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4th ABUJA PERINATAL SYMPOSIUM

Let The Newborns Breathe!

Stabilization, Referral, and Transport of the Sick Newborn

Improving Neonatal Outcomes Through Standardized Protocols

Dr. Akudo Kanu FMCPead

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Case Scenario

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01. CASE SCENARIO

- A baby boy was born at a PHC centre at 32 weeks gestation, weighing 1800 grams.
- He is having difficulty breathing, with grunting and increased work of breathing.
- The local team has provided initial stabilization, including oxygen via nasal cannula, but his respiratory status is not improving.
- The nearest tertiary center with a Neonatal Intensive Care Unit (NICU) is 150 km away.

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Quiz

1. What is the most appropriate next step in the management of this newborn?
a. Continue oxygen via nasal cannula and monitor closely for another hour.
b. Administer a bolus of intravenous fluids and reassess.
c. Escalate respiratory support (e.g., CPAP) and prepare the infant for transfer to the tertiary center.
d. Administer antibiotics and transfer the baby immediately.

2. Which of the following is NOT a goal of pre-transport stabilization?
a. Temperature equilibrium
b. Respiratory stability
c. Cardiovascular equilibrium
d. Administration of blood transfusion

Quiz

3. During transport, what is the preferred method for monitoring the baby's oxygenation?
a. Observing for central cyanosis
b. Continuous pulse oximetry
c. Intermittent blood gas analysis
d. Monitoring respiratory rate

4. What is the recommended mode of transport for a critically ill newborn requiring intervention?
a. Private car with the mother
b. Ambulance with trained medical personnel
c. Tricycle with a nurse
d. Boat with a community health worker

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02
Introduction

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02. INTRODUCTION

- Transporting sick or preterm babies to centers with specialized expertise and facilities improves outcomes.
- Standardized national transport protocols across all care levels are crucial for better neonatal outcomes.
- Effective communication and emergency transport facilities (to and from referral centers) are essential components.
- While in-utero transfer is safest, it's not always possible, necessitating robust post-birth transport systems.

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03

Types of Neonatal Transfer

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03. Types of Neonatal Transfer

- Inter-facility Transfer: Moving a newborn from one health facility to another, typically from a lower to a higher level for advanced care.
- Intra-facility Transfer: Moving a newborn within the same health facility, e.g., from a ward to the radiology department.

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04

Inter-facility Transfer

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03. (a)Inter-facility Transfer

- Decision to transfer
- Communication
- Pre-Transport Stabilization
- Documentation
- Transporting
- Handling deterioration
- Arrival and handover

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03. (ai) Decision to transfer

- The decision must be made by the managing consultant or the most senior doctor available.
- This initiates the formal referral process.

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03. (aii) Communication

Inform Parents/Caregivers:

- Explain the baby's status.
- Detail the reason (indication) for referral.
- Specify the destination (referral hospital).
- Discuss the benefits and risks of transfer.
- Obtain informed consent before proceeding.
- Provide a formal written referral letter.

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03. (aiii) Communication

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- Explain the baby's status.
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Appendix 8.1: Sample Two -Way Referral Form

NEWBORN REFERRAL FORM

Instructions to Referring Agency:
Complete Section I. Forward two copies of the newborn Referral form. Retain a copy of the Patient Referral until a completed copy is returned to you by the referral center.
Complete Section II and return one copy back to the Referring hospital. Retain a copy for your records.

SECTION I - TO BE COMPLETED BY REFERRING FACILITY		
Name of Patient (or Mother)	Name of Referring Hospital	Name of Care Provider
Street Address	Street Address	Street Address
City, State, Local Government	City, State, Local Government	City, State, Local Government
Date of Birth	Telephone Number	Telephone Number
Presenting complaints Examination findings Diagnosis Interventions Reason for Referral		

Authorization is hereby given to the Care Provider to release their findings and recommendations to the Referral hospital		
Name of Parent or Guardian (Print)	Signature of Parent or Guardian	Date
Name of Witness (Print)	Signature of Witness	Date
Name of Health Care Provider (Print or Type)	Signature of Health Care Provider	Date
SECTION II- TO BE COMPLETED BY REFERRAL CENTRE (TERTIARY/SECONDARY)		
Findings Interventions Recommendations		
Name of Consultant/Doctor at Referral Centre	Signature of Consultant/Doctor at Referral Centre	Date

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03. (aiii) Coordinate With Receiving Hospital

- Contact the referral hospital by phone to allow them to prepare.
- Aim for direct communication with receiving health workers if possible.
- Maintain continuous communication throughout the transport process.

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03. (b) Pre-Transport Stabilization

Transfer should only occur after the baby is resuscitated and stabilized by the referring hospital staff.

Goals of Stabilization:

- Temperature Equilibrium
- Respiratory Stability
- Cardiovascular Equilibrium
- Metabolic Equilibrium (Fluids & Glucose)
- Antibiotics Administration (if needed)

Temperature: Maintain normal axillary temp (36.5-37.5°C); manage hypo/hyperthermia.

Respiratory Stability:

- Airway: Positioning, clearing secretions, oropharyngeal airway if needed.
- Breathing: Ensure normal pattern, administer oxygen/CPAP as needed.
- Ventilation: Bag-mask for irregular breathing; intubation for prolonged ventilation. Consider surfactant.

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Cardiovascular:

- Establish IV access and start appropriate fluids.
- Assess perfusion: warm peripheries, capillary refill ≤3s, normal tone/activity, BP, O2 sat >90%.

Metabolic:

- Check blood glucose; correct hypoglycemia.
- Evaluate and correct other metabolic issues (e.g., acidosis)

Antibiotics:

- Many referred babies have danger signs and may need pre-referral antibiotics.

Special Cases

- **Abdominal Wall Defects (Omphalocele/Gastroschisis):** NG/OG tube for decompression, cover defect (sterile gauze +/- warm saline for omphalocele; plastic bag for gastroschisis), IV fluids.
- **Neural Tube Defects**: Position prone/side, cover defect with sterile gauze (+/- warm saline).
- **Diaphragmatic Hernia**: Intubate, NG/OG tube for decompression.
- **Other GI Malformations (e.g., TEF):** NG/OG tube for decompression, IV fluids.

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03. (d) Transporting (Mode & Accompaniment)

Mode: Depends on availability, urgency, terrain (Ambulance preferred; cars, tricycles, boats, air ambulance are options). KMC position is best if clinically permissible.

Accompaniment:

- Mother should accompany if possible.
- Medical personnel (nurse/doctor) needed for babies at risk, requiring intervention, post-op care, or on respiratory/multi-organ support. Routine care babies may not need medical escort.

Care During Transport

- **Equipment**: Ensure resuscitation equipment, drugs, fluids, consumables, suction, and sufficient oxygen are available. Stop vehicle for resuscitation.
- **Temperature**: Use transport incubator or KMC; keep baby well-covered (cap, socks, wrapped).
- **Airway/Breathing**: Maintain neutral position; intubate/bag-mask/bCPAP if needed.
- **Circulation**: Monitor perfusion; ensure IV fluids run at the prescribed rate.
- **Oxygenation**: Continuous pulse oximetry preferred (aim >90%); observe for cyanosis.
- **Feeds**: IV fluids for babies with altered sensorium/respiratory distress. Stable babies at risk of hypoglycemia may get EBM via OGT/NGT or breastfeed if able.

03. (e) Handling Deterioration

- Action depends on team skills, equipment, space, and distance.

Strategies:

- Resuscitate as appropriate.
- Stop at an intermediate health facility for stabilization if needed.
- Maintain communication with the receiving hospital.

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03. (f) Arrival & Handover

- Formal handover between transport and receiving teams.
- Include verbal and written account: history, vitals, therapies, events during transport.
- Hand over referral form and all relevant documents.

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Intra-facility Transfer

04. INTRA-FACILITY TRANSFER

- Provide bedside services (mobile X-ray, ECG) whenever possible.

Process (if unavoidable):

- Decision by senior staff.
- Inform parents/caregiver, explain need/risks, get consent.
- Stabilize baby first.
- Document reason, time, consent, treatments.
- Transport in KMC or incubator; have oxygen/resuscitation gear ready.
- Mother and medical personnel should accompany.
- If deterioration occurs, resuscitate and return to the newborn unit.

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06

Conclusion

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06. CONCLUSION

- Safe and effective neonatal transport is critical for improving outcomes for sick and preterm newborns.
- Standardized protocols involving clear communication, thorough pre-transport stabilization, appropriate documentation, and careful monitoring during transit are essential.
- Both inter-facility and intra-facility transfers require careful planning and execution to minimize risks.

06. REFERENCE

- National Guidelines for Comprehensive Newborn Care: Referral Levels. Nov 2021. First Edition.

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Who is Limi Children Hospital?_____

The Limi Children's hospital is a is an arm of the Limi Hospital Group located at **No. 39 Ademola Adetokunbo Crescent, Wuse 2, Abuja,** A designated specialty hospital for pediatrics, neonatology and general medical care for children.

Under the auspices/system of the **>40yr old Limi Hospitals** founded in 1982.

The Limi Children's Hospital was commissioned by the Honorable Minister of the FCT in October 2017 amidst glowing commendations and accolades for the vision and contribution to healthcare delivery.

World class Healthcare, All Day, Everyday

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"...A healthy child is a happy child"

What are the Limi Children Hospital's services?

The Limi Hospitals
Reversing Medical Tourism

We provide **24/7 world-class healthcare solutions** for patients, hospitals, and their doctors in:

- General Paediatrics
- Paediatric Haematology
- Paediatric Dermatology
- Paediatric Neurology
- Paediatric Cardiology
- Paediatric Endocrinology
- Paediatric Gastroenterology
- Paediatric Otorhinolaryngology (ENT)
- Emergency Medicine
- Child and Adolescent Psychiatry

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The Limi Hospital Since 1982

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How to refer patients to Consider The Limi Children Hospital?

The Limi Hospitals
Reversing Medical Tourism

1. Give a standard referral letter & preferably attach any available results
2. **Call:** 08090599994, 09081841655
3. **WhatsApp:** 09024294618
4. **Email:** Limichilrenhospital@gmail.com
5. **Visit:** **No. 39 Ademola Adetokunbo Crescent, Wuse 2, Abuja,**
6. Kindly indicate Doctor's name, & email/phone number especially if you wish to receive a medical report afterwards.

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