media and URTI. At health centers where microscopic examination is feasible, blood film examination should be done to guide treatment
3. Make clinical diagnosis of sever and complicated malaria	♦ Sever or danger signs: Altered consciousness, not able to drink or feed, frequent vomiting, convulsion, no urine output, bleeding, jaundice, difficult breathing. ♦ Criteria: one or more of the signs qualifies to the diagnosis of severe and complicated malaria.
4. Treat uncomplicated malaria at health station and health center level	See attachment
5. Give correct chemo prophylaxis	See attachment
6. Select appropriate measure(combination of measures) to control an epidemic	Measures include: Mass drug administration, mass febrile treatment, indoor residual spraying of insecticides, environmental management. However, Mass Treatment for febrile patients or whole community is the first measure in most epidemics.
7. Discuss principles and approaches to prevention and control of malaria	Chemotherapy: Provides relief to those infected and reduces the # of organisms circulating in the environment; Destruction of vector: elimination of breeding sites and habitat alteration; use of larvicides and insecticides; Prevention of exposure to infection: use of insect repellants, impregnated bed-nets; Prevention of successful maturation and disease in the host: use of chemoprophylaxis; vaccine under trial

MALARIA ATTACHMENT 1

MANAGING MALARIA AT HEALTH STATION OR HEALTH CENTER LEVEL

MALARIA SPECIES	FIRST LINE RX FOR UNCOMMPLICATED MALARIA	SECOND LINE RX FOR UNCOMPLICATED MALARIA	SUPPORTIVE RX FOR UNCOMPLICATED MALARIA	UNDER EPIDEMICS	ANTI MALARIA DRUG FOR SEVER & COMPLICATED MALARIA
For any clinically diagnosed malaria patient: - if species is known through laboratory tests. first line Rx for P.F is sulfadoxine pyrimethamine. while for P.V is chloroquine at usual dose shown here	- Oral sulfadoxine-pyrimethamine 25 mg/kg single dose and chloroquine 25mg/kg given over 3 days - For patients who cannot take oral medication give sulfadoxine-pyrimethamine IM.	If P. falciparum patient returns with fever or history of fever between the 3rd and 14th day after sulfadoxine-pyrimethamine Rx , give quinine 8mg base/kg 3 times daily for 07 days	Aim is to correct conditions such as dehydration, fever and anemia - Give paracetamol and advise patient to receive tepid sponging and fanning. - Give ORS and advise to increase fluid intake, for infants encourage extra breast feeding	- Mass treatment either for febrile patients or whole community is recommended. - For P.F epidemic, full Rx dose of sulfadoxine-pyrimethamine with primaquine 0.5 to 0.75mg base/kg in single dose for adults and children >4 years. - For P.V epidemic full Rx dose of chloroquine is recommended.	Quinine should be given initially IV; At day 0: 30-40 mg/kg body wt At day 1: 30mg/kg body wt At day 2 and after: 15mg/kg body wt - Replace IV quinine by oral as soon as possible

Drug	Side effects	Contra indications	Chemo prophylaxis
Chloroquine	Dizziness, skeletal muscle weakness, mild GI disturbance and pruritis	· Known hypersensitivity · History of epilepsy · Suffering from psoriasis	· Is indicated for non-immune travelers and for pregnant women living in malarious areas · Weekly chloroquine (5mg base/kg) combined with a daily dose of proguanil (3mg/kg) starting 2 weeks before departure, during the whole stay in the malarious area, and 4 weeks after returning to the malaria -free area
Sulfadoxine pyrimethamine	Gi disturbance, skin reactions	· Malaria prophylaxis alone or in combination · History of skin rash using sulfa drug · Infants <2mo old · Hepatic or renal dys function	
Quinine	Dizziness, ringing in ears, blurred vision and tremor, hypoglycemia	None to oral dose	
Primaquine	Relatively rare at daily dose up to 0.25mg/kg	- Pregnancy - Children <4 years of age - Rheumatoid arthritis and SLE	

IV Administration of Quinine
1. Loading dose: Quinine 20 mg salt/kg of body weight by infusion over 4 hours, in 5% dextrose in saline (D/S) (5-10 ml/kg of body weight depending on patient's fluid balance).
2. Maintenance dose: 12 hours after the start of loading dose give quinine 10 mg salt/kg body weight in D/S over 4 hours. Repeat the same dose every 12 hours until patient can take oral medication.

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)oes the child have fever?

y history or feels hot or temperature of 37.5^{0}c or above)

IF YES:

ecide Malaria Risk: high, low or no
"low or no" malaria risk, then ask:
Has the child traveled outside this area during the previous one month?
If yes, has he been to a malarious area?

HEN ASK:
For how long has the child had fever?
If more than 7 days, has fever been present every day?
Has the child had measles within the last 3 months?

f the child has measles now or vithin the last 3 months:

- If malaria risk is high or low or travel to a malarious area, then do a blood film, if possible.

LOOK AND FEEL:
- Look or feel for stiff neck.
- Look for runny nose.

Look for signs of Measles
- Generalized rash and
- One of these: cough, runny nose, or red eyes.
- Look for mouth ulcers.
- Look for pus draining from the eye.
- Look for clouding of the cornea

Classify FEVER

IF MEASLES now or Within the last 3 months, Classify

Any general danger sign or Clouding of cornea or Deep or extensive mouth ulcers.	SEVERE COMPLICATED MEASLES...	▸ Give Vitamin A. ▸ Give first dose of an appropriate antibiotic. ▸ If clouding of the cornea or pus draining from the eye, apply tetracycline eye ointment. ▸ Refer URGENTLY to hospital
Pus draining from the eye or Mouth ulcers	MEASLES WITH EYE OR MOUTH COMPLICATIONS	▸ Give Vitamin A. ▸ If pus draining from the eye, treat eye infection with tetracycline eye ointment. ▸ If mouth ulcers, treat with gentian violet. ▸ Follow up in 2 days.
Measles now or within the last 3 months.	MEASLES	▸ Give Vitamin A.

High Malaria Risk

HIGH MALARIA RISK

• Any general danger sign or • Stiff neck.	VERY SEVERE FEBRILE DISEASE	▸ Give qulnine for sever malaria (first dose) ▸ Give first dose of an appropriate antibiotic. ▸ Treat the child to prevent low blood sugar. ▸ Give one dose paractamol in clinic for high fever (33.5'C or above) ▸ Refer URGENTLY to hospital.
Two of the following signs: • Restless, Irritable • Sunken eyes • Skin pinch goes back slowly.	MALARIA	▸ Treat with oral antimalarial. ▸ Give one dose of paracetamol in clinic for high fever (38.5'C or above). ▸ Advise mother when to return immediately. ▸ Follow -up in 2 days if fever persists. ▸ If fever is present every day for more than 7 days, refer for assessment.

Low Malaria Risk

LOW MARIA RISK

• Any general danger sign or • Stiff neck.	VERY SEVERE FEBRILE DISEASE	▸ Give quinine for sever malaria (first dose) ▸ Give first dose of an appropriate antibiotic. ▸ Treat the child to prevetn low blood sugar. ▸ Give one dose of paracetamol in clinic for high fever (38.5^{0}C or above) ▸ Refer URGENTLY to hospital
• Positive blood film or If blood film not available: • No runny nose and No measles and No other cause of fever.	MALARIA	▸ Treat with oral antimalarial. ▸ Give one dose of paracetamol in clinic for high fever (38.5^{0}C or above) ▸ Advise mother when to return immediately. ▸ Follow-up in 2 days if fever persists. ▸ If fever is present every day for more than 7 days, refer for assessment.
• Blood film negative or If blood film not available • Runny nose PRESENT or • Measles PRESENT or • Other cause of fever PRESENT	FEVER MALARIA UNLIKELY	▸ Give one dose of paracetamol in clinic for high fever (38.5^{0}C or above) ▸ Treat other obvious causes of fever ▸ Advise mother when to return immediately. ▸ Follow-up in 2 days if fever persists. ▸ If fever is present every day for more than 7 days refer for assessment.

No Malaria Risk

NO MALARIA RISK

• Any general danger sign or • Stiff neck	VERY SEVERE FEBRILE DISEASE	▸ Give first dose of appropriate antibiotic. ▸ Treat child to prevent low blood sugar ▸ Give one dose of paracetamol for high fever (38^{0}C or above) ▸ Refer URGENTLY to hospital
• Any fever	FEVER (NO MALARIA)	▸ Give one dose of paracetamole for high fever (38^{0}C or above) ▸ Treat other obvious causes of fever ▸ Follow up in 2 days if fever persists ▸ If fever is present every day for more than 7 days refer for assessment.

perature threshold are based on axillary temperature. The thresholds for rectal temperature readings are approximately 0.5.C higher.

▸ Give an Oral Antimalarial

FIRST-LINE ANTIMALARIAL: **CHLOROQUINE**
SECOND-LINE ANTIMALARIAL: **SULFADOXINE-PYRIMETHAMINE**

- **IF CHLOROQUINE:**
  - Explain to the mother that she sould watch her child carefully for 30 minutes after giving a dose of chloroquine. If the child vomits within 30 minutes, she should repeat the dose and return to the clinic for additional tablets.
  - Explain that itching is a possible side effect of the drug, but is not dangerous.
- **IF SULFADOXINE + PYRIMETHAMINE:** Give single dose in clinic.

CHLOROQUINE Give for 3 days										SULFADOXINE + PYRIMETHAMINE ▸ Give single dose in clinic
AGE OR WEIGHT	**TABLET** (150 mg base)			**TABLET** (100 mg base)			**SYRUP** (50 mg base per 5 ml)			**TABLET** (500 mg sulfadoxine + 25 mg pyrimethamine)
	DAY 1	**DAY 2**	**DAY 3**	**DAY 1**	**DAY 2**	**DAY 3**	**DAY 1**	**DAY 2**	**DAY 3**	
2 months up to 12 months (4-10 kg)	½	½	½	1	1	½	7.5 ml	7.5 ml	5.0 ml	½
12 months up to 3 years (10-14 kg)	1	1	½	1½	1½	½	15.0 ml	15.0 ml	5.0 ml	1
3 years up to 5 years (14-19 kg)	1½	1½	½	2	2	1				1

▸ *Give Paracetamol for High Fever (>=38.5^{0}C) or Ear Pain*

- Give paracetamol every 6 hours until high fever or ear pain is gone.

PARACETAMOL		
AGE or WEIGHT	**TABLET** (100 mg)	**TABLET** (500 mg)
2 months up to 3 years (4-14 kg)	1	¼
3 years up to 5 years (14 - 19 kg)	1 ½	½

GIVE THESE TREATMENTS IN CLINIC ONLY

- **Explain to the mother why the drug is given.**
- **Determine the dose appropriate for the child's weight (or age).**
- **Use a sterile needle and sterile syringe. Measure the dose accurately.**
- **Give the drug as an intramuscular injection.**
- **If child cannot be referred, follow the instructions provided.**

▶ Give An Intramuscular Antibiotic

FOR CHILDREN BEING REFERRED URGENTLY WHO CANNOT TAKE AN ORAL ANTIBIOTIC:

- ▶ Give first dose of intramuscular chloramphenicol and refer child urgently to hospital.

IF REFERRAL IS NOT POSSIBLE:

- ▶ Repeat the chloramphenicol injection every 12 hours for 5 days.
- ▶ Then change to an appropriate oral antibiotic to complete 10 days of treatment.

AGE or WEIGHT	CHLORAMPHENICOL Dose: 40 mg per kg add 5.0 ml sterile water to vial containing 100 mg = 5.6 ml at 180 mg/ml
2 months up to 4 months (4 - 6 kg)	1.0 ml = 180 mg
4 months up to 9 months (6-8 kg)	1.5 ml = 270 mg
9 months up to 12 months (8-10 kg)	2.0 ml = 360 mg
12 months up to 3 years (10 - 14 kg)	2.5 ml = 450 mg
3 years up to 5 years (14 - 19 kg)	3.5 ml = 630 mg

▶ Give Quinine for Severe Malaria

FOR CHILDREN BEING REFERRED WITH VERY SEVERE FEBRILE DISEASE:

- ▶ Check which quinine formulation is available in your clinic.
- ▶ Give first dose of intramuscular quinine and refer child urgently to hospital. Advise mother to keep child lying down on his way to the hospital.

IF REFERRAL IS NOT POSSIBLE:

- ▶ Give first dose of intramuscular quinine.
- ▶ The child should remain lying down for one hour.
- ▶ Repeat the quinine injection at 4 and 8 hours later, and then every 12 hours until the child is able to take an oral antimalarial. Do not continue quinine injections for more than 1 week.
- ▶ If low malaria risk do not give quinine to a child less than 4 months of age.

AGE or WEIGHT	INTRAMUSCULAR QUININE	
	150 mg/ml* (in 2 ml ampoules)	300 mg/ml* (in 2 ml ampoules)
2 months up to 4 months (4 - 6 kg)	0.4 ml	0.2 ml
4 months up to 9 months (6-8 kg)	0.6 ml	0.3 ml
9 months up to 12 months (8-10 kg)	0.8 ml	0.4 ml
12 months up to 3 years (10 - 14 kg)	1.0 ml	0.5 ml
3 years up to 5 years (14 - 19 kg)	1.2 ml	0.6 ml

* quinine salt