



Dr Shivkumar Lalwani

MBBS, DCH, DNB, MD, IAP Fellowship in Neonatology, Consultant Neonatology
At Dr L H Hiranandani Hospital

NICU- overcoming challenges!!

Our 9 bedded Level III NICU is located on second floor just next to the labour room delivery suites. Caesarean sections are done in OTs that are located on the second floor itself.

The Infrastructure

For the NICU to have a positive impact on the preterm neonate, it should be optimally equipped. High end volume ventilators (to prevent lung injury), CPAP units, radiant warmers, LED phototherapy units(more effective than conventional units), multipara monitors, infusion pumps and syringe pumps have become basic necessity and standard of care. Some diseases like hypoxic ischaemic encephalopathy need expensive equipment for whole body cooling and cerebral brain function monitoring.

The staff (nurses and doctors)looking after the neonates should be trained and have skills to anticipate and prevent problems and if they develop, to identify and treat as soon as possible, as NICU is a 24*7 place where monitoring is a must at all times.

There are a lot of allied services that are required to support the unit. Besides laboratory, X ray and sonography (head ultrasound), other department contributions are invaluable like pediatric cardiology (congenital cardiac anomalies,

PDA), pediatric surgery (congenital anomalies, neonatal surgical complications), ophthalmology (for detecting & treating ROP), physiotherapy (for early intervention program)and audiology (to detect and refer hearing impairment). To have all these services under **one roof and around** the precious neonate is in itself a challenge. There is a need of sufficient place in NICU for mother to express breast milk(that can be fed to her newborn) and to give kangaroo mother care (promote skin to skin contact of newborn and mother).

Though it is always better to transfer mother (who is anticipating neonatal issues) to a hospital with NICU facility, many a times one has to retrieve a newborn from the referring maternity hospital. This requires ambulance service, transport incubator and other equipments and staff trained in handling transport of sick neonates.

The functioning

One of the prime areas that have a direct impact on nicu stay is infection control. A strong infection control team that does regular audits and implements strategies to reduce the rate of NICU sepsis is of utmost importance.

Preterm babies have to stay in the unit for prolonged periods which is a challenge for the parents. Also the cost of care

should be affordable though remaining sophisticated. The goal is an intact neuro developmental survival.

Due to the prolonged stay and involvement with the whole family, there is a rapport developed between the neonate's family and the care giving staff. When a baby does not survive, the loss and grief is felt by the family as well as the staff. This can be emotionally draining and stressful for both. Being able to identify care giver burnout and finding healthy outlets for stress is crucial for the mental well being of the staff.

The followup

The neonates that are discharged home need a regular follow up in a specialized OPD to monitor their growth & development. This is important for the safe and smooth transition. We run Hope clinic every Tuesday at 2 pm for them.

NICUs are a challenging place to work, but also rewarding. Being able to establish a relationship with the infant and family for days, weeks, and sometimes months allows the staff to enjoy the rewarding feeling of **making a difference**. Being present, when a baby is finally healthy enough to go home is priceless.