If the Infant is ill

This is the eleventh issue of the regular feature on infant feeding practices. This article is from the book, *Breast-Feeding in Practice : A Manual for Health Workers* **by Elisabeth Helsing with F. Savage King (Published by Oxford University Press).**

BABIES who are sick continue to need food, and if possible they should feed normally. If there is a problem, it is more often 'how to get the food into the baby' than 'what to give'. In nearly every case, a breastfed baby is at an advantage compared with a bottle-fed baby.

Seriously ill babies may need to be in hospital where they can be fed by tube, or by an intravenous drip. The need for such asslsted feeding is often the reason why a baby has to be admitted to hospital at all. Many less seriously ill infants can be nursed at home, though their mothers need advice about how to feed them.

Obstruction to Breathing

Young babies breathe almost exclusively through their noses, and have great difficulty breathing through their mouths. This problem gets even worse when their noses are blocked, and they are trying to feed and breathe at the same time. The commonest cause of blockage is a cold which causes a 'stuffed nose'. The baby tries to suck from the breast, and then it cannot breathe. It becomes distressed, lets go of the nipple (or teat), and cries with frustration at losing its feed ! If the situation is allowed to continue, the baby becomes unwilling to suck, and it may be difficult to persuade it to take the nipple again.

What to do : First, before trying to feed, clean the baby's nose carefully with a soft 'twist' of cotton wool—or any other gentle way that you know of. If the blockage becomes more serious, you can put in nose drops (0.05 per cent xylometazoline (Otrivine) or 0.25 per cent ephedrine drops) which will constrict the swollen mucus membrane which lines the nose. However, these drops should only be used a few times, and not for more than 2 days at the most, or they can cause toxic symptoms. Some experienced doctors consider that drops of boiled (and cooled) salt water are just as effective for cleaning a baby's nose—and much safer. The mother's own milk has also been used as nose drops.

Occasionally, there is a congenital obstruction at the back of both nasal passages (choanal atresia) which is very serious and needs management in hospital. The problem starts from birth, and there is no nasal discharge.

Fighting at the Breast

It a baby has experienced obstruction to its breathing from any cause in the first few days of life, it may continue afterwards to 'fight at the breast'. (Usually the orginal cause was a cold, or sometimes choking on the strong flow of milk from a forceful-let-down reflex, or some accident such as being covered by bedclothes.) Typically even before feeding has started, the baby cries desperately, turns its head from side to side, arches its back, and punches with its fists. To overcome this reaction—which is mainly fear of the same suffocation recurring each feeding time—the mother has to convince the baby that feeding is now safe. She must patiently soothe the child, and she may need to start the feed with a bottle. When the baby is calm and less apprehensive, she can slip the nipple of her breast gently into its mouth. She may have to try this several times before the baby accepts that feeding is safe.

If she has 'too much milk', or a strong let-down reflex, she may need to express some milk before feeding. If her breasts are large and tend to cover the baby's nose, she must hold them clear with her finger.

Vomiting

If a mother complains that her baby is vomiting, you must decide whether this is true vomiting, or only regurgitation (sometimes called 'possetting').

Many babies regurgitate some milk, especially when they bring up 'wind', and if they have taken a large feed. A mother often worries unnecessarily about regurgitation—especially when it is her first baby. Remember that although it looks like the whole feed, it is usually only a small part of it. The feed is already mixed with saliva and other intestinal fluids. Occasionally regurgitation is due to frank overfeeding with formula. The child who does this is usually fat (though it may have stopped gaining weight), and it may cry and bend up its legs between feeds, and pass several large stools a day. This does not occur with breast-fed infants though.

If a baby is feeding well, and gaining weight, and if it has no other symptoms, then what seems to be vomiting is probably regurgitation, and may be an encouraging sign that the baby is getting more than enough to eat. But if a baby is unwilling to feed, or is failing to gain weight, or it seems unwell in any other way, then it may be true vomiting, and the baby may have a more serious illness. It may need to by spoon or tube-fed with a glucose-electrolyte solution, or diluted feeds or intravenous fluids may be necessary, until the underlying illness is diagnosed and treated. (Many glucose-electrolyte

mixtures are in use, and we do not intend to discuss their relative merits here. A formula for a suitable home-made preparations is given below.)

In the atmosphere of anxiety over the baby's illness, do not forget that it will probably soon be well and wanting to breast-feed again. Teach the mother to express her milk supply. Very likely, some or all of her milk can be given to the baby even when it is ill. If her own baby cannot take it, it may save the life of another baby in the hospital.

* *Salt and Sugar Water*

To 1 litre of clean drinking water add ½-1 level teaspoonfull of salt, (too much salt is dangerous) and eight level teaspoonfuls of sugar. This makes an adequate solution for most children with mild to moderate diarrhoea. For many children, especially those who are only vomiting, water or tea with sugar only is adequate. Seriously ill children may need a more complicated solution (King, King, and Martodipoero 1978).

Diarrhoea

Whenever possible, a baby who has diarrhoea should continue to breast-feed. The main danger of diarrhoea is dehydration, so the baby needs all the fluid it can get. It may need glucose electrolyte solution (or salt-and-sugar water*-or tea or just extra water !) as well as the breast-milk.

If a child is unwilling to suck, or is vomiting in addition to the diarrhoea, then it may be necessary to stop giving milk feeds for 12-24 hours, and to give only glucose-electrolyte mixtures. Then reintroduce milk feeds as soon as the baby will drink them and can keep them down. Artificial feeds need to be diluted with glucose-electrolyte solution (or just extra water) at first. Breast feeds can be given as soon as the baby will suck—with glucose-electrolyte drinks (or just extra water) in between feeds.

Do not wait for the diarrhoea to stop completely. Remember-what goes in at the top is much more important than what comes out at the bottom. As long as the baby wants to feed, has stopped vomiting, and is drinking enough to prevent dehydration, a few loose stools do not matter very much (Of course, you must check later that the baby regains any weight that it has lost, and continues to progress —or there may be some different illness that needs treatment). However, severe diarrhoea that requires active treatment is rare in purely breast-fed babies, and is usually a problem of babies given supplements or bottles.

Constipation

Many mothers who are breast-feeding complain that the baby is constipated. If you hear this, enquire further: what are the stools like ? And how often does the baby pass one ?

Mothers want their babies to pass a stool every day (despite the laundry it creates). But an execlusively breast-fed baby may pass a stool only once in five days. Or it may pass a stool five times in one day. Or it may wait for four days, and pass five stools on the fifth day. All these are normal patterns. And they may change every week. Explain to the mother that breast-milk is such a good food that it is nearly all used and there is often very little waste, so there is not always enough to make a stool every day. Try to persuade her not to treat the child ! Some mothers complain that the baby has difficulty passing that fifth day stool. Admittedly, the motion is sometimes very large then, but it is usually soft. Many babies cry just before defaecating, and go red in the face while they do it, and then cry because they are dirty. Check that the baby does not have a nappy rash to make it sore, and that the stool is normal, and then try to reassure the mother that its behaviour is normal.

The stool of a breast-fed baby is often a pale, bright, brown; and it has its own sour smell, because of the milk and the lactobacilli and the acid which they produce. The stool is also looser than that of a formula-fed baby. 'Formula' stools are more solid, because of all the undigested fat and calcium and other waste. True constipation is more common with formula-fed infants. Usually adding sugar or fruit to the diet solves the problem. If mothers insist on treatment, they can give a little sugar in boiled water even to a breast-fed-baby.

Fever

A baby with a fever from any cause is often unwilling to feed—yet it needs the food, and its fluid requirements may be greater than usual. The mother should continue to try to give feeds. If she gives the baby a dose of aspirin or paracetamol, its temperature will probably become normal for a while at least. Then, the baby may become eager to suck, and take a good feed. However when the fever recurs it will lose interest again. It is helpful if the mother expresses her milk after each unsuccessful attempt at a feed. This helps to maintain her supply, and it may be possible to give at least some of the milk to the baby in another way, by cup and spoon.

Colic

Colic is a term commonly used for a well-recognized but little understood condition. Colic means a pattern of crying, often starting soon after birth, that does not seem to be due to any obvious cause, such as hunger. The baby cries at certain times of day—often in the evening. Usually, after a few months, colic stops of its own accord. Many theories have been put forward to explain the cause of this crying—but none have yet been proved. The crying is called 'colic' because often the babies pull up their legs while they cry as if they had colicky pain. Colic stops after about three months, and is never serious, but those monts of crying can be extremely trying for both the baby and its mother. Such a baby can easily become overfed. Its desperate mother gives it more and more milk in the mistaken belief that it is hungry. Yet the problem is not solved. Colicky crying too often undermines a mother's confidence in her own milk, and makes her turn to the bottle.

Here we share some practical advice for mothers about how to survive those months, and how to relieve the symptoms, without resorting to an excess of formula. This advice is based on the experience of a number of Swedish women who have endured colic with their babies (Renwall 1975). It can help a mother a great deal if a sympathetic and understanding health worker discusses these points with her.

1. Colicky babies are often soothed by movement. Try to get or make some sort of rockable cot for the baby to sleep in at night. Put this cot beside the parents' bed, so they can rock it to soothe the baby at night without having to get up themselves. In the day, carrying or moving the baby about seems to help to quieten it.

2. Do not leave the baby to cry. Carry it, stroke it, change its clothes, or sing to it. There are many ways to let the baby feel that it is not left alone with its woes.

3. Often it helps if the baby is in a position which puts light pressure against its abdomen. When the baby is in a cot it should lie on its front. Normal babies do not suffocate if they are 'face down', they automatically turn their heads to breath. (But of course, never give a baby a soft pillow.) If you are carrying the baby, lie it across your lap, or hold it up against your shoulder, or your back. All these positions put light pressure on the baby's abdomen.

4. Sometimes it helps a baby if it has something to suck. Most mothers do not have the time to suckle their babies continuously—and they might get sore nipples if they tried ! A rubber 'Pacifier' or dummy may help.

5. Getting rid of 'wind' (or gas, from the intestime) may help. It may be necessary to 'wind' or 'burp' a baby several times during a feed. Sometimes you can relieve a baby of wind if you very gently open its anus a little way—for instance with a small peice of rubber tube, or a cotton wool bud, or the tip of your little finger.

6. Several medicines claiming to relieve colic are sold in pharmacies. Many are silence-based preparations, which are supposed to reduce the amount of gas formed in the intestine. Another is the traditional 'gripe water', which contains dill oil and sodium bicarbonate. These medicines only partly relieve a baby's symptoms—but they do help mothers to feel that they have something they can do to help. Mackeith and Wood (1977) recommend giving an antispasmodic to reduce intestinal activity (such as dicyclomine, 5 to 10 mg at 15 minutes before a feed, but not more than a total of 40 mg in 24 hours).

7. Some babies seem to be happier if you wrap them tightly with their arms along their sides ('swaddling', as in Biblical times). But we do not recommend this as a general measure.

8. Sometimes the crying stops if the mother and baby are admitted to hospital together for a few days.

But the only certain, absolute cure is time.

Jaundice

Physiological Jaundice : Many babies have jaundice for a few days soon after birth. This is called 'physiological', because it is not due to any 'disease', but to slight immaturity of the baby's liver. Also, because it is so common that it is almost 'normal'. Physiological jaundice starts on the second day of life; it may deepen for a few days, but begins to fade after a week. This kind of jaundice rarely needs any treatment, and the baby should continue to feed normally—the only change in feeding commonly recommended is an increase in fluid intake. (You can give boiled water, with a little sugar, between feeds, provided the feeds themselves are not reduced). Sometimes the jaundice makes a baby sleepy and less willing to feed, though this usually only lasts for a day or two, and then it 'wakes up' without any treatment being necessary. Sometimes a deeply jaundiced baby who is unwilling to suck needs help for a few days. If possible the mother should express her milk, and give it by spoon, or dropper, or from a piece of gauze dipped into the milk or even by tube. When the baby has woken up and started sucking for itself, she may need to feed it more often for a few days to stimulate milk production. Whether a baby is breast-or bottle-fed probably makes no differance to the occurrence or recovery from this kind of jaundice (Dahms, Karauss, Gartner, Klain, Soodalter, and Auld 1973.)

Other Kinds of Jaundice : Sometimes however jaundice is more serious. If it begins within the first 24 hours after birth, it may be due to a haemolytic disorder and needs urgent treatment to prevent brain damage. If jaundice begins or continues to increase after a week, then it is called 'prolonged', and it may be due to a number of other diseases. In either situation, the baby should be investigated and treated in hospital. In most cases, these kinds of jaundice have nothing whatever to do with the way in which the baby is fed.

Breast Milk Jaundice : There is one rare kind of prolonged jaundice, which does seem to be associated with breast-feeding. It develops about one week after birth, and continues for about two months. Although the jaundice can become quite deep (bilirubin levels may reach 20 mg per 100 ml of serum), it does not harm a baby's brain, because it occurs after the first week of life, when the blood-brain barrier is no longer permeable. What causes this kind of jaundice is still not certain, but it seems that some substance in these mothers' mature milk, but not in their colostrum, inhibits bilirubin metabolism.

It is not necessary to stop breast-feeding just because a child develops breast-milk jaundice. The condition resolves spontaneously in time, with no permanent ill effects even if you continue to feed normally. However, often it is necessary to diagnose the condition, and to distinguish it from the other causes of prolonged jaundice. For all this, what is necessary is to stop breast feeding for some days (expresing the mother's milk meanwhile, of course). The jaundice should fade rapidly. Then breast-feeding

can be resumed, and the jaundice will not recur. Jaundice due to other causes is not affected by this procedure. Sometimes it is desirable to interrupt breast-feeding briefly in breast-milk jaundice (even if the cause is not in doubt) just because the serum bilirubin becomes too high rather earlier than usual.

But as a general rule, the existence of jaundice by itself is no reason to stop breast feeding. Because the occurence of breast-milk jaundice has become well known, despite its relative rarity, some people believe, erroneously, that breast-feeding should stop completely when there is jaundice from any cause. Stopping even briefly is seldom necessary, and probably never unless the baby should anyway, for other reasons, be under the care of a physician.

Thrush (Candida)

'My baby has white sores in its mouth, and will not suck'. Thrush is caused by a yeast called Candida albicans. It grows in the baby's mouth, and makes white sores which look rather like milk curds. However, you can wipe away milk, but you can not wipe away thrush. Sometimes thrush covers the baby's whole tongue, and makes it completely white. Sometimes thrush grows down into the intestines and causes diarrhoea. Usually, however, it causes only soreness, so that the baby is unwilling to suck. Thrush is commoner in children who are weakened by another infection; after a course of antibiotic; or if they are mainourished. Thrush is less common in strong healthy babies.

You can treat it with nystatin drops, or gentian violet paint. Sometimes, thrush causes sore nipples in the mother—so treat mother and baby together. Give her nystatin cream, or gentian violet (though it is very messy). Follow the baby's weight carefully. Try to continue breast-feeding—most babies with thrush can suck well enough. If necessary, express the milk and give with a cup and spoon for a few feeds, until the treatment has reduced the soreness of the baby's mouth and mother's nipple.

General Points about Hospitalization of a Breast-Fed Baby

If a baby has to go to hospital make every effort to allow its mother to stay with it. We know that small children may suffer psychological damage if they are left alone in hospital. The possible trouble that their mother's presence may cause for the hospital is a small price to pay to prevent this. If a baby for a while is too weak to nurse, encourage its mother to express her milk. If her own child cannot take the milk other sick babies at the hospital will surely benefit from it.

The anxiety of the baby's illness and the lack of sucking stimulus may make a mother's milk supply decrease considerably. As soon as her own baby's condition improves, and it can suck again, frequent nursing will bring back her milk. She must be repeatedly reassured that this is possible, and normal, in order to keep up her self-confidence.

The understanding and support of all the health workers involved should help to strengthen her resolve to continue breast-feeding, and in this situation their words can be important lactagogues.

Failure to Grow

Failure to grow (or thrive) is diagnosed when a baby fails to gain weight fast enough. A healthy baby should gain at least 0.5 kg each month for the first six months of life. That is the minimum. It is more usual for babies to gain about 1 kg a month—especially in the first three months. All babies should be weighed regularly once a week or once a month according to circumstances. Each baby should have its own weight-chart and its weight should be recorded and followed on that.

For information on better maternal and infant feeding practices, write to: Infant Nutrition Information Service, C-14, Community Centre, Safdarjung Development Area, New Delhi-16.

Independence of Nursing Profession

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UNICEF declaration at Alma Ata also advocates development and provision at Primary Health Care to the rural people. The Nurses are already doing Primary Health Care in the remote areas in our country. The female/male Health Workers, Health Assistants, Public Health Nurses and Health Guides are working in rural areas. Therefore, these Nursing personnel should be provided legal support to do independent Nursing practice and comprehensive Community Health Nursing care to the individuals, families and the community as a whole. Their supervision should be done independently by Nursing Officers, District Nursing Officers and Public Health Nursing Officers only.

Conclusion

According to the WHO plan every state must attain positive health by 2000 A.D. or Health for All by 2000 A.D. This target can be achieved by the community Health Nurses, Health Assistants/Health Workers and Health Guides who are already working in the community. Therefore, the central aud State Gevernments should provide liberty and independence to the Nursing profession. The Nurses are the key persons and the backbone of the country and they only will fulfil and meet all the health needs of the society. The Nurses should get up and unite with each other.

Union is strength. Therefore, all nurses should be members of the national nurses' association, i.e. TNAI. There should be drastic revolutionary changes in the Nursing profession. The TNAI elections must be according to the patterns of General Elections of India for MPs and MLAs at the Centre, State, District levels of the country so that more TNAI members may cast their votes and take more interest in Nursing association and leadership. This will motivate the nurses to fight for their rights in a democratic process for the growth and development of the Nursing profession.