

ANTENATAL AND INTRAPARTUM FETAL SURVEILLANCE AND RESUSCITATION – The role of a Neonatologist

Dr. Nabirye Loy Byaruhanga

Paediatrician

Neonatologist

Kawempe NRH

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Neonatologist role

- Multifaceted
- Aims to bridge the gap between prenatal diagnosis and post natal care for a smooth transition for the baby and provision of ongoing support to the family
- Neonatologists should be at the fore front of advancing neonatal care and improving the health and well being of new borns.

Key roles

- Prenatal consultation and planning especially in high risk pregnancies
- Risk assessment
- Counselling and education
- Multidisciplinary collaboration for comprehensive delivery planning
- Presence during delivery and Delivery room care and resuscitation
 - Monitoring vital signs
 - Performing emergency procedures
- NICU
- Post NICU/NBU Care and other evolving roles

Prenatal Consultation and Planning

Especially in the following conditions

- High risk pregnancies – DM, SPET, Rhesus negative with high antibody titres, Thyroid disease, autoimmune disease
- Congenital anomalies – chromosomal disorders, CHD, GIT, CNS
- Poor obstetric history
- Intrapartum risk to the fetus - Fetal distress



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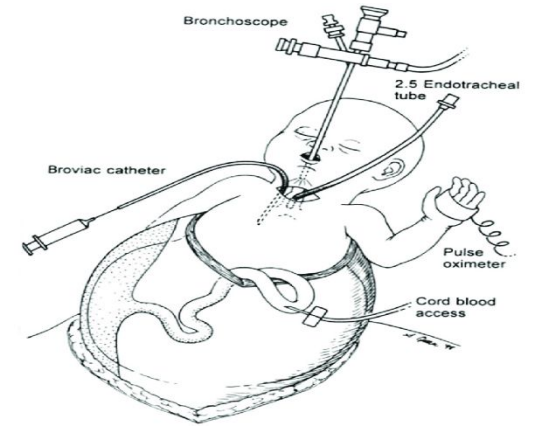
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Risk assessment

It involves understanding the extent of the risk to the fetus and planning accordingly

- Preparation for delivery
 - Resuscitation in DR
 - Thermal neutral environment
 - Respiratory support
- Coordination of care
 - EXIT Procedure
 - NBU/NICU space/bed preparation
- Coordination of interventions
 - Immediate echo, paed surgery, neuro surgery intervention



Counselling and education

- Counsel especially about complex conditions
- Discuss possible/imminent challenges
- Prepare for arrival and potential NICU stay



Multidisciplinary collaboration for comprehensive delivery planning

- Multidisciplinary collaboration for comprehensive delivery planning
- Involvement of other disciplines as needed by the baby's condition



DR Attendance, Care and Resuscitation

- Direct delivery room resuscitation
- Provide care from birth
 - Thermal regulation/warmth
 - Emergency procedures
- Assessment of baby's condition
 - Monitoring vitals and complications
- Provide respiratory support –
 - NIRS – NPO2, CPAP/BiPAP or
 - IRS - Mechanical ventilation
- Provide other necessary intervention – eg EXIT



NICU

Comprehensive care

Multidisciplinary team coordination

- Parental support and education
- Respiratory support
- Treatment of infections
- Haemodynamic support/stabilisation
- Management of birth defects
- Coordination of specialised care – surgery to ensure comprehensive care and best possible outcome for the infant



Care beyond the NBU/NICU

- Long term follow up and care
- Developmental assessment
- Managing chronic conditions
- Coordination with paediatricians
- provision of necessary therapy – Physiotherapy, OT, ST
- Support for developmental milestones



Evolving role – expansion/advancement

- **Telemedicine** to provide expert consultations and support to remote areas, improving access to specialised neonatal care
- **Genetic and genomic medicine** - integrating genetic and genomic medicine information into neonatal care to better understand the underlying causes of certain conditions and develop targeted treatment
- **Research and innovation** – participation in research to advance the understanding of neonatal conditions and develop new treatment and interventions that improve outcomes for new borns

Breath, Live and Thrive – Thank you

