

## **Proposal for Project-Little Miracles-An Initiative to Save The New Borns**

**By**

**Rotary Club of Coimbatore Cotton City**

**In Collaboration With**

**Sri Ramakrishna Hospital, Avarampalayam, Coimbatore.**

Neo-natal Intensive Care Unit (NICU) patients are new-borns who require specialized medical care due to premature birth, low birth weight, congenital defects, infections, or following surgeries and other complications. NICU patients face many challenges and risks, such as respiratory distress, bleeding, infection, brain damage, and developmental delays. NICU care is costly and also stressful for the families and caregivers of these vulnerable infants.

According to the World Health Organization (WHO), an estimated 15 million babies are born pre-term every year, and more than 1 million die due to complications. Pre-term birth is one of the leading causes of death among children under 2 years of age. Moreover, pre-term birth and its associated conditions account for several billions of rupees in cost at a national level.

Prematurity accounts for 10% of all births; and in India, about a third of the neo-natal deaths are caused by prematurity. Work on saving these tiny babies is the biggest mover of neo-natal mortality rate. With modern NICU care and technology along with improvements in perinatal care, survival of these extremely pre-term babies have jumped manifold.

The NICU at Sri Ramakrishna Hospital is a referral centre for sick newborns. It is a 22-bed tertiary level state-of-art facility and cares for hundreds of pre-term infants, some as young as 23-24 weeks of gestation and 600 grams at birth. More than 600 babies graduate out of their NICU every year to join their happy families. The NICU has facilities for:

1. Mechanical Ventilation including high frequency oscillatory ventilation for sick newborns;
2. Inhaled Nitric Oxide Therapy – one of 2 centres in the city to have such facility;
3. Non-invasive respiratory support like C-PAP and High flow Oxygen Therapy;
4. Whole body Cooling Treatment for birth asphyxia babies (one of 2 such centres in the city);
5. Total Parenteral Nutrition;
6. Cardiac and General Surgeries for Neonates;
7. Humidity controlled Incubator for very small babies;
8. Developmentally Supportive Care for optimal brain growth; and
9. Transport Incubators for transporting new-born babies from other hospitals.

Their high success rates are due to strict adherence to evidence-based practices, infection control measures, the use of the latest technologies available in the field of neo-natology and above all, meticulous intensive care nursing.

For the last 2 years, their data is as follows:

Year	Total NICU Admissions	Survival n (%)	Death n (%)
2022	611	605 (99 %)	6 (1%)
2023	555	547 (98.5%)	8 (1.5%)

Year	Total Pre-term (<37 weeks)	Survival of all Pre-term	Very & Extremely Pre-term (24-32 weeks)	Survival of Very and Extremely Preterm	Extremely Preterm (<28 weeks)	Survival of Extremely Pre-term
2022	370	98.3%	119	96.6%	34	88.2%
2023	307	98%	76	92%	27	82%

These numbers compare very well with the latest survival data from the well-developed countries. Higher the prematurity, higher is the risk for mortality – however, even in this subset of extremely pre-term babies their survival is more than 80-85% which is as good as the best.

If NICU care is sub-optimal, such pre-term babies are at a higher risk of developing problems later in childhood such as cerebral palsy, severe developmental delays, and poor school performance which in turn disrupt families and societal functioning. With exceptional care in NICU these problems are minimized to a great extent and in the last decade it has been shown that most of their extremely preterm babies are doing well with some of them even topping their schools.

**However, caring for babies in NICU is expensive and is out-of-bounds for many low-income socio-economic families. Care in a good NICU is expensive due to the use of costly equipment and higher nurse/doctor attention to patient ratio. Attempts to reduce costs have been only partially successful and are often at the expense of good dedicated hospital care.**

NICU babies, especially extremely pre-term **neonates require 2-3 months of stay** and expenses run into several thousands of dollars. Families of such infants struggle to meet expenses, and, in several instances, the normal socio-economic fabric of the family is disrupted. **Many families decide to discontinue care for this precise reason and hence a significant number of babies die or receive suboptimal care in smaller NICUs resulting in long term developmental problems and adding to long term morbidity at a community level.**

**The NICU has 3 levels of care:**

**Level 3:** Critically sick babies who are on ventilator/non-invasive respiratory support, need drugs to maintain blood pressure and heart function, on treatment for sub-normal brain function (seizures/encephalopathy), need Intra-Venus nutrition have infection in the bloodstream/brain, and/or neonates after major surgeries.

**Level 2:** This is post critical care where the baby's various systems are supported to achieve good growth and development and also to recover following surgeries/infections/hypoxia etc. A baby in Level 2 care is typically on nasal C-PAP support/oxygen support, is nursed in a warmer/incubator, on OG feeds and is progressively weaned off Intra-Venal supports. Baby is also given developmentally supportive care such as skin to skin care with parents, music therapy and therapies to develop oral feeding skills. Neonates continue to need continuous cardio-respiratory monitoring, medicines to help with breathing and nutrition and might need antibiotics for any breakthrough infection in Level 2 care also. Serial testing of blood is done to see that growth and bone development is normal. Ultrasound scans of the brain and other organs are done to monitor brain growth. Eyes are checked from 1 month of age to ensure normal retina development in pre-term babies.

**Level 1:** Neonates prior to discharge to home are transitioned to Level 1 care where the babies are made ready to go home. They are checked to see if they maintain body temperature warmer support, and that they are able to maintain oxygen levels without support. In Level 1 care most of the care is given by parents under nursing supervision so that they are confident of taking care of babies at home.

**Follow up care:** The babies post their discharge from the hospital are reviewed every 2 weeks until they reach 40 weeks of gestational age, monthly thereafter till 3.5 months of corrected age and every three months till they are 2 years. Such a close follow up will help with rigorous neurodevelopmental follow up and institution of early interventional therapies such as physiotherapy/occupational therapy/speech therapy/behavioural counselling if required.

Usually, an extremely premature baby (i.e. a baby born < 28 weeks of gestation) spends the first 2-3 weeks in Level 3 care and is at higher risk to life during this period. Subsequently the baby spends about 3-6 weeks in Level 2 care depending on the baby's birth weight and gestation and about less than a week in Level 1 care. **A baby who has moved to Level 2 care is not critical but still needs NICU care for about 3-6 weeks.**

Families of very small babies generally express their financial difficulties during the long Level 2 care period – they would benefit from financial support during this phase of NICU stay.

**THERE IS NO INSURANCE SUPPORT OR PRE-NATAL PREMIUMS BY ANY INSURANCE COMPANY FOR THESE YOUNG PARENTS. THEY LOOSE THEIR SAVINGS AND THEIR NEW BORN DUE TO LOW INCOME AND FINANCIAL SUPPORT.**

If the above stated babies are provided financial aid the hospital would be able to retain and support a greater number of patients and provide them with even better care than is being offered currently and save these little ones and build a healthier community.

## **ROTARY CLUB OF COIMBATORE COTTON CITY'S VISION**

“We, at Rotary Club of Coimbatore Cotton City, propose to help meet the financial requirements of such families and help to save tiny lives so that these children reach their life's potential to the fullest.”

The funding could be arranged in different ways and to support different initiatives in the NICU. **WE PROPOSE to -**

- **DIRECTLY SPONSOR NEEDY PATIENTS AT LEVEL 2 OF NICU CARE**, where the patients have crossed the critical phase but still are at a stage if withdrawn from the NICU care may not survive.
- **DIRECT FUND TRANSFER TO THE HOSPITAL FOR THE PURPOSE OF BILL PAYMENT.**
- Offer NICU parents peer support and referrals to community resources through volunteers, patient help groups, NGOs, etc.
- **A FOLLOW UP REVIEW PROGRAMME** to review the development status of the selected babies shall be adhered to in consultation with the department of Neonatology Sri Ramakrishna hospital Coimbatore for period of 2 years.

The above-mentioned project would be supported by **Dr. Siddharth Buddhavarapu, MBBS. MD. FNPM., HOD-Department of Neo-Natology, Sri Ramakrishna Hospital, Coimbatore.**

We hope that with the above-funded program that we will be able to retain and support a greater number of patients; and provide them with even better care than is being offered currently. We have suggested – “**LITTLE MIRACLES - An initiative to Save New-Borns**” as the acronym for the project, which could stand for Low Income Support Program by Rotary Club of Coimbatore Cotton City at Sri Ramakrishna Hospital NICU Coimbatore.

### **THE FINANCIAL PROPOSAL FOR THE PROJECT**

The total cost for the project would be **US\$30,000/-** (United States Dollar Thirty Thousand Only).

**ROTARY CLUB OF COIMBATORE COTTON CITY proposes to contribute a sum of US\$15,000/-** (United States Dollar Fifteen Thousand Only). Our Club is looking to seek support of US\$15,000/- (United States Dollar Fifteen Thousand Only) from Rotary International, District 3201 and International Partner Club.

**A sum of US\$600/-**(United States Dollar Six Hundred Only) shall be given to each child if the **billing amount exceeds US\$3,600/-** (United States Dollar Three Thousand Six Hundred Only).

**THE TOTAL NUMBER OF LIVES WE CAN SAVE ARE - 50 PRE-TERM BABIES.**

**OUR HOSPITAL PARTNER SRI RAMAKRISHNA HOSPITAL HAS AGREED TO PROVIDE SUBSIDIZED TREATMENT COST TO THESE LOW-INCOME GROUP PARENTS WHO HAVE NO**

FINANCIAL AIDS IN THE FORM OF INSURANCE OR GOVERNMENT SUBSIDIES AND ALSO PROVIDE **POST DISCHARGE FOLLOW UP AND THE REQUISITE CARE FOR A PERIOD OF 2 YEARS TO THESE BABIES.**

We are looking for International Partner Clubs and District Partners for our Project – **“LITTLE MIRACLES– An initiative to save the New-Born”**.

We request our District Officials of RID 3201 to guide us and support us for the same.

Thank you for your interest in this project and expecting a long-lasting relationship with the Rotary Club of Coimbatore Cotton City (Rotary CLUB-ID 80414 DIST 3201).