World Patient Safety Day 2025: Safe Care for Every Newborn & Every Child

Zero Harm in New-born & Child Health Services

Goal 5 – Reduce Risk for Small & Sick Newborns

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Newborn Care in India

Newborn Facilities in India

- **SNCU/NICU:** 1087
- **NBSU:** 2868
- **NBCC:** >23000

Admission Outcome of NCU

Admissions: 15.5 Lakh, **BOR:** 102 %
Successful Discharge: ~ 84 %
Referral: ~ 6 %
Mortality: ~ 7 %

Institutional mechanism (National , State Resource Centre) for capacity building, mentoring support for QI

Data management system: FBNC/SNCU Online

Comprehensive lactation mgmt. unit

District Early Intervention Center

Three levels of NEWBORN CARE UNITS (NICU, SNCU/MNCU, NBSU, NBCC) with Family Participatory care

MCH wings

KMC/MNCU Units

Quality certification under MusQan (Newborn care facilities), LaQshya (Labour room and OT), NQAS

Home based newborn care; Home based care for young children

Ensuring patient safety at every stage of newborn care, India's commitment to life from the very beginning

Skilled Human Resource

- **Adequate staff in newborn care units**
  - IPHS & FBNC: Bed-Nurse Ratio : 1:3
  - Mother's involvement in newborn care at MNCUs under FPC policy
  - Minimize nurse rotation of neonatal trained staff

- **Capacity building of Staff**
  - Providing in service and refresher trainings
  - Staff trained in 4-day FBNC module following 2 week observership at apex medical college
  - FBNC, NSSK, NBSU modules recently revised as per latest evidence, these manuals are assessable on NHM website (www.nhm.gov.in)
  - MoHFW introducing new training modules: Oxygen Support & Developmental Supportive Care

Triage and Risk Identification

- 24/7 emergency triage assessment and treatment (ETAT) on arrival at newborn care unit
- Early identification protocols for at risk babies in the category of Emergency, Priority and Non-urgent
- Trained doctors and neonatal nurses authorized for interventions
- Incase of further referral to higher center pre referral stabilization

Triaging

Emergency signs	Priority signs	Non urgent signs
• Low body temperature (Temp<35.5°C) • Apnea or gasping respiration • Severe respiratory distress (rate>70, severe retractions, grunting) • Central cyanosis • Shock (cold periphery, CFT >3secs, weak & fast pulse) • Coma, convulsions or encephalopathy	• Tiny neonate (<1800gms) • Temp 36.4°C - 35.5°C • Respiratory distress (rate>60, no retractions) • Irritable/restless/jittery • Refusal to feed • Abdominal distension • Severe jaundice (appears<24 hours /stains palms and soles/ lasts>2 weeks) • Severe pallor • Bleeding from any site • Major congenital malformations (Tracheo esophageal fistula, Meningomyelocele, Anorectal malformation) • Large baby >3.8 kg or according to the percentile charts, (See Chapter 4: Low Birth Weight Baby)	• Jaundice • Transitional stools • Developmental peculiarities • Minor birth trauma • Posseting • Superficial infections • Minor malformations • All cases not categorized as Emergency/ Priority
Neonates with emergency signs are at high risk and require urgent intervention and emergency measures. These neonates with emergency signs after stabilization are to be admitted in the SNCU (Special Care Newborn Unit).	**Action** Neonates with priority signs are sick and would need immediate assessment. They should be attended to on a priority basis. These will also need to be admitted to SNCU.	In neonates with no emergency or priority signs, proceed with assessment and further treatment according to neonate's requirement

Safety in Clinical Practice

- After triaging newborn managed using 10-step Newborn Care Checklist: T.A.B.C.F.M.F.M.C.F.
- Defined protocols for monitoring of preterm/LBW and at risk Newborns
- Defined Antibiotic Policy for newborns
- Rational medicine and dose calculation, strict adherence to protocols
- Defined monitoring Charts for RDS, Phototherapy, Exchange transfusion, TDS Chart, Growth etc.
- Standardized handovers and takeover of Newborns in each shift

B. Checklist for Newborn Care - T.A.B.C.F.M.F.M.C.F.

1.	Temperature - Assess	Hypothermia Cold Stress Normal Hyperthermia	Provide heat Skin to skin contact, Warmer care Cover adequately Uncover
2.	Airway	Compromised	Open and maintain airway Position Suction
3.	Breathing	None or gasping Normal Respiratory distress	PPV (oxygen if required) No intervention Provide oxygen/CPAP/mechanical ventilation
4.	Circulation-CFT	>3 seconds	No intervention

ANTIBIOTIC POLICY

Antibiotic therapy should cover the common causative bacteria, namely, *Escherichia coli, Staphylococcus aureus and Klebsiella pneumonia.*

Antibiotic Therapy for Neonatal Sepsis

I. Septicemia or Pneumonia

B wt < 2 kg

Antibiotic	Each dose	Frequency		Route	Duration
		0-14 days age	0-14 days age		
Inj Ampicillin* or	50 mg/kg/dose	12 hrly	8 hrly	IV	7-10 days
Inj cloxacillin#	50 mg/kg/ dose	12 hrly	8 hrly	IV	7-10 days
AND					
Inj Gentamicin	5 mg/kg/dose	24 hrly	24 hrly	IV	7-10 days

B wt ≥ 2 kg

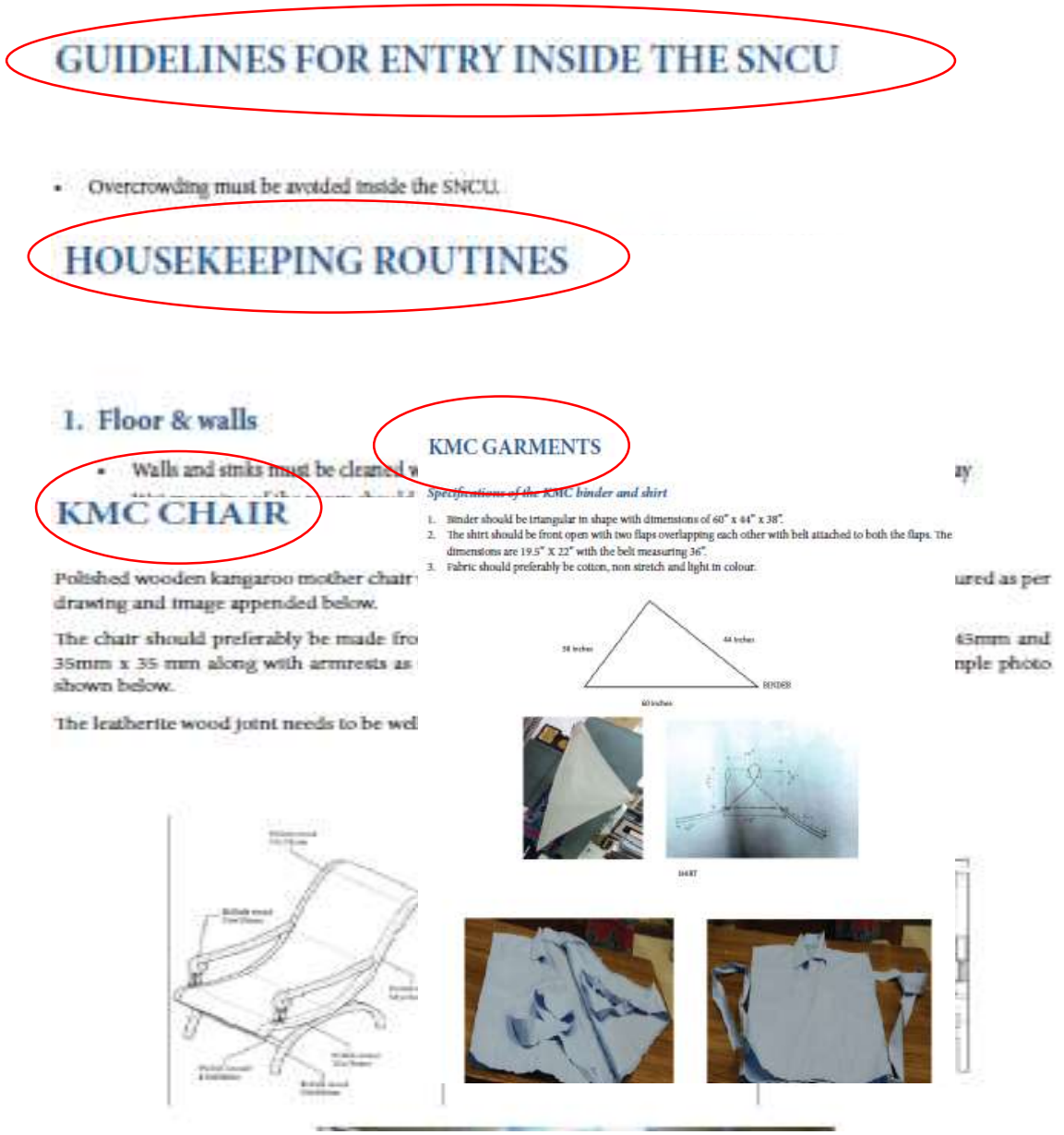
Antibiotic	Each dose	Frequency		Route	Duration
		0-7 days age	0-7 days age		
Inj Ampicillin* or	50 mg/kg/dose	12 hrly	8 hrly	IV	7-10 days
Inj cloxacillin#	50 mg/kg/ dose	12 hrly	8 hrly	IV	7-10 days
AND					
Inj Gentamicin	5 mg/kg/dose	24 hrly	24 hrly	IV	7-10 days

II. Septicemia IInd Line Drugs

B wt < 2 kg

Feeding and Infection Prevention

- Universal breastfeeding and early colostrum promotion at birth
- SNCU/MNCU have written guidelines for entry inside unit
- Defined housekeeping protocols and hand-hygiene measures at NCU
- Immediate KMC at MNCU, Provision of KMC Chair, garments & financial support in PIP
- Continuous surveillance for HAIs, adverse events



Infrastructure, Equipment and Environment

- One newborn per warmer with dedicated stethoscope, exam light, thermometer, tape, etc. to prevent cross infection
- Safe spacing, provision of MNCU
- Child friendly infrastructure across facility
- Uninterrupted continuous power supply, backup support, earthing for electric safety
- Periodic Equip. maintenance, calibrations
- Regular safety audits, emergency mock drills for fire safety, earthquake etc.
- ABC & CO_2 extinguisher aptly placed
- Emergency exit plan and route map
- Safety during referral transport

DETAIL OF DEDICATED ONE MOTHER BABY DYAD AREA

<u>Total Coved area for MNCU: 3190 Sq feet</u>

Baby Care Area: 50 Sq. ft.

Mother Area: 100 Sq. ft.

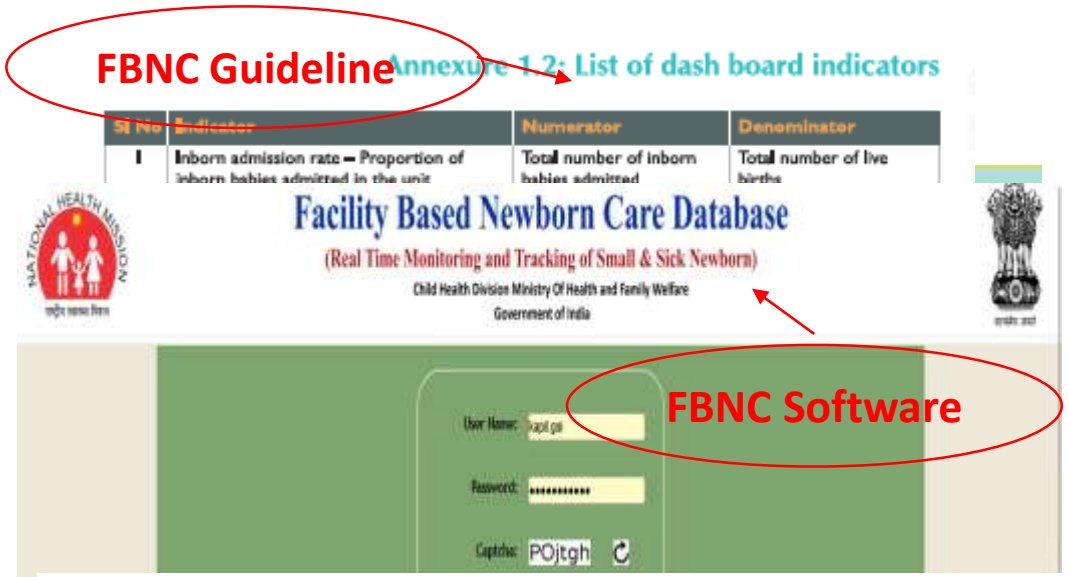
Ancillary Area: 70 Sq. ft.

Total Space (mother baby)/bed: 220 Sq. ft.

Total Space (mother baby-CPAP) bed: 270 Sq. ft.

Data Tracking and Outcome

- Dash board indicators & KPI's in FBNC guideline and MusQan
- FBNC software data triangulation for decision making i.e. Sepsis final diagnosis vs antibiotic use rate, LBW vs KMC rate, RDS vs Oxygen etc.
- Track process and outcome indicators for monitoring the performance of unit
- Record follow-up rates and post discharge adverse outcome in the community



List of Key Performance Indicators (KPI) and their targets

Table 3: List of KPIs and Targets

S.N.	Key Performance Indicator	Target	DH	CHC	Remarks
1	Average waiting time for the initial assessment by physician	More than 90% cases are seen within 10 minutes of arrival in the facility			Separately for SNCU/ NBSU
2	Patient satisfaction score (Parent – Attendant)	80% of parent-attendants are either satisfied or highly satisfied (or Equivalent score > 3.5 on Likert scale)			Separately for SNCU/ NBSU, Paediatric OPD, Paediatric Ward and NRC
3	Follow-up rate	At least 50% discharged patients report for			Separately for SNCU/ NBSU, Paediatric OPD,

MusQan KPI

Gains by Clear Roles & Accountability

Facility Head/Quality Nodal

Strategic oversight and compliance leadership

- Fire and disaster preparedness plans
- Regular emergency drills coordination
- Incident review and corrective actions
- MusQan/NQAS compliance monitoring

Newborn Unit Lead (SNCU/MNCU/NICU)

Clinical protocol and quality assurance

- Protocol adoption and staff training
- Regular audit cycle management
- Equipment safety verification
- Clinical management and prescription oversight

Nursing Lead & CHO / Transport

Direct patient care and safety implementation

- No-interruption medication rounds
- Double-check safety policies
- SBAR handover protocols
- Pre-referral stabilization procedures

Biomedical Equipment Nodal

Technical equipment safety and maintenance

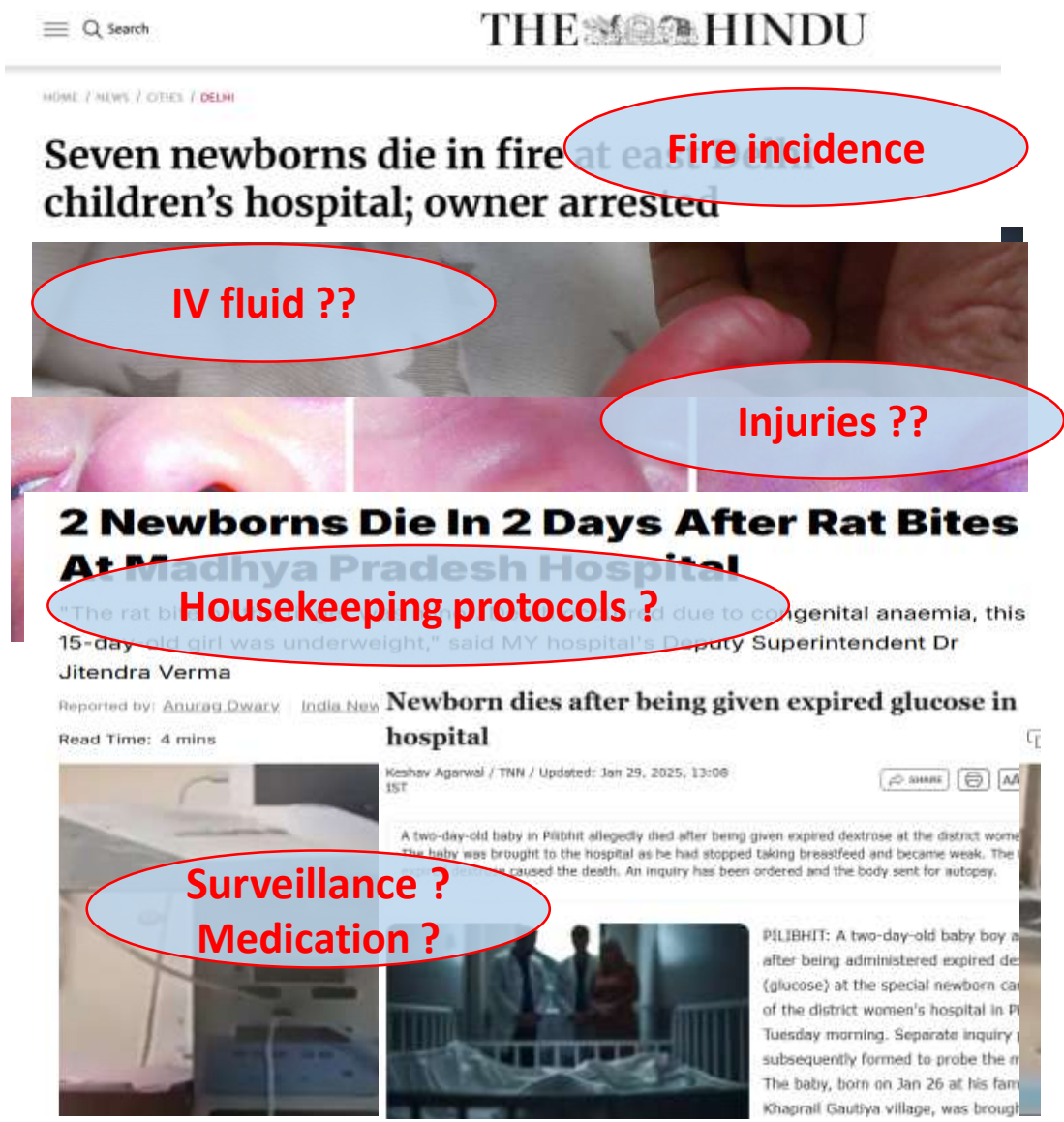
- Asset tagging (QR code) & inventory mgmt
- Calibration logging and verification
- Preventive maintenance scheduling
- Equipment performance monitoring

Post-Discharge & Community Linkages

- Empower ASHA/ANM for home follow-ups, danger sign recognition, parent counselling
- Discourage unsafe home/ traditional practices (Sahad, Ghutti, mud/dunk on Cord, Kazal, Animal milk etc.) with structured discharge support
- Monitoring the facility follow-ups and home visits follow-ups of SNCU/MNCU discharged babies
- Monitoring of Community based child death review and action taken
- Embed safety-first culture, foster frontline worker education for continuous improvement

Practical Aspects to be Taken Care of…

- Regular safety audits for fire, earthquake etc.
- Are fire extinguisher placed at right place, no filled O2 cylinders kept in SNCU/NICUs etc.
- Medicine doses, fluid calculation, strict adherence to protocols
- Regular monitoring and use of appropriate equipment accessories and consumables
- Strict housekeeping protocols, hand hygiene, BMW management etc.
- Continuous surveillance for adverse events



Way forward

- Implement revised FBNC Operational Guidelines 2025
- Release and Scale-up of 1.5-day capacity building modules on (a) Oxygen Support System to Newborns, (b) DSC-MNCU-KMC-FPC Module
- Quality certification for all Newborn and Paediatric units in MusQan-NQAS
- Release and Scale-up HBNC-HBYC 2.0 for home-based newborn/child care
- Implement stillbirth guideline protocols
- Strengthen mentoring, monitoring, and capacity building through establishment and active involvement of State Newborn Resource Centers
- Real-time monitoring and mentoring using technology i.e. Tele-SNCU
- Operationalize dedicated neonatal ambulances for safe in-transit care

Thanks

FBNC Guideline

Scan QR code for IEC/BCC Newborn

Email Id: drshobhna.mohfw@gmail.com
newborn.mohfw@gmail.com