

Skills that Save Lives



Focus on Child Health and Nutrition



ASHA Module 7

Skills that Save Lives



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About this book

The sixth and seventh modules cover areas whose content is already familiar to the ASHA. In addition, this module includes the development of specific competencies in healthcare for mothers and children. It is thus, intended to serve as a refresher module, building on existing knowledge and the development of new skills in the area of maternal and child health. ASHAs that are newly recruited into the programme, could directly start with Module 5, 6 and 7. This module is also designed to serve as a reading material for ASHAs, and is therefore, to be given to each ASHA. A companion communication kit for the ASHA to use when she conducts home visits and village meetings has also been developed. There is also a manual for trainers with training aids to use during the training of ASHA. The training plan envisages a total of 20 to 24 days of residential training, to impart the skills that these two modules are teaching.

Acknowledgements

The sections on maternal and newborn care are excerpted from the SEARCH Manual on 'How to Train ASHA in Home-Based Newborn Care' and SEARCH developed ASHA Reading Material on Home-Based Newborn Care. Thanks are due to Members of the National ASHA Mentoring Group, United Nations Children's Fund (UNICEF), Breastfeeding Promotion Network of India (BPNI), the Public Health Resource Network (PHRN), and the training, maternal and child health and malaria divisions of the ministry for providing extensive feedback, and also HLFPT for providing information on Nischay Kit. The Integrated Management of Neonatal Childhood Illnesses (IMNCI) package is also incorporated into these modules.

PART A

Child Health & Nutrition

of the 2000s, the World Health Organization (WHO) estimates that nearly one billion children under five have died for their age. Similar estimates for early child death in some low-income countries point to malnutrition, infectious disease, and poor health and sanitation as the leading causes of child mortality, addressed and addressed.

Programs to Monitor Malnutrition in Young Children

- Malnutrition is a major cause of child mortality. Monitoring malnutrition is a key part of child health services.
- Malnutrition is a key indicator of poverty. Poor nutrition can lead to poor health and poor performance in school, which can lead to poor health and poor performance in school.
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Child Health & Nutrition

1. Infant and Young Child Feeding

Objectives of the session

By the end of the session, the ASHA will learn about:

- Communicate essential messages for prevention of malnutrition, advice on feeding and on prevention of illness, and on access to health and nutrition services.
- Analyse the causes of malnutrition in a specific child – the role of feeding practices, role of illnesses, of familial and economic factors and of access to services.
- Counsel families to prevent malnutrition and to reverse malnutrition in children below five years.



One-third of the world's undernourished children live in India. About 46% of the children below three years in India are underweight. This means that roughly one out of two children weigh less than they should for their age. Under nutrition in early child hood is associated with poor academic performance, reduced work capacity, and poor health and nutrition status through childhood, adolescence and adulthood.

Facts about Malnutrition in Young Children

- Malnutrition increases susceptibility to disease. Malnutrition is one of the contributory factors to over half of all child deaths.
- Malnutrition is highly related to poverty. Poor families have less money to spend to get the quantity and variety of food, they find it more difficult to get healthcare and also there is less time for child care.
- Counselling can help the family in making the right choices on using their scarce resources to feed their children and protect them from malnutrition.
- Families are more comfortable when issues of feeding are discussed in their homes. Also at the home, not only the mother, but the father and the grandparents of the child, all become part of the dialogue.



- It is easier to prevent a child from slipping into malnutrition than to reverse it once it is severely underweight. Hence, the focus should be on counselling every family with a young child below one year of age, because it is this time, especially in the age of 6 to 18 months that most children become malnourished.

Recognising Malnutrition

It is difficult to recognise malnutrition just by looking at a child. Only very severe cases would show obvious signs of weakness or wasting by which time it is too late. Most children look normal but their height and weight when measured is less than expected for their age. It is therefore essential to weigh every child monthly, so as to detect malnutrition in time. Depending on the weight the child can be classified as mild, moderate or severely underweight.

Sick children need special attention. However, families of all children especially children below two should be counselled on feeding the child so as to prevent malnutrition.



Six Important Messages for Preventing Child Malnutrition

1. **Exclusive Breastfeeding:** Till the age of six months, give only breast milk; not even water should be added.
2. **Complementary Feeding:** At the age of six months, add other foods. Breastfeeding alone is not enough, though it is good to continue breastfeeding for at least one to two years more. There are five things to remember about complementary feeding:
 - (i) **Consistency:** Initially the food has to be soft and mashed. But later, anything that adults eat can be given to the child, with less spices. Do not dilute food. Keep it as thick as possible, for e.g. 'give daal not daal ka pani'.
 - (ii) **Quantity:** Gradually increase the amount of such foods. Till at about one year, the child gets almost half as much nutrition as the mother.
 - (iii) **Frequency:** The amount of complementary foods given should be equal to about half what the adult needs in terms of nutrients. But since the child's stomach is small, this amount has to be distributed into **four to five, even six feeds per day**.
 - (iv) **Density:** The food also has to be energy dense, low in volume, high in energy, therefore, **add some oil or fats to the food**. Family could add a spoon of it to every roti/every meal. Whatever edible oil is available in the house is sufficient.
 - (v) **Variety:** Add protective foods – green leafy vegetables. The rule is that the greener it is, or the more red it is the more its protective quality. Similarly meat, eggs, fish are liked by children and very nutritive and protective.
3. **Feeding during the illness:** Give as much as the child will take; do not reduce the quantity of food. After the illness, to catch up with growth, add an extra-feed. Recurrent illness is a major cause of malnutrition.



4 **Prevent illness:** Recurrent illness is a major cause of malnutrition. There are six important things to remember which could prevent illness:

- (a) **Handwashing:** before feeding the child, before preparing the child's food, and after cleaning up the child who has passed stools. This is the single most useful measure to prevent recurrent diarrhoea.
- (b) **Drinking water to be boiled.** Though useful for everyone, it is of particular importance to the malnourished child with recurrent diarrhoea.
- (c) **Full immunisation of the child:** Tuberculosis, diphtheria, pertussis and measles are all prevented by immunisation and are the diseases that cause severe malnutrition. In malnourished children, these diseases are more common and life threatening, than in normal children.
- (d) **Vitamin A:** To be given along with measles vaccine in the ninth month and then repeated once every six months till five years of age. This too reduces infections and night blindness, all of which is more common in malnourished children.
- (e) **Avoid persons with infections,** especially with a cough and cold picking up the child, and handling the child, or even coming near the child during the illness. This does not apply to mother, but even she should be more rigorous in handwashing and more careful in handling the baby.
- (f) **Preventing Malaria:** In districts with malaria the baby should sleep under an insecticide treated bed net. Malaria too is a major cause of malnutrition.



You should encourage parents and other family members to spend time with the child as it matters a lot. Time has to be spent in feeding the child. Time has to be spent in playing and talking with the child. Such children eat and absorb food better.

5 Access to health services

- ◆ Access to health services makes for prompt treatment of illness. On the very first day of the illness, if you help the mother decide on whether it is a minor illness for which home remedy would be adequate, or to be referred to a doctor, such a decision would save lives. Early treatment would prevent malnutrition.
- ◆ Access to contraceptive services is important. If the age of mother is less than 19, or the gap between two children is less than three years, there is a much higher chance of the children being malnourished.



6 Access to anganwadi services

- ◆ The anganwadi provides a food supplement for the child up to the age of 5. This could be a cooked meal, or in the form of take – home rations. Malnourished children are to be given additional food supplements. For children below the age of two, take – home rations

are to be given. Even pregnant women and lactating mothers up to six months are entitled to get food supplements in the anganwadi centres.

- ◆ Weighing the baby and informing the family of the level of malnutrition is another important anganwadi service.
- ◆ The anganwadi is also the site where the Village Health and Nutrition Day (VHND) is conducted. The ANM visits every month and the child is given immunisation, Vitamin A, paediatric iron tablets, Oral Rehydration Salts (ORS) packets or drugs needed for illness management.

Note

Wasted expenditure on unnecessary services is also an issue. Families tend to spend a lot of money in commercial health foods which are very costly. This money is better spent in buying cheap, lower cost locally available nutritious foods. Tonics and health drinks are also a waste for the poor family. Unnecessary and costly treatments by local doctors for the recurrent bouts of diarrhoea and minor colds and coughs could also be a drain. One of the important services that you can perform is in making people aware that such expenditures are unnecessary.

Counselling on Malnutrition

All the above messages are important for managing malnutrition also. But there are too many points to list out and the family members may not register it. Also, many of the messages may not be applicable to that particular child, or may not be possible for that family. For these reasons, we have to do it in two steps – first an analysis of why a child is malnourished and once we have an understanding of this, then a dialogue with the family to see what can be done.

For an analysis, we need to know the following:

- What is the nutritional status of child – is it normal, underweight, moderately underweight or severely underweight?
- What is the child being fed as compared to what needs to be given?
- What is the recent history of child's illness, and whether enough has been done to treat it promptly and to prevent further illness?
- What is the family's access to the three key services? (ICDS, Health Services and Public Distribution Services)

Skill in Eliciting Information

There is a skill of asking each question so as to get the right information.

What the child is being fed

- Ask specifically what was fed in the last one day, starting from now and recalling backwards, till the previous day.



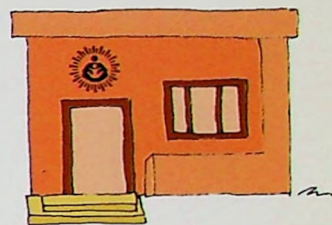
Things to notice: how many feedings in a day, how much in each feed, whether the child's food included pulses, vegetables, oil.

- Ask specifically about protective foods which are not given daily.
- Ask about feeding during illness.



Illness and treatment

- Ask whether the child fell ill during past six months (ask specifically about diarrhoea, fever, cold and cough). Start with most recent illness, and then ask them to recall backwards – “before this when was he/she sick? etc.
- What actions did the family take during illness? Which provider did they go to?
- What difficulties did the family face in accessing healthcare and how much did it cost?
- What are the likely inessential services or expenditures which they are getting into?



Access to anganwadi services

- Is the child taken regularly every month to the Anganwadi Centre (AWC) for weighing? Have they seen the growth curve?
- Is the family availing of food supplements from the anganwadi, is it regular, reliable and of variety needed and reasonable quality?

Skill in Analysis

Based upon the replies to these questions, you will form an understanding of the multiple causes of malnutrition in that specific child. It is never one factor,

Given below are examples of understanding that ASHA formed in two children:

Banu was a nine month old girl with moderate malnutrition. She is being breastfed and only this month was started on complementary food. She eats rice and dal from her parents' plate while they are eating, once at about 10.00 am and then about 6.00 p.m. She had diarrhoea once, one month ago, but no other illness. You gave her ORS and she became alright with it. She does not go to the anganwadi or get rations from there. Her immunisation is on schedule.

Rafay is an 18 month old boy who is severely underweight. He has no odema, but there is some wasting. He cannot go to the hospital because his mother cannot leave her younger child and she also has to go to work as she is the only earning member. Rafay is not being breastfed, but gets to eat roti, dal and vegetables. He eats about half a roti or one roti thrice a day. But his mother complains that he does not eat a lot and has very poor appetite. He has frequent episodes of respiratory infection but no other illness. His immunisation schedule is complete.



it is many. Do not jump immediately to some point and start giving your advice. Ask all the questions, listen to the replies fully, think about it and then only give your advice.

Discuss what measures are needed in each case and how this is to be conveyed?

Skill of Counselling

How to give advice

- First praise the mother for how well she is coping with the child and reinforce the good practices she is following. Praise must always precede any other advice.
- Then deliver each message as needed for that child in the form of a suggestion and ask whether they could implement it. Dialogue with the family explaining why the step is needed and how they could achieve it. If they are convinced, they would agree. If not convinced or unable to agree, move on to the next message. It takes more than one visit and one dialogue for families to agree, even if it was possible.
- Then point out any harmful or wasteful practices, explaining why you say so.
- Arrange for a follow-up visit to see how many practices have changed and to further reinforce the messages. Each family with a malnourished child needs to be met about once or twice a month.
- Arrange for mother and child to meet the ANM or the doctor as required. Such a visit is required in the following circumstances:
 - ◆ Any child who is severely underweight. If, in addition, there are danger signs, admission in a facility which manages such children would be desirable.
 - ◆ Any child who is underweight, who does not gain weight even after a few months of trying to follow the advice.
 - ◆ Any child who is underweight, who has fever, or chronic cough or persistent anaemia.

Even if the family is not going to see the doctor or ANM, do inform the Anganwadi Worker (AWW) and the ANM so that they can follow-up too. This work is equally their work also.

How you should NOT give advice

Do not prescribe advice without dialogue—just telling families what to do would not help...

Do not give very broad and what can be perceived as 'insulting' advice like – "you must take care of your child, or you must keep the child clean, or you must give nutritious food etc."



Anaemia in the Young Child

Anaemia is important to diagnose because it commonly comes along with malnutrition. It may be a cause of poor appetite. Blood testing is essential, but even in its absence based on observation of pallor alone, treatment can be started.



Looking for Anaemia in Children

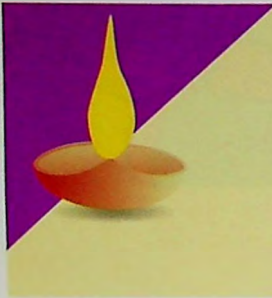
Unusual paleness (Pallor) of the skin of the soles or palms is a sign of anaemia.

- To see if the child has anaemia, look at the skin of the child's palm. Hold the child's palm open by grasping it gently from side to side.
- Do not stretch the fingers backward. This may cause pallor.
- Compare the child's palm with your own palm and the palm of other children. If the skin is paler than of others, the child has pallor.

Treatment for anaemia is to give one tablet of paediatric iron daily. And also give one tablet of Albendazole for deworming once in six months. For a child less than two years, give half a tablet of Albendazole (Refer Annexure 6). Iron rich foods as discussed for the mother (Book 6) are also needed for the young child. If anaemia does not improve, the child must be referred to a doctor for more complete blood tests and treatment.



2. Assessment of Malnutrition



Objectives of the session

By the end of the session, the ASHA will learn about:

- Know signs of malnutrition in a sick child.
- Be able to classify grades of malnutrition.
- Be able to plot weight for age on a growth chart.

ALL sick children should be assessed for signs suggesting malnutrition.

Check for Malnutrition

Look and Feel:

- Look for visible severe wasting.
- Look for oedema of both feet.
- Determine grade of malnutrition by plotting weight for age (with AWW).



Identifying Visible Severe Wasting

- A child with visible severe wasting is very thin, has no fat, and looks like skin and bones. Some children are thin but do not have visible severe wasting. This assessment step helps you in identifying the children with visible severe wasting who need urgent treatment and **referral to a hospital**.
- To look for visible severe wasting, remove the child's clothes. Look for severe wasting of the muscles of the shoulders, arms, buttocks and legs. Look at the child from the side to see if the fat of the buttocks is missing. When wasting is extreme, there are many folds of skin on the buttocks and thigh.
- The face of a child with visible severe wasting may still look normal. The child's abdomen may be large or distended.
- Look and feel to determine if the child has swelling of both feet. Use your thumb to press gently for a few seconds on the upper surface of each foot. The child has oedema if a dent remains in the child's foot when you lift your thumb.

Determine Grade of Malnutrition

The AWW uses a growth monitoring chart for every child. Every child in the village should be weighed and his/her weight plotted on the growth chart. There is a separate chart for boys and for girls under the age of five years.

How to plot weight for age and identify malnutrition:

- The left hand vertical line is the measure of the child's weight.
- The bottom line of the chart shows the child's age in months.



- Find the point on the chart where the line for the child's weight meets the line for the child's age.

Decide where the point is in relation to the curves:

- If the point is below the bottom most (-3SD) curve, the child is severely underweight.
- If the point is between 2nd and 3rd curve or exactly on the 3rd curve, the child is moderately underweight.
- If the point is on or above the curve marked zero or between the curve zero and -2SD (second curve) or exactly on the 2nd curve, then the child is normal.

Community Level Care for a Malnourished Child

All children who are underweight, should receive the following:

1. Nutritional counselling as discussed earlier
 2. Prompt treatment for all illnesses
 3. Periodic weight measurement to ensure weight gain and detect worsening early.
- (a) De-worming tabs (Albendazole): Half tablet of albendazole for a child less than two years old and one tablet for all children above two.
(see Annexure-6)
- (b) Paediatric Iron and Folic Acid Tablets: Daily one for three months.
- (c) A dose of Vitamin A: If this has not been given.

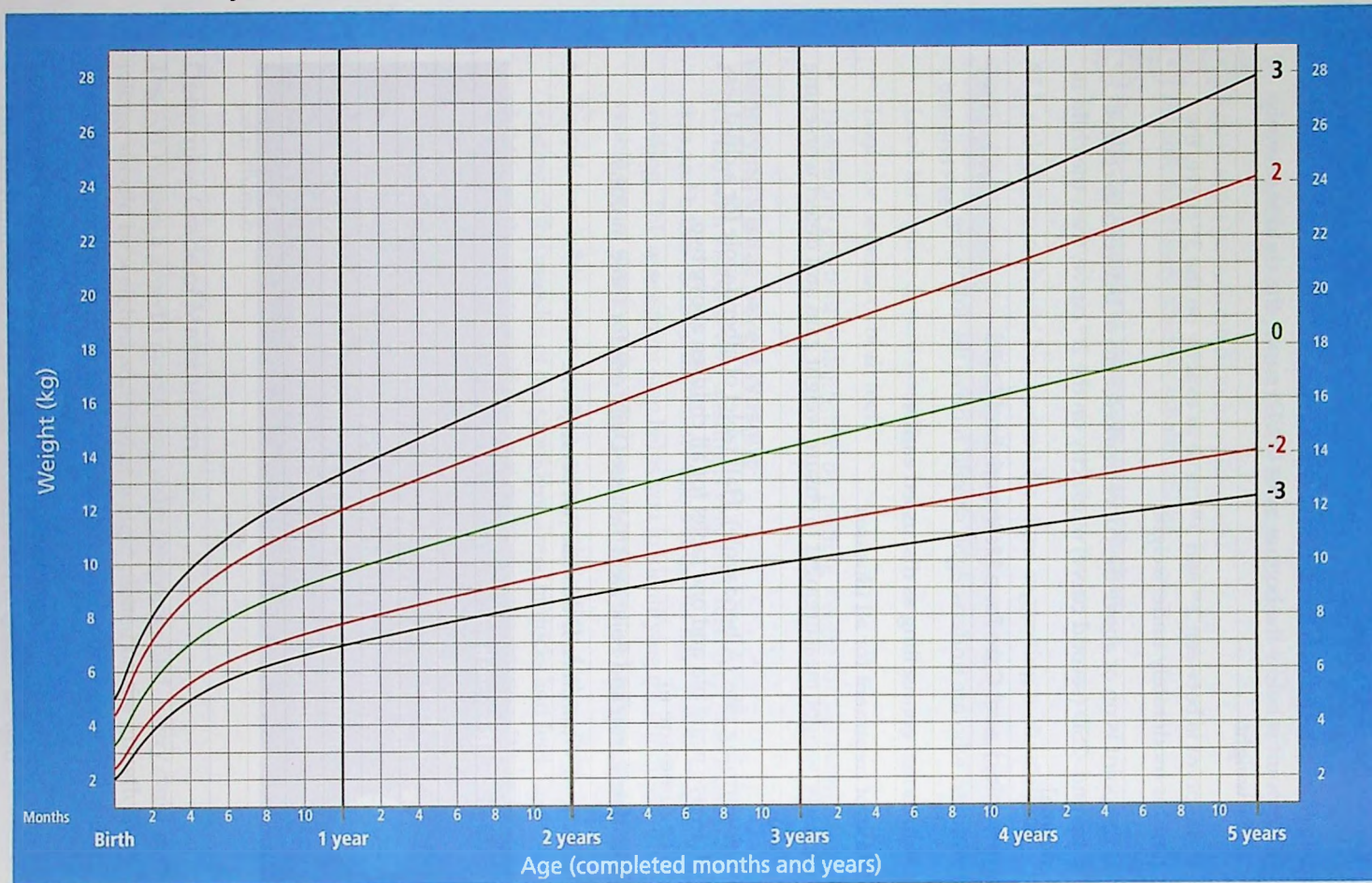
Remember:



Those children who are moderately underweight, should be taken to a 24X7 PHC or higher facility for a medical consultation. Children who are severely malnourished need prompt hospitalisation in a centre which manages such children. This is often the District Hospital.

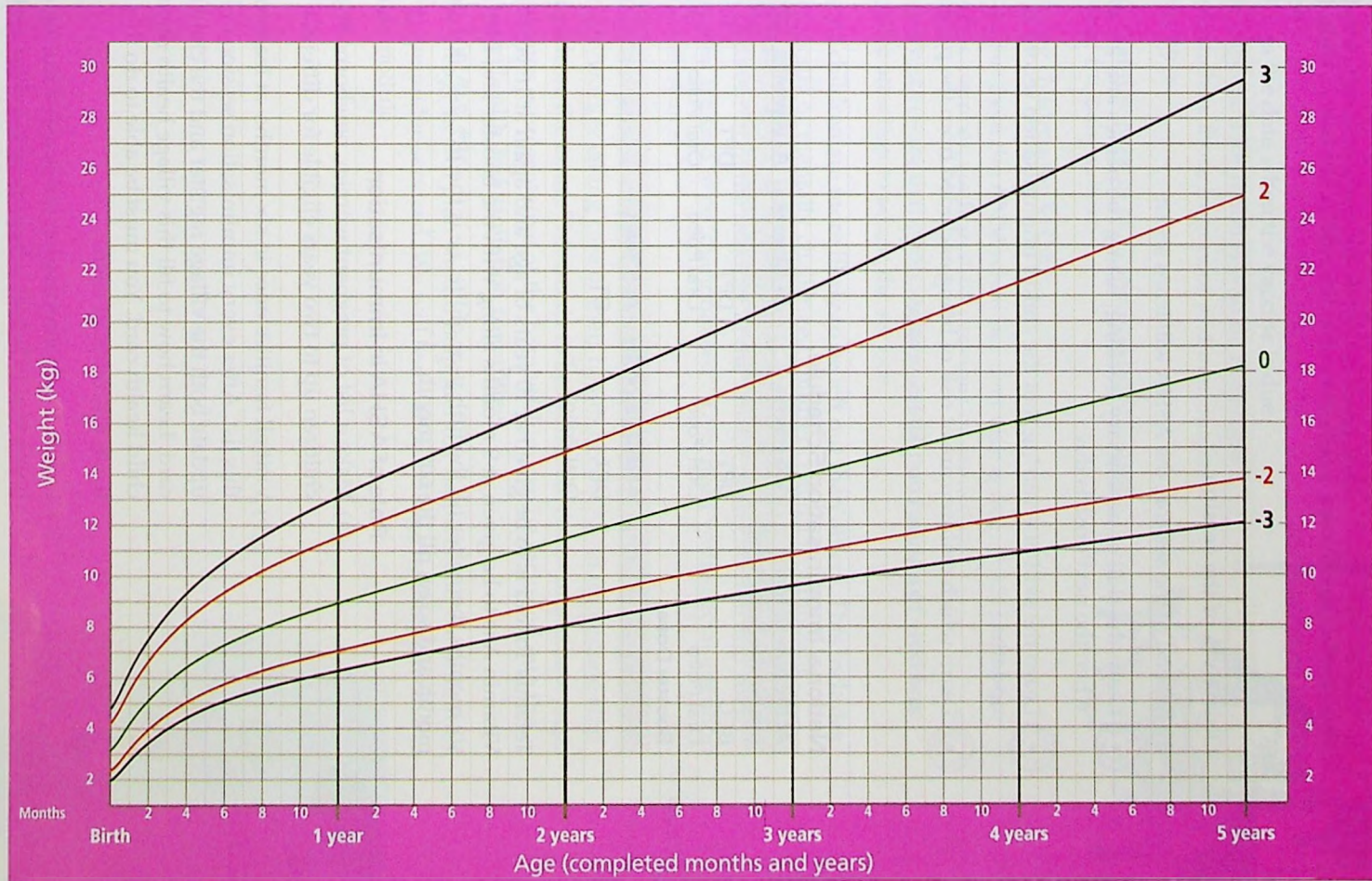
Weight-for-age BOYS

Birth to 5 years (z-scores)



Weight-for-age GIRLS

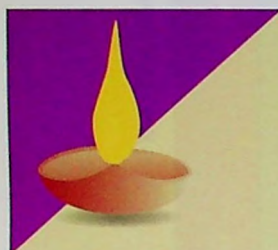
Birth to 5 years (z-scores)



WHO Child Growth Standards

3. Update on Immunisation

This session has already been covered in the ASHA Module 2. Thus, this is only a recapitulation.

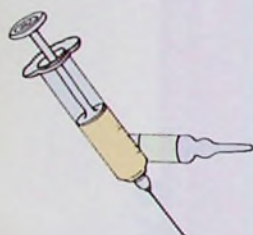


Objectives of the session

By the end of the session, the ASHA will learn about:

- Learn the skill of beneficiary tracking: listing the names and knowing when the next dose is due.
- Learn the skill of ensuring that the child's immunisation record is updated.
- Learn which children are at risk of being excluded from the programme and how to ensure complete coverage.

National Immunisation Schedule



At the time of birth (within the first 24 hrs)	At 6 weeks	At 10 weeks	At 14 weeks	At 9-12 months
BCG	DPT	DPT	DPT	Measles
Oral Polio	Oral Polio	Oral Polio	Oral Polio	Oral Polio
Booster Doses				
	At 16-24 months	At 5 Years		
	DPT	DT		
	Oral Polio			

Tetanus Toxoid is to be given at 10 years of age and again at 16 years of age. Vitamin A is to be given at 9 months along with the booster and then every six months thereafter till the fifth year of life, i.e. the 18th, 24th, 30th, 36th month and so on till the 60th month.

Role of ASHA in Immunisation

- Make a list of pregnant women, newborns and children up to two years eligible for different vaccines.
- Visit all families once in six months at least to update this list. After every immunisation session (VHND) update both the village register and the child's health card. Learn how to fill this village health register and child health card. You must be able to do this and teach this on your own.
- Ensure that immunisation is discussed during every home visit in homes where there is a child under one year of age.



(d) Remind mother when the immunisation is due and alert her to the date when the VHND is being held.

(e) If needed, escort the mother and baby to the VHND on the date when the vaccine is due. This is important for families who do not access services such as those from poor and marginalised communities.

(f) Ensure that first dose of BCG and oral polio is given soon after the baby is born.

(g) Mobilising children for VHND:

(i) Find out from the ANM when her next visit is due. If ASHA has her mobile number, confirm it on previous or same day.

(ii) You must ensure that poorest and most distant households receives special attention to access the service.

(iii) Some children are more likely to be left out than others. This includes physically or mentally challenged children, children of migrant families, children belonging to families considered of 'lower status' or different from the majority of the village. Such children and such families are said to be 'marginalised'. They need your special attention and assistance.

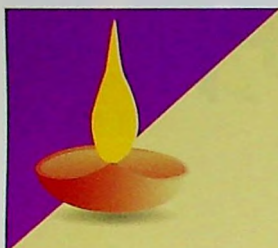
(iv) Some hamlets or urban slums/basti have neither ANM or Anganwadi centre/worker taking care of their health needs. As an immediate step to address the issue. This needs to be corrected. As an immediate step, a women representative of the hamlet/slum can be included into the 'village health and sanitation committee'.

(v) The village health plan should help identify hamlets and communities that are under-serviced. We will learn about village health plans in a later module.



4. Assessing the Sick Child

Common illnesses in the young child could include: diarrhoea, cough and cold, and fever. Each of these conditions will be discussed in the following chapters. However, before you begin to learn about each specific illness, you need to know about the danger signs in a child.



Objectives of the session

By the end of the session, the ASHA will learn about:

- How to identify general danger signs among sick children.
- Be able to recognise symptoms of common illnesses.
- Enable prompt referral.

What are danger signs?

Danger signs indicate serious illness. These can occur in many illnesses. Some danger signs may occur without any relationship to the type of illness. For example fever, diarrhoea, pneumonia, meningitis or malaria can all produce lethargy or unconsciousness. These illnesses can also make the child so sick that the child is not able to drink any fluids. These are called **general danger signs**. The presence of even one general danger sign is enough to indicate a severe disease. A danger sign calls for immediate referral. Where signs of common illness like cold and cough, fever, and diarrhoea are present without any of the danger signs, and where there is no doctor, you could provide some home-based care to the child and keep a watch for signs that indicate the need for referral.

What are the questions to be asked when seeing a sick child?

Every child who is seen for an illness should be checked for the presence of the following general danger signs:

- Not able to drink or breastfeed
- Vomits everything
- Has convulsions
- Is lethargic or unconscious.

How to assess a sick child for danger signs?

Step 1: ASK: Is the child able to drink or breastfeed?

A child has the sign "not able to drink or breastfeed" if the child is not able to suck or swallow when offered a drink or breast milk. If the mother says that the child is not able to drink or breastfeed, ask her to describe what happens when she offers the child something to drink. For



example, is the child able to take fluid into his mouth and swallow it? If you are not sure about the mother's answer, ask her to offer the child a drink of clean water or breast milk. Look to see if the child is swallowing the water or breast milk. A child who is breastfed may have difficulty sucking when his nose is blocked. If the child's nose is blocked, clear it. If the child can breastfeed after his nose is cleared, the child does not have the danger sign.

Step 2: ASK : Does the child vomit everything?

A child who is not able to hold anything down at all has the sign "vomits everything." What goes down comes back up. A child who vomits everything will not be able to hold down food, fluids or oral drugs. A child who vomits several times but can hold down some fluids does not have this general danger sign.



Step 3: ASK: Has the child had convulsions?

Ask the mother questions on whether the child has suffered from convulsions (local term) or not.



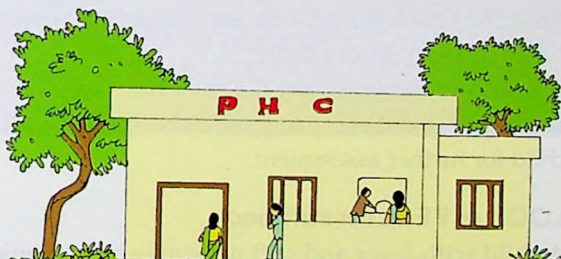
Step 4: LOOK: See if the child is lethargic or unconscious.

The lethargic child is sleepy when the child should be awake. A child who stares blankly and does not appear to notice what is happening around is also lethargic.



The unconscious child does not waken at all. This child does not respond to touch, loud noise or pain.

Step 5: Ensure that the child is referred to a PHC/CHC immediately.



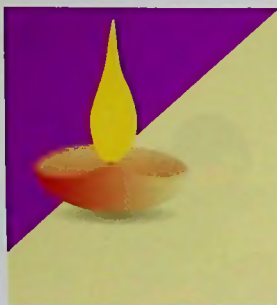
Remember:



- All sick children must be assessed for general danger signs.
- A child who has even one general danger sign has a severe problem. Refer this child urgently to hospital.
- Complete the rest of the assessment and any pre-referral treatment immediately so that referral is not delayed.

If child has diarrhoea, cough and/or cold, or fever, without any of the danger signs, the next three chapters describe how to proceed.

5. Assessing and Classifying Fever



Objectives of the Session

By the end of the session, the ASHA will learn about:

- How to assess the child for fever.
- Identify signs for which urgent referral is required.
- Start the first line of treatment before referral.

Fever is a common problem among young children. A child with fever may have malaria or another disease such as simple cough or cold or other viral infection.

ASK: Does the child have fever?

Ask the mother if the child has fever. To check temperature, place the thermometer in the armpit for 2 minutes.

If you do not have a thermometer, place your hand on the tummy of the child to decide if the child feels hot to touch.

Fever is present if the mother is sure that her child has had fever, measured by the thermometer, or if you have determined that the child feels hot to touch.



ASK: For how long? If more than seven days, has fever been present every day?

Ask the mother how long the child has had fever. If the fever has been present every day for more than seven days, refer this child for further assessment.

LOOK or FEEL for stiff neck.

A child with fever and stiff neck may have meningitis. A child with meningitis needs urgent treatment with injectable antibiotics and referral to a hospital.

While you talk with the mother during the assessment, look to see if the child moves and bends his neck easily as he looks around. If the child is moving and bending his neck, he does not have a stiff neck.

If you did not see any movement, or if you are not sure, draw the child's attention to his umbilicus or toes. For example, you can shine a flashlight on his toes or umbilicus or tickle his toes to encourage the child to look down. Look to see if the child can bend his neck when he looks down at his umbilicus or toes.

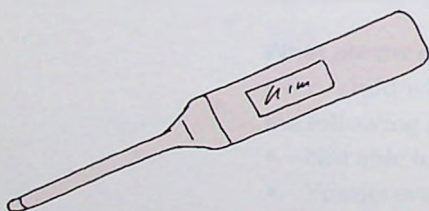


Table for Classifying Fever

Any general danger sign or stiff neck <i>Danger signs:</i> <ul style="list-style-type: none"> • Not able to drink or breastfeed • Vomits everything • Has convulsions • Is lethargic or unconscious 	Very severe febrile disease	Give first dose of Cotrimoxazole. Give first dose of antimalarial, after making a smear. Give one dose of Paracetamol to bring the high fever down. Refer URGENTLY to hospital.
Fever (by history or feels hot) in a malarial area.	Malaria	Give first dose of anti-malarial, after making a smear. Give one dose of paracetamol to bring the high fever down. Advise extra fluids, continue feeding and advise about danger signs. Follow up in two days if fever persists If fever is present every day for more than seven days, refer the child.

Remember:



- Do not assess for fever if the child does not have fever.
- If fever has been present everyday for seven days or more, refer to hospital.
- Remember to classify a child with fever who has a general danger sign as very Severe Febrile disease.
- If fever is high, one can do 'tepid water sponging' to lower the fever. Learn how to do this.
- If fever is high, and child is above 2 months of age you can give paracetamol. (see Annexure-6)

6. Management of Diarrhoeal Disease



Objectives of the session

By the end of the session, the ASHA will learn about:

- Be able to diagnose dehydration and ascertain if referral is required.
- Learn the skill of preparing and demonstrating ORS use to the mother/caregiver.
- Learn the skill of counselling the mother for feeding during diarrhoeal episode.

Prevention of Diarrhoea

Good hygiene practices and use of safe drinking water also protect against diarrhoea. Hands should be thoroughly washed with soap and water after defecating and after contact with faeces, and before touching or preparing food or feeding children.



To prevent diarrhoea, all faeces, including those of infants and young children, should be disposed of in a latrine or toilet or buried. If there is no toilet or latrine, adults and children should defecate away from houses, paths, water supplies and places where children play. Faeces should then be buried under a layer of soil. Human and animal faeces should be kept away from water sources. In communities without toilets or latrines, the community should consider joining together to build such facilities. Households can be encouraged to build their own toilet.

Step 1: Identifying the nature of diarrhoea

- **Duration:** Ask the mother if her child has diarrhoea. Passing stools more than three times a day is diarrhoea. Usually it is watery.
- **If the mother says the child has diarrhoea:** Ask for how long the child has had diarrhoea. If the **diarrhoea is of 14 days or more** duration, the child has **severe persistent diarrhoea**. This child should be referred to hospital.
- **Passing Blood:** Ask if there is blood in the stools. The child who is passing blood in the stools has **dysentery**. This child also needs referral. But one can start treatment at home also, especially if the access to a doctor is not immediately possible. The child should be treated with Cotrimoxazole at home (dosage as Annexure 6) and the mother should be advised home care.

Step 2: Assess every child with diarrhoea for dehydration.

- Look at the child's general condition. Is the child lethargic or unconscious? Is the child restless and irritable?
- Look for sunken eyes.



- Ask the mother to offer the child some water in a cup or spoon. Watch the child drink. Is the child not able to drink or is drinking poorly? Is the drinking eagerly, thirsty?
- A child is **not able to drink** if he is not able to suck or swallow when offered a drink. A child may not be able to drink because he is lethargic or unconscious.
- A child is **drinking poorly** if the child is weak and cannot drink without help. He may be able to swallow only if fluid is put in his mouth.
- A child has the sign **drinking eagerly, thirsty** if it is clear that the child wants to drink. Look to see if the child reaches out for the cup or spoon when you offer him water. When the water is taken away, see if the child is unhappy because he wants to drink more.
- If the child takes a drink only with encouragement and does not want to drink more, he does not have the sign "drinking eagerly, thirsty."
- PINCH the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? Slowly?

Step 3: How to Classify Diarrhoea

Signs/Symptoms	Status	Action to be taken
Two of the following signs: <ul style="list-style-type: none"> • Lethargic or unconscious • Sunken eyes • Not able to drink or drinking poorly • Skin pinch goes back very slowly. 	Severe Dehydration	<ul style="list-style-type: none"> • Refer URGENTLY to hospital with mother giving frequent sips of ORS/ fluids on the way.
Two of the following signs: <ul style="list-style-type: none"> • Restless, irritable • Sunken eyes • Drinks eagerly, thirsty • Skin pinch goes back slowly. 	Some Dehydration	<ul style="list-style-type: none"> • Give fluid and food for some dehydration (Plan B). • Follow-up in 2 days if not improving.
Not enough signs to classify as some or severe dehydration. Passing urine normally.	No Dehydration	<ul style="list-style-type: none"> • Give fluid and food to treat diarrhoea at home (Plan A). • Follow-up in 2 days if not improving.
Diarrhoea for 14 days or more.	Severe Persistent Diarrhoea	<ul style="list-style-type: none"> • Refer to hospital.
Blood in the stool.	Dysentery	<ul style="list-style-type: none"> • Referral if possible. • Or give Cotrimoxazole for 5 days. (see Annexure 6 for dosage) • Follow-up in 2 days.

Managing Diarrhoea at home

Making ORS

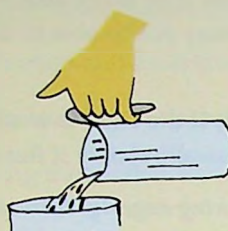
Do a demonstration of preparation of ORS



(a)
Wash your hands
with soap



(b)
Pour all the ORS powder
into a container having
capacity of 1 litre



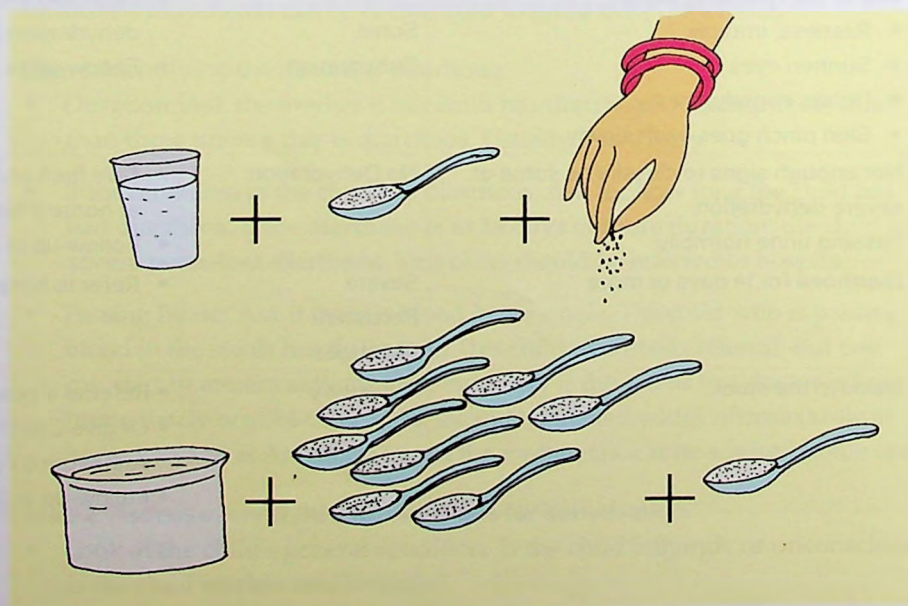
(c)
Measure 1 litre of drinking
water (boiled & cooled) &
pour it in a container



(d)
Stir well until the
powder is mixed
thoroughly

Nowadays, one litre plastic water bottles are available and can be used to measure the correct quantity of water.

If the ORS packet is not available, teach the mother how to make home-made ORS: For one glass (200 ml) of water, add a pinch of salt and a spoon of sugar. (See in the diagram how a pinch of salt is taken with three fingers and how a spoon of sugar is measured). Alternatively, one litre of water with 50 gm of sugar (8 spoons) and 5 gm (a teaspoon) of salt. A juice of half a lime can be squeezed in. Taste to see that it is not too salty, or too sugary. It should taste of tears. Spoon is taken as 5 ml. Measure this amount and ensure it comes to 5 ml.



Note: Discard ORS fluid if it is kept for more than 24 hrs.



Plan A: If the child has diarrhoea but no dehydration:

- If the child is still being breastfed, the mother is to be encouraged to continue breastfeeding, longer at each feed.
- If passing frequent watery stools:

For a child less than six months of age, give ORS and clean, preferably boiled water, in addition to breast milk. No other fluid or food to be added.

If the child is older than six months and not being exclusively breastfed, give ORS solution and home available fluids. Fluids that are available at home include soups, green coconut water, rice or pulse-based drinks, porridge, lime juice with salt and sugar.



How much ORS to give?: In addition to the usual fluid intake; give

- ◆ If the child is up to two months of age: five spoonfuls after every loose stool
- ◆ If the child is more than two months of age and less than two years, give about half a cup after every loose stool (100 ml).
- ◆ Older children can have up to one cup (200 ml) after every stool.

Tips to help the mother:

- ◆ Give frequent small sips from the cup.
- ◆ If the child vomits, wait for 10 minutes.
- ◆ Then continue but more slowly.
- ◆ Continue giving extra fluids until the diarrhoea stops.
- ◆ Continue feeding/breastfeeding whenever the child wants.

Need for referral: You should counsel the mother to call you immediately if the:

- ◆ Child becomes sicker.
- ◆ Not able to drink or breastfeed.
- ◆ Drinks poorly.
- ◆ Develops a fever.
- ◆ Has blood in the stool.

Plan B: If the child has diarrhoea and some dehydration

Determine the amount of ORS over a four hour period

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 to 19 kg
Amount of ORS in ml	200-400 ml	400-700 ml	700- 900 ml	900-1400 ml
Amount in cups of 200 ml each	2	3	5	7

If the child wants more ORS than shown, encourage the mother to give it.

For infants under six months who are not breastfed, also give 100-200 ml clean water during this period.

After four hours:

- Re-assess the child and classify for dehydration (as in table above)
- Select the appropriate plan (A or B) to continue treatment.
- Begin feeding the child.

Leave two packets of ORS with the mother for further use.

Treating with Cotrimoxazole

The type of tablets used, adult or paediatric and the amount given per day and the number of times per day and the number of days is given - all four aspects have to be learnt. (Please see Annexure -6)

Remember:



- Classify all cases of diarrhoea for dehydration. In addition also classify as severe persistent diarrhoea if duration is 14 days or more and dysentery if there is blood in stool.
- Children with signs of severe dehydration should be referred to hospital.
- Children with severe persistent diarrhoea should be referred to hospital.
- Children with dysentery could be treated with medicine at home. If they have high fever or look unwell, they should be referred.
- Children with some dehydration should be rehydrated with ORS.
- Children who are not dehydrated and have diarrhoea of less than 14 days duration should be managed at home.

Where is ORS Available: Part of drug kit, available in the Sub-Centre; PHC. Treatment with zinc will be taught to ASHAs if the state is prepared and has introduced it into the programme.



7. Management of Acute Respiratory Infection (ARI)

Objectives of the session

By the end of the session, the ASHA will learn about:

- Be able to diagnose ARI through measuring fever, observing chest indrawing, and breath counting.
- Be able to manage mild and moderate ARI with Contrimoxazole.
- Diagnose and refer the severe cases.



Step 1: Identifying the signs of ARI

Ask the mother if the child has cough or difficult breathing. If the mother says that the child has cough or difficult breathing, ask for the duration. A child who has had cough, even if mild, for more than 30 days, needs to be referred to hospital for further assessment. Any cough with fever for more than three days should also be referred.

Step 2: Look for chest indrawing

Chest indrawing in a child with cough or difficult breathing indicates that the child has pneumonia.

In a child less than one year, in normal breathing, the whole chest wall (upper and lower) and the abdomen move OUT when the young infant breathes IN. When chest indrawing is present, the lower chest wall goes IN when the young infant breathes IN.

In children less than one year of age, mild chest indrawing can occur. But in children more than one year of age, mild chest indrawing is NOT normal.

A child with any chest indrawing should be referred to the hospital.

Count the breaths in one minute.

Count the breaths the child takes in one minute as ASHA has learnt earlier. Decide whether the child has normal breathing or fast breathing.

If the child's age is	The child has fast breathing if you count
2 months up to 12 months:	50 breaths per minute or more
12 months up to 5 years:	40 breaths per minute or more

Note: The child who is exactly 12 months old has fast breathing if you count 40 breaths per minute or more.

PART B

Women's Reproductive Health

• The reproductive system includes the organs that produce eggs and sperm.

• The female reproductive system includes the uterus, ovaries, fallopian tubes, and vagina.

• The male reproductive system includes the testes, vas deferens, and penis.

• Reproductive health is a state of well-being in which the reproductive system functions properly and the individual is able to have a safe and healthy pregnancy and childbirth.

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Women's Reproductive Health

1. Safe Abortion¹

Objectives of the session

By the end of the session, the ASHA will learn about:

- Be able to advise on method, based on duration of pregnancy.
- Understand the risks of unsafe abortions, and know where safe abortion services are available in her area.
- Help women in need of such services to access safe abortion services.
- Be able to identify signs of post abortal complications and advise appropriate referral.
- Counsel for appropriate contraception after the abortion.



A woman seeks abortion because:

- She does not want more children and has not used a contraceptive method properly or the method failed.
- A pregnancy can endanger her life.
- She has no partner who will help support child.
- She got pregnant after rape.
- The child will be born with serious birth defects.

When a woman is faced with an unwanted pregnancy, she should be able to get a safe abortion.

Legality: In India, abortions are legal up to 20 weeks. They are legal only if done by a qualified practitioner. Up to 12 weeks, one doctor can do it. After 12 weeks, two doctors need to sign the consent form. Abortion services are free in all government hospitals. Women over 18 do not need anyone else to sign a consent form.

¹ This chapter has been covered in Books 2 and 3, and is intended to serve as a refresher.

Safety: Abortion is very safe if done by an experienced health worker. In India, only a doctor can perform an abortion, and this should be done under clean conditions, and with proper instruments.

Abortion is often difficult to get because, there are not enough service providers and facilities. Those providers who do provide abortion services may charge a lot of money or not even be legal providers of safe abortion services.

If you are helping someone decide about an abortion

She needs respectful advice and friendly support. Do not tell anyone else, not even her family members, about her decision unless she wants others to know.

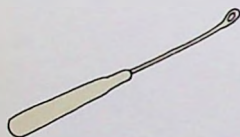
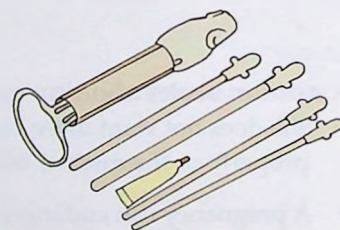
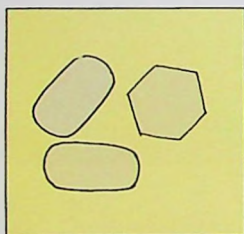
Abortion is unsafe when it is done:

- By someone who has not been trained to do it.
- With the wrong instruments or medicines.
- Under unclean conditions.

The later in pregnancy the abortion is undertaken, the more risky it becomes.

Methods: All these methods can only be done by a trained, legal provider

- **Medical Abortion:** This can be done only in very early pregnancies less than seven weeks or 49 days after last missed period. The woman is advised to take tablets, but this should be prescribed by and supervised by a legal provider.
- **Manual Vacuum Aspiration:** This method involves the woman staying in the health facility for a few hours. It can be done up to eight weeks of pregnancy.
- **Dilatation and curettage (D and C):** This method can be done up to 12 weeks of pregnancy. It is associated with a higher risk of complications.



Post-abortion care

You should advise women

- To avoid sex or putting anything in the vagina for at least five days after the abortion.
- Drink plenty of fluids for faster recovery.
- Some bleeding from vagina for up to two weeks is normal, but it should be light. Next monthly period will be after 4-6 weeks.
- That the risk of pregnancy exists as soon as intercourse is resumed regardless of monthly period. Therefore a contraceptive should be used.



Post-abortion complications

Warning signs for which you should advise immediate referral:

- Heavy bleeding
- High fever
- Severe pain in the abdomen
- Fainting and confusion
- Foul smelling discharge from the vagina.



Tasks for you to be involved in are:

- Counselling women who want abortion service or need more information to take a decision. Find out the nearest legal and safe public and private providers of such care.
- Visit the mother at home on Days 3 and 7 after the abortion.
- Providing information on the signs of complications and the need for immediate referral.
- Motivating the woman for use of contraception after the abortion.

2. Family Planning

The main focus of the chapter² is to provide ASHA with skills such as understanding contraceptive needs of the community, enabling them to make an informed choice, and ensuring access to contraceptive services. She will also learn the skill of maintaining and updating the list of eligible couples in her community in the Health Register.



Objectives of the session

By the end of the session, the ASHA will learn about:

- Be able to develop line lists of eligible couples for identification and follow-up.
- Understand the side-effects of the methods to counsel the woman to continue with the method or seek appropriate assistance.
- Be able to assess which methods are suitable for couples/individuals based on their marital status, number of children, child bearing intentions, and the mother's health status, and counsel for method use based on informed choice.
- Be able to counsel for delay in age of marriage, delay in age of first child bearing and in child spacing.
- Provide contraceptive services like: (i) Condoms, (ii) Emergency Contraceptive Pills (ECP), and (iii) Re-supply of Oral Contraceptive Pills (OCP), and maintain sufficient stocks and client records.
- Provide information on where, when and how to access other methods (sterilisation, Intra Uterine Contraceptive Device (IUCD), starting the use of OCP) and provide information on compensation for sterilisation and IUCD services and family planning insurance scheme.
- Assist ANM in follow-up of contraceptive users.
- Identify side-effects and user problems in contraceptive users and counsel and refer appropriately.
- Help poor families access contraception.

²Family Planning has been covered in Books 1 and 2 in some detail. Book 1 also provides an understanding of the menstruation-fertility links. This chapter is intended to serve as a refresher, and builds on the ASHA's existing knowledge.



Women's Needs for Family Planning

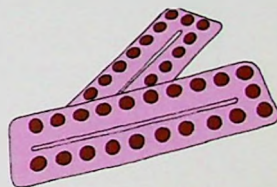
Different women and couples have different needs for contraception. When you counsel a woman on family planning, you should keep in mind the following:

- Marital status:
 - ◆ Unmarried: condoms or pills or emergency pills
 - ◆ Newly married and wanting to delay the first child: condoms or pills
- Just delivered (postpartum) or just had an abortion (post-abortion): condoms, pills, IUCD (after six weeks), injectables (currently not available in the public sector, but being used in the private sector)
- Wanting to space children: condoms, pills, IUCD, injectables.
- Not wanting more children: Long acting (10) IUCD and sterilisation for the man or the woman.

Types of Family Planning Methods and Information on Side-Effects

The Pill

If a woman takes birth control pills every day, pills will protect her from pregnancy for the entire monthly cycle. These pills are called **Mala N** or **Mala D**. Pills should be provided to those women who are specifically advised by the doctor. However, since you are required to dispense these, it is important for you to know a few important facts.



Taking pills may be dangerous for women with the following signs:

- Woman has jaundice, recognised by yellow skin and eyes.
- Woman has ever had signs of a stroke, paralysis or heart disease.
- Woman has ever had a blood clot in the veins of her legs.
- If the woman smokes and is over 35 years old.
- Has high blood pressure (more than 140/90).

If the woman has any of the problems listed above, the doctor would then counsel her to use a method other than the pills.

Side-effects of pills

The pills contain the same chemicals that a woman's body makes when she is pregnant. So she may have the following side-effects:

- Nausea
- Headaches
- Swelling of legs
- Changes in monthly period.

Side-effects often get better after the first 2 or 3 months. If they do not, and they are annoying or worrying her, you should advise the woman to see an ANM or doctor.



Pills should not be advised for women who are breastfeeding.

OCP are available in your drug kit, and at the Sub-Centre, Primary Health Centre (PHC) and Community Health Centre (CHC).

Emergency Contraceptive Pills

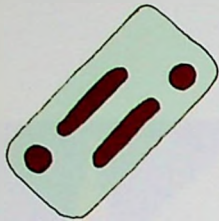
ASHA does not start women on a pill, but could provide follow-up once it is started. These are for emergency use, when the couple has not used a contraceptive and have had unprotected sex. It can also be used in instances of rape, or accidental breaking of the condom. The woman must take the pill as soon as possible after unprotected sex. The pills are effective within 12- 24 hours of intercourse. The pills will not work if the woman has already become pregnant from having sex more than three days earlier. These pills are available in your drug kit, at the Sub-Centre, PHC and CHC. These pills are to be used only as an emergency method and you should advise users to shift to regular methods of family planning.

Condom: The condom is a narrow bag of thin rubber that the man wears on his penis during sex. Because the man's semen stays in the bag, the sperm cannot enter the woman's body, and she cannot get pregnant. The condom is a useful device to be used as a contraceptive and to protect against Sexually Transmitted Infections (STIs) and HIV. It is also useful for couples where the male is a migrant and returns home for short durations.

Men most often buy condoms from shops. Since you have a supply of condoms in your drug kit, women may feel more confident in approaching you to obtain condoms.

The Intrauterine Contraceptive Device (IUCD, Copper-T, the Loop)

The IUCD is a small object or device that is inserted into the uterus and prevents the man's sperm from fertilising the woman's egg. The IUCD can stay in the uterus for up to 10 years. The most common IUCDs are made of copper.



Remember:



- ▶ A condom is to be used every time the woman has a sexual encounter to prevent from pregnancy, STIs and HIV.
- ▶ A condom is to be used only once. A condom that has been used before is more likely to break.
- ▶ Condoms are to be kept in a cool, dry place away from sunlight. Condoms that are from old or torn package are more likely to break.



Who should not use an IUCD?

You should not counsel IUCD use if the woman:

- Has never been pregnant.
- Has anaemia (Low Hb).
- Is in danger of getting a Sexually Transmitted Infection. (This includes any woman who has more than one partner, or whose partner may have other sex partners.)
- Has ever had an infection in her tubes or uterus, or an infection after giving birth or having an abortion.
- Has had a pregnancy in her tubes.
- Has a lot of bleeding and pain during monthly bleeding.

Common side-effects: The woman may have some light bleeding during the first week after getting an IUCD. Some women also have longer, heavier and more painful monthly bleeding, but this usually stops after the first three months.

Who should insert an IUCD: An IUCD must be inserted by a trained Auxiliary Nurse Midwife (ANM), nurse or a doctor after doing a pelvic (internal) examination. The best time to have the IUCD inserted is during the monthly bleeding/period. After childbirth, it is best to wait six weeks for the uterus to return to its normal size and shape before getting an IUCD.

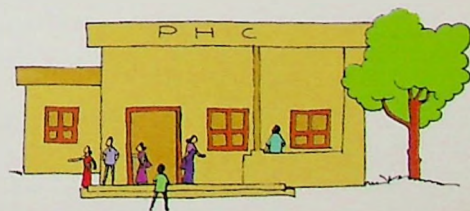
What to watch for: Occasionally an IUCD will slip out of place. If this happens, it will not be effective in preventing pregnancy, so it is important for the woman to learn to check her IUCD to make sure it is still in place. Most IUCDs have 2 thread-like strings attached which hang down into the vagina. The mother should be counselled to check the strings after each monthly bleeding to make sure the IUCD is in place.

Teaching a woman to check the IUD strings

- Wash hands.
- Squat down and reach as far as she can into the vagina with two fingers. Feel for the IUD strings, but do not pull them.
- Take fingers out and wash her hands again.

Sterilisation (the operation when the couple wants no more children)

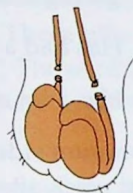
- Since these operations are permanent, they are only good for those women or men who are certain that they do not want any more children.



- To have one of these operations, the woman must go to a PHC or CHC. The surgery is fast and safe, and does not cause side-effects.
- The services for sterilisation are provided on certain days in these centres. You must know the nearest site where this service is available and on what days.
- When needed, the ASHA could accompany the woman to the facility for the tubectomy procedure. Often because of the case overload, quality of services is not assured and the ASHA should help the woman receive good quality care. Accompanying is desirable, but not mandatory.

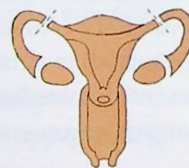
The operation for the man (Vasectomy)

A vasectomy is a simple operation, with only a small puncture to block the tubes that carry the sperm. It takes only a few minutes to do. **The operation does not change a man's ability to have sex or to feel sexual pleasure.** He still ejaculates semen but there are no sperm in the semen. The couple must be advised to use condoms or other contraceptives for 90 days following vasectomy.



The operation for the woman (Tubectomy)

A tubal ligation is a slightly more difficult operation than a vasectomy, but it is still very safe. It takes about 30 minutes. A trained doctor makes a small cut in the woman's abdomen, and then cuts or ties the tubes that carry the egg to the womb. The woman can have the operation within seven days of the start of the menstrual cycle, 24 hours after delivery, or six weeks after the delivery.

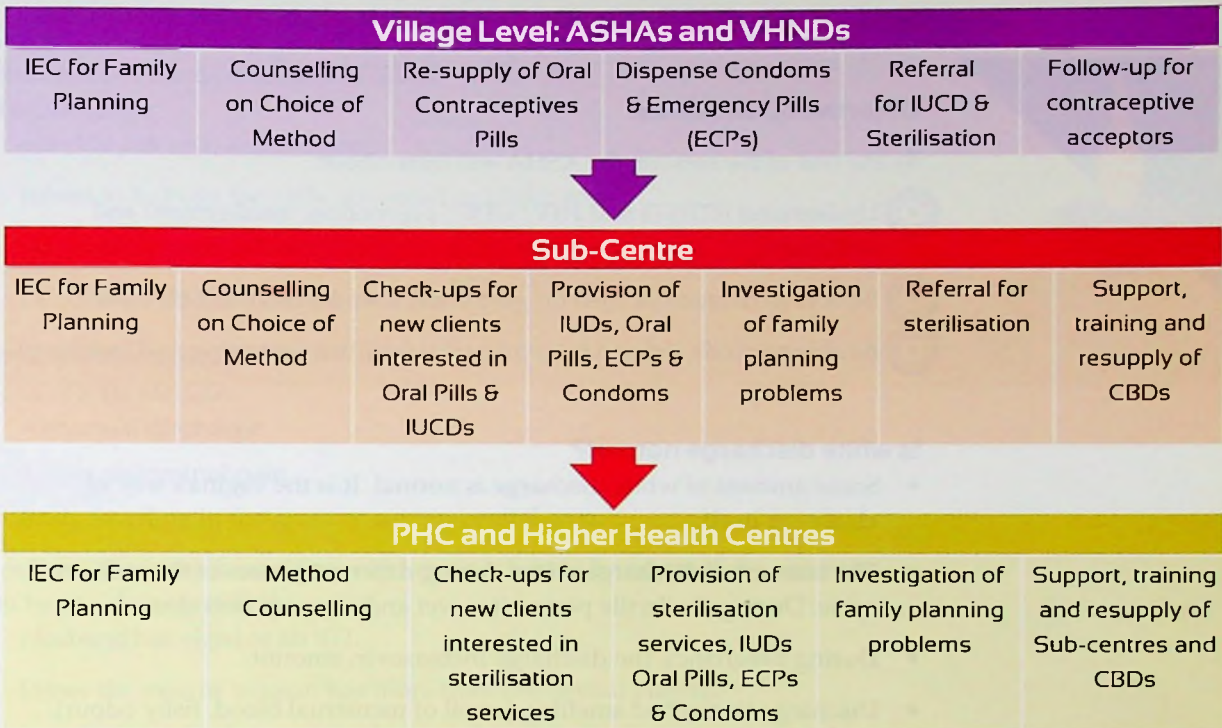


Important

Sterilisation and pills do not protect against STIs and Human Immuno-deficiency Virus (HIV). So, for protection from STIs and HIV, a condom should be used during every sexual intercourse, if the woman is at risk of contracting them.



The following diagram describes the levels of service for various contraceptives:



3. Reproductive Tract Infections (RTIs) and Sexually Transmitted Infections (STIs)

Objective of the session

By the end of the session, the ASHA will learn about:

- Understand RTI/STI and HIV/AIDS³; prevention, management and treatment.
- Be able to counsel women on protection from RTI/STI and HIV/AIDS.
- Be able to guide women to appropriate facilities for testing and treatment.

Is white discharge normal?

- Some amount of white discharge is normal. It is the vagina's way of cleansing itself.
- The amount of discharge varies during different phases of the menstrual cycle. During the fertile period it is wet and slippery, and clear.
- During pregnancy, the discharge increases in amount.
- Discharge that is bad smelling (smell of menstrual blood, fishy odour), white lumpy discharge (curd, coloured greenish, yellowish, reddish, bloody), accompanied by itching, a rash, sores, burning urination, and lower abdominal pain, pain during intercourse is indicative of RTI or STI.
- A change in colour and odour is an alert to the women of a possible infection. In addition, if there is itching or burning, there is high possibility of an infection.
- Discharge is also indicative of certain hormonal problems or even cancer.

What are STIs?

STIs are infections that are passed from an infected person to another during sexual intercourse. Mothers can pass on STIs to babies during the delivery process.

Most STIs are RTIs. However a few like Hepatitis-B and HIV are STIs but not RTIs. Many Reproductive Tract Infections are Sexually Transmitted Infections. However many other Reproductive Tract Infections are contracted by other means e.g. post childbirth or abortion or from GI infections.

Why are STIs serious problem for women?

- Because the infected semen stays longer inside a women's body.
- The entire genital tract in women is hidden, therefore, the infection stays inside for a longer time and is silent for longer.

³This section has also been covered in Book 3. Thus, this session is expected to serve as a refresher course.

- It is harder for a woman to protect herself from STIs, because she is often unable to negotiate with the male partner to use a condom.

What are the consequences of STIs?

STIs can cause:

- infertility in men and women;
- babies to be born too early, too small or blind; and
- long lasting pain in lower abdomen, or even cancer.
- Death from severe infection or AIDS

What are the signs of RTIs?

Signs of RTIs include:

- Abnormal discharge
- Lower abdominal pain
- Rash, Swelling in the groin or sore in genital area.

However, these signs manifest very late. It is best to be aware that a woman can be at risk for an STI if:

- Husband has signs of an STI.
- Either the man or woman has more than one sexual partner.
- In some occupations which require long period of travel and where the men engage in casual sex.

Tasks for ASHA to be involved in are:

- Counsel women at risk on preventive measures.
- Counsel women with symptoms of RTI/STI to go to the health facility for treatment. All 24X7 PHCs or higher facilities are equipped and skilled to provide necessary care.
- Take the course of medicine fully (all courses are for a week or ten days). You should motivate the woman to complete the course of medicines. Not completing the course of medicines makes the bacteria resistant and can cause a worse infection that does not respond to drugs the next time.
- Ensure that the husband also gets treated.
- Counsel a women to abstain from sexual activity during the period of treatment.
- If the husband is known to indulge in extra-marital relationships, counsel the woman to avoid having unprotected sex.

Where to get treatment for RTI/STI

- All drugs for STI treatment are available free of cost from PHC upwards.
- ANM and the PHC doctor can provide treatment.

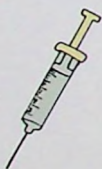


For cure of STIs, medicines are necessary, but for relief you could advise the woman to:

- Sit in a pan of clean, warm water for 15 minutes. Add lemon juice to the water.
 - Do not have sex until she feels better.
 - Try to wear cotton next to the skin.
 - Wash undergarments every day.
 - Pour clean water on genitals after passing urine.
-
- Medicines should also be provided for the partner.
 - If repeated STIs occur, testing can be done at District Hospital for Below Poverty people Line (BPL), free for others.

HIV and AIDS

You can increase awareness on HIV and AIDS: On its transmission, its prevention and services available. You can also help in reducing myths and misconception as well as stigma and discrimination associated with it. Know the following:



- HIV is transmitted through: a) having unprotected sex (sex without condom); b) receiving HIV infected blood or blood products; c) using/sharing unsterilised needles or lancets; and d) from HIV infected mother to her baby.
- It does not spread through any other mode such as kissing and touching, holding hands, mosquito bites, sharing clothes, or through saliva, nose fluids, tears.
- Who is at higher risk: Commercial Sex Workers (CSWs), Injecting Drug Users (IDUs), Men who have Sex with Men (MSM), migrant labourers, persons with multiple sexual partners, babies born to mothers who are HIV infected, and persons with other STIs.
- Persons with HIV are at greater risk of getting Tuberculosis. Every 1 in 20 persons suffering from TB in India is also HIV infected.
- HIV can be prevented by using condom during sexual intercourse (protected sex), using safe blood (when blood transfusions are necessary) from blood bank of government hospitals or recognised hospitals only, using sterilised needles/avoid sharing of needles, and by avoiding sex with multiple partners.
- HIV testing and management facility is available in the District Hospital free of cost. Treatment services for AIDS are available in some district hospitals or in the main government hospital in the big cities.
- You should encourage persons at high risk to go for HIV test. If women who are at high risk become pregnant, they must be motivated to get tested, as timely treatment may prevent transmission of HIV from HIV infected mother to baby.



Newborn Health



Newborn Health

1. High Risk Assessment and Management of Low Birth Weight/Pre-Term Babies

Identifying a high risk baby and what to do?

Objectives of the session

By the end of the session, the ASHA will learn about:

- Diagnose which babies are at high risk.
- Diagnose and refer high risk children.
- Counsel the mother on how to breastfeed a pre-term/Low Birth Weight (LBW) newborn.
- Teach mothers to express milk and feed such babies using a bowl or spoon.



Guidelines for ASHA on identifying a high risk baby

- Birth weight less than 2000 gm.
- Pre-term (delivery which happens when mother is 8 months and 14 days pregnant or less).
- Baby not taking feeds on Day 1.

If you were not present at the time of delivery and your first visit to the newborn is delayed, then the newborn is to be weighed on the day of your first visit. In such cases, using the following table, determine whether the baby is high risk or not:

Day on which baby is weighed for the first time	Weight of baby	Diagnosis
1 to 14 days	Less than 2 kg	High Risk Baby
15 to 21 days	Less than 2 kg 100 gm	High Risk Baby
22 to 27 days	Less than 2 kg 200 gm	High Risk Baby
28th day	Less than 2 kg 300 gm	High Risk Baby



Guidance that you should give to the family

- Keep the baby clothed from the very first day. In winter, cover the baby with a blanket.
- Do not bathe a baby until its weight is 2000 gm.
- Ensure that mother's nails are cut and that her hands are washed every time the baby is breastfed.
- After returning from the toilet, all family members must wash their hands with soap before touching the baby.
- High risk babies should be breastfed after every two hours.
- If baby is not suckling milk, squeeze the breast milk in a small bowl and then feed the baby with a spoon.
- The weight of high risk babies should improve every week from second week. If this does not happen, counsel them to consult you.
- Ask them to call you immediately if the baby develops any of the following: All limbs become limp, stops feeding, has chest indrawing, has fever, and is cold to touch.

What should you do if the baby is at high risk?

- Increase the number of home visits after delivery from 5 to 13.
- A daily visit, if possible, for the first week.
- Once every three days until the baby is 28 days old, and if the baby is improving once on the 42nd day.
- Weigh the babies on Day 7, 14, 21, 28. Babies who weigh less than 2300 gm on the 28th day have a higher risk of dying. If the baby is not gaining weight, refer the baby to the hospital.
- Explain the high risk issues to the parents and family (see box above).
- Provide specific care as per the problem but in general, keep the baby warm and breastfeed more often every two hours.
- For poor breastfeeding, observe the mother breastfeeding. Ensure proper latch on and positioning. Encourage the mother so that she is motivated to feed the baby well. Counsel the mother that she should not give other liquids or feeds.
- If on Day 28 the weight is less than 2300 gm or weight gain in 28 days is less than 300 gm, then you should continue to visit once a week in the 2nd month and take the weight every week.
- Fill home visit form for high risk baby (See Annexe 1 for the form)



2. Breastfeeding Low Birth Weight/Pre-Term babies

Advantages of breast milk for LBW and pre-term Babies

- Has the right nutrients for the pre-term/LBW baby
- Pre-term babies need more protein and a mother who has delivered pre-term has more breast milk.
- Is easily digestible.
- Contains factors to fight infection (small babies are more vulnerable to disease).
- Breastfeeding keeps the baby close to the mother and therefore, warm. This protects the pre-term baby from cold (Hypothermia), which can lead to infection.

Key Messages

For small babies who can suckle

- Try the underarm hold for more support or the alternate underarm hold.
- If sleeping, wake baby every 2-3 hours for breastfeeding by rubbing a damp cloth over its face.

For babies who are not able to suckle:

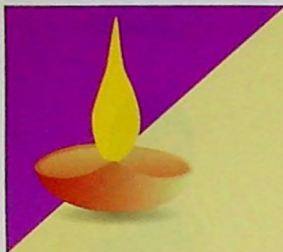
- Babies less than 1500 gm may not be able to breastfeed in the beginning.
- Express milk by applying gentle pressure over entire breast and collect milk in a clean bowl.
- Express milk every 2-3 hours to keep the milk supply up.
- Put baby to breast and allow her to lick the nipple, and try to suckle.
- Once the baby is able to suckle, she should be put to the breast as often as possible to stimulate milk production.
- Continue feeding with the spoon as well until the baby is getting its milk requirements directly from the breast.

How much to give?

- For a LBW baby: For first day 60 ml/kg body weight.
- Add 20 ml/kg body weight until baby is taking 200 ml per day.
- Divide the total into 8-12 feeds (every 2-3 hours).
- Colostrum can be kept for up to 12 hours at room temperature.
- Mature milk (after first 72 hours) can be kept for 6-8 hours at room temperature.
- Continue until baby can be fully breastfed.



3. Asphyxia Diagnosis and Management



Objective of the session

By the end of the session, the ASHA will learn about:

- Identify signs of asphyxia in the newborn.
- Support and if necessary, manage asphyxia in the newborn.

What is Asphyxia?

A baby having any one of the following symptoms at the time of birth is asphyxiated:

- No cry
- Weak cry
- No breathing
- Weak breathing.

If a baby has asphyxia, it is an Emergency. A life can be saved or lost in these five minutes. If you are present at the time of birth, and there is no doctor or nurse, you should try to help to manage the baby. However, in many such newborns, your efforts may not make enough difference and you should not feel bad or blame yourself for this. Depending on the area in which you work, you may be trained in using a bag and mask to treat asphyxia as in Annexe 3.

Consequences of Asphyxia

Immediate (at birth)

- Baby is born dead (stillbirth)
- Dies at once or within a few days
- Unable to suckle.

Long term

If the baby survives, it may have:

- Mental retardation
- Epilepsy (seizures and fits)
- Spasticity (difficulty walking or moving arms and hands).

These signs warn of asphyxia during labour

1. Prolonged or difficult labour
2. Ruptured membranes with little fluid (dry delivery)
3. Green or yellow colour thick amniotic fluid
4. Cord comes out first or cord is wound tightly around the neck



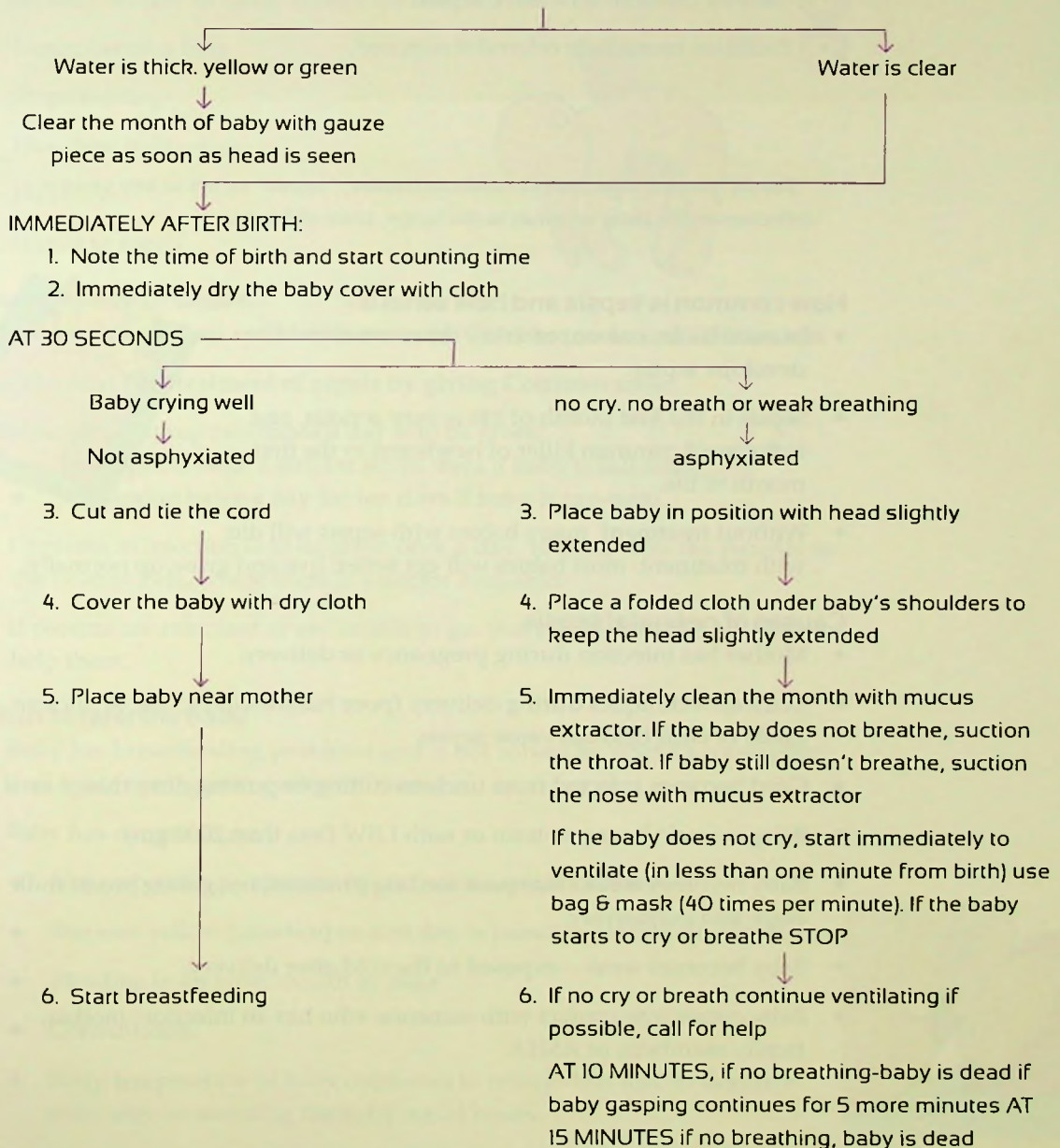
5. Pre-term labour (delivery taking place less than 8 months 14 days of pregnancy)
6. Baby being born in a position in which the head does not come out first.

Asphyxia Action Tree

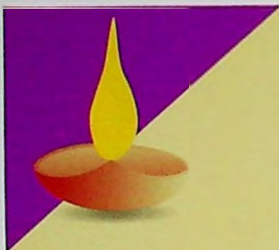
You must know the signs during labour that may indicate asphyxia at birth.

In this module, ASHA will learn to manage asphyxia using a mucus extractor.

During labour: History given by mother about the nature of water; and the breaking of bag of water



4. Neonatal Sepsis: Diagnosis and Management



Objectives of the Session

By the end of the session, the ASHA will learn about:

- Know key signs and symptoms of sepsis.
- Know how to prevent sepsis.
- Teach parents and family how to recognise high risk signs.
- Identify children who have sepsis.
- Facilitate immediate referral if required.

"Sepsis" means infection. In newborn babies, "sepsis" refers to any serious infection in the baby whether in the lungs, brain or blood.

How common is sepsis and how serious?

- In rural India, one out of every ten newborns develops sepsis.
- Sepsis in the first month of life is very serious, and is the most common killer of newborns in the first month of life.
- Without treatment, many babies with sepsis will die; with treatment, most babies will get better, live and grow up normally.



Causes of neonatal sepsis

- Mother has infection during pregnancy or delivery.
- Unclean techniques during delivery (poor handwashing, use of unclean blade or cord ties) can cause sepsis.
- Cord becomes infected from unclean cutting or putting dirty things on it
- Baby is weak; born pre-term or with LBW (less than 2000 gm)
- Baby becomes weak from poor feeding practices; not giving breast milk early and exclusively.
- Baby becomes weak – exposed to the cold after delivery.
- Baby comes into contact with someone who has an infection: mother, family members, or ASHA



Can sepsis be prevented? Yes, if the following are observed carefully

- Good hygiene: frequent handwashing; clean instruments during delivery; clean clothes
- Keeping the baby warm during the cold season
- Breastfeeding (early initiation and on demand, and exclusive)
- Keeping the umbilical cord clean and dry

Information about danger signs to parents: You should teach the parents that if any of the following signs develop, you should be called immediately or the baby should be taken at once for referral.

- Limbs become limp
- Stops feeding
- Has chest indrawing
- Has fever
- Is cold to touch.



Management of sepsis

Sepsis treatment: Two antibiotics are used: Cotrimoxazole and Gentamicin

You can start the treatment of sepsis by giving Cotrimoxazole:

Cotrimoxazole syrup two times a day is to be given:

- ◆ $\frac{1}{4}$ teaspoon twice a day for seven days if baby is full term.
- ◆ $\frac{1}{4}$ teaspoon twice a day for ten days if baby is pre-term.
- Gentamicin injection is to be given once a day. You can refer the parents to the nearest PHC where there is a doctor available.
- If parents are reluctant or are unable to go, you can request the ANM to help them.

When to refer the baby

- Baby has breastfeeding problems and is not solved by ASHA's counselling and home management after 24 hours.
- Baby has danger signs:
 - ◆ Not responding – after antibiotic treatment for 24 hours.
 - ◆ Becomes yellow (jaundice) on first day or jaundice persists after 14 days.
 - ◆ Bleeding from nose, mouth or anus.
 - ◆ Convulsions.
 - ◆ Body temperature of baby continues to remain less than 95 degree F even after re-warming the baby for 24 hours.
 - ◆ Tetanus (stiffness after the fourth day), unable to suckle or open mouth.



PART D

Introduction to Infectious Diseases

Introduction to Infectious Diseases is a comprehensive textbook that covers the basic principles of infectious diseases, from the basic science of pathogens to the clinical management of patients.

This book is written for students who are studying infectious diseases as part of their medical or biomedical degree. It provides a solid foundation in the basic science of infectious diseases, and also covers the clinical management of patients with infectious diseases.

Objectives of the course

- To provide a comprehensive overview of the basic science of infectious diseases, including the biology of pathogens, the immune system, and the clinical management of patients with infectious diseases.
- To provide a comprehensive overview of the clinical management of patients with infectious diseases, including the diagnosis, treatment, and prevention of infectious diseases.
- To provide a comprehensive overview of the epidemiology of infectious diseases, including the spread of infectious diseases, the role of the environment, and the impact of human activities on the spread of infectious diseases.



Introduction to Infectious Diseases

Community Level Care for Malaria in Areas where Malaria is endemic

Objectives of the session

By the end of the session, the ASHA will learn about:

- Understand and be able to communicate key facts about malaria and its prevention.
- Making a blood smear and testing blood using a rapid diagnostic test for malaria.
- Managing fever in the young child- when to suspect malaria, how and when to test, when to refer, when and what to treat.
- Understanding spread of TB and methods of diagnosis.
- Supporting treatment of TB and follow-up with patients.



Malaria

Malaria is an infection caused by parasite (microorganism) called Plasmodium. This is transmitted by the female anopheles mosquito. There are two types of malaria: Vivax and Falciparum. Vivax is not very dangerous but falciparum malaria can cause damage to the brain, liver and lungs.

How does it spread?: When the mosquito bites an infected person, the parasite enters the mosquito's stomach. It multiplies in the insect's stomach and then when it bites another person, the parasite enters the blood of the person along with the insect's saliva and infects him/her .

Signs and Symptoms

- The patient can have fever, high shivering and sweating, which can occur on alternate days (in Vivax type of malaria) and every day at a certain time with Falciparum type infection.
- Sometimes the patient has continuous fever, malaise, and headache.
- Malaria affects more frequently and more severely children below five years, pregnant women, or patients who are already ill.
- Falciparum malaria can affect the brain: causing clouding of consciousness, fits, or paralysis leading to death.



Who is at higher risk?: In areas where malaria is highly prevalent, pregnant mothers and malnourished children are at greater risk.

How to suspect malaria: Any person living in a malaria affected area, who develops fever must be suspected as having malaria. If fever is with chills and rigor and headache, it is even more likely.

How to confirm: There are two ways of confirming malaria:

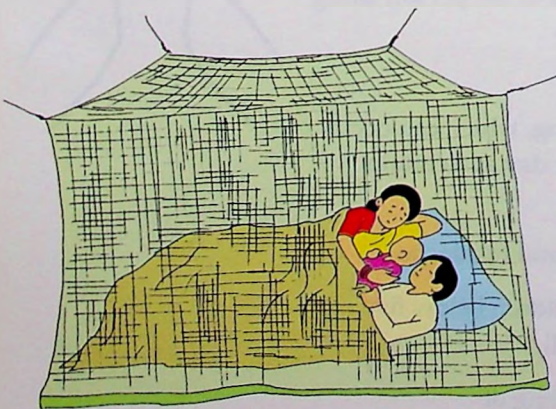
- Using the Rapid Diagnostic Test (RDT) kit the patient's blood can be tested for malaria (Please see Annexe 4). If the test is positive then the patient has malaria.
- You should also make a blood smear. (Please see Annexe 5). The parasite can be seen in the blood smear. Sometimes the blood smears can be negative, and a repeat smear is required.

RDT and Smears are to be taken before starting treatment. All ASHAs working in a block with a high incidence of malaria need to be trained for taking smears for malaria.

Treating Malaria

1. Give paracetamol for fever. Also sponging with warm water to bring down temperature when needed.
2. If RDT is positive for malaria- Give chloroquine or Artesunate Combination treatment (ACT) drug as recommended. (Annexe 7) The dose of the drug depends of the age group. The exact dosage schedule is given in Annexe 6. Nowadays the recommendation is to treat for malaria only if the test is positive. If the test is not available, or cannot be done, it is permissible to give a course of chloroquine. This would still be needed in many areas.
3. If despite treatment fever does not begin to come down within two or three days, or persists even after a week, referral becomes mandatory.

Referral to ANM or doctor is necessary if there is no response and fever continues or if patient becomes delirious.



Prevention of Malaria

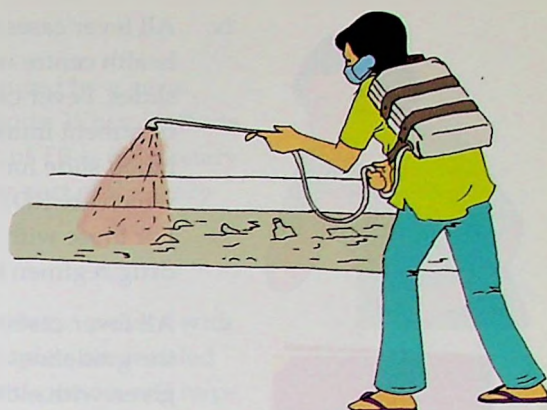
Mosquitoes thrive in warm and wet climates. There are many types of mosquitoes, but only very few of them transmit the disease. The mosquito that transmits malaria is called Anopheles and it bites almost exclusively at night. It does not bite during the day. That is why sleeping under a bed net is a good way of preventing bites. The mosquito that spreads malaria breeds in clean water. That is why during rainy season, where water collects, this forms a good breeding place for mosquitoes.



Ways of controlling malaria: There are two ways:

Do not allow mosquitoes to multiply :

- Spraying insecticide where mosquitoes sit when they come to bite inside the houses.
- Drying up breeding pits.
- Not allowing water to stagnate- pouring a spoon of oil over the water surface in small collections. This is enough to kill the mosquito larvae.
- Enable cultivation of Gambusia fish in ponds and wells- these eat up the mosquito larvae. Also remove the grass from banks of pond. Larvae find it difficult to breed if there is no vegetation and the pond edges are vertical.
- Water in drains and canals should not be allowed to remain stagnant in one place and it should be flushed and cleaned once in a week.



Do not allow mosquitoes to bite

- Clothes that cover the body, like full sleeved shirts.
- Mosquito nets treated with insecticides so that infected mosquitoes do not reach the sleeping person. The mosquitoes coming in contact with the net may die later.
- Use of mosquito repellent, e.g. burning neem leaves to drive mosquitoes away.



The Role of ASHA in Prevention and Management of Malaria

- i. During house visits and in the village meetings you should inform the community about malaria, how to prevent it and what to do for fever. You should also inform the community of the services you can provide for malaria and request that for any case of fever you should be contacted.
- ii. Encourage and help the village health and sanitation committee and the women's groups or other community organisations to take appropriate collective action to prevent malaria in that area.
- iii. Where possible, ask those with fever, who you suspect of having malaria to go to the primary health centre. You should facilitate this. It is only if the patient cannot go the same day, that you should take on the task of diagnosis and treatment of the suspected patient with malaria till such time as the qualified service provider is accessed.

- iv. All fever cases that approach you and are unable to go to the primary health centre within a day, should be screened using RDT and blood slides. Fever cases which turn out to be RDT positive should be provided treatment immediately. You should store the positive RDT along with the blood slide for Quality Assurance (QA) check at a later date. For cases which are RDT negative, you should send blood slides to the laboratory. For those with a positive result, you can treat the cases following the drug regimen in which you are trained.



- v. All fever cases should be given paracetamol and fever managed as per the guidelines. The persons who test positive for malaria would be given with either chloroquine drug or ACT drugs (depending on the instructions in that area) followed by primaquine for radical treatment.

- vi. Whenever you do a blood test or give a drug you should make a record of it in your diary. You should, provide the information during the monthly ASHA review meeting to the ANM or to your supervisor. If payment is being made for this work, you may be also required to maintain a register.



- vii. Transport of slides and obtaining the result of the test: The slides collected by you should be delivered to the sub-centre by you or by anyone whom you request, on a day to day basis. These slides should then be transported to the PHC lab preferably twice a week, or less by the MPW (M) and if not, the MPW (F). The results should be conveyed to you by the MPW (M) and if not the MPW (F).

- viii. If there is a pregnant woman in a high malaria area, you should facilitate her getting an insecticide treated bed net at the time of the first antenatal care check up and follow up to see that she uses it. After delivery you should ensure that the baby from the time of birth also sleeps under an insecticide treated bed-net.

- ix. If a pregnant woman gets high fever and chills, ensure that she is taken to see a doctor. You could start Chloroquine or ACT immediately if there is a delay in seeing a doctor.. Do NOT give primaquine to a pregnant woman or a child below one year of age.



Tuberculosis

Tuberculosis (TB) is a highly infectious bacterial disease caused by a germ (*Mycobacterium tuberculosis*). TB can affect any part of the body. When it affects the lungs, it is called pulmonary TB. The commonest form of TB is pulmonary TB. It affects over 2 million people in India. TB in any other part of the body (i.e. other than lungs) is called extra-pulmonary TB.



How does TB spread?

TB germs usually spread through tiny droplets in the air, when a patient with pulmonary tuberculosis coughs or sneezes. When these droplets are inhaled by a healthy person, s/he gets infected with TB. This infected person will have a 10% lifetime risk of developing TB. Spread of disease is increased in poorly ventilated houses where many people live close together or in high dust areas like mines and quarries. An undernourished or malnourished patient is also at a high risk of contracting and dying of TB. Both drugs and nourishment are needed to achieve a cure in such persons. Children can also get both forms of TB.

When should TB be suspected?

The symptoms of pulmonary TB are:

- Cough with sputum for two weeks or more
- Pain in chest
- Sometimes the presence of blood stained sputum (haemoptysis) with symptoms like:
 - ◆ Rise in evening temperature
 - ◆ Night sweats
 - ◆ Loss of weight
 - ◆ Loss of appetite.

A person with cough for two weeks or more is a suspect for TB and should be referred to a PHC/CHC/DH for the confirmation of diagnosis.

How to diagnose TB?

Sputum examination is the main tool for diagnosing pulmonary TB.

The diagnosis is made when the germ is present in the sputum of the patient. At least two sputum samples have to be tested (one of which has to be collected first thing in the morning at the patient's home and the other at the health facility). A receptacle for collection of sputum at home is given to the patient at the microscopy centre at the health facility). The two samples should be collected for examination preferably within 24 hours. The sputum is stained by a special dye and examined under a microscope by trained personnel.



The person is said to be a TB patient if the germ is detected in both or one of the two samples. Patients who are sputum negative for germs but who still exhibit disease symptoms should be referred to the Medical Officer (MO) who may order other investigations like an X-ray of the lungs.

Diagnosis of TB must be done by a Medical Officer.

What is DOTS?

DOTS programme is "Directly Observed Treatment" in which a health worker or another trained person who is not a family member, watches as the patient swallows the anti-TB medicines in her presence.

What is 'Cure'?

A patient who is initially sputum smear-positive and who has completed treatment and had negative sputum smears on two occasions, one of which was at the end of treatment, is declared a 'cured' patient.

Treatment and Management of TB

- Diagnosis of TB is done through X-ray, sputum examination.
- All patients who have TB need to be treated with anti-TB drugs which can take up to six or nine months.
- The current approach is through Directly Observed Treatment, Short Course (DOTS).
- Patients must take the drugs regularly and not stop before the specified period even if they feel better.



Prevention of TB

- BCG vaccination of children can prevent TB among small children. BCG is given at birth.
- Finding cases and ensuring compliance with treatment is important.
- Improve living conditions.
- ASHA should discuss TB during health communication sessions
- ASHA should encourage old people and those who are vulnerable with cough for over one month to visit a doctor.
- ASHA could serve as a DOTS provider in her village and ensure compliance with treatment.

Your Role in the Treatment Phase

- You could serve as the DOTS provider in your village and ensure compliance.
- Since the treatment is of long duration, the ASHA has a key role in motivating the patient to complete the treatment and prevent them from stopping midway or drop out.
- Recognising the side-effects of the drugs (Annexe 8) and knowing how to deal with side-effects of drugs and making sure of drug availability at the health facility will help you to do this more effectively.
- Encourage the patient to take sufficient nutrition during treatment and moderate rest at least for the first two months.
- The family of the patient should be counselled to take precautions at home especially for children and elder persons who can contract the disease quickly.
- The patient must eat and drink from a separate set of utensils which should be washed separately. When coughing, the patient must put a protective clean cloth over his mouth to prevent spread of droplets or leave the house and cough in a nearby open space. The cloth should be washed in hot water or with disinfectant thoroughly on a regular basis.
- The patient should not have close contact with spouse, children and infants and the elderly within the family at least for two months after starting treatment. Simple hygiene precautions will help in preventing transmission of TB within the family.
- You must keep a watch on the other family members to detect early signs of TB in the members and if necessary, get them examined from time to time.
- Ensure BCG vaccination of children at birth. This can help prevent TB among small children.
- TB is also a stigmatising disease. Confidentiality of patient identity must be maintained.
- Awareness of TB related symptoms and the approach to achieving a cure through self-reporting for examination must be stressed at community gatherings as also the importance of good nutrition and taking of complete treatment.



- Relapse of TB in patients who have had previous treatment is possible. Many times, such patients are considered as new patients. The record of previous treatment should be made known to the health facility where the patient presents for re-treatment so that a different drug regimen may be prescribed.

Precautions for Anti-TB Treatment among Pregnant Women

- Women in child bearing age should be counselled to avoid pregnancy while on anti-TB treatment and at least six months after.
- The effect of oral contraceptives is reduced by medicines and hence, other methods of contraception should be advocated.
- One of the TB drugs, Streptomycin, *should not be* given in the first trimester of pregnancy.





Annexes

Annexe I: Home Visit Form for the High Risk Baby

Home visit form (Examination of Mother and Newborn)								
Ask/Examine Date of ASHA's visit	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Action by the ASHA	Supervisory Check
A. Ask Mother								Action Take
No. of times mother take full meal in 24 hrs							If less than 4 times or if meals not full, advise mother to do so	Y/N Y/N
Bleeding: How many pads are changed in a day							If more than 5 pads, refer mother to hospital	
During the cold season is the baby being kept warm (near mother, 2 clothed and wrapped properly)	Yes/No/ NA	Yes/No/ NA	Yes/No/ NA	Yes/No/ NA	Yes/No/ NA	Yes/No/ NA	Advise the mother to do so, if not being done	
Is the baby being fed properly (whenever hungry or at least 7-8 times in 24 hrs)	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Advise the mother to do so, if not being done	
Is baby crying incessantly or passing urine less than 6 times a day	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Advise mother to feed the baby after every 2 hours	





B. Examination of Mother								
Temperature: Measure and record							Temperature up to 102 degree F (38.9 degree C)- treat with paracetamol, and if the temperature is above it, refer to hospital)	
Foul-smelling discharge and fever more than 100 degree F (37.8 degree C)	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	If yes, refer the mother to hospital	
Is mother speaking abnormally or having fits?	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	If yes, refer the mother to hospital	
Mother has no milk since delivery or if perceives breast milk to be less	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	If yes, take action for breast feeding management	
Cracked nipples/painful and/or engorged breast	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	If yes, take action for breast feeding management	
C. Examination of Baby								Action Take
Are the eyes swollen or with pus	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	If yes, ask mother to put tetracycline ointment in baby's eyes twice a day, for five days	Yes/No
Weight (on day 7, 14, 21, 28 and 42)							If weight gain every week after first week is less than 100 gm, then take action (for breastfeeding)	Yes/No

Temperature: Measure and Record							<p>If baby's temperature is more than 99 degree Fahrenheit (37.2 degree Celsius), refer.</p> <p>If it is between 95.1 97 degree Fahrenheit (35.1-36.1 degree Celsius), ask mother to feed baby frequently, keep the baby warm.</p> <p>If temperature of baby is less than 95 degree F (35 degree Celsius), do hypothermia management.</p>	Yes/No
Skin: Pus filled pustules	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Treat with gentian violet and observe for signs of sepsis.	Yes/No
Cracks or redness on the skin fold (thigh/Axilla /Buttock)	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Keep baby clean and dry.	Yes/No
Yellowness in eyes or skin: Jaundice	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	If it is on the first day or beyond 14 th day, then it is abnormal jaundice. Refer the baby to hospital.	Yes/No
Give health education to the mother on day 2						Yes/No	Give danger sign information sheet to parents on Day 2- Yes/No	
Give high risk baby information sheet on day 2						Yes/No		





D. Sepsis Diagnosis: Check now for the following signs of sepsis: If sign is present mention - Yes, if it is absent mention - No											
Record the observations on Day 1 from the first examination of newborn form											
Date of ASHA's visit	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Action by the ASHA	Supervisory Check		
All limbs limp								Consider the first three signs as criteria for diagnosing sepsis only if the sign was absent previously and then it newly developed	Yes/No		
Feeding less/Stopped									If at least two criteria are present on the same day, diagnose as sepsis, and proceed with sepsis management (using sepsis management form)	Yes/No	
Cry weak/stopped										Even if no sign is observed, ask the mother to keep a watch and call ASHA	Yes/No
Distended abdomen or mother says 'baby vomits often'											If only one sign is present, visit every day to check appearance of another sign. Meanwhile provide management for the existing problem
Mother says 'baby is cold to touch' or baby's temperature >99 degree F (37.2 degree C)								Total number of criteria present	Yes/No		
Chest in-drawing									Total number of criteria present	Yes/No	
Pus on umbilicus								Total number of criteria present		Yes/No	
Is it Sepsis	Yes/ No	Yes/ No	Yes/ No	Yes/ No	Yes/ No	Yes/ No	Yes/ No		(See the box at the bottom)	Yes/No	

Which management of sepsis was accepted by the family? (Circle the correct answer)

1. No treatment 2. Referral 3. Treatment by ASHA 4. Other treatment (specify)

If treated by ASHA, fill the sepsis management form.

- For feeding problem, provide breast feeding management.
- For only chest in-drawing treat with cotrimoxazole, as given in Annexe 6.
- For the pus on umbilicus, treat with gentian violet paint.
- For hypothermia, provide hypothermia management.
- For fever, provide fever management.

If the baby's weight on 28th day is less than 2300 grams or weight gain over birth weight is less than 300 grams, continue to visit baby in 2nd month. Record the observations on the home visit form.

Supervisor's note: Incomplete work/Incorrect work/ incorrect record/in correct record

Name of ASHA: _____ Date: _____

Name of trainer/Facilitator _____


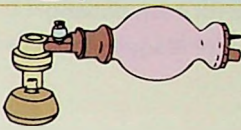




Annexe 2: Instruction on Use of Mucus Extractor

Description	Practice			
	1	2	3	4
1. Place the baby in the proper position, dry and cover with a folded towel under its shoulders. The baby's head should be slightly extended.				
2. Take the mucus extractor out of sterile wrapper.				
3. Place tube with the mouth piece in your mouth. Hold the other tube in your hand at least 1 hand's length from the tip.				
4. Place finger length of clear tubing in baby's mouth and suck for a few seconds, moving tip around mouth to clear secretions. If baby cries and breathes normally, stop. If not, proceed with the next step.				
2. Insert the tube no further than your index finger into the baby's throat, and gently suck out any secretions. If baby cries and breathes normally, stop. If not, proceed with the next step.				
2. Remove clear tubing from baby's throat and mouth and place tip into one nostril and gently suck. Repeat with other nostril.				
3. When resuscitation is finished, dispose of mucus extractor (do not reuse).				



Annexe 3: Skill Checklist: Using Bag and Mask

Descriptions	Practice			
	1	2	3	4
<p>1. Place the baby in proper position, dry and cover with a folded towel under the baby's shoulders. The baby's head should be slightly extended</p> 				
<p>2. Place the mask with bag attached over infant's mouth and nose, and try to make an airtight seal.</p>  <p>Proper positioning of bag and mask</p> 				
<p>3. Squeeze the bag 40 times per minute.</p> 				
<p>4. Check to see that the baby's chest rises with each ventilation</p>				
<p>5. If the chest is not rising</p> <ul style="list-style-type: none"> • Reposition the baby's head and try again • Reposition the mask and check that the seal does not allow air to escape • Increase ventilation pressure by squeezing the bag harder • If there is too mucus, suction again • If chest is still not rising, remove bag from mask, place mask over baby's mouth and nose and blow directly into the mask 				
<p>6. After ventilating for one minute, stop and look for spontaneous cry or breathing. If not present, continue ventilating</p>				
<p>7. Every two minutes or 80 breaths, check for a few seconds to see if the baby is responding. Is yes, stop. If no, continue.</p>				
<p>8. After 10 minutes of ventilation, if there is no gasping or breathing, stop ventilation.</p>				
<p>9. When resuscitation is complete, wash the mask and valve with soap and water, dry, and store in its bag.</p>				

Annexe 4: Technique for performing rapid diagnostic test

Materials in the Rapid Diagnostic Test Kit

1. Spirit (alcohol) swab (one for each patient)
2. Disposable Lancet (one for each patient)
3. Capillary tube (one for each patient)
4. Test strip (one for each patient)
5. One multiple well plastic plate
6. Test tube (one for each patient)
7. Buffer solution or reagent solution
8. Desiccant

Procedure

- Check that the test kit is within its expiry date. If not discard it. Read the instructions of the test kit, as there may be minor variations in the procedure between different kits. Place a small box, jar or bottle for trash next to the kit.
- Open a foil pouch and check that the desiccant inside it is still blue. If not, discard the test.
- Remove the test strip and the small glass tube or loop from the foil pouch and place them on a clean dry surface.
- Take out the buffer solution and the dropper. Place a new test tube in the multiple well plate.
- Clean a finger with the swab and let the skin dry completely in the air. Prick finger on the side with a lancet. Place lancet in trash container. Let a drop of blood come out on the skin.
- Touch the tip of the glass tube or the loop to the blood drop on the finger and let a small quantity of blood (a small drop) come up in the tube or the loop.
- Touch the tube or the loop to the test strip just below the arrow mark to place the blood there. If there is a paper, where *Plasmodium falciparum* is written, remove it and place the blood, where it was. Place tube/loop in trash container.
- Using the dropper, place 4 drops of buffer solution into a new test tube. After this, place the test strip containing blood in the buffer solution with the arrow pointing down. While waiting, a slide can be prepared.



- Observe after 15 minutes – if any red line does not appear in the test strip then the test strip is not working; discard it and use another one.
- If a single red line appears, it is not falciparum malaria. If two red lines appear, the test result is falciparum malaria.
- The test should be read 15 to 20 minutes after blood was taken. Earlier or later readings may lead to false results.
- Place test strip and test tube in trash container. Make sure this container is kept out of reach of children. When it is full, if in a village, bury it in the ground, or send it with the MPW to the PHC for safe disposal.



Annexe 5: Technique of Preparation of Blood Smear






For preparation of blood smears following items are required:






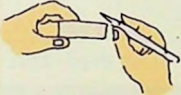
1. Clean glass slides
2. Disposable Lancet
3. Spirit or Cotton swab for cleaning the finger
4. Cotton
5. Clean piece of cotton cloth
6. Lead pencil

After the patient information has been recorded on the appropriate form, the blood films are made as under:

- Take a clean glass slide free from grease and scratches
- Clean the finger of the patient using a spirit swab

Take the following steps for preparation of the blood smear:

	i. Select the second or third finger of the left hand
	ii. The site of the puncture is the side of the ball of the finger, not too close to the nail bed
	iii. Allow the blood come up automatically. Do not squeeze the finger.
	iv. Hold the slide by its edges
	v. The size of the blood drop is controlled better if the finger touches the slides from below

	vi. Touch the drop of blood with a clean slide, three drops are collected for preparing the thick smear.
	vii. Touch another new drop of blood with the edge of a clean slide for preparing the thin smear.
	viii. Spread the drop of blood with the corner of another slide to make a circle or a square about 1 cm
	ix. Bring the edge of the slide carrying the second drop of blood to the surface of the first slide, wait until the blood spreads along the whole edge
	x. Holding it at an angle of about 45° push it forward with rapid but not too brisk movement
	xi. Write with a pencil the slide number on the thin film, Wait until the thick film is dry. The thin film is always used as a label to identify the patient.

Remember

- The blood should not be excessively stirred. Spread gently in circular or rectangular form with 3 to 6 movements.
- The circular thick film should be about 1 cm (1/5 inch) in diameter.
- Allow the thick film to dry with the slide in the flat, level position protected from flies, dust and extensive heat.
- Label the dry thin film with a soft lead pencil by writing in the thicker portion of the film the blood slide number and date of collection

The lancet, cotton swab should be disposed off.



Annexe 6: Drugs Dosage and Dispensing Schedule








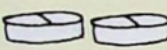
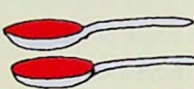
Cotrimoxazole

1 Tablet: Sulphamethoxazole 200mg + Trimethoprim 40mg

5ml or (1 tsp) Syrup: Sulphamethoxazole 200mg + Trimethoprim 40mg

Duration: To be given for 5 days

Frequency: Two times a day


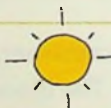


Age of the patient	Amount of tablet	Amount of syrup	Frequency of dose in a day
Birth upto <1 months (<3kg)		One fourth tsp (1.25ml)*	Twice a day 
1 month up to 2 months (3-4kg)	½ tab (Half tab) 	½ tsp (2.5ml) 	Twice a day 
2 months-12 months (4-10kgs)	1 tab 	Full tsp (5ml) 	Twice a day 
12 months-5 yrs (10-19 kgs)	2 tabs 	2 full tsp (10ml) 	

*Avoid cotrimoxazole in infants less than one month who are premature or jaundiced.

Side effects

Nausea, vomiting, stomatitis, rashes, headache, folate deficiency is infrequent.

Albendazole

Age of the patient	Strength of tablet	Amount of tablet	Frequency of dose in a day
<1 year	Not to be given		
1-2 years	400mg	½ tab (Half) 	Once a day 
>2 years	400mg	Full tab 	Once a day 

Side Effects: Rarely dizziness

Contraindicated in child less than 1 year and in pregnancy




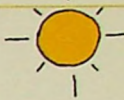
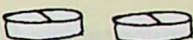

Iron and Folic Acid

Pediatric IFA=20mg elemental Iron

Adult IFA tab= 60 mg elemental Iron

Duration: To be given for 14 days in anemic child and then reassess

Frequency: Once a day











Age of the child	Dose	Frequency
<4months	On doctors advise	
4 months-24 months (Wt 6-12 Kg)	1 tab 	Once a day* 
2 yrs-5yrs (12-19 kg)	2 tabs 	Once a day* 
<p>*Can be increased on doctor's advise</p> <p>Side Effects: Constipation</p> <p>In case of diarrhea take doctors advise</p> <p>In case of pain abdomen tablet to be consumed after food</p>		

Paracetamol

1 tablet=500mg

Duration: To be given for 3 days only

Frequency: Maximum four times a day at an interval of six hours

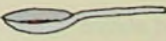




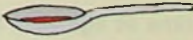


Age	Dose of tablet	Frequency
2 months -3 years (Wt 4-14 kgs)	$\frac{1}{4}$ tab (One fourth) 	Max 4 times a day    
3yrs -5yrs (Wt 14-19 kgs)	$\frac{1}{2}$ tab (Half) 	Max 4 times a day    

5ml or (1 tsp) Syrup=125 mg/5ml (Each1ml contains 25 mg of paracetamol)

Per kg dose of paracetamol=10-15 mg/kg/dose

Duration: To be given for 3 days only

Frequency: Maximum four times a day at an interval of six hours

Age	Dose of Syrup		Frequency
	In ml	In teaspoon	
New Born<3kg	1ml	$\frac{1}{4}$ tsp (One fourth) 	Max 4 times a day    
>1 year (>3kg-8kg)	2.5ml	$\frac{1}{2}$ tsp (Half) 	
1-3 yrs (>8-14 kgs)	5 ml	1 tsp (One) 	
>3 yrs >14 kgs	7.5 ml	1 $\frac{1}{2}$ tsp (One and Half) 	



Annexe 7: Treatment Guidelines for ASHA

Age-specific Drug Schedules

1. Chloroquine tablets (150 mg base)

Age (in years)	Day 1	Day 2	Day -3
	Tab. Chloroquine	Tab. Chloroquine	Tab. Chloroquine
<1	1/2	1/2	1/4
1-4	1	1	1/2
5-8	2	2	1
9-14	3	3	1 1/2
15 & above	4	4	2

2. Primaquine tablets (7.5 or 2.5 mg base)

Age (in years)	P. falciparum		P. vivax	
	Primaquine 0.75 mg/kg on day 1		Primaquine 0.25 mg/kg daily dose for 14 days*	
	mg base	No. of Tablets (7.5 mg base)	mg base	No. of Tablets (2.5 mg base)
<1	Nil	0	Nil	Nil
1-4	7.5	1	2.5	1
5-8	15	2	5.0	2
9-14	30	4	10.0	4
15 & above	45	6	15.0	6

* Primaquine is contraindicated in children under one year and pregnant women.

3. Artesunate 50 mg tablets + Sulfadoxine-Pyrimethamine 500 + 25 mg tablets (ACT) combination

Age (in years)		1 st Day (number of tabs)*	2 nd Day (number of tabs)	3 rd Day (number of tabs)
<1 Year*	AS	1/2	1/2	1/2
	SP	1/4	Nil	Nil
1-4 Years*	AS	1	1	1
	SP	1	Nil	Nil
5-8 Year*	AS	2	2	2
	SP	1 1/2	Nil	Nil
9-14 Year*	AS	3	3	3
	SP	2	Nil	Nil
15 and above	AS	4	4	4
	SP	3	Nil	Nil

* till such time as age-wise blister packs are made available for all age groups



Annexe 8: Side-effects of Common TB Drugs

Symptom	Drug (abbreviation)	Action to be taken
Drowsiness	Isoniazid (H)	Reassure patient
Red-orange urine/tears	Rifampicin (R)	Reassure patient
Gastrointestinal Upset	Any oral medication	Reassure patient Give drugs with less water. Give drugs over a longer period of time. Do not give drugs on empty stomach. If above fails, consult MO regarding anti- emetic if appropriate
Itching	Isoniazid (H) (other drugs also)	Reassure patient If severe, stop all drugs and refer patient to MO
Burning in the hands and feet	Isoniazid (H)	Refer to MO who will give pyridoxine 100 mg/day symptoms subside
Joint pains	Pyrazinamide (Z)	If severe, refer patient for evaluation
Impaired vision	Ethambutol (E)	STOP treatment, refer patient for evaluation
Ringing in the ears	Streptomycin (S)	STOP streptomycin, refer patient for evaluation
Loss of hearing	Streptomycin (S)	STOP streptomycin, refer patient for evaluation
Dizziness, loss of balance	Streptomycin (S)	STOP streptomycin, refer patient for evaluation
Jaundice	Isoniazid (H) Rifampicin (R) Pyrazinamide (Z)	STOP treatment, refer patient for evaluation



Acronyms

ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AWW	Anganwadi Worker
AIDS	Acquired Immuno-deficiency Syndrome
ART	Anti-Retroviral Therapy
CHC	Community Health Centre
CSW	Commercial Sex Worker
DOT	Directly Observed Treatment (Short Course)
HIV	Human Immuno-deficiency Virus
HBNCC	Home-Based Newborn and Child Care
ICTC	Integrated Counselling and Testing Centre
ICDS	Integrated Child Development Services
IDU	Injecting Drug User
IUCD	Intra Uterine Contraceptive Device
IYCF	Infant and Young Child Feeding
MDT	Multi-Drug Therapy
PHC	Primary Health Centre
RTI	Reproductive Tract Infection
STI	Sexually Transmitted Infection
TB	Tuberculosis

