

Maternal & Child Health (MCH) – Part -4 Child Health Care

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Lecture - 7



Learning Objectives

- By the end of this lecture the students will be able :
- 1-To Focus on Child Health Care &its renewed determinants
- 2-To display the classification of childhood periods, and to identify infancy period.
- 3-To recognize Neonatal care
- 4- To Review early neonatal care
- 5-To Explain the items of Immediate neonatal care



Child Health Care

This subject focuses on age groups (0- under 15 years), this is most important age group in all societies, not because they are constituted about 40% of the total population, but because :

- there is renewed awareness regarding the determinants of chronic disease in later life,
- health behavior are laid down at this stage.
- family influences and education are of the highest importance and influences pattern of their future lifestyle, occupational skills, and even political attitude and leadership



-Childhood also important because of so called socialization process, that is transmission of attitudes , customs and behaviour

-Childhood vulnerable to disease, death and disability owing to their age , gender, place of living, socio-economic class and a host o other variables .

-certain specific and biological and psychological needs must met to ensure the survival & healthy development of the child and future adult.



Childhood Age Periods

It is important to divide childhood into the following age periods:

- 1-Infancy (0-up to 1 year of age)
 - a-Neonatal period (first 28 days of life)
 - b-Post neonatal period (28th day till one year)
- 2-Pre-school age (1- 5 years)
- 3-School age (6-< 15 years)



Infancy

Infant (0-1) year constitute approximately 2.92 % of total population, of the 136 million children born each year in the world 90% are in the developing countries. Although the chance for survival of these newborn has improved by 50% in the last 20 years, but the first few hours, days and months of their lives are still an obstacle challenging field .



From the time of birth 20-30% are underweight which make them vulnerable to infection & diseases. About 40% of total infant mortality occurs in the first month of life. Then comes the weaning period when one out of four surviving children receive neither the quality nor the quantity of food needed to replace the substances provided by mother's milk. The result that more & more children in developing countries reach adulthood with impaired health.



Neonatal care

- This aspect of family health termed Neonatology. This branch of medicine is perhaps more than any other dependent on teamwork in which disciplines of obstetrics and gynecology, pediatrics, preventive and social medicine, community health services and nursing have an important role to play if any problem with perinatal and neonatal morbidity and mortality. the pediatrician has a key role as a coordinator and guide for the whole team.



Early neonatal care

The first week of life is the most crucial period in the life of an infant . This is because the newborn has to adopt itself rapidly and successfully to external environment. The risk of death is the greatest during the first 24-48 hours after birth. The problem is more acute in rural areas where expert obstetric care is scarce and the home environmental conditions in which the baby is born are usually unsatisfactory.



Objectives of early Neonatal Care

The objectives of early neonatal care are:
-to assist the newborn in the process of adaptation to an alien environment which involve :

- 1-establishment and maintenance of cardio- respiratory function
- 2-maintenance of body temperature
- 3-avoidance of infection
- 4-establishment of satisfactory feeding



- 5-early detection and treatment of congenital and acquired disorders and infections.
- Congenital infections caused by toxoplasmosis, rubella, Cytomegalovirus , human (alpha) herpes -virus-1 or 2 human (beta) herpes virus and syphilis (TORCHES syndrome *) associated with high mortality in the neonates.



*TORCH Syndrome

- TORCH Syndrome refers to infection of a developing fetus or newborn by any of a group of infectious agents. "TORCH" is an acronym meaning (T)oxoplasmosis, (O)ther Agents, (R)ubella, (C)ytomegalovirus, & (H)erpes Simplex. Infection with any of these agents (i.e., *Toxoplasma gondii*, rubella virus, cytomegalovirus, herpes simplex viruses) may cause a constellation of similar symptoms in affected newborns. These may include fever; difficulties feeding; small areas of bleeding under the skin, causing appearance of small reddish or purplish spots; hepatosplenomegaly; jaundice; hearing impairment; abnormalities of the eyes; with abnormalities depending upon a number of factors (e.g., stage of fetal development).



Immediate neonatal Care

1-Clearing the airway

Establishment & maintenance of cardio-respiratory function, (e.g., breathing), is the most important thing at moment the baby is born, and every else is secondary. to help establish breathing, the airway should be cleared of mucus and other secretions.

positioning the baby with his head low may help in the drainage of secretion. this process can be assisted by the gentle suction to remove mucus and amniotic fluid.



Resuscitation becomes necessary if natural breathing fails to establish within minute , as in the case of babies who have already been subject to hypoxia during labour . in these cases, resuscitation may require more active measure such as suction, application of oxygen mask, intubation and assisted respiration . All labour wards should be equipped with resuscitation equipment including oxygen if the heart has stopped beating for 5 minutes , the baby is probably dead .

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- 2-APGAR SCORE

The Apgar score is taken at 1 minute & again at 5 minutes after birth. It requires immediate and careful observation of the heart rate, respiration, muscle tone, reflex response and color of the infant. Each sign is given a score of 0 , 1 , 2. It provides an immediate estimate of the physical condition of the baby. A perfect score should be (9 or 10). If the score (0-3) that indicated the baby is severely depressed, while (4-6) indicated mild depression. A score below 5 needs prompt action. **Infants with Low Apgar score at 5 minutes of age are subject to a high risk of complications and death during the neonatal period.**



Table -1 Apgar Score

| Sign | 0 | 1 | 2 |
|---------------------|-------------------------|--------------------------------|-----------------------|
| Heart rate | Absent | Slow (below 100) | Over 100 |
| Respiratory efforts | Absent | Slow irregular | Good crying |
| Muscle tone | Flaccid | Some flexion of Extremities | Active movements |
| Reflex response | No response | Grimace | Cry |
| Colour | Blue, pale | Body pink Extremities blue | Completely pink |
| Total score = 10 | Sever depression 0-3 | Mild depression 4-7 | No depression 7-10 |



3-Care of the cord

In case of normal infant , the umbilical cord should be cut and tied when it has stopped pulsating. Care must be taken to prevent tetanus of the newborn by using properly sterilized instruments & cord ties.it is essential to apply an antiseptic preparation on the cord stump and skin around the base.

4-Care of the eyes : before the eyes are open , the lid margins of the newborn should be cleaned with sterile wet swabs.



- 5-Care of the skin : when a baby is a few hours old , the first bath is given with soap and warm water to remove vernix, meconium and blood clots.

6-Maintenance of body temperature

- The normal body temperature of the newborn is between 36.5 to 37.5 C. immediately after birth most of heat loss occurs through evaporation of amniotic fluid from the body of the wet child. As much as 75% of the heat loss can occur from the head. It is important that immediately after birth the baby is quickly dried with a clean cloth and wrapped in warm cloth and given to the mother for skin to skin contact and breast feeding.



7-Breast feeding

Breast feeding should be initiated within an hour of birth instead of waiting several hours . although there is little milk at that time it help to establish feeding and a close mother – child relationship, known as bonding. The first milk which is called “ colostrum “ is the most suitable food for the baby during this early period because it contains a high concentration of protein and other nutrient the body need.it is also rich in anti-infective factors which protect the baby against respiratory infections and diarrheal diseases. The regular milk comes on the 3rd to 6th day after birth. Feeding the baby on demand helps the baby to gain weight. It is very important to advice mother to avoid feeding bottles.



Thank You

