

The provision of health is in domain of individual states but Federal/Central Govt. provide the policy of guidelines and resources for any national programmes. As opposed to recommended allocation of 5 % and 15 % of Gross National Product for health and education respectively by W.H.O., India spares only 2.1 % of GNP for health and education. Only 15 % of health budget is spent on MCH.

Due to integrated child survival services scheme the infant mortality rate has come down to 74/ 1000. All India Post Partum programme was introduced three decade ago for providing population control services and immunization. But no inputs have been provided to create level II new born care facility.

Govt. of India launch the Child Survival and Safe Motherhood Programme with the help of World Bank and UNICEF in 1992. child survival component comprises of universal immunization, VitaminA PROPHY-LAXIS, and rational case management if acute Diarrohea and acute respiratory infection and essential new born care, Neonatal resuscitation and care of sick and low birth weight babies in community.

In 1997 the CSSM PROGRAMME has been replaced by the integrated RCH PROGRAMME. The concept of neonatology first started in early sixties and since then there has been a gradual increase in the number of such units in the country.

In a survey in 1987 only four hospitals was equipped with level II neonatal units.

At present 30 Neonatal nurseries fulfill the requirement of level II units. Intensive care services and Ventilation are provided by fifteen of them. Most of them are located at Teaching hospitals in metropolitan cities. National Neonatal Forum was formed in 1980.

Neonatal Resuscitation Programme was launched in 1985 and around 200 paediatrician have been trained. National Neonatal Perinatal Data Network is located at All India Institute Of Medical Sciences, New Delhi.

Neonatal forum has conducted regular annual meetings with Indian Society of Perinatology and Reproductive Biology to enhance collaboration with obstetrician for improving New born survival.

Innovative strategies further care of newborn has been introduced by introduction of spoon and cup feeding, expressed breast feeding to very small babies in NICU. Most of NICU are focusing efforts on babies 1000 gms. Only a very few tertiary care centers are focusing the care of babies upto 750 gms.

Unlike developed countries where cross training nurses has revolutionized the new born care, in India resident doctors have been trained for this. Due to unsatisfactory referral systems efforts are being made to develop module for identification and management of sick new born babies in community.

The future perspective are to improve maternal health, to raise female literacy, to launch health education programme.

Further expansion and strengthening the facilities at First Referral units and District Hospitals and better utilization of MCH Services. Basic Antenatal care to all the pregnant mothers delivers to be conducted by trained birth attendants in community. High risk pregnant women to be referred to hospitals for delivery. Level II perinatal services to all the medical colleges, political commitments, community involvement and multisectoral approach to health is key to health for all.

It is hoped due to economic liberalization the MCH care in private sector women expand rapidly and there will be a significant improvement in the status of Neonatal services..

## L125

### **CAN WE GET MORE INFORMATIONS FROM PERINATAL AUTOPSY?**

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Most of neonatal deaths occur in perinatal period in developing countries and there are some differences of mortality rates in one country to another.

Recently, non-invasive techniques for fetal analyses and studies for diagnosis in malformations and hereditary diseases get more people to make detailed pathological analysis of death fetuses and stillbirths. Informations obtained by perinatal autopsies are useful in clinical applications and different scientific areas.

There are important benefits of autopsy like understanding death reason abnormalities in growth of fetus, control of the health care units, correlation of clinical findings, supplement of cumulative national and

international statistics and standardize of autopsy report. Also, these benefits obtain more information to clinicians, families, pathologist and science for healthier babies in the world.

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### EVALUATION OF OXIDATIVE STRESS

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Background: The main structure of living bodies is human cells. To evaluate the function of the cell (especially mitochondria) is nowadays indirectly estimated from the perspective of blood. The values are differentiated in arterial, capillary, venous blood and in intercellular structure. In order to make an exact estimation, all blood values have to altogether discuss under the patronage of clinical evaluation (including neurological, respiratory and other organ system functions, also concerning gut/liver, immune response).

Objectives: Blood gases are classified as; a) Blood gases; pH, pCO<sub>2</sub>, pO<sub>2</sub>, b) Oxygenation: ctHb (Total blood hemoglobin concentration = cO<sub>2</sub>Hb-oxy + cHHb-deoxy + cCOHb-carboxy + cMetHb-met), Hctc, sO<sub>2</sub> (Make correlation with ctHb, oxygen saturation = cO<sub>2</sub>Hb/cHHb + cO<sub>2</sub>Hb), FO<sub>2</sub>Hb (Oxyhemoglobin ratio = cO<sub>2</sub>Hb / cO<sub>2</sub>Hb + cHHb + cCOHb + cMetHb), FHb, FmetHb, FetalHb, c) Electrolytes: Na, K, Ca, Cl, d) Metabolic values: Glucose, lactate, bilirubin, mOsm, d) Status of oxygen: ctO<sub>2</sub> (Content = Hb (g/dl) x 1.34 ml O<sub>2</sub> / g Hb x saO<sub>2</sub> x (0.003 ml O<sub>2</sub>/mmHg/dl), p50, e) Acid-base status: cBase, cHCO<sub>3</sub>, ABE, SBE, AG (Anion gap = [Na + K] - [Cl + HCO<sub>3</sub>]).

Design: The values will be taken arterial and venous simultaneously. After the treatment the values can be effect between 2-5 minutes. If you'll obtained no response, than change your approach. Don't just give intravenous fluid, but make reperfusion, prevent the baby from ischemic perfusion complications and edema.

Subjects: The values are not taken alone. We have to discuss the correlations with the concerning parameters. E.g. baby A with paO<sub>2</sub> 85 mmHg, saO<sub>2</sub> 95%, Hb 7 g/dl, is more hypoxemic than the other baby B with paO<sub>2</sub> 55 mmHg, saO<sub>2</sub> 85%, Hb 15 g/dl. CtO<sub>2</sub> is 8.9 in baby A, but 17.1 mlO<sub>2</sub>/dl in baby B.

Conclusion: All for one, one for all will be the main topic for evaluation of blood gases. All the components will be systematically examined and must make a correlation with the clinical findings.

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### RISK APPROACH TO INTRAPARTUM CARE

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Today obstetric practice has been totally revolutionised the advances in technology and their wide spread clinical application to the antenatal care has led to a drastic decrease in maternal and perinatal mortality and morbidity in the western world.

But inspite of all the new procedures at the disposal of an obstetrician undesirable complications still occur and more so in the developing countries. Almost 10% of such events can be diagnosed and predicted and 48% of these are avoidable.

To reduce the undesirable events a risk approach to pregnancy during the antenatal period and during the intrapartum period is recommended.

We at our tertiary obstetric care centre in Agra have evaluated the Risk approach in 1000 obstetric cases and have compared our figures with the primary health care delivery system in India.

The results have shown a maternal mortality of 1 in 1000, perinatal mortality of 10 in 1000 and a morbidity rate of 5 per 1000 as compared to our national figure of maternal mortality of 10/1000, 110/1000 perinatal deaths and a morbidity of 150/1000.

Today a Risk approach to all antenatal and intrapartum cases is strangely advisable.