

# Mother and Baby Friendly Care

A learning  
programme for  
professionals



Developed by the  
Perinatal Education Programme

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for professionals

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Perinatal Education Programme

## VERY IMPORTANT

We have taken every care to ensure that drug dosages and related medical advice in this book are accurate. However, drug dosages can change and are updated often, so always double-check dosages and procedures against a reliable, up-to-date formulary and the given drug's documentation before administering it.

Mother and Baby Friendly Care:

A learning programme for professionals

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# Introduction

## **AIM OF THE PERINATAL EDUCATION PROGRAMME**

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The aim of the Perinatal Education Programme (PEP) is to improve the care of pregnant women and their newborn infants in all communities, especially in poor periurban and rural districts of southern Africa. Although the Programme was written as a distance-learning course for both midwives and doctors in district and regional health care facilities, it is also used in the training of medical and nursing students.

The authors of the Perinatal Education Programme consist of nurses, obstetricians and paediatricians from South Africa. This ensures a balanced, practical and up-to-date approach to common and important clinical problems. Many colleagues in South African universities and health services were also consulted with a view to reaching consensus on the management of most perinatal problems.

## **PERINATAL EDUCATION**

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If all three levels of perinatal care are to be efficiently provided within a perinatal health care region, continuous education and training of all professional staff is essential. Unfortunately this often is achieved in the large, centralised tertiary-care hospitals only and not in the rural secondary- or primary-care centres. The providers of primary care in rural areas usually have the least continuing education as they are furthest away from the training hospitals in urban centres. It

is not possible to send teachers to all these rural areas for long periods of time while staff shortages and domestic reasons make it impractical to transfer large numbers of doctors and nurses from primary- and secondary-care centres to centralised tertiary hospitals for training.

Ideally all medical and nursing staff should have regular training to improve and update their theoretical knowledge and practical skills. One way of meeting these needs in continuing education is with a self-help, outreach educational programme. This decentralised method allows health care workers to take responsibility for their own learning and professional growth. They can study at a time and place that suits them. Participants in the programme can also study at their own pace. The education programme should be cheap and, if possible, not require a tutor.

## **PERINATAL EDUCATION PROGRAMME BOOKS**

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Initially the Perinatal Education Programme was presented as two books only. The first PEP book, *Maternal Care*, deals with problems experienced by women during and after pregnancy while the second PEP book, *Newborn Care*, deals with problems in the newborn infant. Both books should be studied to improve your knowledge of all aspects of perinatal care.

Now six additional, supplementary books have been prepared to address further common and

important problems related to both pregnant women and their newborn infants.

### **Book 1: Maternal Care**

This book addresses all the common and important problems that occur during pregnancy, labour and delivery, and the puerperium. It includes booking for antenatal care, problems during the antenatal period, monitoring and managing the mother, fetus and progress during labour, medical problems during pregnancy, problems during the three stages of labour and the puerperium, family planning after pregnancy, and regionalised perinatal care. Skills workshops teach the general examination, abdominal and vaginal examination in pregnancy and labour, screening for syphilis and HIV, use of an antenatal card and partogram, measuring blood pressure and proteinuria, and performing and repairing an episiotomy. *Maternal Care* is aimed at professional health care workers in level 1 hospitals or clinics.

### **Book 2: Newborn Care**

*Newborn Care* was written for health professionals providing special care for infants in regional hospitals. It covers resuscitation at birth, assessing infant size and gestational age, routine care and feeding of both normal and high risk infants, the prevention, diagnosis and management of hypothermia, hypoglycaemia, jaundice, respiratory distress, infection, trauma, bleeding, and congenital abnormalities, as well as communication with parents. Skills workshops address resuscitation, size and gestational age measurement, history, examination and clinical notes, nasogastric feeds, intravenous infusions, use of incubators, measuring blood glucose concentration, insertion of an umbilical catheter, phototherapy, apnoea monitors and oxygen therapy.

### **Book 3: Perinatal HIV**

The HIV epidemic is spreading at an alarming pace through many developing

countries, increasing the maternal and infant mortality rates, and adding to the financial burden of providing health services to all communities. Nowhere is the devastating effect of this infection more obvious than in the transmission of HIV from mothers to their infants. In order to decrease this risk, all health care workers dealing with HIV positive mothers and infants will need to receive additional training. *Perinatal HIV/AIDS* was written to address this challenge.

This book will enable midwives, nurses and doctors to care for pregnant women and their infants in communities where HIV infection is present. Special emphasis has been placed on the prevention of the mother-to-infant transmission of HIV.

Chapters have been written on HIV infection, antenatal, intrapartum and infant care, and counselling. Colleagues from a number of hospitals and universities in South Africa were invited to review and comment on the draft document in order to achieve a well balanced text. It is hoped that this training opportunity will help to stem the tide of HIV infection in our children.

### **Book 4: Primary Newborn Care**

This book was written specifically for nurses and doctors who provide primary care for newborn infants in level 1 clinics and hospitals. *Primary Newborn Care* addresses the care of infants at birth, care of normal infants, care of low birth weight infants, neonatal emergencies, and important problems in newborn infants.

### **Book 5: Mother and Baby Friendly Care**

With the recent technological advances in modern medicine, the caring and humane aspects of looking after mothers and infants are often forgotten. This book describes better, gentler, kinder, more natural, evidence-based ways that care should be given to women during pregnancy, labour and delivery. It similarly looks at improved methods of providing infant care with an emphasis on kangaroo mother care and

exclusive breastfeeding. A number of medical and nursing colleagues in South Africa contributed to this book.

### **Book 6: Saving Mothers and Babies**

*Saving Mothers and Babies* was developed in response to the high maternal and perinatal mortality rates found in most developing countries. Learning material used in the book is based on the results of the annual confidential enquiries into maternal deaths and the Saving Mothers and Saving Babies reports published in South Africa. It addresses the basic principles of mortality audit, maternal mortality, perinatal mortality, managing mortality meetings, and ways of reducing maternal and perinatal mortality rates. This book should be used together with the Perinatal Problem Identification Programme (PPIP).

### **Book 7: Birth Defects**

This book was written for health care workers who look after individuals with birth defects, their families, and women who are at increased risk of giving birth to an infant with a birth defect. Special attention is given to modes of inheritance, medical genetic counselling, and birth defects due to chromosomal abnormalities, single gene defects, teratogens and multifactorial inheritance. This book is being used in the Genetics Education Programme which has been developed to train health care workers in genetic counselling in South Africa.

### **Book 8: Primary Maternal Care**

This book addresses the needs of health care workers who provide both antenatal and postnatal care but do not conduct deliveries. The content of these chapters is largely taken from the relevant chapters in *Maternal Care*. It contains theory chapters and skills workshops. This book is ideal for staff providing primary maternal care in level 1 district hospitals and clinics.

## **FORMAT OF THE PERINATAL EDUCATION PROGRAMME**

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Throughout this Programme the participant takes full responsibility for his or her own progress. This method teaches participants to become self-reliant and confident.

### **1. The objectives**

At the start of each chapter the learning objectives are clearly stated. They help the participant to identify and understand the important lessons to be learned.

### **2. Questions and answers**

Theoretical knowledge is taught by a problem solving method which encourages the participant to actively participate in the learning process. An important question is asked, or problem posed, followed by the correct answer or explanation. In this way, the participant is led step by step through the definitions, causes, diagnosis, prevention, dangers and management of a particular problem.

It is suggested that the participant cover the answer for a few minutes with a piece of paper or card while thinking about the correct reply to the question. This method helps learning. Simplified flow diagrams are also used, where necessary, to indicate the correct approach to diagnosing or managing a particular problem. Copies of these flow diagrams may be of value in the labour ward or nursery.

Different forms of text are used to identify particular sections of the Programme:

**Each question is written in bold, like this, and is identified with the number of the chapter, followed by the number of the question, e.g. 5-23.**

**Important practical lessons are emphasized by placing them in a box like this.**

**NOTE** Additional, non-essential information is provided for interest and given in notes like this. These facts are not used in the case studies or included in the multiple-choice questions.

### 3. Case problems

A number of clinical presentations in story-form are given at the end of each chapter so that the participant can apply his/her newly learned knowledge to solve some common clinical problems. This exercise also gives the participant an opportunity to see the problem as it usually presents itself in the clinic or hospital. A brief history and/or summary of the clinical examination is given, followed by a series of questions. The participant should attempt to answer each question before reading the correct answer. The knowledge presented in the cases is the same as that covered earlier in the chapter. The cases, therefore, serve to consolidate the participant's knowledge.

### 4. Multiple-choice questions

An in-course assessment is made at the beginning and end of each chapter in the form of a test consisting of 20 multiple-choice questions. This helps participants manage their own course and monitor their own progress by determining how much they know before starting a chapter, and how much they have learned at the end of the chapter. The correct answer to each question is provided at the end of the book. This exercise will help participants decide whether they have successfully learned the important facts in that chapter and will also draw the participants' attention to the areas where their knowledge is inadequate.

In the multiple-choice tests the participant is asked to choose the single, most correct answer to each question or statement from four possible answers. A separate loose sheet should be used to record the test answers before (pre-test) and after (post-test) the chapter is studied. The list of correct answers also indicates which section should be restudied for each incorrect post-test answer.

## STUDY GROUPS

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It is strongly advised that the Programme courses are studied by a group of participants and not by individuals alone. Each group of 5 to 10 participants should be managed by a local co-ordinator who is usually a member of the group, if a formal trainer is not available. The local co-ordinator orders the books and then arranges the time and venue of the group meetings (usually once every three weeks). At the meeting the chapter just studied is discussed and the pre-tests and post-tests are done. The skills workshops should also be demonstrated and practiced at the meetings. In this way the group manages all aspects of their course. The principles of peer tuition and co-operative learning play a large part in the success of PEP.

## THE IMPORTANCE OF A CARING AND QUESTIONING ATTITUDE

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A caring and questioning attitude is encouraged. The welfare of the patient is of the greatest importance, while an enquiring mind is essential if participants are to continue improving their knowledge and skills. The participant is also taught to solve practical problems and to form a simple, logical approach to common perinatal problems.

## COPYRIGHT

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To be most effective, the Perinatal Educational Programme course should be used under the supervision of a co-ordinator. Using part of the Programme out of context will be of limited value only, while changing part of the Programme may even be detrimental to the participant's perinatal knowledge. Therefore, copyright on all PEP materials means that no portion of the Programme can be altered. However, for teaching and management

purposes only, parts or all of the Programme may be photocopied provided that recognition to the Programme is acknowledged. If the routine care in your clinic or hospital differs from that given in the Programme, you should discuss it with your staff.

## FINAL ASSESSMENT

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On completion of each book, participants may apply to write a formal multiple-choice examination on the course website to assess the amount of knowledge that they have acquired. All the questions will be taken from the tests at the end of each chapter. The content of the skills workshops will not be included in the examination. Successful examination candidates will be able to print their own certificate which states that they have successfully completed that course. Credit for completing the course will only be given if the final examination is successfully passed. A separate examination is available for each book and a certificate will be given to participants who pass each final examination. A mark of 80% is needed to pass the final examinations. Any official recognition for completing a PEP course will have to be negotiated with your local health care authority.

To write the examination on the website, a participant first has to obtain an exam code, which can be obtained through the course website.

## OBTAINING AN EXAM CODE

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To obtain an exam code, visit this website:

[www.ebwhealthcare.com](http://www.ebwhealthcare.com)

An exam code is a unique number for one participant and one course. An exam code enables a participant to test their knowledge and write the final examination online. The fee and how to pay for exam codes is explained on the website.

## MANAGING YOUR OWN COURSE STEP-BY-STEP

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### 1

Before you start each chapter, take the test for that chapter at the back of the book. Do the test by yourself even if you are studying with a group of colleagues. Choose the best answer for each multiple-choice question and note your answers on a piece of loose paper. This is called your 'pre-test' for that chapter. There is an answer sheet that you should use to mark your completed pre-test. Record your pre-test mark out of a possible 20.

### 2

Now work through the chapter. Read each question and answer, and make sure you understand it. Pay particular attention to the facts in grey boxes as these are the main messages. Read the case studies to check whether you have learned and understand the important information.

### 3

If you are part of a study group, use this opportunity to discuss with your colleagues any difficulties you may have experienced. Talking about what you have read is a very important part of the learning process. If the book includes skills workshops, these should be conducted at the time of the group meetings. Invite an experienced colleague who can help you master the particular skill.

### 4

When you have learned all the knowledge in that chapter, take the same test again. This second test is called your 'post-test'. Now mark the post-test and compare your pre-test and post-test marks. Your marks should have improved considerably. In the answers section of the book, opposite each correct answer, is the number of the section where the question was taken from. Re-read and learn the sections for

any post-test answers you got incorrect. Now you are ready to move on to the next chapter.

## 5

Repeat steps 1 to 4 for each chapter as you work your way through the book. This enables you to obtain the knowledge, monitor your progress, and measure how much you are learning. Most people will take about 2 to 4 weeks per chapter.

## 6

Once you are confident that you have mastered all the main lessons in the book, you can write the final examination online at [www.ebwhealthcare.com](http://www.ebwhealthcare.com). To write the final examination you will need to have an exam code. This is a unique number that entitles you to write the examination for a course. If you don't have one yet, you or your group can buy exam codes. The fee and how to pay is described on the website. This exam code will only work once for one examination.

You will be able to write the examination, consisting of 75 multiple-choice questions, on the website. You will only have a limited time to answer each question and you will not be able to go back and check previous questions. Set aside at least an hour to write the examination. When you write the examination, do not use the book to look up the correct answers. Remember, you are your own teacher, so be strict with yourself!

## 7

Your examination answers will automatically be marked as soon as you have completed the last question. If you get 80% or better you have passed and will be able to print your own certificate which states that you have successfully completed the course. However, if you have failed to achieve 80%, you can purchase another exam code to write the examination again.

## Tips

- Work through the course with a group of friends or colleagues.
- One person in your group (your co-ordinator or 'convenor') should take responsibility for organising meetings to discuss each chapter before you write the post-test.
- Set yourself targets, such as 'two units a month'.
- Keep your book with you to read whenever you have a chance.
- Write the examination only when you feel ready.

## UPDATING OF THE PROGRAMME

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Based on the comments and suggestions made by participants and other authorities, the chapters and skills workshops of the Programme will be regularly edited to make them more appropriate to the needs of perinatal care and to keep the Programme up to date with new ideas and developments. Everyone studying the Programme is invited to write to the editor-in-chief with suggestions as to how the books could be improved. You can also send your comments on parts of the books on the website [www.ebwhealthcare.com](http://www.ebwhealthcare.com).

## USING THE BOOK AS A WORK MANUAL

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It is hoped that as many participants as possible will use these books as work manuals after they have completed the course. The flow diagrams should be most useful in managing difficult problems and for planning management. A further benefit of the books will be to standardise the documentation and management of certain clinical problems. This is particularly useful when patients are referred within or between health care regions. It is further hoped that all those who use these

books will enjoy learning about new and better methods of caring for mothers and newborn infants. Every opportunity to share knowledge with both patients and colleagues should be used. By doing this you will find your career more fulfilling and you will help to improve the perinatal care in your region.

## PERINATAL EDUCATION TRUST

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Books developed by the Perinatal Education Programme are provided as cheaply as possible. Writing and updating the Programme is both funded and managed on a non-profit basis by the Perinatal Education Trust.

## FURTHER INFORMATION

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Further information on the Perinatal Education Programme can be obtained in the following ways:

### By post

The Editor-in-Chief, Perinatal Education Programme, P O Box 34502, Groote Schuur, Observatory 7937, South Africa

### By fax

- 021 671 8030 (from South Africa)
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From within South Africa:

- 021 671 8030 (PEP Distribution Manager)
- 021 786 5369 (Editor-in-Chief)

### By email

pepcourse@mweb.co.za

### Online

www.ebwhealthcare.com

www.pepcourse.co.za

## COMMENTS AND SUGGESTIONS

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The Perinatal Education Programme has been produced by a group of perinatal specialists in South Africa, after wide consultation with colleagues who practice in both rural and urban settings, in an attempt to reach consensus on the care of mothers and newborn infants. The Programme is designed so that it can be improved and altered to keep pace with current developments in health care. Participants using books developed by the Programme can make an important contribution to its continual improvement by reporting factual or language errors, by identifying sections that are difficult to understand, and by suggesting improvements to the contents. Details of alternative or better forms of management would be particularly appreciated. Please send any comments or suggestions to the Editor-in-Chief at the above address.



# 1

## Mother friendly care during pregnancy

### Objectives

When you have completed this unit you should be able to:

- Describe mother friendly care in pregnancy.
- List the principles of mother friendly care during pregnancy.
- Understand the importance of individualised care.
- Help women to play a role in their own pregnancy care.
- Provide mother friendly antenatal care.
- Explain the importance of involving the partner, family and community in antenatal care.
- Encourage health care workers to be mother friendly.

### **MOTHER FRIENDLY CARE FOR PREGNANT WOMEN**

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#### **1-1 What is mother friendly care during pregnancy?**

This is the modern method of caring for women during pregnancy, where the best interests of the woman and her fetus are considered above those of the hospital or clinic staff. Mother friendly care is good care.

#### **1-2 What are the principles of mother friendly care during pregnancy?**

1. Each woman is welcomed and given individualised care, paying special attention to her own wishes and needs. Always call a mother by her name.
2. Women are treated with kindness, compassion, patience and gentleness.
3. Care should be sensitive, responsive and supportive to the needs, values and customs of each woman's culture and home background.
4. Women are encouraged and helped to play an important role in their own care and decision making.
5. The woman's physical and emotional needs are considered.

6. Women are informed about their condition and that of the unborn infant in a way that they will understand.
7. Health workers give women opportunities to voice their feelings, needs and questions.
8. Wherever possible, care should be evidence based.

**Maternal care during pregnancy should be individualised.**

### 1-3 What is meant by individualised antenatal care?

With individualised (personalised) care, every effort is made to ensure that the same health worker sees the same patient at each visit. This may be easy to achieve in rural areas with few health workers and smaller numbers of pregnant women. However in peri-urban and urban areas with many health workers and large numbers of patients, good organisation is required to achieve this goal.

Individualised care also means that the specific needs of each woman are considered when her antenatal care is planned. The needs of all pregnant women are not the same. The needs of different individuals often vary.

### 1-4 What are the benefits of individualised care?

1. A relationship of trust and respect develops between the patient and health worker. Pregnant women are more likely to ask questions and speak openly with someone they get to know.
2. The health worker knows that observations at a visit are done in exactly the same way as during the previous visits (i.e. interobserver variation is ruled out).
3. Abnormal observations will be identified and reacted upon and not thought to be the result of the previous person doing observations incorrectly.
4. Patients feel they are receiving better care.

5. Health care workers experience more job satisfaction as they get to know the women they are taking care of.

**Individualised care results in better care.**

### 1-5 What personal history should be taken during antenatal care?

In addition to the medical history routinely taken during antenatal care, attending an antenatal clinic provides a woman with the opportunity to talk about her home, partner, fears and wishes. Assessing the woman's emotional status is important as it may identify women at increased risk of postnatal depression and anxiety. Emotional or physical abuse, economic problems or drug abuse may also be identified.

Excessive fear and anxiety during a vaginal examination may suggest previous bad experiences. It is important to allow women to speak about any previous births. Taking a brief psychiatric history is important, especially to screen women for features of anxiety or depression. Most women at risk of postpartum depression will have warning symptoms during their pregnancy. Early diagnosis and treatment of depression gives a better outcome. Women on antidepressants must not stop their treatment because they are pregnant.

### 1-6 How can pregnant women play a greater roll in their own care?

1. By being allowed and encouraged to speak about their needs and fears.
2. By learning more about the physical and emotional changes that take place during pregnancy.
3. By understanding the care they are being given.
4. By understanding the importance of a good diet during pregnancy.
5. By understanding that care of themselves will improve the health of their infant.

6. By not smoking or drinking alcohol during pregnancy.
7. By helping to monitor their own pregnancy.

**Women should be encouraged to play a more active roll in the management of their pregnancies.**

### **1-7 How can women be helped to monitor their own pregnancy?**

1. Women should be taught to be aware for danger signs during pregnancy, such as bleeding, severe headache or abdominal pain and visual disturbances (in severe pre-eclampsia).
2. Being aware of fetal movements can help mothers to also monitor the well being of their unborn infant.
3. Women should know the early signs of labour.

Women should contact or go to the delivery centre as soon as they recognise danger signs or go into labour.

### **1-8 What is evidenced based care in pregnancy?**

Evidence based care is the clinical management of a patient where the treatment is decided by the results of carefully done clinical trials. This is far better than care based on prejudices, unconfirmed beliefs and traditions. It is important to question every aspect of patient care. Only in this way can unhelpful practices be rejected and effective care introduced.

**Whenever possible, care in pregnancy should be evidence based.**

## **WOMEN AND THEIR PREGNANCIES**

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### **1-9 How can women be helped to enjoy their pregnancies?**

Pregnancy should be an exciting time for women and their partners. The best way of enjoying a pregnancy is to keep physically and emotionally well, and to share the experience with others. To build confidence and understand the changes taking place in her body, women should learn as much as they can about pregnancy.

### **1-10 How can women learn more about their pregnancies?**

All mothers should be encouraged to learn about the changes that are taking place in their bodies during pregnancy. Most mothers learn from speaking to their friends and family members. Books, magazines, the radio and TV are also sources of information. One of the best ways of learning about one's pregnancy is to attend antenatal classes.

### **1-11 Why should pregnant women attend antenatal classes?**

There are many advantages of attending antenatal classes, including:

1. Learning about pregnancy, labour and delivery. Knowing what to expect and being able to ask questions.
2. Learning physical excises which help a woman to keep fit and prepare for labour. Also learning the importance of adequate rest.
3. Learning about the most suitable diet in pregnancy.
4. Learning about dangerous practices such as smoking, drinking alcohol and taking illegal drugs.
5. Overcoming fear and anxiety and building confidence.
6. Learning how to care for the infant and how to breastfeed successfully.

7. Meeting other women who are pregnant.  
Mutual support is most important.

**Education is a very important part of good antenatal care.**

### **1-12 Should women bring their partners to antenatal classes?**

Women must be encouraged to share their pregnancies with their partner and support one another during this special time. Therefore, it is important that partners also learn about pregnancy, labour and delivery. If they are unable to bring a partner, they should invite a family member or friend who could be with them during labour.

**Emotional support from a friend or family member is important in pregnancy.**

### **1-13 Should women continue working and exercising during pregnancy?**

It is important to keep physically active during pregnancy. Most women are able to continue their routine activities throughout most of pregnancy. Keeping fit through mild to moderate exercise is recommended.

Many women continue to work until the last weeks of pregnancy. The social support and financial income are benefits. Some women feel very tired during the first and last weeks of pregnancy, and a rest during the day may help. Long periods of standing should be avoided in the last trimester.

### **1-14 Is a sexual relationship safe during pregnancy?**

Many women worry that sexual intercourse will harm their unborn infant. However, full sexual relations can usually be enjoyed by most pregnant women unless there is a risk of preterm labour.

Multiple partners and unsafe sex are particularly dangerous as HIV infection acquired during pregnancy carries a high risk of transmission to the fetus.

### **1-15 What is the value of written material at an antenatal clinic?**

Many women find it very helpful to receive written material which gives the information discussed at antenatal clinics. Sometimes it is easier to understand if a message is read. A lot of what is spoken about in a class is forgotten unless reinforced by information sheets or leaflets. Pamphlets should list the danger signs in pregnancy and stress the importance of breastfeeding, and giving kangaroo mother care in low birth weight infants. Information must be presented in a simple, clear way.

## **MANAGING PREGNANT WOMEN IN A MOTHER FRIENDLY WAY**

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### **1-16 What is the mother friendly way to book a new patient?**

1. All patients must be greeted by name. A smile makes a huge difference.
2. Patients should not be kept waiting longer than absolutely necessary.
3. Patients should not be scolded for booking late. Instead they should be told the advantages of early booking and be encouraged to book early with their next pregnancy.
4. Patients who come to book for the first time must be seen on that day.

### **1-17 When should women book for antenatal care?**

As soon as the pregnancy is confirmed. One of the common errors made by both women and health care workers is to delay booking for antenatal care for weeks or months after the pregnancy is confirmed. Early booking helps

to establish the correct gestational age, enables problems to be identified as early as possible, and enables women to get the information they need during pregnancy.

**Women should book for antenatal care as soon as their pregnancy is confirmed.**

### **1-18 Why must all women presenting for the first time during pregnancy be seen on that day?**

Patients that appear healthy and are asymptomatic may already have a dangerous pregnancy complication that will become worse with time, e.g. untreated syphilis or pre-eclampsia. It is important that the first contact with the antenatal clinic is a positive experience. This will help to get the woman to attend regularly.

### **1-19 Why are some women who present for the first time at an antenatal clinic not immediately booked for care?**

Sometimes pregnant women are not seen at a clinic because only a fixed number of patients are allowed to book for antenatal care on each day. Even arriving very early for the clinic may not guarantee that they will be seen while an unfriendly reception at an antenatal clinic may result in late booking or infrequent visits.

### **1-20 What are the disadvantages if women are not seen at a clinic when they come to book for antenatal care?**

1. The number of women that require booking steadily increases, resulting in a huge backlog.
2. Women often have to arrive at the clinic in the early hours of the morning in order to be seen.
3. Women needing antenatal care are often forced to go to other district clinics, which are far from their homes, where queues and waiting times are shorter.
4. In the event of an emergency, women booked in another district often have

problems with district based ambulance services.

5. Women who have booked at a distant clinic often present with pregnancy complications at the local clinic where they have no clinical records and, therefore, are blamed for not booking.
6. Women ultimately lose faith in the health service.
7. If they are told to come back on another day they may not return for weeks or months.

### **1-21 What must be done if the number of patients seen at an antenatal clinic becomes too large and unmanageable?**

1. The policy on the frequency of clinic visits must be reviewed. Studies have shown that the number of antenatal visits in low risk patients can be safely reduced.
2. The number of clinic days per week must be increased, especially the number of days for booking clinics.

### **1-22 Should mothers be encouraged to bring a friend or family member with them to the antenatal clinic?**

Yes, all pregnant women must be allowed to bring a person of their choice to the antenatal clinic. This will usually be her husband, partner, family member, friend or older child. A companion can provide important support for women who are anxious about attending an antenatal clinic.

### **1-23 Should the family member or friend be allowed in the cubicle while the woman is being examined?**

Yes. However, the woman should first be asked whether she would like the person to be present or whether she would rather be alone. The woman should be allowed to be seen alone if she wishes. An opportunity to speak privately to the health care giver is important. Grandmothers can sometimes be very dominating and not allow the pregnant woman to speak for herself.

### 1-24 Why is it important to consider a woman's feelings?

Otherwise health care workers may only focus on the medical management and not address the other needs of pregnant women. A woman's emotion state can have an effect on the pregnancy and its outcome.

### 1-25 What important needs do women have during pregnancy?

1. Research has shown that women are concerned about the health of their unborn infant and their own health.
2. Therefore, whenever observations or an examination is done, women must be informed as to whether the findings or results indicate that she and her unborn infant are in good health.

### 1-26 Why should women be encouraged to speak about their fears during pregnancy?

Many women have fears or experience guilt during pregnancy. The pregnancy may not have been planned and may not be wanted. These problems can only be resolved if they are discussed. Staff should never criticise a mother.

### 1-27 Why are women often shy at their first antenatal visit?

1. Unmarried women, especially young primigravidas, may be shy to reveal their pregnancies as other members of their community, church or school may be present at the clinic.
2. Many women, especially young primigravidas, are shy and embarrassed of being exposed during a physical examination.
3. Many have never been examined vaginally by a doctor or nurse before.
4. They may be afraid of being scolded by the staff.

### 1-28 What is a teen friendly clinic?

The medical, social and emotional needs of pregnant teenagers often differ from those

of older women. Therefore, there are many advantages in providing antenatal care to teenagers at a special clinic which pays more attention to their specific problems.

### 1-29 Why are alcohol and drug related habits not mother friendly?

Both smoking tobacco and drinking alcohol are potentially harmful to the pregnant woman and her fetus. The mother should be encouraged to stop smoking and drinking. Marijuana (dagga) should be avoided although the effect on the fetus is uncertain. Hard drugs, such as 'tik', heroin, mandrax and cocaine, should never be used, especially during pregnancy.

Most medicines cross the placenta to the fetus. Therefore, medicine should only be taken during pregnancy if there is a good indication. Medicines known to damage the fetus must be avoided.

**It is neither mother nor baby friendly to smoke or drink alcohol during pregnancy.**

### 1-30 How can women plan for their delivery?

Towards the end of pregnancy, women should plan for their delivery and the first few days after their infant is born ('birth preparedness'). They need to know when they should report to the clinic or hospital and where to go. A list of clothes and toiletries is very useful. Some delivery units require each woman to bring her own essentials. It is helpful to give women a list of requirements for labour and delivery. The better the woman plans for her delivery, the more relaxed and confident she will be. A visit to the birthing unit before labour will reduce her fear of what a labour ward looks like. Birth preparedness is especially important in areas where transport and communication are poor, and ambulance services limited. Women must plan how they will travel to the clinic or hospital when they go into labour.

Some women with transport problems may move in the last weeks of their pregnancy to stay with friends or family close to the clinic or hospital.

## MOTHER FRIENDLY HEALTH WORKERS

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### 1-31 What are the essential factors in mother friendly health workers?

1. Correct attitude and behavior, e.g. kindness, friendliness, politeness and respect.
2. Acceptable appearance.
3. Good communication skills.
4. Team work.
5. Providing good care.
6. Ongoing education and training

**The most important factor in mother friendly care is the correct attitude of the staff.**

### 1-32 What staff behaviour is not considered mother friendly?

1. Being rude, aggressive, cheeky and insensitive to the woman's needs, feelings and wishes.
2. Emotionally, verbally or physically abusing women.
3. Ignoring what the woman's says or requests.
4. Not respecting a woman's privacy.
5. Not giving a woman an opportunity to ask questions.

### 1-33 Why are staff sometimes not mother friendly?

1. They have not learned the correct attitudes.
2. They have personal emotional problems.
3. They are overworked.
4. Chronic staff shortages and low morale.
5. Patients and their relatives may be demanding and difficult.
6. They are not supported by their management.

7. They are afraid of changing outdated attitudes and practices.
8. They may feel that patients are inferior to them.
9. They may feel insecure due to a lack of knowledge and skills.

Staff often need to be supported themselves in order to be friendly and caring towards their patients. A climate of mother friendly care has to be developed over time. Many outdated attitudes and practices have to be changed. Abusive behavior by staff should never be tolerated.

**Staff often need to be taught, encouraged and supported before they can give mother friendly care.**

### 1-34 Why is it important that staff dress in a professional manner?

Nurses and doctors should always dress in a professional manner in order for them to be recognised as professional health care workers. Sloppy dress suggests sloppy care. A professional appearance shows self respect as well as respect for colleagues and patients.

### 1-35 Why is a team spirit among health care providers important?

1. Because a spirit of trust and support will result in:
  - An improved staff morale and confidence.
  - A friendly and warm atmosphere in the clinic.
  - Loyalty to the institution and colleagues.
2. With a good team spirit it will be easy to implement activities that result in a patient friendly service.
3. Improved self esteem among the staff results from a spirit of working well together.

All these factors will in turn results in better patient care.

### 1-36 What will contribute towards a better team spirit among health care providers?

1. Group activities.
2. Supportive leadership from the person in charge of the clinic.
3. A single health authority that manages both the staff and the district service.
4. A neat and well kept clinic building and surrounding area, especially the garden.
5. A common goal that the clinic staff should strive for, decided on by the staff themselves.
6. A commitment to upholding a high level of professionalism
7. Opportunities for improving their knowledge and skills.
8. Praise and encouragement for each other.

**Support and care of the staff are essential for a good service.**

### 1-37 What group activities will foster a team spirit?

1. Regular meetings to discuss staff and operational problems (business meetings).
2. Regular audit meetings to evaluate the quality of care, i.e. to discuss perinatal deaths, patient transfers, use of antenatal cards and partograms. Staff need to be accountable for the care they provide.
3. Regular educational meetings with local and invited lecturers.
4. A safe and confidential environment where real needs and problems can be discussed.

Although all the above issues can be dealt with at weekly meetings, it is wise to have a separate educational afternoon at regular intervals (i.e. monthly). As staff and management problems tend to overwhelm educational needs, a separate educational exercise solves this problem.

### 1-38 How will educational activities improve the team spirit?

1. Improved knowledge and skills leads to more confidence and job satisfaction.
2. Management protocols can be discussed and new staff members taught how patients are managed.
3. When a uniform patient management approach is followed, trust between health workers and the level of care improve.
4. Studying an educational manual in a group is of great value as it provides background knowledge and management guidelines.

### 1-39 What is the value of self-help training in building team spirit?

Enabling staff to take pride and responsibility in their own professional growth, through self-help training programmes like PEP, teaches all team members to work and learn together. The principles of peer tuition (teaching each other) and support are of great importance. Learning and agreeing to common protocols of diagnosis, management and referral build a united vision of maternal care.

**Learning together teaches people how to work together.**

### 1-40 How will audit meetings improve a team spirit?

The spirit at the meeting must be constructive and not threatening. The approach must be to learn from omissions, errors made or incorrect management or diagnosis? Blaming of staff members must never be done in a meeting.

### 1-41 How can the community contribute to mother friendly care?

The community should be encouraged to support both pregnant women and the services that care for them.

Family and community support for pregnant women is particularly important for teenage mothers, single mothers, working mothers

and mothers with large families. The physical, emotional and time demands of pregnancy are often considerable. Help may be needed with home and work responsibilities.

The community can help make clinics and hospitals mother friendly by helping to create a warm, friendly environment. Clean and attractively painted waiting and examination rooms with colourful curtains and comfortable chairs makes the experience of an antenatal visit more enjoyable. The community can offer time, skills and collect funds. A 'Friends of the clinic' group can be formed with community volunteers helping with tasks such as providing tea. The community should take pride in 'their' clinic.

## CASE STUDY 1

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A young woman attends an antenatal clinic where she sees a midwife she has not met before. She is not greeted by name but simply asked to lie on the examination couch.

Although asked about her health, she is not asked about her other needs. As a result, her anxieties about being thrown out of her home are not discussed. The midwife gives no explanation but says there is no reason to be worried and gives her a date for the next appointment. The woman decides not to come back for her next appointment but to look for another clinic where she is not treated as 'just another patient'.

### 1. Is this young woman receiving mother friendly care?

No. She is being treated as a number rather than as an individual. She should have been greeted by name and introduced to the midwife. She is not given any details of the examination findings. One would not treat a friend or family member in this uncaring way.

### 2. What is individualised care?

With individualised care, the patient is seen as an individual (not just a number). She is

seen by the same doctor or midwife at every visit. Although this is not easy in a busy clinic with staff shortages, it has benefits for both the patient and the health worker.

### 3. What are the benefits of individualised care?

A relationship of trust and respect develops between the patient and health worker and there is continuity of care. Patients feel they are getting better care and the health worker has more job satisfaction.

### 4. Why is a personal history important?

The needs of this woman were not addressed as a personal history was not taken. Only taking a medical history may miss important problems, such as social, emotional or financial difficulties.

### 5. How can a pregnant woman be encouraged to speak about her fears and anxieties?

She could be asked how she feels about her pregnancy and whether she receives support from her family at home.

### 6. Which specific need was not addressed during the antenatal visit?

The woman wants to know whether she and her fetus are in good health. To merely state that there is no reason to be worried in an incorrect and negative approach.

### 7. Are you surprised that she decides to try another clinic for her next antenatal care visit?

No. She wants a clinic where she is made to feel that the staff are interested in providing her with good care. She needs mother friendly pregnancy care.

### 8. What may result from her unsatisfactory clinic visit?

She may decide not to have any more antenatal care or only attend another clinic late in her pregnancy. She may also tell her friends about her experience and, as a result, they may not go for antenatal care in their pregnancies.

## CASE STUDY 2

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A primigravid woman and her husband attend an antenatal clinic for the first time. She wants to know more about pregnancy and delivery, and asks where she can get more information. She needs to know about diet, working, exercise and sex during her pregnancy. The midwife is very helpful and refers her to antenatal classes. She is very excited about being pregnant and wants to enjoy her pregnancy and play an active role in her management.

### 1. How should women be education during antenatal care?

General health education, and in particular education about pregnancy, labour and delivery, is a very important part of good antenatal care. Talks, videos, CDs, books, magazines and pamphlets can all be used for antenatal education. However, antenatal classes are the best way of providing education for pregnant mothers.

### 2. What are the benefits of women attending antenatal classes?

Not only do they become more knowledgeable about their pregnancies, but they build their confidence and lose many of their anxieties. She will be able to discuss the important topics of diet, weight, exercise and sex during pregnancy. Meeting and talking to other pregnant women provides an emotional support. This enables women to enjoy their pregnancies. Many of the benefits gained from antenatal classes can still be provided at a routine antenatal clinic.

### 3. Can her husband also attend the antenatal class?

Yes. He will be able to support her better both during the pregnancy and labour, but also with their newborn infant, if he joins her in the antenatal classes.

### 4. How can a woman play an active role in the management of her pregnancy?

By learning how to monitor her own pregnancy. She should be taught the danger symptoms and also how to become aware of fetal movements.

### 5. Should women continue to exercise and work during pregnancy?

Yes. It is important that women keep fit during pregnancy. Most women can continue to work until the last weeks of pregnancy. However, they often get tired and need to have extra rest during the day.

## CASE STUDY 3

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A teenage girl attends a local clinic to have a pregnancy test as she has missed her period for two months. Her pregnancy is confirmed and she is told to return to book for antenatal care when she reaches 20 weeks of gestation. However, when she returns to book there is a long queue and, after waiting all morning, she is asked to come back the next day. When she is finally seen, the staff are rude. She notices that their uniforms are dirty and they appear uninterested in the care of their patients.

### 1. How soon should pregnant women book for antenatal care?

As soon as the pregnancy is confirmed. She should have booked the same day as the positive pregnancy test.

## **2. What was the problem at the booking clinic?**

The staff were not able to see all the patients wanting to book. This is a common problem in many clinics, with a shortage of staff, when all new bookings are only done on a single day of the week. Long queues often lead to women booking late or not at all. An urgent plan is needed to clear the backlog of patients as postponing booking does not solve the problem.

## **3. Does it matter that the patient is still a teenager?**

Yes. Pregnant teenagers often have social and emotional problems. They are best cared for at a special antenatal clinic for teenagers. The unfriendly way that this patient was managed would be especially stressful for a young woman.

## **4. Are you surprised the staff were rude?**

Not really, although health care workers should always treat patient with courtesy and respect. Inadequate staffing rapidly leads to

stress, exhaustion and poor staff morale. The poor standard of dress and bad attitude of the staff support the conclusion that there was a poor team spirit.

## **5. How could you improve the poor team spirit of the staff?**

The staff need help and support. They should be given an opportunity to speak about the problems at the clinic. With good leadership training and encouragement the team spirit can be rebuilt. This will result in better patient care. Group activities such as audit meetings and self-help learning in groups would be very helpful. The staff need to be educated in the principles of mother friendly care.

## **6. How could the community help to develop mother friendly care at the clinic?**

They should form a 'Friends of the Clinic' committee to help raise funds to improve the appearance and facilities of the clinic. Community support, encouragement and pride in the clinic and staff will help to maintain a high standard of care.

# 2

## Mother friendly care during labour, delivery and the puerperium

### Objectives

When you have completed this unit you should be able to:

- Define and give mother friendly care during labour, delivery and the puerperium.
- Explain why routine shaving and enemas are no longer needed.
- Understand why most women can walk around, take a shower or eat and drink during labour.
- Give the reasons for a labour companion.
- List the advantages of a 'natural childbirth'.
- Explain why an episiotomy is usually not necessary.
- Define the Better Births Initiative.
- Prevent separating mother and infant after delivery.

### INTRODUCTION TO MOTHER FRIENDLY CARE

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#### 2-1 What is mother friendly care during labour, delivery and the puerperium?

As with mother friendly care during pregnancy, this is a method of caring for women where the interests of the woman and her fetus or newborn infant are considered above those of the hospital or clinic staff. Mother friendly care is good care. Wherever possible, it is based on good scientific evidence. Many women find present labour practices unpleasant and, therefore, avoid delivering in a clinic or hospital. Instead, they prefer to deliver at home.

#### 2-2 What are the principles of mother friendly care during labour, delivery and the puerperium?

They are the same as the principles of mother friendly care during pregnancy, i.e. managing each woman as an individual and caring for her

with kindness, compassion, patience, gentleness and respect. Both the woman's physical and emotional needs must be considered.

### 2-3 How can a woman be helped to play an important part in her own care?

Labour, delivery and the puerperium are an ideal opportunity to allow and encourage women to play an active role in their own care. They should understand what will happen and what is expected of them. It is very important to explain to a woman what is occurring. It is very frightening for a woman if she does not understand what is happening to her and her baby. Fear may slow her progress of labour.

### 2-4 What staff behaviour is not considered as mother friendly?

1. Being rude, aggressive, indifferent, cheeky and insensitive to the woman's needs, feelings and wishes.
2. Emotionally or verbally abusing women.
3. Ignoring what the woman's says or requests.
4. Slapping, pushing or in any way physically abusing women.
5. Giving woman the 'silent treatment' and not communicating with them.
6. Accusing women of presenting in labour too early or too late, or for forgetting their antenatal card at home.

## MOTHER FRIENDLY CARE DURING LABOUR

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### 2-5 Should all women be given an enema during labour?

In the past many women were routinely given an enema at the start of labour to empty the bowel. It was believed that this would speed labour and delivery. Passing stool during delivery can be an embarrassing and unpleasant experience. Although enemas are no longer given routinely, some women would prefer to have an empty bowel before delivery. An enema should be given if the woman feels constipated

or requests an enema. Modern enemas can be given quickly and painlessly. However, soiling during delivery is not always prevented by the use of enemas. Women in labour should be allowed a choice. Remind them that passing a small amount of stool at delivery is common and is easily managed by the midwife.

**There are no good reasons for the routine use of enemas during labour.**

Similarly, there are no good reasons for giving castor oil or any other medicine to promote stooling before labour.

### 2-6 Should a woman be shaved before delivery?

For many years, all women expecting a vaginal delivery had their perineum shaved during labour. It was believed that this would reduce the risk of infection following an episiotomy or tear and make the repair easier. In contrast, it has been shown that shaving often causes minor cuts which increase the risk of skin infection after delivery. Many women find perineal shaving painful and feel embarrassed at being shaved. The shaved area also feels uncomfortable and itches when the new hair starts to grow. There is a risk of HIV transmission if an unsterile blade is used.

**There are no medical reasons for shaving the perineum before delivery.**

Similarly, there are no medical reasons for shaving a woman prior to caesarean section. Pubic hair can simply be cut short. However, some women would prefer the upper boarder of their pubic hair shaved to avoid the pain later of removing the surgical strapping.

### 2-7 Should a woman bath or shower during labour?

Warm water can be very soothing during labour and helps to reduce pain and discomfort. Relaxing in a warm bath can be

very comforting. Unless there is a medical indication, there is no harm in either showering or bathing during labour. Rupture of the membranes is not a contraindication to bathing. It is important that the bath is very well washed out before it is used. Underwater deliveries have not shown an increased risk of infections due to water entering the vagina before delivery.

**Women should be allowed to shower or bath during labour.**

Therefore, the old fashioned routine of 'oil, bath and enema' is no longer practised.

### **2-8 Should women be allowed to drink water during labour?**

Most women in labour want to drink. Not drinking in labour is like running a marathon without taking any fluids. No fluid intake during labour may result in dehydration and acidosis which can cause fetal distress. Even women having a trial of labour should be allowed to have sips of clear fluids

It is better if repeated, small amounts of water or sweet tea are drunk than a large amount at a time. Some women prefer drinks that are cold. If a woman cannot take fluids by mouth during labour, she should receive an intravenous infusion ('drip') of maintenance fluid (e.g. Ringer's lactate) to prevent dehydration.

**Women should take small sips of water during labour.**

### **2-9 Should women be starved during labour?**

Women should not be routinely starved during labour. Small, frequent snacks are preferred by most women. They should not have a large meal. Some women do not want to eat during labour but most will need to drink. Taking food during a long labour helps to prevent exhaustion. Snacks such as glucose sweets, jelly or fruit are preferred. Encourage women

to bring some fruit with them. Allowing food and fluids during labour prevents ketosis and hypoglycaemia. Ketones in the urine indicates that the mother is not getting enough energy.

**Food should not be routinely withheld in labour.**

### **2-10 Should women be allowed to eat and drink before a general anaesthetic?**

Recent studies show that starvation during labour does not always prevent inhalation of stomach contents during general anaesthetic. However it seems wise that women should take nothing by mouth if they are being prepared for caesarean section under general anaesthetic. Women who are having a trial of labour or are at high risk of needing a caesarean section can take clear fluids but not solids during the active phase of the first stage of labour. Women who are waiting for an elective caesarean section should be starved of food but can continue to have small sips of clear fluids until two hours before the general anaesthetic. Most women having an elective caesarean section in the morning are starved of solids from the previous evening.

### **2-11 Is it safe to walk around during labour?**

Most women should be encouraged to walk around and keep mobile rather than remaining in bed during labour. They can relax in a chair or find a comfortable position. There are many disadvantages to a woman lying on her back, such as postural hypotension. Labour progresses faster, with less pain, if a woman is able to move about freely.

**Women should be encouraged to move about and walk around during labour.**

### **2-12 Should a woman remain in her own clothes during labour?**

There is no need for a woman to wear hospital clothes during a normal labour. Many women

feel more comfortable and confident in their own clothes. To avoid blood stains, most women prefer to change out of their own clothes for the delivery.

### 2-13 Is it helpful to have a companion during labour?

Traditionally women delivered at home where they were surrounded and supported by their family and friends. Now most women labour alone in hospital as family have been discouraged because of the fear of infection, lack of privacy for other patients, and the disruption of the labour ward routine. Unfortunately a lack of staff usually prevents a midwife staying with a woman throughout her labour and delivery.

Many trials have shown the benefits of a labour companion, which include:

1. Labour progresses better (shorter labours).
2. Less pain with less need for analgesics (e.g. pethidine).
3. Fewer caesarean sections.
4. More self esteem.
5. Greater success with breast feeding.
6. Better relationship with the infant.
7. Less postnatal depression.

Women do not want to labour alone. Therefore, it is important that every woman in labour should receive the companionship she needs.

**Every woman should be encouraged to have a companion in labour.**

### 2-14 Who should be the labour companion?

Each woman should choose her own labour companion if possible, such as her husband, partner, friend or relative. A professional or lay birth companion (doula), previously unknown to the mother, can also be of great help and support. Many women prefer another woman to support them in labour. Doulas are particularly important when there are not enough midwives to support women in labour.

**NOTE** Doula is a Greek word meaning 'a woman who helps other women'.

### 2-15 What is the roll of a labour companion?

A labour companion should support, encourage and praise the mother. Labour can be very lonely, frightening and bewildering if one is alone. The labour companion can rub the mother's back, help her with her breathing, help her to turn while lying, get her something to eat or drink and support her while walking. The birth companion should stay with the woman throughout her labour, providing physical and emotional support. Trained doulas can also help after delivery with breastfeeding. The role of the labour companion is different from that of the person who conducts the labour and delivery.

**The role of a labour companion is to encourage and support the woman during labour and delivery.**

### 2-16 Is fetal heart monitoring essential in a normal labour?

It is very important that the condition of the fetus is monitored during every labour. This can usually be done with a fetal stethoscope or hand held Doppler ultrasound fetal heart rate monitor. Once the base line fetal heart rate between contractions has been determined, the fetal heart should be listened to during and after a contraction to detect any decelerations. It is important to be gentle as the procedure can be uncomfortable, especially during a contraction. Electronic fetal heart rate monitoring ('CTG') usually is only needed if the infant is at high risk of fetal distress.

### 2-17 Should all women be offered pain relief in labour?

Labour is almost always painful. If the mother is not distressed by the pain, analgesia is not indicated. However analgesia must be made available to all women who ask for it. Women should have a choice of no analgesia, opiate

analgesia (pethidine or morphine), inhaled Entonox (50% nitrous oxide with 50% oxygen) and epidural analgesia if the service is available. Encouragement, a warm bath or shower, or gently rubbing the lower back, relaxation, breathing techniques and a 'birth ball' are very helpful. Infants are often sleepy for the first few hours after opiate analgesia. A caring, competent midwife and labour companion are often the best form of pain relief.

### 2-18 Should early artificial rupture of the membranes be encouraged?

Previously, early artificial rupture of the membranes (active management of labour) was encouraged to speed up the first stage of labour, allow the early detection of meconium stained amniotic fluid and reduce the risk of undiagnosed prolapse of the cord. Recently, spontaneous rupture of the membranes is preferred as studies have questioned the benefits of early, artificial rupture unless there are clear medical indications. This is especially important in communities with a high rate of HIV positive women as the risk of HIV transmission to the infant increases as the duration of membrane rupture becomes longer.

**Routine early rupture of the membranes is no longer practiced.**

## MOTHER FRIENDLY CARE DURING DELIVERY

### 2-19 What is 'natural childbirth'?

A natural childbirth is a delivery where there is minimal medical interference and the women has as much control as possible. Women should be encouraged and allowed to have a natural childbirth whenever possible. However, the labour and delivery should be supervised and monitored by a skilled person to detect and manage any complication which

may arise. A natural childbirth is not an unsupervised delivery.

### 2-20 What are the advantages of natural childbirth?

It gives the mother the pride, joy and satisfaction of having been in control of her own labour and delivery. It enables the mother to have a choice in what she wants.

### 2-21 Is it better if a doctor delivers all infants?

Most healthy women who are expecting a normal delivery and a healthy infant at term can be safely delivered by a trained midwife. Delivery by a doctor is only needed if a serious complication is expected in the mother or infant. There is no medical reason why normal deliveries should be conducted by a doctor. In many countries most deliveries are very ably conducted by midwives.

**Most women can be safely delivered by a trained midwife.**

### 2-22 Should all women be delivered in hospital?

Many women can be safely delivered at a primary care maternity clinic (midwife obstetric unit). Only where complications are present or are expected, need a woman deliver in hospital.

There are many advantages if a healthy woman with a normal pregnancy can be delivered at a maternity clinic:

1. Closer to her home and family.
2. More likely to have a normal vaginal delivery without medical intervention.
3. Discharged home sooner.
4. Cheaper both to mother and health service.
5. Often preferred by mother.
6. More 'homely' and less impersonal.

In a large regionalised maternity service, about half of all pregnant women can be safely delivered at a clinic. The other half are referred to hospital during the antenatal period or during labour because of one or more risk factors.

**With careful selection, many women can be safely delivered at a maternity clinic.**

### **2-23 Can women be safely delivered at home?**

With careful selection, some women can be delivered safely at home. However, excellent transport and communication are needed in case of an emergency. A warm, well lit home with clean water and other basic facilities are also needed. In poor communities, many of these requirements are missing. Instead of home deliveries, it is preferable that women deliver in a clinic close to their home.

### **2-24 Should every delivery be conducted by a trained birth assistant?**

Every effort must be made to ensure that a trained birth assistant is present at every delivery, i.e. a doctor, professional midwife or well trained traditional birth attendant (TBA). Having a trained birth attendant at every delivery is one of the most important factors in reducing both maternal and perinatal mortality. It is very dangerous for family members or untrained birth assistants to conduct deliveries, especially if they are not experienced.

### **2-25 Should the father be present at the delivery?**

If possible, and if the woman wants him there, the father should be present during labour and delivery. It is important that he support his wife or partner and share in the experience of childbirth. Being present is important in strengthening bonds between mother and father and developing bonds between father and infant. Often fathers can attend a caesarean section.

There are times where it may be best if the father leaves the delivery room for a while. Either if the mother wishes it or during a medical procedure. The father should not interfere with the management of the woman.

**The father should be encouraged to attend the labour and delivery.**

### **2-26 Should children be allowed to watch a delivery?**

Although this is usually not allowed during clinic or hospital deliveries, children are often present during home deliveries. Children know that their mother is pregnant and ask questions about the delivery. Being present at a delivery can be either a frightening or exciting experience for a child. It is important to explain to children what to expect, that their mother will have some pain, and that this is normal.

### **2-27 Must a woman lie on her back during delivery?**

Many women are still expected to lie on their backs during delivery (supine position). This has been shown to be the worst position for the fetus as the uterus presses down on the mother's main blood vessels which can cause maternal hypotension and a reduced blood flow to the placenta, resulting in fetal distress. It is also very difficult to bear down effectively in this position. Labour ward staff, however, have tended to prefer the supine position as it provides the best access to the delivering head.

Many women prefer to find their own most comfortable position during delivery. Some want to squat, crouch, kneel or lie on their side. Some women may wish to change their position during delivery. It is important to allow a woman to choose the position that feels best for her. The upright (squatting, crouching or kneeling) and side-lying (lateral) positions results in less pain, better progress of the second stage and less perineal tears.

Often a compromise position can be found. For example, the mother can squat or kneel on the bed, holding onto the top of the bed for support, and then lie down once the head has crowned. Labour ward staff should get used to delivering women in different positions.

**Women should be guided and encouraged to find the most comfortable position during delivery.**

### **2-28 Is a routine episiotomy needed by all primiparous women?**

No. There are no good reasons for performing a routine episiotomy on all primiparous women during labour.

### **2-29 Is it better to do an episiotomy than allow the perineum to tear?**

For many years it was believed and taught that it was better to perform an episiotomy than allow the perineum to tear. This is now known to be incorrect as there are more complications with an episiotomy than with a first or second degree tear. A first or second degree tear is easier to repair and results in less trauma, less suturing, better healing, less dyspareunia (painful sex) and less urinary and bowel incontinence later. An episiotomy does not always prevent a third degree tear.

An episiotomy should only be performed when there is a good medical indication, such as prolonged second stage of labour or fetal distress during the second stage.

**Episiotomies should be avoided where possible.**

### **2-30 Should women be allowed to choose a caesarean section?**

In many industrialised countries, it is common for women to ask for an elective caesarean section to avoid the expected pain, discomfort, embarrassment and inconvenience of a spontaneous vaginal delivery. A caesarean section will also avoid a possible episiotomy

or perineal tear, and reduce the risk of vaginal damage and stress incontinence after the delivery. However, both a caesarean section and an anaesthetic also have dangers, especially infection and thrombo-embolism. The risk of complications, both to mother and infant, is higher with a caesarean section. In poor countries, the lack of staff and facilities make a personal choice impossible. Many of the fears of a normal delivery can be avoided with good care and a full explanation.

**NOTE** The financial benefit and convenience of an elective caesarean section, rather than a spontaneous labour, are also very attractive to doctors and private health facility managers in wealthy communities. In many countries, and the private sector in South Africa, the rate of caesarean section is far above the expected rate of 15%, approaching 50% in some circumstances. A high rate of 'social caesars' is not in the best interests of mothers and infants.

### **2-31 What should be done if a woman requests a caesarean section where there are no good clinical indications?**

Explore with her the reasons why she wants a caesarean section. Often these fears are based on incorrect knowledge. Explain the correct facts to her. It is important to stress the feeling of achievement and the bonding experience with her infant after a normal delivery. The hospital stay is also shorter after a normal delivery while the risk of problems with future deliveries is less. Infants born by elective caesarean section are at an increased risk of needing admission to an intensive or high care unit. However, if she persists with her request for a caesarean section, her wishes must be considered. Some women have an extreme and irrational fear of giving birth. This may result from a previous traumatic birthing experience, rape or sexual abuse. Birth choices should be discussed towards the end of pregnancy or at the onset of labour. Lack of hospital facilities and staff often limit the option of a 'social caesar'.

### 2-32 What may be the emotional effects of an unplanned caesarean section?

Many women, who have had a normal pregnancy and expect a vaginal delivery, are very disappointed if they have to have an unplanned caesarean section for medical reasons. They feel that they have failed after all the preparation at antenatal classes. This may be bad for their self esteem and even interfere with the normal bonding process with their infant. These women need emotional support and reassurance.

### 2-33 What are the advantages and disadvantages of an induction of labour if there are no medical indications?

Sometimes women ask, or their doctors suggest, that labour should be induced at a convenient time. These social advantages must be balanced against possible medical disadvantages. If the induction fails, a caesarean section may be needed. Induced labours also have a greater risk of a longer and more painful first stage or an instrumental delivery. Infants born after an induced labour are at an increased risk of respiratory distress, even in a term pregnancy. Therefore, very serious thought must be given before a 'social' induction of labour is done.

### 2-34 How can a woman's dignity be protected during delivery?

By being able to express her own opinion and make her wishes known, and by having these seriously considered by caring staff. The birth attendants must always be aware of the mother's right to dignity and privacy.

### 2-35 How should women be encouraged during delivery?

Many women are afraid and feel out of control during delivery. They may not understand what is happening and they may be in pain. Support and encouragement are, therefore, an essential part of managing a delivery. It is totally unacceptable to ever shout or hit a woman during delivery.

### 2-36 How can changes in labour and delivery practice be made?

It is not easy to change labour and delivery practices which have been used for many years, especially if these practices are convenient to the staff and hospital management. However, every effort must be made to change practices and attitudes to those that are based on good scientific evidence and provide better care to the mother. Changes often have to be introduced slowly, one at a time. A lot of time, energy and commitment are needed to make changes. Both the staff and mothers should be told, and should understand, the reason for the change. The staff need to be educated, encouraged and supported.

**NOTE** Midwives and doctors are ethically and professionally obliged to make changes to their behaviour and practice as better ways of caring for patients are found.

### 2-37 What is the better births initiative?

The Better Births Initiative (BBI) is an international project to improve the quality of care during labour and childbirth by listening to women's views and using the best evidence available. BBI promotes efficient, effective and beneficial practices and stresses that women should be treated with humanity and respect. It is important that care provided during labour and delivery is based on the best evidence rather than on traditional practices. Staff should be committed to improving care.

The four main messages of BBI are:

1. Encourage women to drink enough fluids and eat if hungry during labour.
2. Encourage women to have a partner, friend or lay carer (doula) for support during labour.
3. Stop routine procedures during labour that are of little or no proven benefit, e.g. shaving, enemas, delivering in a supine position (on her back) and separating mothers and their infants.
4. Avoid routine treatments that are of little or no benefit, e.g. artificial rupture of membranes, stay in bed with intravenous

fluids during labour, episiotomy and routine suctioning all infants after birth.

Evidence based medicine is health care based on information obtained by carefully conducted, randomised controlled trials and extensive systematic reviews of the current literature. This is preferable to personal opinions and expert views which are often proved to be incorrect.

## MOTHER FRIENDLY CARE AFTER DELIVERY

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### 2-38 When should the infant be given to the mother?

With a normal delivery and a healthy mother and infant, the infant should be given to the mother as soon as possible after delivery. Usually this is done after the infant has been dried, briefly examined, the cord cut and the 1 minute Apgar score has been assessed.

### 2-39 What should the mother be encouraged to do once she is given her infant?

She should be encouraged to give kangaroo mother care with the infant placed on her naked chest. The infant can be covered with a dry, warm towel. Kangaroo mother care soon after delivery promotes bonding and successful breastfeeding. Most mothers want to hold and examine their infants immediately after birth. The mother should also be encouraged to breastfeed. This may speed up the third stage of labour by stimulating uterine contractions. There is no need for a routine five minute Apgar assessment if the infant is normal and did not need any resuscitation.

### 2-40 When should the routine procedures be done on the newborn infant?

These routine procedures, such as giving vitamin K, placing prophylactic ointment or drops into the eyes and identifying the infant,

can be done once the mother has had a chance to meet her infant. Usually they can be done while the mother holds her newborn infant.

### 2-41 Should the infant stay with the mother?

If possible, the infant should stay with the mother. This is possible after most deliveries. Bonding during the first hour after delivery (the 'golden hour') is particularly important.

**The mother and infant should not be separated after delivery.**

### 2-42 How can the mother play an active role in preventing a postpartum haemorrhage?

The mother can play an important role in the prevention of postpartum bleeding, especially during the first hour after delivery. Breastfeeding directly after delivery encourages the uterus to contract. She should be asked to be aware of vaginal bleeding and immediately call for help should she start to bleed excessively. Usually only one or two sanitary pads are soaked after a normal delivery. She can also be shown how to assess the height of her fundus and feel whether her uterus is well contracted. Again she should immediately inform the nurse or doctor if her uterus relaxes or increases in size. She must also have been shown how to rub her uterus and be instructed to do this at regular intervals. She should keep her bladder empty. In this way the mother is able to monitor her uterus. This is particularly important if there are inadequate staff to closely monitor each mother after delivery.

**Women should be encouraged to play an active role in the management of their labour and delivery.**

### 2-43 What are 'baby blues' or 'postnatal blues'?

Most women normally feel anxious and tearful for a few days after delivery when they are faced with the overwhelming tasks and responsibilities of caring for a newborn infant. Giving birth is also often the start of major changes in their lives. A woman may feel that she is no longer attractive to her husband. These very strong emotions, 'the blues', usually start three or four days after delivery and only last a few days. Uncommonly they may last a few weeks. Staff need to explain that irrational tearfulness is very common and will disappear without treatment. Emotional and practical support by staff, family and friends is important. If the woman does not feel better by two weeks after delivery, a diagnosis of postnatal depression must be considered.

**Postnatal 'blues' are normal in the first week after delivery.**

### 2-44 What is postnatal depression?

Postnatal depression may occur at any time during the year after delivery. Surprisingly, the symptoms of depression usually are already present during pregnancy, but worsen after delivery. In industrialised countries, about 15% of women have postnatal depression. The incidence appears to be much higher in poor communities with greater social and economic problems.

**NOTE** Recent research suggests that the incidence of postnatal depression may be as high as 30% in some poor communities on South Africa. Anxiety may be equally common.

**Postnatal depression is not uncommon.**

### 2-45 What are the features of postnatal depression?

Postnatal depression usually presents with features of both depression and anxiety, similar

to depression at other times of life. Women with postnatal depression feel tearful and sad, they may worry excessively, may be irritable and feel angry, are afraid of being alone, feel they cannot cope, and can have suicidal thoughts. Often there are changes in appetite and sleep pattern with tiredness and loss of energy. They often have a loss of self esteem, cannot concentrate and lose their sex drive. They feel hopeless, inadequate and guilty and have no enjoyment. They often feel a lack of joy in their infant and may even fear that they could harm the infant. Anxiety may present with fearfulness, panic attacks or a wide range of physical complaints such as weakness, restlessness, shortness of breath and dizziness.

Postnatal (puerperal) psychosis occurs in about 1/1000 deliveries. These women have lost touch with reality and hear voices or have hallucinations. Their behaviour is very abnormal. They are often paranoid (believe unreasonably that people or even their infant are plotting against them) and need urgent psychiatric care to avoid hurting themselves and their infant.

### 2-46 Which women are at an increased risk of postnatal depression?

1. Women with a past history of depression or other mental problems.
2. Women from poor socioeconomic circumstances.
3. Women with little physical and emotional support at home.
4. Women with emotional problems (unwanted pregnancy, previous history of abuse or pregnancy loss).

### 2-47 How may maternal postnatal depression affect the infant?

Postnatal depression affects a mother's ability to interact with her infant. These women often feel alone, despairing and isolated, and find their infants difficult or demanding. The physical and emotional development of these children may be slow as the poor mother-infant interaction may result in a lack of

stimulation or even neglect. They are at an increased risk of child abuse.

**NOTE** Suicide is a major cause of maternal mortality in industrialised countries. Following motor vehicle accidents, suicide is the commonest cause of coincidental maternal death in South Africa.

### 2-48 How can women be screened for postnatal depression?

If possible, women who are depressed or at high risk of depression should be identified during pregnancy as an early diagnosis results in a better outcome. A caring health worker can usually recognise pregnant women who are depressed. However, a formal screening tool is available. All women who are thought to have symptoms and signs of depression should be referred to a counsellor, social worker or the community mental health team for evaluation and management. Often depressed women are afraid of being referred for assessment.

Women with antenatal depression also need understanding, support, psychological therapy and often medication. Support groups are helpful and simply listening can be of great value. Antidepressants are safe during pregnancy and breastfeeding. Kangaroo mother care, touch therapy and breastfeeding are all useful in helping depressed mothers bond with their infants.

**Postnatal depression can be screened for during pregnancy.**

**NOTE** The Edinburgh postnatal depression scale is a questionnaire that can be used both antenatally and postnatally to assess for depression and anxiety. Cognitive therapy and antidepressants are usually used in management.

## CASE STUDY 1

A young primigravid woman with mild hypertension presents in labour at the local hospital. She is given a tablespoon of castor oil

followed by an enema. Later a nurse shaves her pubic hair and she is asked to bath. When she questioned whether the shave was necessary, she was told that it is routine management of all women in labour. Her boyfriend is informed that he cannot attend the delivery. When the woman complains about the attitude of the staff she is shouted at and told that she can deliver at home if she chooses.

### 1. Is it essential that the bowel should be emptied before delivery?

No. 'Oil and enema' are no longer routine practice. Some women however request that they have an enema to empty the bowel as they are afraid they may soil during delivery. There is no scientific evidence that an enema speeds up labour and delivery.

### 2. Why should all women in labour be shaved?

There is no need to shave women in labour. Often long pubic hair is trimmed. Contrary to earlier belief, shaving does not reduce the risk of infection in a perineal tear or episiotomy. Small cuts made during shaving may increase the risk of skin infection.

### 3. Is it not dangerous to bath during labour?

No. Bathing and showering during labour are safe. They do not increase the risk of infection or fetal distress. Many women like to lie in a warm bath during labour as it reduces pain. Some women even ask to deliver in a bath of warm water.

### 4. Are routine protocols of management still needed in a labour ward?

Yes. It is important to have a plan of management that all the staff can understand and use as a guide to care. However, routine management should be determined by evidence based medicine whenever possible. Mothers should know what is going to happen and be given choices where possible.

### 5. What is evidence based medicine?

This is health care which is based on information obtained by carefully conducted, randomised controlled trials and extensive systematic reviews of the current literature. This is preferable to personal opinions and expert views which are often proved to be incorrect.

### 6. Why should fathers be allowed to attend the delivery of their infant?

If possible, and if the woman wants him there, the father should be present during labour and delivery. It is important that he supports his wife or partner and shares in the experience of childbirth. Being present is important in strengthening bonds between mother and father and developing bonds between father and infant.

### 7. What do you think of the manner in which this woman's complaint was handled?

There is no excuse to shout and be aggressive with patients, especially when they are frightened and confused. Suggesting that she delivers at home is dangerous and unethical practice.

## CASE STUDY 2

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During a normal labour at a district hospital, a woman is told she must stay on her bed and not walk around. Her clothes are taken away and she is given a clinic gown. She is allowed to have sips of water during early labour but asked not to eat anything. She is not given any pain relief. She is afraid to ask and does not know whether analgesia is available at the clinic. She is worried that the fetal heart is not being monitored as she was taught during antenatal classes.

#### 1. Should a woman in normal labour have to remain on her bed?

No. Women should be encouraged to walk around during labour. This helps to relieve

labour pains and speeds up labour. Women can relax in a chair or adopt any position which gives them the most comfort. Lying for hours on her back during labour is not good for her or her fetus.

#### 2. Do women need to wear a clinic gown during labour?

No, although some women prefer to change out of their own clothes before delivery to avoid blood staining.

#### 3. What are the advantages of allowing women to wear their own clothes in labour?

It is one of the many small parts of 'mother friendly care' which makes labour an enjoyable and meaningful experience rather than a very stressful time. Paying attention to providing good, kind and gentle care improves the quality of service that is offered to women. Mother friendly care is good for the mother, infant and staff.

#### 4. Is it safe for women in labour to eat and drink?

During a normal labour there is no danger if the woman eats and drinks. Frequent drinks prevent dehydration. Small snacks prevent hypoglycaemia and ketosis. Food such as glucose sweets, jelly or fruit is preferred. Only if a woman is being prepared for a general anaesthetic should she not eat.

#### 5. When should a woman be given pain relief in labour?

When she feels she needs it. Women must be asked and given a choice as they often are embarrassed, shy or afraid to ask.

#### 6. Is it necessary to monitor the fetal heart in a normal, low risk labour?

The fetal heart must always be monitored in labour. At a maternity clinic this can usually be done with a fetal stethoscope or hand held fetal heart rate monitor.

### 7. Does it help women in labour if they attended antenatal classes?

Yes. It helps enormously if women know what to expect and understand what occurs during labour and delivery. This reduces their anxiety and pain and enables mothers to participate in the decisions made during labour.

## CASE STUDY 3

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A woman is admitted in labour to a primary care maternity clinic. Every effort has been made to provide a mother friendly service during labour. As she does not have her partner with her she is offered a labour companion. She is also asked by the midwife what position she would prefer during delivery. The woman is thrilled with her good delivery experience which contrasts to the efficient but very unfriendly care she received with the birth of her previous child when the staff insisted that all primigravid mothers must have an episiotomy. On the third day after delivery she seems well but complains of feeling upset, without any obvious reason, and cannot stop crying.

### 1. What is a labour companion?

A labour companion is someone who stays with a woman throughout her labour and delivery to encourage and support her. Traditionally, women never laboured alone but always had a companion.

### 2. Who can be a labour companion?

Usually her partner, a friend or someone in her family. If no one suitable is available she can be offered a professional or lay labour companion (a doula) whom she has not met before. The role of the labour companion is different from that of the person who conducts the labour and delivery.

### 3. What are some of the benefits of having a labour companion?

Women labour faster and need less analgesia. They feel more satisfied with their labour and delivery and bond better with their infants. Having a labour companion is a typical example of mother friendly care.

### 4. Why is a woman's choice of the best position to deliver important?

Many women prefer not to deliver while lying on their backs. This is also not the best position for the infant. Some want to squat, crouch, kneel or lie on their side. It is important that women are given a choice. Midwives soon learn how to deliver infants in different positions. The second stage of labour is faster with less risk of a peritoneal tear if the mother is in an upright or lateral (side lying) position.

### 5. What are the advantages of low risk women delivering at a maternity clinic?

A maternity clinic (midwife obstetric unit) near their homes is more convenient for most women than a hospital. The labour ward in a maternity clinic is more relaxed with midwives managing normal deliveries. It is safer than home deliveries in most poor communities and avoids some of the unnecessary investigations and interventions that are common in hospitals. While high risk women should be managed in hospital, where all the additional facilities are available, almost all low risk women can be safely and well cared for in a maternity clinic.

### 6. What is the Better Births Initiative?

BBI is an international project which aims at improving care during labour and delivery by introducing mother friendly care, based on the best evidence available. BBI is good care. All labour wards should be encouraged to adopt the principles of BBI.

**7. Why do you think this woman felt so upset?**

She almost certainly has the 'blues'. With understanding, explanation and support she should recover in a few days. If she is no better after two weeks, suspect postnatal depression, and refer her for counselling or assessment. She has no features of puerperal psychosis.

**8. How can postpartum depression be detected early?**

Postpartum depression often presents during pregnancy and then becomes worse after delivery. An awareness by health workers of the features of depression and anxiety can lead to an early diagnosis. A screening tool can also be used to identify women who are depressed or at high risk of depression.

# 3

## Principles of Kangaroo Mother Care

### Objectives

When you have completed this unit you should be able to:

- Describe Kangaroo Mother Care.
- Give the history of Kangaroo Mother Care.
- List the components of Kangaroo Mother Care.
- Give the advantages of Kangaroo Mother Care.
- Explain why Kangaroo Mother Care is particularly important for low birth weight infants.
- Explain the safety of Kangaroo Mother Care.

### INTRODUCTION TO KANGAROO MOTHER CARE

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#### 3-1 What is Kangaroo Mother Care?

Kangaroo Mother Care (or skin-to-skin care), is a simple, easy method of caring for newborn infants where the mother uses her own

body temperature to keep her infant warm. Kangaroo Mother Care (KMC) is particularly useful for nursing low birth weight infants (infants with a birth weight below 2500 g). KMC provides the infant with the basic needs for survival, i.e. mother's warmth, stimulation, breast milk, love and protection. As 20 million low birth weight (LBW) infants are born each year worldwide, KMC has become a very important way of caring for these high risk infants. Unfortunately, attempts to lower the prevalence of low birth weight infants in poor countries has not been successful.

**NOTE** KMC reminds one of the way mother kangaroos (and other marsupials) care for and keep their infants warm in a special pouch. The mother kangaroo carries her infant against her body both day and night. While in the pouch, the infant is warm, protected and able to suckle whenever it wants.

The word 'mother' was added to kangaroo mother care to emphasise the importance of the mother and her breast milk. As the word 'kangaroo' is foreign to many people in South Africa, it may be preferable to talk about skin-to-skin care instead. The Zulu word 'ukugona' (to hold or cuddle) has also been suggested.

### 3-2 Where did Kangaroo Mother Care start?

The idea of nursing an infant skin-to-skin against the mother's bare breasts is not new and has probably been used for thousands of years. However, the idea was made popular in modern times by health care workers in Bogotá, the capital of Colombia in South America. From here it has been introduced into many developed and developing countries.

**NOTE** Doctors Rey and Martinez first started KMC in Bogotá, Colombia during 1979 in response to a crisis with the large number of low birth weight infants, a shortage of staff and facilities, overcrowded nurseries and a high mortality from hospital infection.

### 3-3 Why is Kangaroo Mother Care natural?

Many animals give birth to young who are not immediately able to run and follow their mother. They have to be carried by the mother or hidden away while she looks for food and water. Humans and other primates (e.g. monkeys and baboons) carry their newborn infants, either in their arms or against their bodies. The infant is emotionally and physically programmed to remain constantly with the mother. As these infants are relatively immature when they are born, they need constant care for some time after delivery. In this position the infant grows and develops rapidly. KMC is therefore a 'natural' way of nursing a human infant. Many women want to keep their infants close to them. Using their own bodies to keep their infant warm gives many mothers a sense of satisfaction and pleasure.

**NOTE** In hunter-gatherer societies and most non-western cultures, mothers demonstrated the 'carry' pattern of infant care. The infant is always with the mother and breastfeeds frequently. In contrast, many animals such as small antelope and hares, demonstrate the 'nesting' pattern of care, where the infants are hidden while the mother searches for food. In the artificial environment of western society, this latter pattern of infant care has become common. Infants are often left alone to sleep in a cot or pram. Many believe it is not the best pattern of caring for a human infant. KMC is a return to a natural method and often preferable to incubator care.

### 3-4 What are the components of Kangaroo Mother Care?

KMC consists of four components:

1. Kangaroo position (skin to skin contact)
2. Kangaroo nutrition
3. Kangaroo support
4. Kangaroo discharge

### 3-5 What is the kangaroo position?

Usually the infant is placed in an upright position against the mother's bare chest and between her breasts. The infant is kept naked except for a nappy, socks and woollen cap. Both mother and infant are usually covered by a blanket or shirt. The kangaroo position is also called skin-to-skin contact, as much of the infant's skin is in direct contact with the mother's skin.

**NOTE** The kangaroo position is regarded as the optimal habitat or place for newborn infants. In this place infants exhibit specific non-stress behaviour patterns such as 'crawling' towards the nipple and 'self attachment'.

**The kangaroo position is also known as skin-to-skin contact.**

### 3-6 What is kangaroo nutrition?

Exclusively breast feeding on demand. With KMC, most infants are either breast fed or fed expressed breast milk by cup or nasogastric tube. Most small infants should be fed every two hours. One of the benefits of KMC is that these infants have easy access to their mother's breasts.

### 3-7 What is the advantage of kangaroo nutrition?

With KMC, successful breast feeding is common and most infants are discharged home on breast feeds. The duration of breast feeding is also much longer. With KMC, many infants as immature as 30 weeks can begin breast feeding. KMC increases the volume of milk that a mother produces.

**NOTE** Before KMC was introduced, it was believed that infants had to reach about 35 weeks gestation before they could suck and swallow adequately. However, with KMC it was noticed that many much more immature infants could be partially or completely breast fed.

**Successful breastfeeding is promoted by kangaroo mother care.**

### 3-8 What is kangaroo support?

This is the physical and emotional support which is given when KMC is practiced.

1. Support must be given by the nursing and medical staff to the mother to assist and encourage her to provide KMC.
2. The whole family should be informed about KMC. They may also need to be supported by the staff. In turn, the family should support the mother. The role of the father or partner is important in supporting the mother. The support of the mother-in-law is also helpful.
3. The mother's own mother has a very important role to play in helping her to give KMC.
4. The community should also be told about the advantages of KMC. A supportive attitude by the community helps the mother to succeed with KMC.
5. When introducing KMC into a hospital or clinic, the staff often also need support.

Without support, it is difficult to get mothers to give KMC successfully. Pregnant women should be informed and educated about KMC from their first antenatal visit.

### 3-9 What is kangaroo discharge?

With kangaroo discharge, the mother leaves the hospital with her infant in the kangaroo position and continues to provide KMC at home. This practice has many advantages both to the mother and her infant. Most low birth weight infants can be discharged home earlier if KMC is used. By reducing the time that these small infants stay in hospital, hospital costs

and staffing can be reduced. Mothers can get home to their families sooner. However, with early discharge (kangaroo discharge), adequate follow-up care and support are essential.

Predischarge planning is important. Each mother should practice KMC while her infant is still in hospital. She should also make arrangements for her return home and emotionally prepare herself for KMC after discharge. The family must be told that the infant will be receiving KMC at home.

**Low birth weight infants can be discharged home earlier with Kangaroo Mother Care.**

### 3-10 Why is Kangaroo Mother Care so important for low birth weight infants?

KMC is particularly important when caring for low birth weight (LBW) infants in poor countries where there is often a high mortality rate in hospitals which cannot offer sophisticated care. These small infants often die of hypothermia (cold) or infection. Studies have shown that the number of low birth weight infants dying in hospitals without incubators can be dramatically reduced if KMC is introduced. Even in industrialised countries, the mortality rates can be reduced with KMC.

Conventional incubator care for low birth weight infants is often problematic in poor countries. Not only are there not enough incubators, but they are expensive, often not used correctly, are broken and cannot be repaired. They are not cleaned properly and the power supply is often unreliable.

**Kangaroo Mother Care has reduced the mortality rate of small infants.**

**NOTE** Infants who are delivered before term often die as a result of being born too soon. With KMC, a mother is able to give her infant the protection, warmth and nutrition that she would have given if the pregnancy had continued and the infant was still a fetus. With KMC, the mother can complete the 'gestation' outside the uterus.

Twenty million LBW are born worldwide annually. Of these 96% are born in poor countries where only 1% of the world's incubators are available.

### 3-11 Can Kangaroo Mother Care be used for all infants?

KMC can be used in the majority of infants, whether they are born in hospital, a clinic or at home. While KMC is most important in low birth weight infants, infants of normal weight and gestational age can also benefit from KMC, especially in cold conditions.

While the principles of providing KMC are important, the details are not fixed and inflexible. The technique varies slightly between different countries and services. Mothers are also individuals who have their own ideas and preferences. The dress and customs in different communities also influences how KMC is given. What is important is for the whole community, but especially women, to understand the advantages of KMC and to support other women who are giving their infants KMC.

During antenatal care visits women should be told about KMC and allowed to decide whether they would like to give KMC to their infant.

### 3-12 When should kangaroo mother care be started?

If both mother and infant are well enough, KMC should be started immediately after birth once the infant is dried, examined and the cord cut. Many low birth weight infants can be given KMC from birth. Normal infants can also be given KMC for the first few hours after delivery to promote bonding, encourage breastfeeding and prevent hypothermia. Infants who are ill at birth should receive KMC once they have recovered and their clinical condition is stable. While a small infant is still unstable and being nursed in an incubator, the mother should be taught how to express her breasts so that the infant can be given breast milk as soon as possible. All women who choose to breastfeed, especially

women giving KMC, should learn how to express breast milk.

**Kangaroo Mother Care should be started as soon as possible after birth.**

**NOTE** A recent study has shown that very small infants who cry well at birth and do not have respiratory distress experience fewer problems during the first few hours of life if they are given KMC rather than standard incubator care.

## ADVANTAGES OF KANGAROO MOTHER CARE

### 3-13 What are the advantages of kangaroo mother care?

There are many advantages of KMC to:

1. Mothers:
  - The mother's confidence and bonding is encouraged. They feel less stressed.
  - Mothers are empowered to play an active role in their infant's care.
  - Breast feeding is promoted.
  - Less neglect and abandonment.
2. Fathers:
  - Fathers are able to play a far greater role in the care of their infants.
  - It improves bonding between fathers and infants, which is particularly important in countries with high rates of violence towards children.
3. Infants:
  - Most low birth weight infants can be kept warm and stable with KMC.
  - Infants grow faster.
  - Serious infection is less common in the infant.
  - Less apnoea (stopping breathing).
4. Health care providers:
  - Fewer staff and less equipment are needed in hospital nurseries.
  - Infants can be discharged home earlier.
  - It is cheaper.

KMC moves the mother back into the position where she can play a meaningful role in the care of her infant. KMC also enables her to choose breast feeding above formula feeding.

### 3-14 What are the disadvantages of separating mother and infant after birth?

KMC keeps the mother and infant together. If the infant is separated from its mother, it becomes stressed. This may be harmful. Only in modern times have women in western traditions been separated from their newborn infants who have been nursed alone in incubators or cots in hospital. This is the price that is often paid when small infants have to be moved to an intensive care unit. At home, many infants are again separated from their mothers when they are placed in cots, often in another room.

**NOTE** Both human infants and young animals that are separated from their mothers after birth display the features of protest and despair. When prolonged, this stress response has been shown to be harmful. Many people believe this to be a cause of behavioural disorders. In contrast, infants receiving KMC exhibit a 'vagal response' which promotes growth and development and speeds up the adjustment from an intra-uterine to an extra-uterine existence. The mother and infant pair is often referred to as a 'dyad' to emphasise that they should be kept together.

**Mothers and their infants should be kept together.**

### 3-15 Is Kangaroo Mother Care safe?

Yes. Most small infants can be safely and efficiently nursed with KMC once their clinical condition is stable. Many scientific studies on human and animal infants have shown that KMC can be as safe as conventional incubator care for stable, small infants. The infant is kept warm, heart and respiratory rates are normal, there is less apnoea and bradycardia (slow heart rate) and fewer episodes of cyanosis (turning blue). It is important that KMC is demonstrated and supervised by staff trained

in this method. Mothers should be taught what danger signs to look for (e.g. breathing difficulties or cyanosis).

**NOTE** Many scientific studies have demonstrated that almost all measurements of wellbeing are better in infants receiving KMC when compared to infants nursed under overhead radiant heaters or in closed incubators. The infant's skin and core temperatures remain within the physiological range with KMC. Survival rates are the same for infants receiving KMC or conventional incubator care once they are stabilised.

Very small infants, sick infants and infants with complications are best cared for in incubators where they can be closely monitored and treated. Once they are stable with normal vital signs and no major complications, they can be considered for KMC.

### 3-16 How does Kangaroo Mother Care keep the infant warm?

The temperature of the skin over the mother's breasts warms the infant's naked skin. This is a very effective way of both keeping an infant warm and of warming a cold infant. If the infant is cold the mother's skin becomes warmer. When the infant becomes too hot, the mother's skin cools down. In this way, the temperature of the infant receiving KMC is kept in a very narrow range (often with better control than an infant in a servocontrolled incubator). A woollen cap helps to keep the infant warm during KMC. In cold weather the infant can wear a cotton jacket which is open in front.

**NOTE** The temperature of an infant receiving KMC is slightly higher than that of an infant in an incubator. With KMC, the mother's skin temperature may rise as much as 2° C to keep the infant warm.

### 3-17 How does Kangaroo Mother Care reduce the risk of apnoea and bradycardia?

It is probably the constant temperature together with the mother's movement, breathing and heart sounds that stimulate the infant and reduce apnoea and bradycardia. This is very different to the infant in a conventional closed

incubator, which makes a constant sound and does not move. Infants in incubators cry more and then sleep deeply from exhaustion. Infants nursed by KMC also require less oxygen and have better oxygen saturation in their blood. They also sleep for longer.

**NOTE** Studies have confirmed that the number of apnoea and bradycardia spells is less with KMC while the oxygen saturation and oxygen consumption are improved. Infants also have more quiet sleep with KMC. They sleep for longer but not so deeply.

### 3-18 How is breastfeeding promoted by Kangaroo Mother Care?

Many studies have confirmed that more women successfully breast feed for longer with KMC. Breast milk production is also better and more infants are discharged home fully breast fed if KMC is practiced. KMC promotes a feeling of well-being in the mother as she can see and touch her infant all the time. This stimulates milk production and helps with the let-down reflex. KMC is a very important benefit in many poor communities where breast feeding reduces the risk of infant death. It is important that the opportunity to feed is available continuously day and night.

**NOTE** The secretion of both prolactin and oxytocin is inhibited when a mother is anxious, unhappy, worried and separated from her infant.

### 3-19 Do mothers have to breast feed if they give Kangaroo Mother Care?

No. If for some good reason the mother is unable to breast feed, or is advised not to breast feed, the kangaroo position can still be used. Some very small infants are fed expressed breast milk by nasogastric tube or cup while receiving KMC. Mothers can also give formula feeds while using the KMC position. If the infant is formula fed, the formula should preferably be given by cup rather than by bottle. Kangaroo nutrition (exclusive breast feeding) is, therefore, desirable but not essential for KMC.

### 3-20 Why does Kangaroo Mother Care improve a mother's confidence?

By having her infant with her all the time, a mother giving KMC becomes both confident and competent in the way she handles her infant. Mothers prefer KMC as they feel more satisfied, relaxed and fulfilled by the experience. Mothers feel less anxious if their infant is with them.

Most women feel relaxed and happy giving KMC and do not find it stressful and exhausting. However, they need the support of the hospital staff and their families.

**NOTE** KMC helps to restore a mother's self esteem, which is often low after delivering a low birth weight infant.

### 3-21 Why do infants receiving Kangaroo Mother Care have fewer infections?

Low birth weight infants, cared for in incubators or cots in a newborn nursery, are at high risk of becoming colonised and infected by hospital bacteria which have become resistant to many antibiotics. In contrast, infants being given KMC tend to become colonised with the mother's own skin bacteria. As the cells and antibodies in a woman's breast milk are produced in response to her own bacteria, a mother's breast milk is specifically protective against those bacteria, which colonise her infant ('designer milk'). A number of studies have shown that infants receiving KMC have fewer serious infections, such as necrotising enterocolitis, than other infants who do not receive KMC. This is one of the main benefits of using KMC to care for small infants in both poor and wealthy countries. Therefore, KMC and breast milk act together to reduce infections.

**Low birth weight infants receiving Kangaroo Mother Care have fewer serious infections.**

### 3-22 How can Kangaroo Mother Care save money?

1. Breast feeding saves the cost of buying formula.
2. Fewer nurses are needed as the mother provides most of the care to her infant.
3. Less hospital equipment, such as incubators, are required.
4. With less infection, fewer infants have to be admitted for intensive or special care.
5. Small infants can be discharged home sooner.

### 3-23 When can infants receiving Kangaroo Mother Care be discharged home?

Infants receiving KMC can be discharged home (kangaroo discharge) when all the following criteria are met:

1. They are healthy and gaining weight (at least 20 g per day).
2. They are breast feeding or cup feeding well.
3. The mother is confident and able to manage her infant.
4. Good follow-up care is arranged.

Weight and gestational age need not be used as strict criteria for KMC discharge. The maturity of the infant is more important, i.e. feeding well. The weight at which most infants receiving KMC are discharged home varies from one hospital to another. With KMC, infants can be discharged home much earlier than with conventional care. With early discharge from hospital, it is important that these infants are seen frequently at a follow up clinic for the first few weeks.

**NOTE** With the use of KMC, many hospitals discharge their infants when their weight reaches between 1500 and 1700 g. These infants should be gaining at least 15 g/kg/day.

### 3-24 When is Kangaroo Mother Care for low birth weight infants useful in hospitals?

There are three circumstances when KMC is particularly useful in the care of low birth weight infants in hospital:

1. In hospitals where no facilities are available to look after low birth weight infants. Here KMC is the only alternative if there is a lack of incubators and nurses.
2. In hospitals where staffing and facilities are good but limited and not sufficient to care for all the low birth weight infants. KMC is then used instead of conventional incubator care.
3. In hospitals with good and adequate staffing and facilities. Here KMC is used to promote bonding between mother and infant, reduce the risk of infection, promote breast feeding and shorten hospital stay.

The survival rate of low birth weight infants given KMC is the same as that when conventional incubator care is provided.

### 3-25 Can the father also give Kangaroo Mother Care?

Yes. It is very important that the father also becomes involved in the care of the infant. This helps build a bond between the father and infant, and also helps the father support the mother in caring for their infant. In communities with a high rate of child abuse, KMC promises to improve the relationship between men and their children. This simple intervention may also improve the relationship between men and women in society.

Other family members, such as a sister or the grandmother, may also play an important role in giving KMC. They can give the mother a break to visit the bathroom or have some time for herself.

### 3-26 How is kangaroo support provided?

After the birth of an infant, the mother needs support in many different ways. KMC empowers the mother to meet all her infant's needs. However, she in turn needs help:

1. Emotional support: The mother needs encouragement if she is to give KMC successfully. Many young mothers with their first infant need an enormous amount

- of reassurance from family, friends and health professionals. KMC empowers mothers to meet all their infants' needs.
2. Physical support: During the first few weeks of KMC, nursing the infant takes up most of the mother's time. Adequate rest and sleep are essential. Therefore, she needs support with household chores and managing the family.
  3. Educational support: It is important to give the mother the information she needs to understand the whole process of KMC and accept that KMC is important. She needs to be made aware of the many advantages of KMC. This makes the KMC experience more meaningful and increases the chances that she will give KMC successfully both in hospital and after discharge.

### **3-27 Why has Kangaroo Mother Care only been introduced recently?**

Because health professionals believed that infants would develop problems, such as hypothermia, and apnoea, if they were taken out of the incubator too soon. Infection was also seen as a great risk if the mother handled her infant. Mothers were not viewed as capable of looking after a low birth weight infant. However, there are many reports of individual infants surviving with KMC after they had been refused standard incubator care because they were thought to be too small to survive.

### **3-28 Can Kangaroo Mother Care be used for transporting infants?**

Yes. KMC is very useful in transporting small infant between clinics and hospital, especially if a transport incubator is not available. If the mother is not available, the ambulance staff can give KMC themselves.

**Kangaroo Mother Care is a safe and effective method of transporting infants.**

### **3-29 Is it safe to use Kangaroo Mother Care to warm up cold infants?**

KMC is a very effective and safe method of warming infants with hypothermia (axillary temperature below 36.5° C). If an overhead heater or closed incubator is not available, KMC is the best method of warming cold infants. KMC has been shown to warm cold infants better than an incubator.

### **3-30 Should Kangaroo Mother Care be used in extremely small infants?**

Infants that are extremely preterm and are not viable can also be given KMC. This 'compassionate care' of infants too small to survive is far better than simply leaving the infant to die in the labour ward or nursery. It helps the mother psychologically to come to terms with her bereavement.

### **3-31 What are the two types of Kangaroo Mother Care?**

KMC can be given to small infants in two different ways:

1. Intermittent KMC: This type of KMC is not given all the time but only when a mother visits her infant who is still being nursed in an incubator.
2. Continuous KMC: With continuous KMC, the mother provides KMC all the time, both day and night.

### **3-32 When is intermittent kangaroo care used?**

It is usually given to very small infants who are well but still need to spend most of the time in an incubator. During her visit in the nursery, the mother takes the infant out of the incubator and places the infant in the kangaroo position while she sits beside the incubator. This enables her to play an active part in the care of her infant while the infant is still in the nursery. Intermittent KMC can range from many hours per day to only once every few days. The length of time an infant spends in KMC can also vary from a few

minutes to a few hours at a time. Even if the mother only gives KMC for 10 minutes during a visit, it is beneficial to her infant. Not only does this increase the infant's weight gain but it also promotes breast feeding. Intermittent KMC allows the mother to learn and practice how to give KMC, which will help when the incubator is no longer needed and the infant is big enough for continuous KMC. It is important that nurses teach mothers how to provide KMC correctly.

**Intermittent Kangaroo Mother Care in the nursery has many advantages for both mother and infant.**

### **3-33 When is continuous Kangaroo Mother Care used?**

It is usually used with low birth weight infants who are ready to be taken out of the incubator permanently. Some infants are only given continuous KMC when they are almost ready to be discharged home while some mothers provide KMC to their infants for many weeks before discharge. It is best given in a KMC ward but can also be used in a general postnatal ward. Mothers usually have experience from giving intermittent KMC before their start providing continuous KMC. This form of KMC should always be used for a small infant where there is no incubator available. Continuous KMC can also be practiced at home after small infants are discharged from hospital. In nurseries with very little equipment, even the smallest of infants receiving nasogastric tube feeds and oxygen can be given continuous KMC.

Intermittent KMC should be followed by continuous KMC as soon as possible.

### **3-34 What is a Kangaroo Mother Care ward?**

This is a special ward where mothers and their infants are kept together so that KMC can be given all the time. Although supervised by the nursing staff, the mothers take responsibility for all their infant's care. In a KMC ward,

mothers support and learn from each other. A well managed KMC ward is of great benefit to a newborn nursery. A KMC ward provides a wonderful opportunity to also teach mothers about primary health care (immunisation, family planning, good nutrition).

### **3-35 Can infants receiving intensive care be given Kangaroo Mother Care?**

As soon as infants are stable and no longer very ill, they can be given intermittent KMC, provided that they are monitored. Even infants receiving ventilation can sometimes be given intermittent KMC. Many stable infant receiving headbox oxygen can be safely placed in the KMC position and given oxygen by face mask or nasal cannulas.

### **3-36 Can infants be given Kangaroo Mother Care at home?**

Yes. When small infants leave hospital, they should continue to receive KMC at home (home, ambulatory or domiciliary KMC) until they weigh at least 2000g. Intermittent KMC in the intensive care and high care nursery, followed by continuous KMC in the KMC ward, and finally KMC at home is an ongoing process. Many small infants born at home or in a clinic will thrive and survive with home KMC. Infants receiving KMC at home must be seen frequently at the local clinic to check that they are healthy and gaining weight. Clinics should have a KMC room where mothers can give KMC and breastfeed their infants.

### **3-37 Should mothers with HIV infection give Kangaroo Mother Care?**

Yes. KMC is particularly important in these women, even if they decide not to breast feed. They can nurse their infant in the kangaroo position and give formula feeds by cup. KMC has many benefits to HIV exposed infants who are often low birth weight and at increased risk of bacterial infections. Many HIV positive women in rural areas may choose to exclusively breast feed their infants.

**Kangaroo Mother Care can be used safely in HIV positive mothers.**

## CASE STUDY 1

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During the antenatal period, a woman arranges to deliver in a primary care clinic where Kangaroo Mother Care (KMC) is encouraged. Her husband agrees with her choice and says that he also wants to help by giving KMC.

### 1. What is KMC?

KMC, or Kangaroo Mother Care, is a method of caring for an infant where the mother nurses her infant against her bare breasts. The infant, who usually only wears a woollen cap and a nappy, is kept upright, often with a towel, piece of cloth or binder. The mother wears a dress or shirt over the infant. This is known as the KMC position.

### 2. What is KMC nutrition?

Most infants who are nursed in the KMC position are breast fed. However, expressed breast milk can also be given by cup or nasogastric tube during KMC. Breast feeding is an important part of KMC and is referred to as KMC nutrition. However, a mother can still use the KMC position if she wants to formula feed rather than breast feed. This is important in some mothers who are HIV positive and have chosen to formula feed. If formula is given, a cup rather than a bottle should be used.

### 3. What is KMC support?

This is the help, encouragement and support provided to a mother by the father, family and community. This physical and emotional support helps a mother to successfully give KMC.

### 4. How can the father also give KMC?

The father and other members of the family or a friend can also give KMC. This is helpful

when the mother goes to the bathroom or wants a little time alone. KMC promotes bonding between a father and his infant and should improve the later emotional relationship between a father and his child.

### 5. When should KMC be started?

It is best to start KMC immediately after the infant is born. Once the infant is dried, examined, and the cord is cut, it can be given to the mother to start KMC. Most healthy infants can be given KMC even if they are small at birth.

### 6. Which infants benefit most from KMC?

Low birth weight infants, who would otherwise have to be separated from their mother to be cared for in an incubator or crib in a nursery. This is particularly important in poor countries where incubators may not be available.

## CASE STUDY 2

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A young, primiparous woman delivers a healthy, active 36 week infant weighing 1800 g. The infant has good Apgar scores with no clinical problems. When the mother asks to keep the infant with her and nurse the infant in the KMC position, the staff tell her that the infant is too small and must spend the first 12 hours in an incubator. The mother is transferred to the postnatal ward and does not see her infant until the following day.

### 1. Do you agree with the decision of the staff to place the infant in an incubator?

No. There appears to be no reason why the mother and infant should be separated and why she cannot give KMC to her infant.

### 2. What are the advantages of this infant staying with its mother?

Remaining with the mother from birth promotes bonding, increases the chances of successful breast feeding and reduces the risk

of infection in the infant. It is also cheaper as extra staff and equipment are not needed. In addition, infants getting KMC can be discharged home sooner.

### **3. Is it not safer to observe this infant in an incubator in the nursery for a few hours?**

No. With KMC the infant can be kept warm and breast feeding can be started. As this infant is healthy and active, there is no danger in giving KMC. The infant should only be moved into an incubator if there are abnormal signs such as cyanosis, respiratory distress or apnoea. Healthy, active infants should be given KMC.

### **4. Why is KMC a more natural method of caring for a newborn infant?**

Most primates carry their infants against their bodies after birth. Similarly, many human mothers feel a great desire to keep their infants with them. Using their own bodies to keep their infant warm, gives mothers a sense of satisfaction and pleasure. Many mothers feel this is the normal and natural way to care for their infant.

### **5. Why do infants receiving KMC have fewer serious infections?**

Because they are colonised with their mother's bacteria rather than the dangerous bacteria often found in nurseries. Breast feeding also reduces the risk of infections. Therefore, KMC and the use of breast milk act together to prevent serious infections.

## **CASE STUDY 3**

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A mother visits her small, preterm infant who is nursed in an incubator. The infant weighs only 1200 g but is otherwise well and active. She sits beside the incubator and spends hours looking at and talking to her infant.

### **1. Would it be safe for her to take the infant out of the incubator and give it KMC?**

Most well preterm infants who still need incubator care can be taken out of the incubator and given KMC during the time that the mother visits. This is known as intermittent KMC.

### **2. What are the benefits of intermittent KMC?**

It promotes bonding and breast feeding and usually results in faster weight gain by the infant. Intermittent KMC allows the mother to play an active part in caring for her infant and helps to reduce the risk of infection.

### **3. Is it safe to give KMC in cold weather?**

KMC is a very effective method of keeping an infant warm. If the infant's skin temperature drops, the mother's skin temperature increases to keep the infant warm.

### **4. What is continuous KMC?**

Once an infant no longer needs to spend part of the time in an incubator, it can be given continuous KMC day and night. Continuous KMC is usually given in a KMC ward in the hospital until the mother and infant are discharged.

### **5. When can infants receiving KMC in hospital be discharged home?**

Once they are healthy and gaining weight, breast or cup feeding well, the mother is confident and able to manage her infant, and follow up care is arranged. Weight and gestational are less important as criteria for discharging KMC infants home from hospital.

### **6. Can KMC be safely used to transport small infants?**

Many small infants who are clinically well can be safely transported with KMC. This is especially useful when a transport incubator is not available. If the mother is not able to travel

with the infant, a nurse or member of the ambulance crew can give KMC.

## CASE STUDY 4

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An HIV positive woman delivers a healthy infant weighing 2300 g at term. She has read about kangaroo mother care and is keen to try but the nursing staff tell her that it is dangerous as she may transmit HIV to her infant, especially if she breast feeds. Therefore the infant is taken away from her after delivery and sent to an isolation nursery for formula feeding.

### 1. Is it dangerous for this mother to hold her infant in the kangaroo position after birth?

No. The mother and infant should not have been separated. Using the kangaroo position immediately after delivery is important as it promotes bonding. HIV cannot be transmitted by skin-to-skin contact between a mother and her infant.

### 2. Can KMC be used even if the mother does not breast feed?

Yes. Although there are four components to KMC, the infant and mother can still benefit

from the kangaroo position, support and discharge even if she decides not to breast feed her infant.

### 3. Do you agree with the management of this infant?

No, as there is no indication to isolate the infant even if the mother does not breast feed. The question of feeding choices should have been discussed and decided upon during pregnancy. Some HIV infected mothers may choose to exclusively breast feed.

### 4. When should women be informed about the benefits of kangaroo mother care?

This should be an important part of antenatal education.

### 5. Are there problems with the term kangaroo mother care?

Although KMC is widely used some people would rather talk about skin-to-skin care. This however promotes the position and not the benefits of good nutrition, the emotional, physical and educational support and the early discharge.

# 4

## Practice of Kangaroo Mother Care

### Objectives

When you have completed this unit you should be able to:

- Promote Kangaroo Mother Care.
- Teach a mother how to give Kangaroo Mother Care.
- Use Kangaroo Mother Care in the nursery.
- Establish a Kangaroo Mother Care ward.
- Teach ambulatory Kangaroo Mother Care.
- Use Kangaroo Mother Care for transport.

### PROMOTING KANGAROO MOTHER CARE

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#### 4-1 What is Kangaroo Mother Care?

Kangaroo Mother Care (or skin-to-skin care) is a method of caring for newborn infants. The infant is nursed between the mother's bare breasts in direct contact with her skin. Kangaroo Mother Care (KMC) is particularly useful for nursing low birth weight infants (infants with a birth weight below 2500 g).

KMC is a way of keeping mother and infant together.

#### 4-2 How can you get health care workers to accept Kangaroo Mother Care?

It is often not easy to get KMC started in a hospital or clinic as both medical and nursing staff may think that KMC is dangerous and will result in more work and expense. Any new idea is difficult to introduce at first. A clear description of KMC, together with the advantages and safety must be presented to all the staff, including the senior management. Allow time for discussion where questions and fears can be raised. KMC will not be successful unless the staff are convinced that it can be done and will benefit mothers and infants.

It is very useful if a few of the staff can visit a hospital where KMC is being used successfully. Here they can see KMC at first hand. It would also help to invite a few staff members from another hospital, where KMC has been established, to present a talk on their experience.

KMC is a radical change from the traditional western model of caring for small infants. The main obstacles to the introduction of KMC are fixed ideas and attitudes. Introducing KMC into a service represents a major shift in the

way infants are managed. All the staff must 'buy in' to this new method of mother and infant care or it will not be successful

### 4-3 How is Kangaroo Mother Care implemented?

The implementation of KMC depends on the following:

1. The staff's acceptance of KMC.
2. Adopting a KMC policy.
3. Writing KMC guidelines.
4. Training the staff to use KMC.
5. Teaching mothers to give KMC.
6. Establishing facilities for KMC.
7. Managing ambulatory KMC.
8. Educating the community to accept KMC.

Every maternal and neonatal service should have both a Kangaroo Mother Care policy and a clear set of guidelines. Health care workers, managers, policy makers and funders need to be convinced that KMC offers better, more cost effective care.

**All the staff must be encouraged and trained to help mothers provide Kangaroo Mother Care to their small infants.**

### 4-4 What is a Kangaroo Mother Care policy?

The KMC policy is a written statement which gives the benefits of KMC and commits the service to implement and promote KMC. It does not have to be a long and complicated document. The KMC policy must be displayed for staff and patients to see.

**NOTE** The Bogotá Declaration on KMC, signed at the second International Workshop on KMC in Colombia in 1998, declares that KMC is a 'basic right of the newborn' and 'should be an integral part of the management of low birth weight and full term newborns, in all settings and at all levels of care and in all countries'.

### 4-5 What are Kangaroo Mother Care guidelines?

KMC guidelines explain how KMC is implemented. Formal written protocols are needed in the guidelines. Copies of the guidelines must be freely available in hospitals and clinics where KMC is practiced.

It may be useful to get copies of the KMC policy and guidelines from another service where KMC is used successfully. These documents can guide the process of writing the KMC policy and guidelines in your service. KMC should be promoted as a safe, effective and affordable method of caring for newborn infants.

There are no fixed rules for KMC. Each hospital and clinic has their own preferences while each mother has her own likes and dislikes about KMC. However, it is important that the principles and guidelines are followed.

### 4-6 Who should promote the practice of Kangaroo Mother Care?

All members of the staff, including nurses, doctors and administrators. In order that KMC succeeds, the whole staff must support the idea and play a roll in writing the KMC policy and guidelines. Every mother should know about KMC. The general public should also know about KMC. In particular, the infant's grandmothers needs to be educated to support KMC both in hospital and at home.

**The practice of Kangaroo Mother Care should be supported and promoted by all members of the staff.**

### 4-7 How are mothers informed about Kangaroo Mother Care?

Many mothers have never heard about KMC and are afraid to give KMC, especially to small infants. Often mothers feel that their infant will receive better care in an incubator. Therefore, the benefits, safety and method of giving KMC must be explained to the mother.

Once the community learns about KMC, many mothers will ask if they can also give KMC to their infants. The method, advantages and implications of KMC should be discussed with the mother as soon as a low birth weight infant is born. She needs to know that she may have to stay longer in hospital, give KMC when the infant is discharged home, and attend a follow up clinic.

#### **4-8 How can the public be informed about Kangaroo Mother Care?**

It is important that the general public knows about and understands the benefits of KMC. The media has an important role to play in promoting KMC. The following can be used to inform the public about KMC:

1. Teaching KMC at schools.
2. Showing KMC in the media, especially TV and the local newspaper.
3. Discussing the benefits of KMC in the media, especially radio and magazines.
4. Using KMC posters or video presentations in primary health care clinics.

**Kangaroo Mother Care should be promoted among the general public.**

#### **4-9 When should mothers first be told about Kangaroo Mother Care?**

From the start of antenatal care when KMC should be included as an important part of educating pregnant women. The best method of teaching women about KMC during the antenatal period is for them to see other mothers providing KMC for their infants. Videos can be shown at antenatal clinics and information sheets can be provided to inform pregnant women about KMC.

When small infants are first admitted to a newborn nursery for incubator care, their mothers must be told that they will need to provide intermittent KMC as soon as their infants are well enough. They will also need

to give continuous KMC for a few days before their infants are discharged home.

**All pregnant women should know about Kangaroo Mother Care.**

#### **4-10 What is a Kangaroo Mother Care support group?**

This is a group of mothers who have themselves given their infants KMC. They are very effective in promoting KMC and helping other mothers to provide KMC. They can give KMC education at antenatal clinics or encourage and assist mothers to give KMC in the nursery or KMC ward. Members of the support group can also teach mothers how to express breast milk. This assistance can be of enormous help to the nursing staff, especially in hospitals and clinics where staffing is inadequate. While some helpers are voluntary, others may need to be paid a small fee. Even a few hours help each day will be very useful. Someone needs to be identified to start and manage a KMC support group.

#### **4-11 Why should KMC be supported by local clinics?**

Because these clinics will be involved in providing follow up care to mothers who are giving KMC to their small infants after discharge from hospital. Therefore, the clinic staff will also need information and training in KMC.

## **THE METHOD OF KANGAROO MOTHER CARE**

#### **4-12 How does a mother give Kangaroo Mother Care?**

The almost naked infant (wearing only a nappy and woollen cap) is placed between the mother's bare breasts. If the room is cold, the infant can wear a cotton shirt, open in front.

The infant is nursed upright, facing the mother with the arms and legs flexed in the frog position, under the mother's shirt, blouse, T-shirt or dress. Keeping the infant upright helps to prevent vomiting. All mothers should be taught how to nurse their infant in the KMC position. The mother does not need to shower or wash her chest before giving KMC.



#### 4-13 How is the infant kept in position?

It is important that the infant is kept warm and held securely. Holding the infant skin-to-skin, chest-to-chest against the mother will keep the infant warm. The mother should have her hands free and be able to walk around. A number of methods are used to keep the infant in place:

1. Usually the mother's shirt or blouse is tucked into her belt or trousers to prevent the infant slipping out.
2. Sometimes a blanket or cotton towel can be tied around the mother as a binder to hold the infant firmly. The binder can be tied, pinned or tucked in to keep it in place. A shirt or blouse can be worn over the binder. A 'boob-tube' is useful.
3. A special KMC top (a pouch) can be used but this is not essential. A KMC top looks like an open shirt with long tails. The shirt is pulled closed in front by crossing the tails. The tails are wrapped around the

mother's back and then tied fast in front. The tails support the infant.

4. In preterm infants it is important to make sure that the airway is never obstructed. The infant's head should be turned to one side and slightly extended to keep the airway open. Do not allow the infant's neck to be flexed or over extended. The top edge of the towel or binder should be just under the infant's ear. It is best if small infants are kept upright between the mother's breasts and not allowed to slip sideways.
5. If the mother is lying down, she and her infant should be kept at an angle of about 45° by raising the head of the hospital bed or by using a large pillow or a number of pillows or cushions.

Special binders or carrying pouches are commercially available and can be helpful.



**No special equipment is needed to give Kangaroo Mother Care.**

## KANGAROO MOTHER CARE IN THE NURSERY

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### 4-14 Which infants can be given Kangaroo Mother Care in the nursery?

Most infants can be given KMC as long as they are stable with a normal skin temperature, heart rate and breathing rate. Both infants in cots and incubators can be given KMC. Even infants on ventilators can sometimes be given KMC provided that their condition allows this KMC has the most benefit in low birth weight infants. All low birth weight infants should routinely be offered KMC once they are stable.

Where there are no incubators, every very small infant can be given KMC. In these circumstances, KMC can dramatically reduce the mortality of low birth weight infants.

Severely ill infants who are going to die can also be given KMC (compassionate KMC). Many parents want to hug or hold their dying infant.

### 4-15 When should Kangaroo Mother Care be given in the nursery?

KMC should be given every time the parents visit (intermittent KMC). The mother should be encouraged to give KMC throughout the visit. Even if the visit is short, the infant will benefit from KMC. Some mothers spend most of the day in the nursery and can give KMC for hours at a time. Usually KMC is given for a short period to start with and then the time of the KMC becomes longer as the mother becomes more confident.

### 4-16 Who should take the infant out of the incubator for Kangaroo Mother Care?

The mother needs to be shown how to remove the infant and how to put the infant back into the incubator safely. Once the mother is able to do this correctly, she can take the infant out and put it back by herself. It is important that the mother informs the nursing staff when she wants to give KMC. She must always wash her hands well before touching her infant.

### 4-17 How should the infant be taken out of the incubator for Kangaroo Mother Care?

It is important that the infant does not get cold. Before removing the infant, make sure that it is wearing a woollen cap and clean nappy. If the infant is receiving an intravenous infusion or has skin probes, be careful that they are not pulled loose.

### 4-18 Should the infant be monitored during Kangaroo Mother Care?

1. Infants that are not being monitored in the cot or incubator do not need to be monitored during KMC.
2. Infants who are not having apnoeic attacks, but are being routinely monitored with an apnoea monitor, can be disconnected from the monitor during KMC. Switch off the apnoea alarm when the infant is taken out of the incubator and placed in the KMC position. Do not forget to switch the apnoea monitor back on again when the infant is placed back in the incubator.
3. However, if the infant is being monitored for heart and respiratory rate or oxygen saturation, this should be continued while the infant is receiving KMC.
4. If the infant is having apnoea attacks, the infant is unstable and should either not receive KMC or be monitored during KMC.

**NOTE** If the infant is receiving continuous positive airway pressure, be very careful that the tubing is not disconnected. With care the infant can be moved from the incubator into the KMC position without disturbing the ventilatory support. Switch the incubator to non-servocontrol mode when the infant is taken out for KMC or the incubator may overheat. Switch back to servocontrol mode when the infant is replaced into the incubator.

### 4-19 Where should the mother sit to give Kangaroo Mother Care?

It is best if the mother sits next to the cot or incubator in a comfortable chair. Once the infant is well and no longer needs ventilatory support, intravenous infusions (drips) and skin probes or electrodes, the mother may

give KMC while walking about with the infant in the nursery.

#### 4-20 What special facilities are needed in the nursery for Kangaroo Mother Care?

No special facilities are needed. Comfortable chairs for the mother and partner are required. Simple plastic chairs are adequate. A refrigerator is helpful to store expressed breast milk. In a very crowded nursery, space must be created for parents to visit and give KMC.

#### 4-21 Should the infant's skin temperature be monitored during Kangaroo Mother Care?

This is usually not necessary if the infant's temperature has been stable in the incubator.

#### 4-22 What feeds should be given in the nursery during Kangaroo Mother Care?

As far as possible, give the infant its mother's own milk. Exclusive breast feeding is by far the best for low birth weight infants. Some small infants will breastfeed while others will have to be fed expressed breast milk by nasogastric tube until they are mature enough to suck and swallow. Some mothers will choose to give formula feeds. These infants should be fed by cup rather than bottle.

**Exclusive breast feeding is by far the best for low birth weight infants.**

#### 4-23 How can a mother encourage a small infant to breast feed during Kangaroo Mother Care?

1. Hold the infant correctly to place the infant's mouth over her areola (latch properly). Often the 'foot ball' position is easiest. Infants can breastfeed while receiving KMC.
2. Express a little milk onto the nipple before latching the infant.
3. Place the nipple into the infant's mouth even if the infant does not suckle well.

4. Put the infant to the nipple every time she gives KMC. It does not matter if the infant only suckles for a few minutes.

With encouragement, many small infants will take part or all of their feed from the breast. The mother should start to express her breasts from the day the infant is born. Until breastfeeding is established, the infant should be fed expressed breast milk by cup or nasogastric tube.

#### 4-24 What is a lodging ward?

Often mothers have difficulty visiting their infants every day as they live far away and transport is expensive and infrequent. It is very helpful if these mothers can stay in or near the hospital on a 24 hour basis so that they can give intermittent KMC to their infants in the nursery.

This facility is often called a lodging ward. However, it is not a typical hospital ward as these mothers are well. It is one or more rooms where mothers can be given accommodation. Often the lodging ward is next to the nursery and KMC ward so that they can share facilities. The lodging ward needs to be supervised to ensure cleanliness and security but nursing is not required. Mothers in a lodging ward need a bed, somewhere to sit and relax, and a place to keep their clothes and belongings safely.

**A lodging ward provides a mother with a place to stay so that she can be near her infant in the nursery at all times.**

It is not expensive to accommodate mothers in a lodging ward. By providing breast milk and giving KMC, they reduce the hospital cost of caring for small infants. Without a lodger ward, many mothers would be discharged home and would not be able to afford the transport to visit their infants regularly.

## A KANGAROO MOTHER CARE WARD

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### 4-25 What is a Kangaroo Mother Care ward?

This is a special room where mothers can room-in for a few days so that they can give continuous KMC to their infants under supervision both day and night. Most of these mothers are well and do not need nursing care or routine observations. Every effort must be made to make the KMC ward as homely as possible and not look like a typical hospital ward. Mothers are encouraged to wear their own clothes and walk around. The KMC ward should be close to the nursery if possible. Ideally, a door should link the KMC ward with the nursery so that help can be obtained if needed. Limited visiting is allowed in the KMC ward but the mothers' privacy must be respected.

**A 'KMC ward' enables the mother to give her infant Kangaroo Mother Care both day and night while being supervised by the staff.**

At night most mothers prefer to sleep on their backs with the infant on their chest and their head and shoulders propped up with pillows into a semi-sitting position. Other mothers sleep on their side with the infant still in the KMC position.

### 4-26 What is the importance of a Kangaroo Mother Care ward?

A dedicated KMC ward provides a very valuable step between giving intermittent KMC in the nursery and giving continuous KMC at home. In a KMC ward mothers gain experience and confidence before going home with their infants. Mothers support, teach and encourage each other.

### 4-27 What facilities are needed in the Kangaroo Mother Care ward?

1. A space for the mothers to sleep. One to four rooms with four beds per room is ideal.
2. A living space where the mothers can eat and relax.
3. Toilets, showers and hand basins

Cribs are not needed in a KMC ward as the infants are continuously with their mothers. However, plastic bassinets are sometimes used to bath infants. The room temperature should be 22–24 °C.

Mothers should be able to give KMC during meals. Daily showering or washing is adequate. Mothers must wash their hands after going to the toilet. Facilities for washing clothes are needed.

Some facilities can be shared with the lodging ward. Mothers in the lodger ward can be encouraged and supported by meeting mothers in the KMC ward. In future all neonatal nurseries should be designed with both a KMC ward and a lodging ward nearby.

### 4-28 What furniture is needed in the Kangaroo Mother Care ward?

The following is recommended:

1. Basic beds. Special hospital beds are not needed but enough pillows are necessary.
2. Small lockers where the mothers' clothes and personal items can be safely kept.
3. Comfortable chairs where mothers can sit to breast feed and give KMC. Light plastic chairs are cheap and practical.
4. Tables and chairs for meals.
5. Desk, chair and basic office equipment for the staff. A telephone is useful.
6. Cupboards for storing extra blankets.
7. Curtains to allow some privacy are useful.

There should be no cots in the KMC ward. The mother can wrap up her infant and leave it on the bed when she goes to the toilet. If there is not enough space for chairs, mothers will have to sit on their beds, and have their meals in another room nearby.

It makes an enormous difference if the KMC ward is attractively painted, new curtains and bed covers are made, and posters or murals of KMC are put on the walls. Funding can usually be obtained from local charities.

#### **4-29 What nursing is needed in the Kangaroo Mother Care ward?**

A nurse is needed to supervise the mothers in the KMC ward. It helps that most mothers have already been trained in KMC before they reach the KMC ward. It is important to have a nurse who is experienced and enthusiastic about KMC. A professional nurse is preferable. However, a non-professional nurse can be used as the KMC ward supervisor. It is helpful but not essential to have a nurse in the KMC ward at night. If a nurse is not available, the KMC ward must be close to the nursery so that the mothers can call for help if needed. Usually a team of two or three nurses is needed to provide adequate day cover in a KMC ward. The nurse should have experience in caring for low birth weight infants and be able to recognise an ill infant.

Volunteers (lay helpers) are of great help in a KMC ward. They can encourage mothers, help them give KMC and teach them to express their breast milk if necessary. A kind, motherly person who has breast fed and given KMC to her own infant is an ideal helper. Many helpers only work one or two days a week, often in the mornings. Some helpers may need funds for transport or a small payment for their time.

Usually only well, thriving infants are admitted to the KMC ward. However, if infants below 1500 g or infants still being fed by nasogastric tube are admitted, then an experienced nurse is needed both day and night. Good cord care must not be forgotten.

#### **4-30 What education opportunities can be offered in a Kangaroo Mother Care ward?**

The mother's stay in a KMC ward provides an ideal opportunity for education. It is important that the nurses in the KMC ward are able to provide education, not only about giving

KMC but also about other aspects of health. Talks, discussion groups, demonstrations and educational videos are used. Topics, which should be taught in the KMC ward, include:

1. How to give KMC correctly and provide exclusive breastfeeding.
2. How to give KMC after discharge home.
3. The importance of regular attendance at the follow up clinic.
4. The importance of the Road-to-Health card.
5. The importance of immunisations for the infant.
6. How to cup feed an older child.
7. The giving of daily vitamins and iron to preterm infants.
8. A healthy diet and lifestyle for the mother.
9. How to avoid infection with HIV.
10. Family planning.

The main problems in a KMC ward are boredom and frustration. Other than education, activities such as knitting woollen caps, reading magazines and arts or crafts should be encouraged. A radio and television set with a video or CD player are useful as are a kettle, toaster and microwave oven. Community groups can be invited to help with some of these activities. Smoking must not be allowed.

#### **4-31 Why may teenagers not want to stay in a Kangaroo Mother Care ward?**

Teenagers are naturally rebellious and often do not easily accept any form of authority. An unhappy teenager may disrupt the normal routine in a KMC ward and they may require support and understanding from the staff. Weekends are often most difficult for teenagers who want to be with their friends. They may also be anxious about their boyfriend or partner.

Many mothers in both the lodger and KMC wards may need 'time out' to go home for a few days. This is important for women who have other children at home. Some may have spent weeks or months in hospital. While she is away, her infant will have to go back into an incubator in the nursery. Mothers rarely stay

away for more than a few days as most have already formed a strong bond with their infant during intermittent KMC. It gives them time to prepare for the infant's arrival at home.

#### **4-32 When should mothers and infants be discharged from a Kangaroo Mother Care ward?**

When the mother is able and confident to care for her infant at home. The weight and gestational age of the infant are less important than its maturity. Usually the infant is discharged from the KMC ward when both mother and infant are ready.

The following criteria should be met before the mother and infant are discharged from the KMC ward:

1. The mother must be able to provide KMC correctly and should be confident to look after her infant. Usually the infant is fully breast fed. The infant must be taking all feeds by mouth.
2. The infant and mother should be clinically healthy and the infant should be gaining weight at a rate of 20 g or more a day).
3. The home and family must be prepared for the mother and her infant.
4. Arrangements must be made for regular follow up at a local clinic.

Care in the KMC ward should be seen as a step between discharge from the nursery and discharge home. Most mothers only need to spend a few days in the KMC ward unless their infant is very small. Infants are usually discharged home when they are 1500 g or more. Many KMC wards discharge their mothers when the infants reach 1800 g. Infants receiving KMC are often discharged a little later in the cold season. The better the follow up facilities, the sooner infants can be discharged home.

#### **4-33 How expensive is a Kangaroo Mother Care ward?**

Some funding is needed to establish a KMC ward. Thereafter, there is a small cost to the

hospital for running a KMC ward, as the mothers need food and bedding. Sometimes mothers may have to bring their own food and bedding. The KMC ward has to be cleaned and staff are needed to supervise the mothers. However, there is a great financial saving because:

1. The mothers provide all the care for their infants.
2. Less formula is needed, as most of the infants are being breast fed.
3. The infants are discharged home earlier from the nursery.
4. There is also less infection in the nursery.
5. Less staffing is needed than with conventional incubator care.

**A Kangaroo Care Mother ward makes a great financial saving for the hospital.**

Similarly, it is cost efficient to run a lodging ward.

#### **4-34 How can funding be obtained for a Kangaroo Mother Care ward?**

Many hospitals have obtained funding for their KMC ward from private institutions, charity groups and service organisations.

## **AMBULATORY KANGAROO MOTHER CARE AT HOME**

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#### **4-35 What is ambulatory Kangaroo Mother Care?**

The word ambulatory means to 'walk around'. Ambulatory KMC usually refers to the KMC which is given after the infant has been discharged home from the hospital or clinic. These mothers give home (or ambulatory) KMC throughout the day. Most work in the house (e.g. washing up) can be done while giving KMC. Mothers can give KMC while walking around in or near their homes. Ambulatory KMC should also be given when

attending the clinic, visiting friends, on the bus or going shopping. Many low birth weight infants need KMC for days or weeks after they are discharged home. Mothers must be convinced of the benefits of KMC and committed to give KMC at home.

**Ambulatory Kangaroo Mother Care is given when the mother and infant are both well and the mother is able to walk around with her infant.**

#### **4-36 Which infants would benefit from ambulatory Kangaroo Mother Care at home?**

Infants that still weigh less than 2000 g would benefit greatly from KMC at home. Some infants between 2000 g and 2500 g would also benefit from KMC, especially when it is cold.

**Low birth weight infants can benefit from ambulatory Kangaroo Mother Care at home after discharge from hospital.**

**NOTE** KMC has not been well researched in the home setting. However, wide experience suggests that it is both safe and very effective in allowing early discharge from hospital, promoting breastfeeding and encouraging bonding. Mothers are more relaxed and better rested at home.

#### **4-37 When should a mother give ambulatory Kangaroo Mother Care?**

It is best to give ambulatory KMC all the time. It can be given while the mother performs most household duties. When she is not able to give ambulatory KMC, the infant should be given KMC by another responsible member of the household. KMC can be given outside the home when the mother goes shopping, catches a bus or train, or attends the local clinic.

#### **4-38 How should you follow up infants receiving ambulatory Kangaroo Mother Care at home?**

As many of these infants are still small when they are discharged home, they should be seen regularly at the hospital or community based local clinic to check that the infant is well and the mother is managing. The infant's weight must be measured to ensure that the infant is receiving adequate feeds and gaining weight. Failure to gain weight must always be carefully assessed. The clinic visit gives an opportunity to discuss KMC with the mother. Any problems can be identified and corrected.

#### **4-39 How often should infants, receiving ambulatory Kangaroo Mother Care at home, come for a check up?**

The smaller the infant, the more frequently the infant should visit a clinic. Below 1500 g, daily checkups are needed. From 1500 g and above, three to four visits a week until 1800 g. Thereafter, weekly visits until the infant reaches 2500 g. These recommendations should be seen only as a guide, and will depend on the mother, on her family and support systems, on distances and ease of access to the clinic, and on how the infant is growing. More frequent follow up may be needed in the cold season.

Many mothers giving ambulatory KMC to small infants at home spend most of their day in the KMC room at the local clinic. Here the staff can support and supervise the mothers. Some facilities have a special KMC clinic. This may be a better option than keeping mothers and their infants in an overcrowded hospital.

**Frequent follow up visits at a Kangaroo Mother Care clinic are essential for low birth weight infants getting Kangaroo Mother Care at home.**

#### 4-40 When can ambulatory Kangaroo Mother Care be stopped?

Infants usually decide for themselves when KMC can be stopped. As infants get older and their weight increases with more subcutaneous fat, they become hot and restless during KMC and try to climb out of the mother's dress. Mothers of low birth weight infants should try to continue KMC until at least 2000 g is reached. By 2500 g, most infants no longer need KMC. However, these infants still need close contact with the mother, and breastfeeding. Keeping older infants on their mother's back or in a sling is recommended.

## KANGAROO MOTHER CARE FOR TRANSPORT

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#### 4-41 Can Kangaroo Mother Care be used to transport infants?

Yes. Many stable newborn infants can be safely transported with KMC. This is a cheap and very effective method, as a transport incubator is not needed. If the infant is sick or unstable, it is still safer to use a transport incubator.

**NOTE** The use of KMC during transport has not been fully researched. If a sick infant needs to be transferred urgently, and a transport incubator is not immediately available, the use of KMC by trained staff who can monitor the infant and give oxygen or even mask ventilation may be preferable to a long wait for a transport incubator.

It is unacceptable for a small infant to arrive cold at a hospital because a transport incubator was not available when KMC could have been used. KMC can also be used to warm cold infants.

#### 4-42 How is Kangaroo Mother Care given during transport?

Usually the mother gives KMC. However, a nurse or member of the transport team can also give KMC if the mother is not well enough or is not moved with the infant. Even the father or grandmother could provide KMC

during transport. Every effort must be made to keep the mother and infant together. Some KMC training is needed by the transport staff.

#### 4-43 What are the advantages of using Kangaroo Mother Care for transport?

Delays are avoided, as there is no need to wait for a transport incubator. This is particularly important when moving low birth weight infants to a level 2 or 3 hospital. It is also very useful when moving well low birth weight infants back to the referral hospital. This avoids many of the problems that commonly occur when arranging transport. KMC in a motor car or van is ideal for transferring well, low birth weight infants.

Kangaroo Mother Care can be used to transport infants.

#### 4-44 What staff are needed to supervise Kangaroo Mother Care during transport?

KMC is usually given by the mother when transporting infants. She needs to be supervised by a member of the ambulance staff or an accompanying nurse. Usually the ambulance staff alone are able to supervise KMC during transport.

#### 4-45 Can Kangaroo Mother Care be safely used in a private car?

Yes. It is best if the mother sits in the back seat and wears a seat belt. Only the hip belt should be used. The seat belt should not be placed over the infant but between the mother and her infant. The infant can be tied to the mother's chest with a towel. Make sure that the infant's neck is not flexed as this may interfere with breathing.

## CASE STUDY 1

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A mother attending antenatal care says that she has read about KMC in a magazine and

wants to know how this is done. The clinic staff are unable to help her as they have no experience of KMC.

### **1. Who should be able to advise her about KMC?**

All the staff members at the clinic should know about KMC. The staff who care for her at the antenatal clinic must give her the information that she needs. Giving information on KMC is an important part of antenatal care. Videos or CDs are a very useful way of teaching pregnant women about KMC.

### **2. How can the public be informed about KMC?**

Through the schools, radio and TV, newspapers and magazines, and health care facilities.

### **3. Which family member often influences a woman's decision to use KMC or not?**

The grandmother. The whole family should support a mother giving KMC.

### **4. When should a pregnant woman first be told about KMC?**

At the beginning of her pregnancy as soon as she starts antenatal care. There is a possibility that any pregnant woman might deliver preterm and need to give KMC to a small infant.

## **CASE STUDY 2**

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The mother of a 1500 g newborn infant visits the nursery. Her infant appears healthy and is being nursed in an incubator. The infant is still being fed by nasogastric tube. The nursery staff ask the mother whether she is willing to give KMC during the times that she visits her infant. They show her how to express her breast milk.

### **1. Is this infant not too small to be given KMC?**

No. Most small infants can be given KMC, especially if they are healthy and stable.

### **2. For how long should the mother give KMC during her visits?**

For the whole of the time that she visits her infant. The more time she spends giving KMC the better.

### **3. Could her partner also give KMC?**

It is important to encourage bonding between the infant and both parents. Therefore, the father should also have an opportunity to give KMC. This will also help him understand and support the mother when she gives KMC.

### **4. What special facilities are needed to give KMC in the nursery?**

All that is needed is a comfortable chair. It is best if the mother is able to give KMC beside the incubator.

### **5. Why is it important that the mother learns how to express her breasts?**

Because the infant needs expressed breast milk feeds as it is still too immature to suck. One of the most important skills that all mothers should learn is how to express their milk.

## **CASE STUDY 3**

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The matron of a maternity hospital calls a meeting of her staff. She is keen to start a KMC ward as the well baby nursery is grossly overcrowded. She asks how KMC can be given by mothers who are already living at the hospital to be near their infants. She also needs to know what equipment will be required and whether this will be very expensive.

### 1. Will a KMC ward help to solve the problem in this nursery?

Overcrowding is a very common problem in hospital nurseries. The overcrowding, with the resultant stress on the staff and high rate of infection, will be greatly improved if a KMC ward is started.

### 2. What space will be needed for a KMC ward?

A space for the mothers to sleep, a living area where they can eat and relax, and toilets and showers.

### 3. Will a special area have to be built for a KMC ward?

A room will be needed where mothers and their infants can stay together. One of the rooms previously used for mothers of infants in the nursery could probably be converted into a KMC ward.

### 4. What furnishing is required?

Simple beds, comfortable chairs, lockers for clothes, and tables and chair for meals.

### 5. What nurses will be needed for the KMC ward?

An experienced and enthusiastic nurse will be needed to supervise the mothers. Staffing is far less than that required in a well baby nursery. However, staff need to have the skills necessary to teach and support KMC. Volunteers are also very useful to assist in a KMC ward.

### 6. Will establishing a KMC ward not be very expensive?

Some funding will be required to start the KMC ward. Thereafter, the savings to the hospital will be greater than the running costs.

## CASE STUDY 4

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The young mother of a low birth weight infant gave intermittent KMC while visiting her infant in the nursery. Later she stayed with her infant for 5 days in a KMC ward. At discharge the infant was healthy, breast feeding well and gaining weight. The infant's discharge weight was 1750 g. On the day after discharge she was asked to attend the local well baby clinic.

### 1. Is it wise to discharge an infant with such a low weight?

It is safe to discharge this infant provided that it is healthy, feeding well, gaining weight and receiving KMC.

### 2. How often should the infant receive KMC at home?

All the time, both day and night. Someone else reliable can give KMC if the mother needs a break.

### 3. When should the infant be taken to the clinic?

On the day after discharge and then three or four times a week until a weight of 1800 g is reached. Thereafter, weekly visits are usually adequate. With very small infants receiving ambulatory KMC at home, it is best for the mother and infant to visit the clinic every day so that the infant's weight gain can be checked and the mother supported.

### 4. When can ambulatory KMC be stopped?

When the infant reaches 2500 g.

## CASE STUDY 5

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A mother is transferred to a level 2 hospital on the day after delivery for investigation of a heart murmur noted during labour. Her well 1700 g infant is not moved with her as the transport incubator is broken. She is very upset about being separated from her newborn infant.

**1. What is incorrect about the management of this mother and infant?**

They should not have been separated. The infant should have been moved with the mother.

**2. How could the infant have been kept warm during transport?**

The mother could have given KMC.

**3. What could have been done to keep this infant warm if the mother was too ill to give KMC?**

A nurse or ambulance driver or her partner or the grandmother could have given KMC on the way to hospital.

# 5

## Baby friendly care

### Objectives

When you have completed this unit you should be able to:

- Describe baby friendly care.
- List the advantages of baby friendly care.
- Give examples of baby friendly care.
- Describe the Baby Friendly Hospital Initiative.
- Promote touch therapy.

**Baby friendly care is good for the infant, parents and health workers.**

### 5-2 Why is baby friendly care important?

Because it is believed to be the best method of caring for infants in both poor and industrialised countries. Many routines of observation and management in infant care have been developed for sick or high risk infants and are not necessarily needed for well infants. These routines may even be harmful or dangerous to healthy infants. Each infant should be given the best and most appropriate care.

Baby friendly care is also important because it promotes bonding between parents and their infant.

## INTRODUCTION TO BABY FRIENDLY CARE

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### 5-1 What is baby friendly care?

This is the care of newborn infants where the needs of the infant and mother are placed before those of the hospital or clinic staff. Baby friendly care is also an attempt to look after the infant in a way that is as natural and humane as possible. As with mother friendly care, baby friendly care is good, evidence based care. The infant, parents and health workers all benefit from baby friendly care.

### 5-3 What is mother-infant bonding?

This is the special, strong, emotional bond or attachment, which develops between a mother and her newborn infant. A similar bond is developed between the infant and father as well as other close family members. Bonding also occurs between an infant and the clinic or hospital staff, especially when a small infant spends many weeks or months in the nursery. Bonding is essential to ensure the good long

term parental caring of a child. Therefore, every effort must be made to encourage and support this bonding process.

**Baby friendly care must be promoted at every opportunity.**

#### 5-4 Is baby friendly care new?

Although the principles of baby friendly care have been known and practiced in some places for many years, it is only been recently that the importance of baby friendly care has been appreciated and actively promoted. Unfortunately, many hospitals and clinics still do not provide baby friendly care.

#### 5-5 Is baby friendly care expensive?

Almost all aspects of baby friendly care can be introduced at no or very little extra cost. Expensive equipment is not needed to provide baby friendly care. Because infants thrive with baby friendly care, hospital expenses and service costs are often reduced. Baby friendly care is cost effective because it is both good and cheap. All levels of care, from primary to tertiary, can be made baby friendly.

#### 5-6 Why has baby friendly care not always been used?

Because of ignorance, selfishness or an inability to change. In the past it was not understood what was the best method of caring for newborn infants. Often staff and parents chose methods that were easiest for them. Even if better methods of caring for infants were known, it is difficult to change old habits and routines. Research studies have helped to identify which methods of care result in the best outcome for infants and their families.

#### 5-7 What are the problems with baby friendly care?

Some old routines and practices have to change if we are to give better care. Any change causes uncertainty, insecurity and

resistance with parents, health workers and administrators. Many people do not like change, even if the change is to everyone's benefit. Therefore, the main problem with the introduction of baby friendly care is to convince and support those who need to change. This is not always easy. Introducing baby friendly care requires vision, time, dedication and a lot of effort.

**Introducing baby friendly care is often difficult as health care workers have to change their attitudes, beliefs and practices.**

#### 5-8 Should baby friendly care only apply to well infants?

No. Baby friendly care should be given to all infants as the principles of baby friendly care can be used for both well and sick or high risk infants.

#### 5-9 When should baby friendly care be used?

Baby friendly care should be used, at all times. Baby friendly care has changed the way that infants are cared for immediately after delivery, in the nursery and postnatal ward, and after discharge home. All levels of care should be made baby friendly.

#### 5-10 What are examples of baby friendly care?

Whenever possible, the following examples of baby friendly care should be practiced:

1. Keeping the mother and infant together after delivery.
2. Immediate and exclusive breastfeeding.
3. Discharging the mother and infant home as soon as possible.
4. Using kangaroo mother care for low birth weight infants.
5. Allowing open visiting by parents in the nursery.

## CARE OF THE INFANT IMMEDIATELY AFTER DELIVERY

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### 5-11 Why should infants be given to their mothers straight after delivery?

Because it is kind, sensible, practical and the best way of promoting bonding between a mother and her newborn infant. In the past it was incorrectly believed that the mother was too tired to hold her infant immediately after delivery. The staff also believed it was easier for them and the parents if the infant was moved away to the nursery for a few hours until the delivery was completed and the mother had a chance to sleep. Mothers usually were not asked what they wanted. It seemed more convenient for the staff if the infant was not kept in the labour ward or theatre.

After all the excitement, pain and effort of labour and delivery, the mother has every right to hold her infant. As soon as the infant is delivered, dried well, briefly assessed, and the cord cut, the infant should be given to the mother unless there is a medical indication not to do so. Most mothers want to hold their infants after delivery.

**Most mothers want to hold their infant as soon as possible after delivery.**

### 5-12 Should the infant stay with the mother after delivery?

Yes. There is no need for most infants to be moved away for routine observations, measurements or procedures:

1. An Apgar score at five minutes is not indicated in normal infants who have a normal score at one minute.
2. Routine identification, weighing, eye care and vitamin K can be given once the mother has had a chance to see and hold her infant.

3. The artery forceps need not be immediately replaced by a cord clamp.
4. Bathing the infant is not needed straight after delivery.

**Allow the mother to hold and breastfeed her infant before the routine procedures are done.**

If the infant has problems and must be taken directly to the nursery, the mother should visit her infant as soon as possible after delivery. Take a Polaroid photograph of the infant for the mother.

### 5-13 Should the mother and infant be separated when the mother is moved from the labour ward?

No. Not only should the infant be given to the mother immediately after birth, but they should also be kept together if possible when the mother is moved out of the labour ward. If the mother and her infant have to be separated, because either needs medical care, they must be brought together again as soon as possible. Ideally the parents should be allowed some private time to spend together with their infant once the delivery has been completed. This is a very special time for them.

**Whenever possible, the mother and infant should be kept together after delivery.**

### 5-14 Why is it important to breastfeed as soon as possible after birth?

Because it is a very effective method of promoting successful breastfeeding. It also encourages bonding and helps to stimulate uterine contractions and delivery of the placenta. If a woman chooses not to breastfeed, she should still hold her infant after delivery. Many women want to put their infant to the breast immediately after birth. It is not important that most women have very little milk on the first day after delivery. When a delivery is being attended only by a

single midwife, giving the infant to the mother allows her to concentrate on the safe delivery of the placenta.

**Mothers should be allowed to hold and put their infant to the breast immediately after birth.**

The choice of breast or formula feeding must be carefully considered before delivery in women who are known to be HIV positive. If the mother decides to exclusively formula feed, she should be given her infant to hold but not to put to the breast. Baby friendly care can still be practiced if a mother decides to formula feed.

### 5-15 What are the benefits of exclusive breastfeeding?

1. For the first six months of life, breast milk meets all the nutrition needs of most infants.
2. Exclusive breastfeeding is the most effective method of preventing infections in the infant, especially serious gastroenteritis.
3. It reduces the risk of allergy in infants born into a family with a history of allergies.
4. It is cheap and does not require bottles or cups.
5. It reduces the chance of the mother falling pregnant again soon.
6. It helps the mother lose the normal weight gained during pregnancy. Most of the fat built up during pregnancy is to support months of breastfeeding after delivery.
7. Exclusive breastfeeding reduces the risk of mother-to-child transmission of HIV (compared to mixed breastfeeding) if the HIV infected mother chooses to breastfeed her infant.

Mothers should be encouraged to exclusively breastfeed for the first six months and then continue to breastfeed for as long as possible after other feeds are introduced.

**There are many benefits of exclusive breastfeeding for both mother and infant.**

### 5-16 Should mothers give Kangaroo Mother Care to their infants after delivery?

Yes. Once the infant has been well dried, it should be placed skin-to-skin between the mother's breasts. She can now keep her infant warm and they can get to know each other. Infants receiving KMC are less stressed than infants placed alone in cribs.

### 5-17 When should the mother and infant be discharged home?

If both are healthy and normal, they can usually be discharged home after six hours. Most of the serious complications after delivery (e.g. post partum haemorrhage in the mother or respiratory distress in the infant) will have presented before this time.

### 5-18 What are the advantages of early discharge?

1. Usually the mother wants to be at home with her family and away from the clinic or hospital.
2. It allows the mother to relax, sleep and establish breastfeeding at home.
3. At home she is familiar with the routines and has her family to help and support her.
4. The mother and infant are less likely to develop infections at home.
5. It saves staff and expenses and helps to avoid overcrowding in hospital.

## CARE OF THE INFANT IN THE NURSERY

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### 5-19 How can care in the nursery be made baby friendly?

Many changes can be made in a newborn nursery to provide better care for infants:

1. Recognising infants as individuals.
2. Encouraging mothers and family to spend time with their infant.
3. Improve communication between parents and staff.

4. Make the nursery environment as relaxing as possible.
5. Promote nesting, cluster investigations and handling, and quiet times.

### 5-20 Why should infants be recognised as individuals?

As with adults and older children, it is important that each infant be recognised as an individual with his or her own personality and needs. This improves both staff and parent bonding with the infant which improves care. Whenever possible, care should be tailored to meet the individual needs of infants.

**Every effort must be made to make infants recognisable as individuals.**

Many simple steps can be taken to make infants recognised as individuals. One of the most important ways is to give infants names.

### 5-21 When should infants be given names?

As soon as possible. Parents often decide on a name or short list of possible names during the pregnancy. Most infants can be given a first name within the first week, even if it is only a 'nick name'. Often an infant is only recognised as an individual when a name is chosen. However, some parents need to consult distant family before a name can be given. Failure to name an infant may be a sign of poor bonding.

**NOTE** In many cultures an infant has no rights and is not accepted as a member of the community until it is formally named.

### 5-22 How should the infant's name be displayed?

Usually the mother's first name and surname are given on the infant's records and on a card attached to the overhead radiant heater, incubator or cot. The name is also on the identification tag on the infant's wrist and ankle. As soon as an infant is given a first name, this should be added to the infant

record and identification labels. Staff should be encouraged to refer to infants by their names.

### 5-23 How can name labels easily indicate whether the infant is a boy or a girl?

This is simply done by colour coding with blue labels for boys and pink labels for girls. Either a coloured card can be used or a white card with a coloured stripe added with a crayon or highlighter. Identifying the gender (sex) of the infant helps to give him or her some individuality. It is also very useful when staff speak to parents. At a glance one knows the gender of the infant if the coloured label is clearly displayed. It improves staff communication with parents to know the gender of their infant.

**Each infant in the nursery should have a clearly visible label giving the infant's name and gender.**

### 5-24 How should infants be dressed?

Infants usually wear nappies (diapers), to make nursing easier, and are partially dressed to avoid heat loss. Woollen caps and cotton jackets are worn. However, other clothes can be worn to individualise infants and promote bonding. Mothers should be encouraged to bring their own clothes for the infant. Booties, leggings and 'baby-grows' are popular. Different and attractive colours also help to make infants look different from one another. Some parents bring a small cover or even a duvet.

Do not bath all infants in the same place as this increase the risk of spreading infection. Infants are usually bathed in their plastic bassinets. Dry infants immediately after a bath to prevent hypothermia.

### 5-25 Should messages and toys be allowed in a nursery?

Parents should be encouraged to bring written or drawn messages and cards for their infants. They can be placed inside or outside a closed incubator. Some parents bring toys, especially a doll or teddy bear. This makes parents feel

that the infant is their own and does not simply 'belong to the hospital'. It is safe to have toys in an incubator. However, toys must not be moved from one infant to another as this can spread infections.

### **5-26 How can infants be handled more gently?**

Infants are often alarmed when handled, especially if they are handled roughly and with cold hands. They get a fright, cry and become jittery. Often they display the startle reflex with outstretched arms and open hands. Rough handling may even precipitate apnoea, vomiting or cyanosis.

Infants must always be handled gently, slowly and with warm hands. Do not suddenly turn the infant over. Infants must always be handled with respect. Simply because an infant cannot always express pain, fear and anxiety, does not give carers the right to ignore an infant's feelings.

### **5-27 How can stressful procedures be best managed?**

Some stress is unavoidable such as needle sticks. Gentle handling helps. The procedure should be done quickly and expertly. Holding, touching and talking soothingly after the procedure reduces the duration of crying. Putting the infant to the breast is very helpful in reducing the stress. A small feed of milk or glucose water also helps. Only do procedures that are necessary and not simply because they have been done routinely for years, e.g. blood glucose or serum bilirubin measurements on all newborn infants.

Often parents are asked to leave the room when stressful procedures are performed. However, some parents prefer to remain with their infant so that they know what is being done. They will also be there to comfort the infant during and after the procedure. Parents should be given the option.

### **5-28 What is cluster care?**

Whenever possible, investigations and handling of infants should be clustered together so that they can be done at the same time. This is preferable to repeatedly disturbing the infant. For example, the routine observations, nappy change and blood sampling for glucose measurement can all be done together rather than each at a different time. As a result the infant is disturbed once and not many times. This requires planning and organisation. Cluster care is not always easy with a shortage of staff but every effort should be made.

### **5-29 What is the importance of quiet times?**

It is important that both well and sick infants be allowed quiet times when they can rest and sleep. This is important for growth and recovery. Being continually stimulated and disturbed is very stressful. During sleep the oxygen and energy needs of infants fall.

**Infants should be allowed time to sleep.**

### **5-30 Should the nursery always be brightly lit?**

Remember that infants can see well. Sometimes a good, bright light is needed to examine an infant or perform a difficult procedure. However, at most times the lighting in the nursery does not have to be bright. Curtains or blinds can also be used to prevent direct sunlight reaching infants. With the wider use of electronic monitoring, bright lighting in the nursery at all times is not necessary. Many nurseries now reduce the lighting at night.

Under phototherapy, the infant's eyes should be covered. This is done for comfort. Their eyes can be uncovered during feeding times. A screen may be needed to shield other infants from being disturbed by phototherapy lights.

**5-31 Can noise be a problem in the nursery?**

The nursery must not be a noisy place as infants have good hearing and are easily disturbed. Like bright lights, noise is stressful to infants, parents and staff. Frequently sounding, loud alarms are particularly stressful. Incubator motors can also be very loud, especially if they are not routinely serviced. Telephones can also be too loud. Staff should not speak loudly, shout or laugh loudly in the nursery. It is not appropriate to have a television set in a nursery as it distracts the staff and parents.

**5-32 Should both the mother and her partner be allowed to visit an infant in the nursery?**

It is essential that both parents visit their infant in the nursery as soon as possible after birth. Not only is this very important for bonding but it is the parents right to see their infant. Strict visiting hours should not be kept in the nursery. Parents are encouraged to visit their infant whenever possible and to spend as much time as they can with their infant. Often working fathers can only visit in the evening.

In some nurseries, parents are asked to wait outside during ward rounds. This may be needed to keep the diagnosis of infants confidential. They may also be asked to leave if an infant needs resuscitation or if an infant has died.

**Parents should be encouraged to spend as much time as possible with their infant in the nursery.**

**5-33 Should parents be allowed to touch their infants?**

Yes. Parents must be encouraged to touch their infant, as this is a very important part of bonding. Many parents are afraid of touching and possibly hurting a very small or sick infant. However, even very ill infants in intensive care can be gently touched.

Usually parents touch the infant's hands and feet first before they touch the head and trunk.

This is often very reassuring for the parents. A mother will often sit for a long time, beside the incubator, touching and talking to her infant. Unmarried fathers should also be allowed to visit their infants if the mother agrees. Everyone, including parents, must always wash their hand with soap, or spray them with a disinfectant (e.g. chlorhexidine in alcohol), before touching an infant.

**It is important that parents touch their infant.**

**5-34 Should siblings be allowed into the nursery?**

Yes. It is important for the siblings to also visit and touch their newly born brother or sister. The siblings are always interested in the new addition to the family and need to bond with the infant. Visiting children in the nursery must always be accompanied by a parent, they must be closely supervised and well behaved and must always wash their hands before touching the infant. Siblings who are sick (e.g. a common cold) must not be allowed into the nursery. The risk of siblings infecting an infant is no greater than that of the parents or staff. Anyone who has an infectious illness, especially a viral illness, should not be in contact with small infants.

**Siblings should be allowed to visit an infant in the nursery.**

**5-35 Should other family members be allowed to visit the infant?**

Usually grand parents are also allowed to visit an infant in the nursery. This is very important if the mother does not have a partner or if the grandparents are going to help look after the infant. Bonding between grandparents and the infant is especially important when the mother is very young and still living at home. Unless under exceptional circumstances, other family members and friends are not usually allowed into the nursery. The nursery cannot be filled

with visiting family members. Only one or two people are allowed to visit an infant at one time.

### **5-36 How should the nursery be decorated?**

The appearance of the nursery affects the mood and behavior of all that work or visit there. The nursery and intensive care unit should not look like a stark hospital ward with white walls and no decorations. A light colour, such as blue or pink, makes the nursery appear gentler and less threatening. It also makes the work environment less stressful to the staff. Curtains should have restful colors and patterns. Pictures or posters can be hung on the walls. Breastfeeding mothers and young animals are favourite topics.

### **5-37 What clothes should staff wear in the nursery?**

Not only does light, attractive, comfortable clothing make the working conditions more enjoyable for the staff but improves the environment for everyone. Formal uniforms are often threatening to parents. All staff must wear name tags so that they can be identified by parents. Doctors need not wear white coats. Long sleeves should always be rolled up to avoid spreading infection. Clothing should be practical and clean but not provocative. Usually wedding or engagement rings can be worn.

### **5-38 Should music be allowed in the nursery?**

Soft, gentle background music is soothing to staff and parents and makes the atmosphere in the nursery more relaxed and less stressful. If a radio is to be used, loud music or the spoken voice should be avoided. Recorded classical music is best. The volume of the music should be turned down during quiet times.

### **5-39 Are windows recommended in a nursery?**

A view to the outside world reduces working stress. Efforts must be made, however, to reduce excessive heat loss or gain through

windows by using curtains or blinds or by double-glazing the windows. Avoid direct sunlight in the nursery. Curtains may become dusty but do not collect bacteria. They should be washed regularly.

### **5-40 What is nesting?**

The unborn infant is 'nested' safely in a warm, dark and quiet intra-uterine environment where the infant is enclosed in a small space. The infant can touch the uterine walls. Newborn infants also need to feel secure in a closed space. The ideal closed space is provided by kangaroo mother care. A similar environment can be created in a closed incubator or overhead radiant heater by 'nesting'. A towel or small cotton blanket is rolled up and placed on the mattress around the infant to form a circle or horse-shoe. Infants are often nested on their side which helps to keep their back flexed. It is important that the infant's head does not lie on the towel as this will flex the neck, which can obstruct breathing. Infants are usually nursed on their back or side as this reduces the risk of 'cot death'. However, infants with respiratory distress or reflux are often nursed on their abdomen.

### **5-41 How can communication with parents be improved?**

Every effort must be made to improve communication between health workers and parents. Parents should feel able to ask questions and be given clear, honest and easy-to-understand answers. Although both doctors and nurses must speak to parents, the nurses are often better at communicating. Nurses spend more time with the infants and get to know them well. Good communication is baby friendly as it promotes parent-infants bonding.

### **5-42 How can parents be given information about their infants?**

Information is best given directly to parents by the staff. A simple, honest explanation of the problems, risks and management of the infant is needed. However information

pamphlets (e.g. on low birth weight infants or infants being ventilated) are very useful as parents can read them again and again. Often what is told to parents is not remembered because of the stressful situation. Booklets, videos, CDs, notices and photographs (even the internet) can help provide specific information. The names and uses of different pieces of equipment used in the nursery can be explained by means of pictures.

## CARE OF INFANTS IN AN INTENSIVE CARE UNIT

### 5-43 Do newborn infants feel pain?

In the past it was often incorrectly believed that newborn infants do not feel pain. Infants show all the stress responses seen by children and adults who are in pain. They cry, frown, actively move their arms and legs, increase their heart rate, blood pressure and blood glucose concentration, and have raised levels of stress hormones in their blood (adrenaline and noradrenaline).

Every effort must be made to reduce the pain experienced by infants during medical procedures such as taking a sample of blood or starting an intravenous infusion. Effective local or generalised analgesia must always be used for major procedures such as inserting a chest drain. Special scoring systems (pain assessment scores) are available to measure an infant's stress response to pain and discomfort. The score helps to monitor pain and guide pain management. In order to reduce stress, infants being ventilated are often sedated, e.g. with morphine or midazolam (Dormicum).

**NOTE** After repeated painful procedures an infant learns what to expect and starts crying before the procedure is started. This is commonly seen when repeated arterial punctures are necessary. The possible long term emotion effects are not known.

### 5-44 What can be done to reduce pain in newborn infants?

1. Avoid unnecessary investigations.
2. Be aware of painful complications such as fractures.
3. Handle infants gently, especially if they are in pain.
4. Allow the infant to suckle at the breast during painful procedures such as a heel prick.
5. Use local anaesthetic (e.g. lignocaine) when indicated, e.g. if a chest drain is inserted.
6. A general analgesic, e.g. morphine, should be used in infants with severe pain, e.g. postoperatively. Paracetamol can be used for lesser pain.
7. Gentle touch can be used to reduce pain.

**Pain and discomfort in newborn infants should be actively managed.**

### 5-45 What causes stress to newborn infants?

Factors other than pain can cause stress in newborn infants:

1. Separation from the mother. Every effort must be made to keep mothers and their infants together.
2. Excessive handling and stimulation. Do not handle small, ill infants unless it is necessary. It is best to cluster handling, e.g. change nappy and take heel prick blood sample for glucose measurement at the same time rather than at different times.
3. Lack of sleep. It is important that infants are allowed time to sleep.
4. Excessive light and noise. Intensive care units are usually noisy and brightly lit. Reduce the noise of loud voices and alarms and ringing telephones when possible. Soft background music is preferable. Reduce lighting when infants are asleep.

### 5-46 How can the parent's anxiety and stress be lessened?

Part of good infant care includes thinking about the needs of the parents. It is very stressful to have your infant in an intensive care unit. Open and honest communication is the best way to reduce parental stress. Bereavement counselling is particularly important when infants are dying or have died, or are born with severe congenital abnormalities. A follow-up phone call to bereaved parents is greatly appreciated by the family. Photographs of the infant, a lock of hair, foot print or name tag are helpful for bereaved parents as keep-sakes.

The concept of mother friendly care is also important as kinder, gentler, more considerate care of parents visiting a neonatal ICU must be promoted. A special, private room for counselling parents is very useful. This space can also be used by parents who want to spend private time with their dying or dead infant.

### 5-47 Can the developmental outcome of infants receiving intensive care be improved?

There is good evidence that gentler, more 'humane', baby friendly care can improve the mental development and behaviour of small infants who are managed in an intensive care unit. Modern, scientific care of newborn infants (which improves survival) should, therefore, be modified to ensure the best outcome of survivors.

**NOTE** NIDCAP (Newborn Individualised Developmental Care and Assessment Program) is a method of caring for very small infants where the optimum environment is provided for normal brain development. It is based on the theory that sensory input influences the function and structure of the developing brain. Research shows a better developmental outcome after using NIDCAP in neonatal ICUs.

## CARE OF INFANTS IN THE POSTNATAL WARD

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### 5-48 How can the postnatal ward be made more 'baby friendly'?

Almost all the changes that can be made in the nursery can also be made in the postnatal ward:

1. Each mother and her infant should be kept together.
2. The ward should be comfortably warm.
3. It should be painted in pleasing colours.
4. The lighting must not be too bright. Avoid direct sunlight.
5. Loud noises must be avoided.
6. It should have a homely feel rather than a hospital appearance.
7. Comfortable chairs for feeding are important.
8. Some privacy is essential.
9. Staff must be gentle, supportive, kind and friendly.
10. Visitors should be allowed in a controlled fashion.
11. Mothers in the postnatal ward, who still have small or sick infants in the nursery, should be given every assistance to visit their infants whenever they want to. If they are too ill to visit their infant, or have their infant with them, they should be given a Polaroid photograph of the infant. This helps bonding.

### 5-49 What care should be given to infants in a postnatal ward?

Most infants in a postnatal ward are normal, health and born at term. Therefore, care should be aimed at promoting bonding, encouraging and supporting exclusive breastfeeding, and the routine management such as cord care and recording weight gain. The infant may be nursed in bed with the mother, carried around in the KMC position or allowed to sleep beside her bed in a crib (bassinet). Sharing a bed is not dangerous and does not increase the risk of cot death. The fear of the mother rolling onto the infant is

unfounded. The infant should be bathed in the plastic crib and not at a common site where cross infection may occur. This is a good opportunity to help the mother learn about caring for her newborn infant. Mothers often help, and learn from, each other.

If the infant requires phototherapy, this can usually be given in the postnatal ward. As soon as possible, the mother and her infant should be discharged home together.

### **5-50 Should the infant be kept with the mother all the time?**

If possible the mother and her infant should be kept together. Infants should not be routinely moved to the nursery at night so that they do not disturb the mothers' sleep. Mothers should be encouraged to demand feed both day and night. If an individual infant cries a lot or if the mother is not well, the infant may be moved out of the ward for a few hours. However, the infant must be brought back for feeds.

What is no longer acceptable is for the mother to watch television, entertain her friends and rest most of the day while her infant is taken to the nursery to be bottle fed.

## **CARE OF THE INFANT AT HOME**

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### **5-51 How can the home be made more 'baby friendly'?**

As with the nursery and postnatal ward, many small but important changes can be made at home to improve the care and well being of the newborn infant. The question of the infant sleeping in the same bed as the parents remains controversial. However, there are many benefits to this practice for the first few months after delivery, especially with poor, cold housing.

Looking after a newborn infant at home is very demanding and mothers often feel exhausted. Every assistance should, therefore, be given to the mother, especially during the first few

weeks when the infant is still being breastfed frequently. Help with routine household tasks, such as cleaning and cooking, are needed most. The father should support the mother when she arrives home with her infant. Grandmothers are particularly important with young, inexperienced mothers.

### **5-52 Should neighbours and distant family visit the infant?**

Once the mother and infant are at home, visits by neighbours, friends and family are common. However, anyone who has an infectious illness, especially an upper respiratory tract infection, should be kept away from the infant. Young parents often need a lot of help and support from family and friends. Isolation and a lack of support is a main factor in the neglect and battering of infants.

### **5-53 Is it safe to kiss infants?**

It is normal for a mother to want to hug and kiss her infant. However, some serious infections, such as herpes, can be spread to infants by kissing. Anyone with fever blisters (recurrent herpes infection) must never kiss an infant, as herpes infection in a young infant can be fatal. It is best if other family and friends do not kiss the infant, especially on the mouth.

### **5-54 Should all infants be taken to the well baby clinic?**

Regular visits to the local well baby clinic are an important part of good primary health care. Weight gain and feeding should be monitored, routine immunisations given, minor problems managed and education and support given to the mother. When the weather is cold, KMC can be used to keep the infant warm on the way to and from the clinic. Every effort should be made to ensure that the well baby clinic is baby friendly.

## BABY FRIENDLY HOSPITAL INITIATIVE

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### 5-55 What is the Baby Friendly Hospital Initiative?

The Baby Friendly Hospital Initiative (BFHI) is an international programme of the World Health Organisation (WHO) and the United Nations Children's Fund (UNICEF) that was introduced in 1991. The BFHI is based on the Ten Steps to Successful Breastfeeding and aims to promote, introduce, protect and support breastfeeding. The BFHI recognises hospitals which have taken steps to create the best possible conditions for breastfeeding. These hospitals, after a detailed inspection, are awarded Baby Friendly status if they meet all the criteria. More and more state and private hospitals and delivery centres in South Africa are being given this award. All hospitals with maternity facilities should be encouraged to achieve Baby Friendly status.

**The Baby Friendly Hospital Initiative aims to promote, introduce, protect and support breastfeeding.**

### 5-56 What are the ten steps to successful breastfeeding?

1. Have a written breastfeeding policy that is frequently communicated to all the health care staff.
2. Train all the health care staff in the skills needed to implement successful breastfeeding.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers to start breastfeeding within an hour of delivery.
5. Show mothers how to breastfeed and teach them how to maintain lactation even if they are separated from their infants.
6. Do not give newborn infants formula, water or other food unless this is indicated for medical reasons.

7. Allow mothers and their infants to remain together all the time from delivery to discharge.
8. Encourage breastfeeding on demand.
9. Discourage the use of dummies, teats and nipple shields.
10. Promote the formation of breastfeeding support groups and refer mothers to these groups on discharge from hospital or clinic.

The Baby Friendly Initiative also includes HIV infected mothers who choose to formula feed their infants as this is a medical indication.

## TOUCH THERAPY

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### 5-57 What is touch therapy?

Touch is one of the five important senses. By touching we communicate with others. Touching is one of the most important ways a mother and infant bond with each other. Touch therapy teaches mothers to use touch as a way of getting to know their infant better. Physical contact is one of the basic needs of infants (and adults) and is essential for normal emotional and interpersonal development. Infants like being touched. Many young, inexperienced mothers are reluctant to have a lot of physical contact with their infant, especially if they were not touched a lot by their own parents. They may also not have a close physical relationship with their partner. Touching one another is often not encouraged in some cultures.

**NOTE** Clarissa Estes in her book *Women who run with wolves* states that 'hands laid upon another can sooth, comfort, remove pain and heal'.

### 5-58 What are the advantages of touch therapy for infants?

1. Touch therapy (or massage therapy) helps many mothers bond more closely with their infant.
2. Touch therapy has been shown in a number of studies to decrease crying and increase the weight gain of preterm infants.

**Touch therapy is very useful in helping some mothers bond with their infant.**

### 5-59 How is touch therapy given?

Most mothers will naturally touch, stroke and gently rub their infants without formal guidance or instructions. However, some mothers need encouragement, support and help to develop meaningful physical contact with their infant. Mothers often use oil or talcum powder for massaging. At the same time they usually also talk, sing or make 'baby sounds'. Eye contact is important. Slow, gentle stroking is a way of expressing love and care.

Touch or massage therapy is a method of systematically stroking an infant, usually starting with the face and then moving to the chest, arms, stomach, legs and back. Mothers are best taught how to give massage therapy by a touch therapist. Massage should be firm, slow and rhythmical. Fathers can also benefit from learning how to give touch therapy. Many cultural practices include some form of infant massage. It is best to use a commercial 'baby oil' or simple carrier oils only as additives can be absorbed through the infant's thin skin.

### 5-60 How does touch therapy work?

Touching and stroking induces relaxation, reduces stress behaviour and promotes a feeling of well-being. Numerous studies on both humans and animals have demonstrated the many benefits of touch. It is a powerful way of improving mother-infant bonding. Massage may reduce the pain of infant colic.

Touch therapy is being used more and more in children and adults with severe or chronic illnesses, such as AIDS. Simply being touched makes people feel better.

Touch therapy is being used in some neonatal intensive care units as part of the management of small or sick infants, especially infants in pain or receiving painful or stressful procedures. Touch plays an important part in the skin-to-skin care of KMC.

**NOTE** Research into the 'biology of touch' shows that massage therapy reduces the level of stress hormones (cortisol, adrenaline and noradrenaline) and promotes vagal stimulation. This helps digestion and absorption, immune responses and sleep patterns. Touching or rubbing an area of skin helps to reduce pain originating from the same dermatome (the gate theory of pain). Mothers intuitively 'rub the pain better'.

## CASE STUDY 1

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A young woman delivers her first born infant at a rural hospital. The infant appears well and healthy when assessed immediately after birth. She is not given her infant to hold as the labour ward is cold. It is routine practice to move all infants to the nursery straight after delivery so that their mothers can rest. The staff find it easier if infants are weighed, given vitamin K and prophylactic eye care in the nursery. Only after 6 hours is the infant brought to the postnatal ward so that the mother can breastfeed.

### 1. What is the problem with the management of this infant?

The mother and her infant should not be separated after delivery. No medical reason has been given to move the infant to the nursery.

### 2. How should this infant have been kept warm?

The labour ward should not be cold. This infant should have been given to the mother so that she could keep the infant warm by giving kangaroo mother care. Both the mother and infant could be covered with a blanket to keep them warm if the room was cold.

### 3. Why should mothers not be allowed time alone after delivery, without their infant, so that they can rest?

The time immediately after delivery is very important to start both the bonding process and to begin breastfeeding. Most mothers want to hold their infant as soon as possible

after delivery. Placing the infant on the breast after birth is the best way of ensuring that the mother establishes successful breastfeeding. Separating mother and infant is stressful to them both.

**4. Is it not important that the infant is weighed and given vitamin K and prophylactic eye care as soon as possible after birth?**

These routine procedures can be postponed until the mother has had a chance to hold her infant and place the infant on the breast. Early breastfeeding may even speed up the third stage of labour. The routine procedures can best be done once the placenta has safely been delivered.

**5. Is it not easier for the staff to care for the infant in the nursery than keep the infant with the mother?**

With baby friendly care, it is important to do what is best for the mother and infant rather than what is easier for the staff. The mother can hold and care for her infant while the midwife or doctor manages the delivery of the placenta.

**6. If an infant has to be taken to the nursery, when should the infant be brought back to the mother?**

Sometimes either the mother or infant are ill and the infant cannot stay with the mother. The mother should then visit the infant in the nursery, or the infant should be taken to the mother in the ward, as soon as possible. There is no medical reason for all healthy infants to be taken to the nursery for 'observations' for the first 6 hours after birth. Most infants delivered by caesarean section can also stay with their mother. Photographs of the infant can promote bonding if the mother and her infant have to be separated.

## CASE STUDY 2

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When a new nursery was opening in a regional hospital, it was decided to write protocols for routine care in order to establish high standards of management. The mother's name was clearly displayed on each crib or incubator to help identify infants. Both parents were allowed to visit during strictly controlled visiting hours but only the mother was allowed to touch her infant. Siblings had to remain in the waiting room outside the nursery. The walls were painted white and curtains, pictures and posters were not allowed. Radios and television sets were strictly prohibited. All nurses wore uniforms and infants wore regulation hospital clothing. Toys were banned.

**1. Is it helpful to have the mother's name on each infant crib or incubator?**

Yes, as it is important to identify infants. However, it is also helpful to add the infant's own name as this allows infants to be recognised as individuals, which promotes bonding. Colour coding labels, pink for girls and blue for boys, should be used.

**2. Who should be able to visit infants in a nursery?**

Both parents and siblings. Usually grandparents are also allowed to visit. However, some control over visiting is important as the nursery cannot be filled with visitors. The visitors may have to take turns. It is important that siblings are not excluded from this important family occasion.

**3. Is it important that parents only visit during fixed visiting hours?**

Parents should be able to visit at any time and stay as long as they want. Often working fathers cannot visit during formal visiting hours. They may only be able to visit in the evenings. Parents of small infants should be encouraged to spend time giving KMC to their infants.

#### 4. How should a nursery be decorated?

Every effort must be made to make the nursery look as less stressful as possible. White walls with no decorations are cold and threatening. Light coloured walls with attractive curtains and pictures or posters make the nursery appear more like a home and creates a restful mood. A nursery should not look like a typical, traditional hospital ward.

#### 5. Should radios and television sets be allowed in a nursery?

Television is a distraction and should not be allowed. A radio playing soft, relaxing music helps to reduce stress, especially among the nursing staff.

#### 6. What clothing is best for staff and infants in the nursery?

Nurses clothing should be comfortable, attractive and not threatening. Formal nursing uniforms are not recommended. All staff must wear name tags for easy identification by parents. Infants in incubators should always have warm caps and nappies. They may also have coloured cotton or woollen tops. Families often bring clothes for their infants which help to give the infants an identity of their own. Soft toys are safe as long as they are not shared with other infants.

### CASE STUDY 3

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In a large hospital, attempts are being made to make a neonatal intensive care unit more 'humane' and baby friendly. As there are only a few windows it is suggested that better, brighter lights should be installed. One of the nurses has read about nesting and cluster care and is keen to introduce these new practices. The senior doctors want to improve communication with patients and give them easier access to information. The question of correct pain management is also discussed at a staff meeting.

#### 1. Should a neonatal intensive care unit have good lighting?

Lighting is important and this is best achieved with windows. They allow natural light in and also reduce stress if the staff can look out. However, bright lighting disturbs infants and can prevent them sleeping. Bright lights are only needed during specific procedures. Ideally there should be quiet times with dim lighting.

#### 2. What is 'nesting'?

With nesting, a towel or small cotton blanket is rolled up and placed on the mattress around the infant to form a circle or horse-shoe. Infants are often nested on their side. In this way the infants can feel the limit of their immediate environment rather than move around the incubator until they can lie against the side wall.

#### 3. What are the advantages of 'cluster care'?

When using cluster care, investigations (e.g. taking blood for glucose measurement) and handling (e.g. nappy changes or feeds) of infants are clustered together so that they can be done at the same time. This reduces the frequency that an infant is disturbed and allows for longer periods of rest and sleep.

#### 4. How can parents be given easier access to information about their infant's health problems?

It is important that parents understand what is wrong with their infant, the risks and the management. Careful, simple and repeated explanation is most important. However, giving parents written information in the form of pamphlets is also useful as they can read and reread the information at home. In addition, booklets, videos, notices and photographs can be used.

#### 5. What are the principles of pain management in newborn infants?

1. Infants do feel and express signs of pain.
2. Unnecessary painful procedures must be avoided, e.g. routine blood glucose

measurements when there is not a good indication.

3. Always handle infants gently.
4. If possible, allow infants to suckle at the breast during painful procedures.
5. Use a local anaesthetic (e.g. lignocaine) or a general analgesic (e.g. morphine) when a painful procedure is done (e.g. inserting a chest drain).
6. Touching and stroking an infant may help to relieve stress.

## CASE STUDY 4

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In a postnatal ward all infants are nursed in cribs next to their mother's beds. Sharing a bed is not allowed because of the fear of the mother rolling onto the infant in her sleep. When infants are discharged home, mothers are advised to get the infant used to sleeping alone in a cot in a separate room. A newly appointed nurse suggests that the hospital should become 'baby friendly'. The older members of staff are unhappy to change routines which 'have worked well for many years'. They get angry when touch therapy is suggested.

### 1. Is it safe to allow mothers and infants to share beds in hospital and at home?

For many years mothers have shared beds with their infants at home without any side effects. In poor communities it may be the most practical way of keeping infants warm at night. The risk of cot death is not increased. The risk of mothers rolling onto and smothering their infants is also very small. In many baby friendly hospitals infants sleep with their mothers.

### 2. What is a baby friendly hospital?

This is a hospital (or clinic) which places the care of the mother and her infant ahead of the

needs of the hospital and staff. Baby friendly care is good, evidenced based care which promotes bonding and breastfeeding.

### 3. What is the Baby Friendly Hospital initiative?

This is an international programme supported by the World Health Organisation and based on the 'Ten steps to successful breastfeeding'. Hospitals and clinics are formally inspected and, if successful, awarded BFI status.

### 4. What are the ten steps to successful breastfeeding?

These are practical steps that can be implemented in order to promote, support and manage successful breastfeeding in a maternity service.

### 5. Why is there sometimes resistance to hospitals or clinics becoming baby friendly?

Any change in managing mothers and infants causes uncertainty, insecurity and resistance with parents, health workers and administrators. Many people do not like change, even if the change is to everyone's benefit. With the introduction of baby friendly care it is important to convince and support those who need to change from previous ideas and habits.

### 6. What is touch therapy?

It is a method of teaching mothers to touch and gently stroke their infant. It builds confidence in anxious, inexperienced mothers and promotes bonding. Touch therapy soothes crying infants and can increase weight gain.

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