

*Research Paper—Obstetrics and Gynecology*



Feb, 2010

## Role of Obstetrician in Newborn Care at Birth



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### A B S T R A C T

*At the time of delivery, every time it is not possible that a paediatrician is available to take care of newborn. So if the obstetrician knows emergency resuscitation, and can identify danger signs in newborns which require early referral will help to decrease the perinatal morbidity and mortality. In this study, 400 mothers – 408 newborn babies delivered in our institute between the month of June 2008 to May 2009. All newborns were examined by the obstetrician at the time of birth. They examined newborns and identified high risk babies and also gave emergency resuscitation. The aim of this study is to prove the role of obstetrician in newborn care to reduce perinatal morbidity and mortality.*

**KEY WORDS—Obstetrician-Newborn –Resuscitation-Neonatologist**

### INTRODUCTION

“OBSTETRICIAN IS THE FIRST NEONATOLOGIST FOR NEWBORN BABIES.”

“OBSTETRICIAN DELIVERS BABY FROM MOTHER AND NEONATOLOGIST DELIVERS BABY FROM OBSTETRICIAN. (IAN DONALD)

Life begins much before the actual birth. From the moment of conception there begins a continuous process of growth, which represents complete interplay of various factors ultimately resulting into a fully grown newborn. The healthy fetus is a reflection of a healthy mother. General paediatricians as well as obstetricians besides neonatologists are often involved in the care of neonate and receive calls for newborns that somehow do not seem to be doing well. Often such

calls are trivial and do not need anything more than reassurance to a parents. However there is a fine line of distinction between an apparently healthy neonate with innoculus manifestation and one with much more severe condition needing urgent attention.<sup>14</sup>

With over 28 million births every year in India, the burden of primary evaluation of a neonate often lies at the door step of the Obstetrician, who is the fetal care giver most of the times. Neonatal care providers need to be aware of the danger signs of a sick newborn such as poor sucking, rapid breathing at rates greater than 60 breaths/minute, difficult breathing, baby cold to touch, lethargy, up rolling of eyeballs, jaundice, abdominal distension and cyanosis.

Yet, the importance of updating and re-educating

cating oneself and also of participating in the management of neonatal care must be nurtured by every obstetrician, as so often the parents seek his advice and guidance in every critical care management issue. Uptill now, many obstetricians were not able to carry out basic resuscitation measures in newborn babies in first few minutes which are the most crucial time for newborn babies. So in residency of three years, at least three months rotation should be in NICU, so that each obstetrician can understand the problems in newborn and can do emergency resuscitation of newborn immediately after birth when paediatrician is not available.

#### **AIMS AND OBJECTIVES**

Paediatricians are very busy now a days and it is not possible for them to take care of every newborn baby at the nursing homes, a place far from their hospital where delivery is conducted. So if obstetricians identify few danger signs in newborns which require early referral, will help to reduce perinatal morbidity and mortality.

#### **AIM TO DEFINE THE ROLE OF OBSTETRICIAN IN<sup>5,17,12,2,4</sup>**

1) Identification of high risk mothers and high risk babies and their early referral. 2) Basic Resuscitation and management of hypothermia in newborn and recording of Apgar scoring of newborn. 3) Prevention and management of hypothermia in newborn and early referral. 4) Prevention of sepsis in newborn and identification of signs and symptoms of sepsis in newborn and early referral. 5) Early identification of jaundice in newborn and early referral. 6) Prevention of early hemorrhagic disease of newborn and early referral. 7) Establishment of early breast feeding and management of feeding problems in 1<sup>st</sup> week of life. 8) To reinforce good traditions and to prevent bad traditional practices regarding newborn care.

#### **CAUSES OF DEATH IN NEONATAL PERIOD**

1) Birth asphyxia 2) Infection 3) Hypothermia 4) Prematurity 5) Congenital malformation 6) Hypoglycemia 7) Female infanticide 8) Neo-

natal tetanus

#### **ESSENTIAL NEWBORN CARE INTERVENTIONS**

There are striking variations from place to place in the patterns of care and interventions carried out for newborn because of lack of knowledge of what is needed for optimal newborn care. Modern hospital practices and traditional ones neglect the basic needs of newborns: warmth, cleanliness, breast milk, safety and vigilance. Interventions that improve maternal health will have a major impact on the health of newborn. Care for the newborn begins during the antenatal period. Every mother should have Tetanus immunization and good nutrition during antenatal period.

The high risk concept should be followed:

- Anemia • Toxemia of pregnancy • Contracted pelvis • Bad obstetric History • Multiple births • Rh incompatibility • RDS in previous newborn • Premature low birth weight • Teenage pregnancy • HIV positive mother

A newborn needs care

- Initiation of breathing, resuscitation • Cleanliness • Thermal Protection • Early and exclusive breast feeding. • Immunization<sup>4</sup> Management of newborn illness

**Danger signs of a sick newborn-** • Refusal to feed • Increased drowsiness • Cold to touch • Fever • Difficult or rapid breathing • Convulsion • Deep jaundice • Bleeding from nose / skin • Abdominal distension • Persistent vomiting and diarrhea

#### **MATERIAL AND METHOD**

This is a study of clinical observations of (400) mothers – (408) newborn babies delivered at our institution between the month of June 2008 to May 2009. In every case, newborn baby was studied from antenatal period to resuscitation at birth and followed up to 1<sup>st</sup> week of life. All the high risk babies were transferred to NICU under the care of neonatologist, whose follow up was done till discharge.

#### **METHOD**

Every newborn baby was examined by the obstetrician at the time of birth after proper hand

**TABLE –1 Mothers with high risk factors and obstetric complication and outcome in newborns<sup>13</sup>**

	Cases	IUD/SB	Bag & Mask required	Endotracheal Intubation	NICU admission	Outcome Good	Outcome Expired
PIH	39	2	11	2	2	35	2
Eclampsia	5	2	1	2	2	1	2
Anemia	30	3	13	3	4	24	3
Fever	15	0	5	9	10	9	6
Jaundice	3	-	2	-	-	3	-
Diabetes	1	-	-	1	1	1	-
Heart dis.	1	-	-	-	-	1	-
Tubercular meningitis	1	1	-	-	-	-	-
Leaking	48	1	15	13	13	42	5
Meconium stained liquor	57	1	26	17	17	54	2
Fetal distress	29	1	16	12	11	24	4
Total	400	11	63	49	50	381	16

from the womb of mother. Mother with high risk factors should take extra care by obstetrician. According to paediatrician all newborns should give vit K after birth, but because lake of knowledge in this study only 50 babies got vit K by obstetrician. Out of 400 deliveries 13.25 % babies required immediate intervention. So obstetrician remain ready for immediate resuscitation like suction and bag and mask ventilation .

**SUMMARY AND CONCLUSION**

Obstetrician has a major role in early identification of high risk mothers and remaining vigilant while conducting delivery and early revival of their babies.<sup>15,16,14</sup> Obstetrician must know the art of resuscitation of baby, so that he/ she can revive almost half of the babies by early resuscitation which is a very crucial time for newborn babies.<sup>11,12,14,15</sup> Obstetrician has key role in early detection of hypothermia, septicemia , jaundice being physiological is quite common during 1<sup>st</sup> few days of life, low birth weight babies, congenital

washing and wearing gloves and mother was also advised proper hand washing before each and every time, she handled the newborn. Under following headings all the cases were studied.

- (1) Antenatal identification of high risk mothers
- (2) At birth Resuscitation of newborn and Apgar score
- (3) Early referral of newborn
- (4) At 1<sup>st</sup> hours of life Feeding establishment and breast feeding and its problems

**DISCUSSION**

In this study overall perinatal mortality rate of 102.9/ 1000 birth. Normally each and every baby is a challenge for an obstetrician whether the baby cries or not, as he/she is first one who receive the baby

malformation in newborn babies. So , role of obstetrician is 100% in detecting these pathology by examining the baby and its early referral. Obstetrician has important role in early detection and management of feeding problems in newborn during 1<sup>st</sup> few days of life. Obstetrician has a major role in encouraging good and discouraging bad social customs regarding newborn care and can be the best health worker for the mothers.

**CONCLUSION**

Many times obstetricians are not able to carry out the basic resuscitation measures in newborn babies when the paediatrician is not available because they are never taught or never trained in carrying out resuscitation in newborn babies. So each and every obstetrician must undergo training atleast for three month for basic resuscitation of newborn during their residency period in NICU. At the same time paediatrician should also know the basic physiology of labour, so they can understand newborn problems in a better way.

**TABLE - 2 Apgar Scoring and Resuscitation measures in Newborn required**

	3 - 6	7 - 9
At 1 min	104	293
At 5 min	50	347

**TABLE - 3 Diagnosis of Hypothermia, Septicemia, Jaundice in newborn by Obstetrician**

	Signs and symptoms observed by obstetrician	NICU admission	Outcome Good	Outcome Expired
Hypothermia	55	12	54	1
Septicemia	50	27	42	8
Jaundice	97	17	95	2

**TABLE - 4 Vit. K given to Newborn babies by Obstetricians**

Total No. of deliveries	Vit. K given to baby	Signs and symptoms of HDN
400	50	None

**TABLE - 5 Total No. of deliveries and modes of delivery**

Total No. of deliveries	Vaginal delivery	Caesarean delivery	Breech Vaginal delivery	Forceps	Twins vaginal
400	244	135	9	8	4

**TABLE - 7 Feeding problems in newborn babies**

Total No. of deliveries	Difficulty in Establishment of lactation	Breast Engorgement	Short nipple	Soft nipple	Retracted nipple
400	52	13	23	4	0

**TABLE – 6 Ultra sonography and observations of fetal anomaly obstetrician**

	No. of cases	Detection by USG	Observed by Obst.	Outcome
left lip	1	Not	1	Good
left palate	1	1	1	Good
left lip + Palate	4	3 detected + 1 not detected	4	Good
achaloesophageal tula	1	Not	1	Expired
meningomyelocele	1	1	1	Good
hydroreter/ nephrosis	10	10	Postnatal USG (n) (10)	Good

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