



TOWARDS BIRTH ATTENDANTS SKILLED IN NEONATAL CARE IN SUDAN

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ABSTRACT

Neonatal mortality in Sudan is estimated at (31 per 1000). The high figure is attributed to poor neonatal care resources, and shortage of staff trained in neonatal care. Midwives are the first line staff to deal with neonates requiring urgent help.

Neonatal care training is deficient in midwifery schools. Also there is lack of in-service training in neonatal care for hospital midwives.

We established a two days course in March 2007 in Khartoum named (Neonatal care and infection prevention). This has targeted Hospital midwives in its first phase.

Ten courses were held between March 2007 and June 2009. Five of these were held in Khartoum, whereas five were organized in the districts in the White Nile (Kosti), The Blue Nile (Sinja), Algazeera (Almanagil), Gedarif and Kassala. The courses comprise lectures on common neonatal problems, as well as practicals on neonatal resuscitation, neonatal examination and infection prevention. 240 midwives have been trained so far. Of these, 50 candidates have been selected to become future trainers in their own hospitals. They attended a Training of the Trainers course in December 2008.

We conclude that more neonatal care courses are required to cover all midwives involved in delivery and care of the newborn. We believe that improving neonatal care training for midwives, as well as applying scientific measures at infection prevention, will contribute to reduction of neonatal mortality and morbidity.

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Background

Midwives in Sudan start their careers as nurses. After completion of Nursing School and working for some years, they are selected to enroll in midwifery schools and graduate as midwives who either join a hospital, or become a certified midwife who can attend home deliveries at her local area. Basic requirements for selection for midwifery schools in the past were simple, and many midwives were illiterate when they started their midwifery. Requirements for rural midwives are even simpler.

They are usually selected from their local community to be enrolled in rural midwifery schools. They serve the same community after graduation.

Neonatal care services in Sudan have not progressed well over the years. Medical and nursing staff involved in newborn care in the delivery rooms or special care baby units have not gained much experience in proper neonatal care. Neonatal intensive care units are scarce with limited resources for ventilation.

Neonatal mortality in Sudan is estimated at (31 per 1000). The high figure is attributed to poor neonatal care resources, and shortage of staff trained in neonatal care. Few developing countries like Bangladesh, Ghana, India, Mali and Nepal started to implement newborn health interventions targeting birth attendants in the community, aiming at reducing Perinatal and Neonatal morbidity and mortality(1)

Neonatal Resuscitation training (NRP) for Doctors was established in Sudan in the year 2002. Some midwives were also trained in that programme. Attention over the last 5 years started to focus more on midwives and the need for enrolling them in programmes of training and acquiring new skills, so as to improve perinatal services, especially in the districts.

Neonatal Care Training for Midwives

More attention was paid to midwives training in 2005 in Obstetrics as well as Neonatal care. The main objective was to produce more skilled birth attendants and to upgrade rural midwives services (6). 225 Rural midwifery school teachers from all over the country were targeted in 5 training courses each lasting for 3 weeks. This covered different topics in Obstetrics and Gynaecology, besides 2 days of theoretical and practical teaching in Neonatal care. A revision and updating of the curriculum for rural midwifery schools was also started.

As we know, 10% of all newborns require neonatal resuscitation at birth. This could be performed by trained medical or paramedical personnel and plays an important role in reduction of mortality and morbidity in newborns. (3,4,5)

In March 2007, we established a two days course in Khartoum named (Neonatal care and infection prevention). This has targeted Hospital midwives at this stage. Courses have been running monthly, with the majority held in the Continuous Professional Development Centre (CPD) in Khartoum, which is run by the Ministry of Health. However, some of the courses were organized at district hospitals. A total of 10 courses were held between March 2007 and June 2009. Five of these were held in Khartoum,

whereas three were organized in the White Nile Province (Kosti Hospital), The Blue Nile Province (Sinja Hospital) and Algazeera Province (Almanagil Hospital). 240 midwives have been trained so far, from the districts and the capital. 50 candidates have been selected from all the courses to become future trainers in their own hospitals. They were called at end of 2008 and enrolled in a Training of the Trainers course.

Neonatal Care and Infection Prevention Courses for Midwives Target

Hospital midwives

Aim and objectives of the course

The aim of the course is to develop birth attendants skilled in neonatal care and measures of infection prevention, so that they could contribute to reduction of neonatal mortality and morbidity rate.

The main objectives of the course are:

1. Acquiring knowledge of common neonatal problems
2. Recognition of the sick neonate.
3. Acquiring skills of neonatal resuscitation
5. Acquiring skills of neonatal examination
6. Applying scientific measures for infection prevention for mothers and babies.

Knowledge

By the end of the course the midwife should

- Understand physiological changes in the newborn immediately after birth.
- Understand common neonatal problems including respiratory problems, haematological problems and problems of prematurity and low birth weight babies.
- Understand neonatal infections and measures to prevent including immunizations.
- Understand symptoms of illness, early management and early referral for medical care
- Understand the benefits of breast feeding and the need to counsel the mother about its importance.
- Acquire the knowledge of applying measures to prevent infection including hand washing, sterilization and disinfection.
- Understand the principles of neonatal resuscitation.
- Acquire the knowledge to look for congenital abnormalities in the newborn.



Skills

By the end of the course the midwife should

- Demonstrate ability to recognize the ill neonate, initiate plan of initial management before referral to medical care.
- Be able to recognize symptoms and signs of neonatal infections.
- Recognize symptoms and signs of common neonatal problems
- Demonstrate ability to counsel mothers about breast feeding and its importance.
- Demonstrate ability to counsel mothers about infection prevention and immunization.
- Be able to apply measures to reduce complications which occur in preterm and low birth weight babies.
- Be able to recognize common neonatal surgical problems and the need for urgent referral in some.
- Demonstrate ability to perform neonatal resuscitation when needed, and call for urgent help at the appropriate time.
- Demonstrate ability to perform neonatal examination.
- Demonstrate the ability to recognize neonatal congenital malformations and refer for medical care as appropriate.
- Demonstrate ability to apply measures of infection prevention including:
 - Proper hand washing
 - Sterilization for surgical equipments and others
 - Proper cleaning and use of disinfectants

Attitude:

By the end of the course the midwife should demonstrate the ability to

- Be caring and compassionate.
- Communicate with mothers and handle their babies with best care
- Work as a team member
- Learn from others and convey the knowledge and skills acquired
- Be sensitive to moral and ethical issues
- Treat the newborn with respect when alive.
- Treat the newborn with respect when dying and be sympathetic and supportive to the parents.

Course structure:

1. The course is taught in Arabic.

2. The course is for 2 days. The first day covers lectures in common neonatal emergencies and problems. The second day is a practical session about neonatal examination (2 hrs) and neonatal resuscitation (2hrs). There is also a session about infection control which includes theory and practical (3 ½ hrs).
3. Total hours of the course= 12hrs
4. Candidates from the capital and all districts are invited.
5. Courses are scheduled to run monthly
6. Proposed number of candidates is 40 in each course.
- 7 Teachers: 4 consultant Paediatricians and 2 sisters.

Course Content:

مشاكل التنفس، أمراض القلب، حالات الجراحة الطارئة عند حديثي الولادة
 التحصين + العدوى عند الأطفال حديثي الولادة
 الأطفال الخدج وناقصي الوزن
 إنعاش الوليد (محاضرة)
 اليرقان
 الرضاعة الطبيعية
 الوقاية من العدوى ورعاية الأطفال حديثي الولادة (نظري وعملي)
 الوقاية من العدوى ورعاية الأطفال حديثي الولادة (نظري وعملي)
 إنعاش الوليد (عمل)، الكشف علم، الوليد (عمل)

Evaluation

By the end of the course, candidates sit an MCQ written test. The test consists of 20 questions which test the knowledge taught in the course. Assessment is also performed during the practical sessions of neonatal examination and neonatal resuscitation and outstanding candidates are ticked.

Candidates are required to pass the written and practical part and a certificate of attendance is issued. Those who fail are advised to repeat the course.

Candidates, who get high scores in the written test, and also recommendation by the practical session panels, are selected to attend future IOT courses.

The future of the course is to have Trainers all over the country to contribute in running country-wide courses for training all hospital midwives.

Conclusion:

Resources at neonatal care in Sudan are limited. Neonatal mortality is high. Though not many studies were done to specify the causes of its rising, yet measures can be done to reduce risk factors. We believe that Neonatal care training of skilled birth attendants, as well as applying scientific measures at infection prevention, will contribute to reduction of neonatal mortality and

morbidity. Neonatal care courses for midwives is a step forward, and more courses are required in the future, to cover all midwives involved in delivery and care of the newborn.

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