DEDER GENERAL HOSPITAL

NEONATAL INTENSIVE CARE UNIT (NICU)

STG UTILIZATION MONITORING REPORT

Perinatal Asphyxia Management

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PURPOSE

Since EBC was launched in 2014 it was mentioned that monitoring Utilization to STG was necessitated as mentioned in EBC document to make sure that clients was treated as per the protocol and there is uniformity of the care provided for the all clients. Deder General Hospital has also followed this and conducting the Monitoring of STG adherence.

INTRODUCTION

Perinatal asphyxia (PNA) is a major cause of neonatal morbidity and mortality. Effective management, including prompt diagnosis, resuscitation, and post-resuscitation care, is essential to minimize complications and improve survival. This report evaluates compliance with PNA management protocols at the **Deder General hospital** to identify strengths and areas requiring improvement.

AIM

- To ensure that DGH NICU teams have working knowledge and Utilization to Neonatal Treatment Guideline.

Objective

- To assess compliance with PNA management protocols
- To identify areas requiring quality improvement
- To enhance patient outcomes and adherence to standards of care.

Methodology

- **Data Collection**: Retrospective review of 6 medical records (MRNs) of neonates diagnosed with PNA during the period of **June 1-30, 2017**.
- **Criteria Assessed**: Compliance with 10 key indicators for PNA management, including resuscitation, oxygen therapy, and caregiver counselling.
- **Analysis**: Compliance rates were calculated for each indicator to identify gaps in adherence.

Table 1: CRITEREA AND STANDARDS

S.No	Standards
1.	Diagnosis (Apgar ≤6, poor cry, or no respiratory effort).
2.	Resuscitation initiated promptly (airway, breathing, circulation).
3.	Oxygen therapy administered as per protocol.
4.	Hypoglycaemia prevention and treatment performed.
5.	Therapeutic hypothermia applied when criteria met.
6.	Seizure management conducted per STG (anti-seizure drugs given).
7.	Electrolytes monitored and corrected as indicated.
8.	Neurological status assessment documented.
9.	Infection prevention measures implemented.
10.	Discharge plan and caregiver counselling conducted.

RESULT

The overall compliance rate for PNA (Perinatal Asphyxia) management standards in June 2017 E.C. was **86%,** indicating generally strong adherence to the established protocols. This high rate reflects successful implementation across most critical areas of newborn care following potential asphyxia. Key life-saving interventions demonstrated exceptional compliance, achieving perfect 100% rates in diagnosis based on Apgar/presentation, prompt resuscitation initiation, appropriate oxygen therapy, therapeutic hypothermia application, seizure management, infection prevention, and discharge planning/counselling (**Table 2**).

The facility excelled in several fundamental and high-impact aspects of PNA management. Standards related to immediate life support and targeted interventions (Resuscitation, Oxygen Therapy, Therapeutic Hypothermia, Seizure Management) all achieved 100% compliance. Furthermore, critical preventative measures (Infection Prevention) and essential post-acute care processes (Discharge Planning/Counselling) also showed flawless adherence. Hypoglycemia prevention and treatment was also relatively strong at 80% compliance (**Table 2**).

Despite the high overall compliance, two specific standards showed significant deficits requiring urgent attention. Electrolyte monitoring and correction was severely lacking, with only 30% compliance (3 Yes, 7 No). Neurological status assessment also fell short of the target, achieving only 50% compliance (5 Yes, 5 No). These gaps represent critical vulnerabilities in the comprehensive management of asphyxiated newborns, as both electrolyte stability and neurological monitoring are essential for detecting complications and guiding ongoing treatment. Addressing these deficiencies should be a primary focus for quality improvement initiatives (**Table 2**).

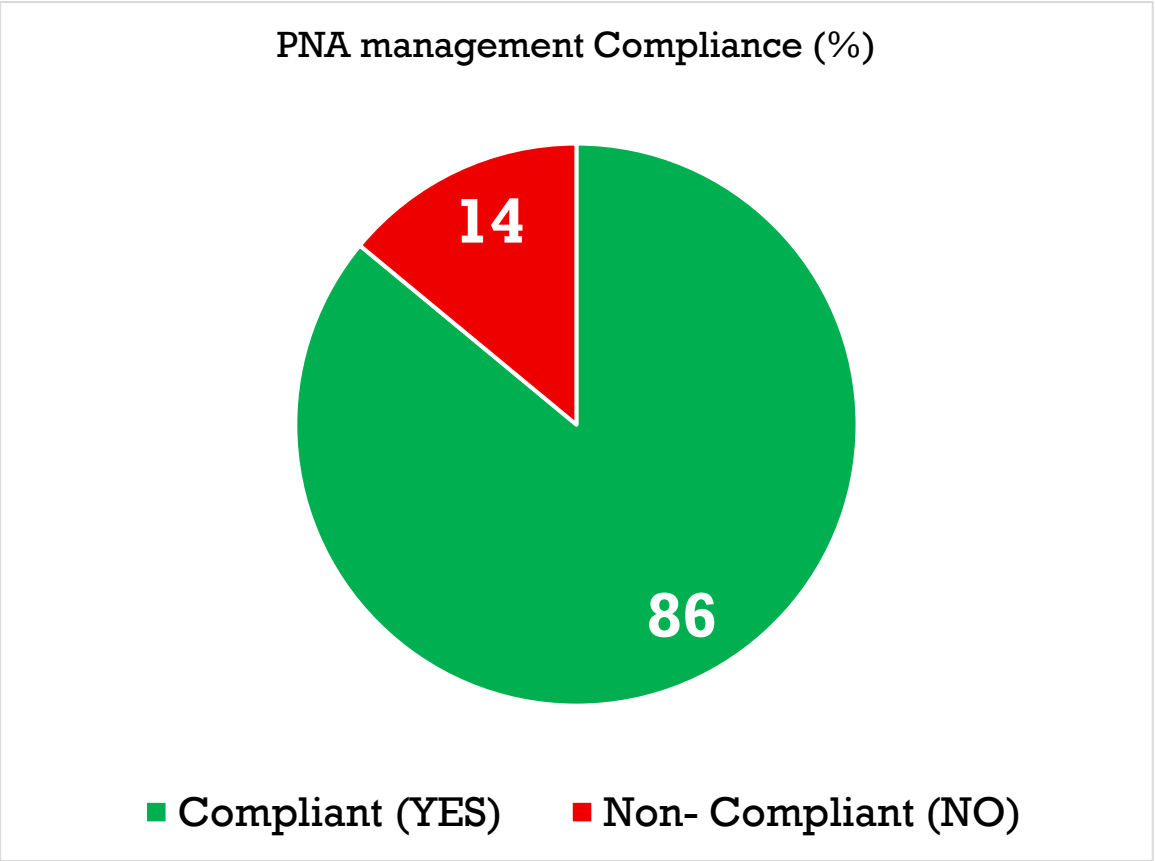

Figure 1: PNA management Compliance, June 2017E.C

Table 2: PNA management Compliance, June 2017E.C

S/N	Standards	Compliant (YES)	Non-Compliant (NO)	Percentage (%)
1.	Diagnosis (Apgar ≤6, poor cry, or no respiratory effort).	10	0	100
2.	Resuscitation initiated promptly (airway, breathing, circulation).	10	0	100
3.	Oxygen therapy administered as per protocol.	10	0	100
4.	Hypoglycemia prevention and treatment performed.	8	2	80
5.	Therapeutic hypothermia applied when criteria met.	10	0	100
6.	Seizure management conducted per STG (anti-seizure drugs given).	10	0	100
7.	Electrolytes monitored and corrected as indicated.	3	7	30
8.	Neurological status assessment	5	5	50
9.	Infection prevention measures	10	0	100
10.	Discharge plan and caregiver counselling conducted.	10	0	100
	Overall Compliance Rate	86/100	14/100	**86%**

DISCUSSION

The observed overall compliance rate of 86% for PNA management standards in June 2017 E.C. reflects a generally robust adherence to critical neonatal care protocols. This high performance is particularly commendable in life-sustaining interventions: perfect compliance (100%) was achieved in prompt diagnosis based on Apgar/criteria, immediate resuscitation, oxygen therapy, therapeutic hypothermia for eligible infants, seizure management, infection prevention, and discharge planning. These results indicate strong foundational practices in time-sensitive, high-acuity aspects of perinatal asphyxia care, likely contributing to reduced mortality and morbidity. The consistent 100% scores across seven standards demonstrate effective protocol implementation for core physiological stabilization and major complication management.

The 80% compliance in hypoglycemia prevention/treatment—while relatively strong—still warrants optimization given the profound neurodevelopmental risks of neonatal hypoglycemia in asphyxiated infants. Conversely, the exemplary compliance in therapeutic hypothermia (100%) suggests successful adoption of this complex, resource-intensive intervention. The contrast between high-performing standards and critical deficits implies that compliance challenges may stem less from resource limitations (given hypothermia success) and more from gaps in protocol reinforcement, staff awareness, or documentation systems for electrolyte/neuro-monitoring. Future efforts should prioritize: 1) Root-cause analysis of electrolyte management failures, 2) Standardized neurological assessment tools/training, and 3) Auditing hypoglycemia management processes. Sustaining strengths while targeting these specific deficiencies will enhance holistic PNA care quality.

RECOMMENDATIONS

- Perform Neurological assessment
- Perform Electrolyte test.

PERFORMANCE IMPROVEMENT PLAN

Area to improved	Actions to be taken	Responsible body	Timeline
Perform Neurological assessment	Write feedback to ward physicians.	Medical Director	2 weeks
Perform Electrolyte test	Write feedback to ward physicians.	Medical Director	2 weeks

REFERENCES

1. World Health Organization (WHO). (2023). Standards for Improving the Quality of Care for Small and Sick Newborns in Health Facilities. Geneva, Switzerland.
2. Ethiopian Ministry of Health. (2022). National Neonatal Care Guidelines. Addis Ababa, Ethiopia.
3. UNICEF. (2023). Guidelines for Strengthening Documentation and Monitoring in Neonatal Care Units.
4. Institute for Healthcare Improvement (IHI). (2021). Team-Based Care for Newborn Survival: Best Practices and Approaches.

Guyyaa/ቀን/Date: _____/_____/_____

- **Garee tajaajila NICU irraa**
- **Garee Qulquullina Tajaajila Fayyaatiif**

Dhimmi: **waa'ee Gabaasa STG protocol mon erguu ilaala**

Akkuma mata Dureerrattii ibsamuuf yaalameettii **STG protocol mon "PNA"** Jedhamu kan **ji'a 1Offaa** bara **2017** xalayaa **Fuula 11** qabuu gaggeessituu kana waliin walqabsiifnee isiiniif eerguu keenya kabajaan isiniif beeksiifnaa.

Nagaya wajjiin!!