

Ideal Start to Human Life

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Any beginning is a birth – of life, of human beings, of an idea, of a concept, of a project – and a good start means everything. A newborn holds great promise, and a baby signifies a new beginning! At the start of this New Year, let us vow to give the best possible care to the future of the country.

At the start of my Presidential tenure, I wish to highlight some basics about ideal delivery room care, feasible in any setting, at an individual level. India holds a unique dubious distinction of contributing to maximum newborn deaths and still births across the globe. Newborn period seems to be the most “at risk” period in the life of a human being. Four out of five newborn deaths result from three treatable conditions – complications from prematurity, infections and complications during childbirth, including asphyxia [1]. There are simple, effective, evidence-based, low-cost interventions available to get newborns to a healthy start. Indian Academy of Pediatrics (IAP) is committed to the cause of newborn, and supports, promotes and advocates these basic interventions.

DELIVERY ROOM ‘SUTRAS’

- 1. Antenatal Corticosteroids (ACS):** Each year, over one million newborns die due to complications of preterm birth, most commonly respiratory complications. ACS are considered to be the most effective intervention for the prevention of respiratory distress syndrome (RDS), reducing neonatal mortality and morbidity [2]. When preterm delivery is imminent (24-34 weeks gestation), the administration of ACS to the mother can help fetal lungs to rapidly mature improving the chance of survival [3]. Immediate action is needed to increase the awareness, knowledge and coverage of ACS to save preterm newborn lives.
- 2. Anticipate, Be Prepared:** Up to 50% of times, asphyxia or a preterm labor sets in unexpectedly. Preparation to tackle such emergencies demands presence of skilled personnel, functional equipments for various sizes, early detection, and prompt intervention. It is said “failing to prepare is preparing to fail”. A simple tool in the delivery room is to use a

checklist at the time of birth [4].

- 3. No Routine Interventions:** Up to 90% of times, the newborn establishes spontaneous respiration and cry, and does not need any active intervention. What is expected is masterly inactivity and assisting the transition from intrauterine to extrauterine life. However, the urge to do something involves unnecessary interventions such as getting the newborn under warmer, immediate cord clamping, separating the mother and newborn, slapping the baby, holding the baby upside down, suctioning the oral cavity, oxygen administration, cord application, eye drops, bathing at birth and vernix removal. When a health care provider intervenes, there should always be evidence that the intervention is likely to do more good than harm.
- 4. Room Air Resuscitation:** Up to 10% of newborns need some interventions at birth and majority of these respond to initial steps (warmth, position, suction, stimulation); some require initiation of bag and mask ventilation with room air in the “Golden minute” after birth. These skills are easy to learn for all healthcare providers, and when delivered effectively have significant potential to save lives. Less than 1% of newborns require intensive resuscitation, including intubation, medications and chest compressions.
- 5. Skin-to-skin Contact:** Early skin-to-skin contact is strongly recommended in well babies, starting in the delivery room. It involves placing the naked baby, head covered with a dry cap and a warm blanket across the back, prone on the mother’s bare chest. Kangaroo care is recommended for the routine care of babies weighing 2000 g or less in all health facilities, as soon as they are clinically stable.
- 6. Delayed Cord Clamping:** Delayed umbilical cord clamping (not earlier than 1 min after birth) is recommended for improved maternal and infant health and nutrition outcomes for all well newborns (term and preterm). The benefits include increased blood volume, reduced need for blood transfusion, decreased incidence of intracranial hemorrhage in

preterm infants, and decreased frequency of iron deficiency anemia in term infants [5].

7. **Breastfeeding in the First Hour:** Breastmilk is the birth right of all newborns. It is universally acknowledged to be the best and complete food for infants as it fulfills specific nutritional needs. Taking advantage of the infant's alert state and intense suckling reflex, putting the baby onto mother's breast early has immense benefits. These include successful initiation, maintenance and prolonged duration of breastfeeding, decreased risk of infection, decreased risk of death, fostering bonding between mother and child, and reduced maternal risk of postpartum hemorrhage [6].
8. **Rooming In:** Separation of mothers and babies after birth is a common practice in many facilities. However, there are immense benefits of ensuring that mother and infant dyad stays together: optimizing the newborn transition as regards respiration, crying and breastfeeding behaviors, preventing hypothermia, increasing the chances of exclusive and longer-term breastfeeding, protection from negative effects of separation, supporting optimal brain development, reducing maternal mental stress, and possibly preventing postpartum hemorrhage are some of these [7].
9. **Best Preventive Practices:** All newborns need clean hands, clean delivery, clean surface, clean cord cut and clean cord tie at birth. Handwashing and use of disposables, where indicated, are simple measures that have significant impact. Vitamin K needs to be given to prevent vitamin K deficiency bleeding disorder [8]. Early detection of high risk newborns and danger signs can lead to early referral and prompt management. Provision of Essential Newborn Care (ENC) decreases all-cause early (7 day) neonatal and perinatal mortality in infants >1500 g born even at the community level [9].
10. **Continuous Positive Airway Pressure (CPAP):** In preterms, RDS is an important cause of morbidity and mortality. Provided CPAP at earliest signs of respiratory distress reduces need for intubation and decreases mortality. This intervention can be a boon for babies born in under-resourced settings primarily because of its non-invasive nature. Many lives can be saved and upward referrals can be reduced [10]. There is need to upscale training of health-care professionals in CPAP application, monitoring and weaning.

The most basic human right is "right to life." This seems to

be denied when it comes to newborns in resource-constrained settings. I appeal to all the members of IAP to put into practice these simple, doable measures which are feasible in all set ups and can help save newborn lives. Each of us as an individual can put in the best efforts within the practice scope and ensure an ideal start to human life.

IAPians, as ambassadors of neonate, must try their best to prevent **Infections, Asphyxia and Prematurity**.

REFERENCES

1. India Newborn Action Plan, 2014. Child Health Division, Ministry of Health & Family Welfare, Government of India. Available from: <http://nrhm.gov.in/images/pdf/programmes/inap-final.pdf> Accessed December 5, 2015.
2. Use of Antenatal Corticosteroids in Preterm Labour (Under Specific Conditions by ANM). Operational guidelines, 2014. Available from: http://nrhm.gov.in/images/pdf/programmes/childhealth/guidelines/Operational_Guidelines-Use_of_Antenatal_Corticosteroids_in_Preterm_Labour.pdf Accessed December 05, 2015.
3. WHO Recommendations on Interventions to Improve Preterm Birth Outcomes, 2015. Available from: http://apps.who.int/iris/bitstream/10665/183037/1/9789241508988_eng.pdf?ua=1 Accessed December 05, 2015.
4. Kattwinkel J, editor. Textbook of Neonatal Resuscitation. 6th ed. Elk Grove Village. IL: American Academy of Pediatrics; 2011.
5. WHO. Guideline: Delayed Umbilical Cord Clamping for Improved Maternal and Infant Health and Nutrition Outcomes. Geneva, World Health Organization; 2014. Available from: http://www.who.int/nutrition/publications/guidelines/cord_clamping/en/ Accessed December 05, 2015.
6. Debes AK, Kohli A, Walker N, Edmond K, Mullany LC. Time to initiation of breastfeeding and neonatal mortality and morbidity: a systematic review. *BMC Public Health* 2013;13(Suppl 3):S19
7. Hormonal Physiology of Childbearing: Evidence and Implications for Women, Babies, and Maternity Care. Sarah Buckley, 2015. Available from: <http://childbirthconnection.org/pdfs/CC.NPWF.HPoC.Report.2015.pdf> Accessed December 05, 2015.
8. Operational Guidelines. Injection Vitamin K Prophylaxis at Birth (in facilities). Child Health Division, Ministry of Health & Family Welfare, Government of India, 2014. Available from: http://nrhm.gov.in/images/pdf/programmes/child-health/guidelines/Vitamin_K_Operational_Guidelines.pdf Accessed December 05, 2015
9. WHO Essential Newborn Care Course (2010) - Training Tool. Available from: www.who.int/making_pregnancy_safer/documents/newborncare_course/en/ Accessed December 05, 2015.
10. Deorari A. Continuous distending pressure for respiratory distress in preterm infants: RHL commentary (last revised: 1 January 2010). The WHO Reproductive Health Library; Geneva: World Health Organization.