Communicating with colleagues at other hospitals and clinics

1.1 How should perinatal services be organised?

Health care is usually planned on a regional basis, especially in urban and peri-urban areas (towns and their surroundings). The health region is then divided into districts. Each region and district must be well defined and take into consideration the best transport routes, distances from health facilities and municipal boundaries. Therefore, all aspects of preventive, promotive and curative care for pregnant women and their newborn infants in a given region should be planned and managed by a single authority. All levels of care in that region should be the responsibility of the regional authority which then co-ordinates care provided within districts. This requires excellent communication between all areas and levels of care.

This contrasts with the pure district model which is very useful in an underdeveloped country or in rural areas where only primary care is available. Here all health care is planned, funded and managed within health districts rather than regions. A combination of district and regional health-care models may also be used where health care is controlled within districts but a number of districts are then grouped and co-ordinated into a health-care region as is done in South Africa. A district model model is useful when only level 1 and 2 care is available. When level 3 care is available, a regional model with districts is essential to co-ordinate health-care activities between and within districts.

A regional model of health care with districts is an effective method of providing perinatal services within urban and peri-urban areas.

1.2. How can communication in a health-care service be improved?

1. Each clinic must be linked to a referral hospital. This may be either a district or regional hospital. The clinic staff should contact this hospital for help or advice and patients with problems must be referred to this hospital. The staff at the referral hospital should provide training for the clinic staff and draw up guidelines for management and referral. Regular meetings of clinic and hospital staff must be arranged. Hospital staff should help with mortality and referral audits in the clinic. Management guidelines and referral criteria should be agreed upon by both clinic and hospital staff.
2. It is important for the nursing, medical and administrative staff in the region to appreciate that they are all members of the same health team working to provide the best possible care for mothers and infants. Therefore, the responsibility for all mothers and infants is shared. Ideally, nursing staff should be rotated between the hospital and clinics for training. It is of particular importance that the clinic and its referral hospital work together as a unit and not regard themselves as separate services.
3. Good notes must always accompany infants who are transferred between different parts of a health-care region.

The staff at the clinic and referral hospital must always work as a team.

One of the major reasons why primary health care fails is because of poor teamwork and inadequate communication between hospitals and clinics.

1.3 How should clinic staff communicate with the referral hospital?

1. A telephone or 2-way radio is essential so that the clinic staff and the hospital staff can speak directly to each other. Mobile (cells) phones have made an enormous difference in improving communication. It is so much easier if the clinic staff know the staff at the hospital.
2. Clear guidelines are needed to indicate which infants should be referred to hospital. If the clinic staff are uncertain whether an infant needs referral, they must discuss the problem with the staff of the referral hospital. When in doubt, ask. They should not be afraid to seek help when it is needed.
3. The staff at each clinic must know which hospital to contact if they need help. The hospital's telephone number must be displayed next to the clinic's telephone.
4. The clinic staff must collect all the relevant information, e.g. birth weight, temperature, blood glucose concentration, signs of respiratory distress, etc. before they contact the hospital. It is essential that the clinic staff identify the infant's problems.
5. When speaking to the hospital staff, stress the important information and summarise the problem. State clearly where advice is needed.
6. Always give your name and rank and ask who you are speaking to. If necessary, insist that you speak to a senior staff member if you are not satisfied with the advice you receive.
7. Good, systematic notes are essential and these must be sent with the infant. Good notes are one of the most effective methods of communication.

1.4 How can a referral hospital improve communication with the clinic?

1. A telephone line for incoming calls only (a 'hot line') should be available in the nursery so that the clinic staff can contact the nursery staff without delay.
2. The most senior and experienced nurse or doctor should receive the call. Each day and night someone should be allocated to answer the clinic calls.
3. Listen carefully, be patient, and try to obtain a clear idea of the problem. Try to put yourself in the position of the colleague asking for help.
4. Ask for important information that has not been provided.
5. It is better to admit the infant if there is any doubt about the infant's condition.
6. Arrange the transfer. This is often best done by the referral hospital rather than by the clinic.
7. Suggest any emergency treatment needed before or during transfer.
8. Always inform the clinic after the infant has arrived at the hospital. A reply slip can be used to give the patient's condition on arrival, the diagnosis made by the hospital staff and the infant's response to treatment. Feedback to the referring clinic or hospital is essential. It is a good way of learning.
9. When infants have recovered they can be transferred back to the clinic. The clinical notes and a referral letter must accompany the infant. The transfer must be arranged with the clinic.
10. All infants transferred from a clinic must be reviewed every month. In this way problems with referrals can be identified and corrected.

These principles of good communication apply as well when mothers are transferred from a clinic to hospital.

Transferring newborn infants

2.1 Why should newborn infants be transferred?

If pregnant women are correctly categorised into low-risk, medium-risk and high-risk groups during pregnancy and labour, infants should be delivered at clinics or hospitals with the necessary staff and equipment to care for them. However, when maternal categorisation is incorrect, when unexpected problems present during or after delivery or when a mother with a complicated pregnancy or labour arrives in advanced labour at a clinic, then the infant may need to be transferred to a hospital with a level 2 or 3 nursery. All women should be offered care at the most appropriate health facility. It is not in the best interests of the mother or the service if her clinical need and the level of care are mismatched, e.g. a normal mother delivering in a level 2 or 3 facility or a mother at high risk of problems delivering at a level 1 facility.

If possible, it is almost always better for the infant to be transferred before delivery than after birth. The mother is the best incubator during transfer.

It is better to transfer the mother before delivery than to transfer the infant after birth.

2.2 What is the aim of caring for the infant during transfer?

The aim is to keep the infant in the best possible clinical condition while it is moved from the clinic to the hospital. This is achieved by providing the following:

1. A warm environment
2. An adequate supply of oxygen if needed
3. A source of energy
4. Careful observations

This greatly increases the infant's chance of survival without damage.

2.3 Which infants should be transferred from a clinic to a hospital?

All infants that need management which cannot be provided at the clinic must be referred to the nearest hospital with a nursery. The following infants should be transferred:

1. Preterm infants, especially infants less than 36 weeks gestation.

2. Infants with a birth weight under 2000 g. Most infants between 2000 g and 2500 g do not need to be referred to a hospital and can be sent home.
3. Infants that will not suck well.
4. Infants with respiratory distress.
5. Infants with poor breathing at birth that require ventilation during resuscitation.
6. Any sick infant may need to be transferred to hospital.
7. Infants with major structural congenital disorders, especially if urgent surgery is needed.

Each region should establish its own clearly understood referral criteria so that the staff know which infants need to be transferred. All facilities in the region must agree with these referral criteria. For example, if KMC is used it may be possible to keep some small but healthy infants for a few days at the clinic before discharge home.

A list of referral criteria for infants must be available at all level 1 facilities.

2.4 Why should the infant be resuscitated before being transferred?

It is very important that sick infants be fully resuscitated before being transferred. The infant must be warm, well oxygenated and given a supply of energy before being moved. Transferring a collapsed infant will often kill the infant. The clinic staff and the transfer personnel should together assess the infant and ensure that the infant is in the best possible condition to be moved.

Infants must be in the best possible condition before transfer.

2.5 How should the transfer be arranged?

If possible, the hospital that will receive the infant should make the transfer arrangements. The hospital staff can then advise on management during transfer and be ready to receive the infant in the nursery. The unexpected arrival of an infant at the hospital must be avoided. The clinical notes and a referral letter must be sent with the infant. A sample of gastric aspirate, collected soon after delivery for microscopy and the shake test, is very helpful, especially in preterm infants, infants with respiratory distress and infants with suspected congenital pneumonia. Consent for surgery should also be sent if a surgical problem is diagnosed. The emergency management and plan for transfer must be discussed between the referring facility and the receiving facility before the infant is moved. Often the problem can be managed at the clinic following advice from the hospital.

The infant must be discussed with the hospital staff before transfer.

2.6 What are the greatest dangers during transfer?

1. **Hypothermia**: Infants must be kept warm during transfer and their skin or axillary temperature should be regularly measured. A transport incubator is the best way to keep the body temperature normal. If an incubator is not available, kangaroo mother care can be used to prevent hypothermia. Ambulance or nursing staff or the father can give KMC if the mother does not get transferred with her infant. Hypothermia can also be avoided in a warm infant by dressing the infant and then wrapping the infant in a silver swaddler (space blanket) or heavy gauge tin foil. No transferred infant should ever by cold on arrival.
2. **Hypoxia**: It is essential that oxygen is available during transfer, but only given if this is needed. All the equipment required for the safe administration of oxygen should be available. Infants who do not need extra oxygen must not be given oxygen routinely while being transferred. Some infants with respiratory distress or apnoea may need CPAP or ventilation during transfer. A pulse oximeter is very useful to monitor oxygenation during transfer.
3. **Hypoglycaemia**: Some supply of energy must be provided during transfer. Either milk feeds or intravenous fluids should be given. The blood glucose concentration should be regularly measured with reagent strips.

2.7 Who should transfer a sick infant?

Vehicles to transfer patients must be provided by the local authority in each region. Ideally an ambulance should be used. If possible, ambulance personnel should be trained to care for sick infants during transfer. When this service is not available, the referral hospital should provide nursing or medical staff to care for the infant while it is being moved from the clinic to the hospital. A transport incubator, oxygen supply and emergency box of essential resuscitation equipment should always be available at the referral hospital for use in transferring newborn infants. Only as a last resort should the clinic provide a vehicle and staff to transfer a sick infant to hospital.

In contrast, well infants being transferred from a hospital back to a clinic can usually be safely transported in a car or van. KMC is very useful to keep these infants warm.

2.8 Should the mother also be transferred to hospital?

Yes, whenever possible, the mother should be transferred to hospital with her infant. Do not separate the mother and her infant if at all possible.

Case study

A 1700 g infant is born at a peripheral clinic. The clinic staff call for an ambulance to take the infant to the nearest hospital. The hospital is not contacted. The infant, who appears well, is wrapped in a blanket and not given a feed. The mother is kept at the clinic. The note to the hospital reads 'Please take over the management of this small infant'.

1. How should the transfer of this infant have been arranged?

The clinic staff should have contacted the referral hospital and discussed the problem with them. The hospital staff should have advised the clinic staff as to further management. Only then should the infant have been transferred. With advice, the problem can often be managed at the clinic and the infant need not be transferred to hospital.

2. What was wrong with the management of the infant at the clinic?

The infant should have been fed before referral. A transport incubator, KMC or silver swaddler should have been used to prevent hypothermia on the way to hospital.

3. Why was the referral note inadequate?

The referral letter should give all the necessary details of the pregnancy, the delivery and the infant's clinical condition.

4. Should the mother have also been sent to hospital?

Yes. If at all possible, the mother and infant should be kept together. She could have given her infant KMC on the way to hospital.