

OB/Neo Operations – Unit Scope Level 1-Well Newborn Nursery

Level 1 neonatal care units offer a basic care level of newborn care to infants at low risk. These units have the personnel and equipment available to perform neonatal resuscitation at every delivery and to evaluate and provide routine postnatal care for healthy term newborn infants. In addition, level 1 neonatal units have personnel who can care for physiologically stable infants born at 35 weeks gestation or more and can stabilize ill newborn infants who are at less than 35 weeks until they can be transferred to a facility where the appropriate level of care is provided.

All newborn infants should be cared for by a team of physicians and other trained health care providers in the context of a family-centered environment.

GOALS:

- Provide high-quality, high-value care (safe, timely, efficient, equitable, cost effective, patient-centric, compassionate care) promoting:
 - Newborn, Maternal and Family Health
 - Breastfeeding
 - Dyad/family education and bonding

Level I Nursery DEFINITIONS:

- **Rural:** well newborn nursery in a remote facility with resources to support the physiological stable infant only.
- **Community:** well newborn nursery in a facility with or without a Level II NICU.
- **Tertiary:** well newborn nursery in facility with a Level III NICU.

CRITERIA – Level I WELL NEWBORN NURSERY:

- Fewer than 2000 births per year
- Gestational age at 35 weeks or more in a Community or Tertiary Facility
- Gestational age at 37 weeks or more in a Rural Facility
- Birth weight greater than 2000g

TYPE(S) AND AGE(S) OF PATIENTS SERVED:

- Healthy term newborns
- Physiologically stable infants at a gestational age of 35 weeks or more
- Evaluation and management of the moderately unstable newborns
- Stabilization and transfer of physiologically unstable newborns

SCOPE AND COMPLEXITY OF PATIENTS' CARE NEEDS:

- **Resuscitation**
Assessment and resuscitation of the infant in accordance with the principles of the American Heart Association and the American Academy of Pediatrics Neonatal Resuscitation Program.
- **Transition**
Newborns are assessed and observed for the first 6 hours of life. Healthy newborns should be monitored during the transition period without being separated from their healthy mothers.
- **Basic care and screening** (to include but not limited to):

- Comprehensive risk assessment for neonatal conditions that require monitoring or intervention
- Assessment/Vitals – temperature, heart rate, skin color, peripheral circulation, respiration, blood pressure, level of consciousness, tone, and activity
- Passage of meconium (within 48 hours), urine (within 24 hours)
- Nutrition – Ideally breastfeeding
- Bathing
- Parental education
- Vitamin K, conjunctival eye care, hepatitis B
- Early Onset Sepsis
- Glucose Homeostasis
- Newborn Blood Spot Screening
- Hearing
- Hyperbilirubinemia
- Developmental Hip Dysplasia
- Cyanotic Congenital Heart Disease Screening
- Car Seat Safety

● **Increased observation and/or intervention:**

Assessment and management of the moderately unstable infant that is expected to resolve rapidly and does not require specialty or sub-specialty services.

Exclusions:

- *Moderately unstable infants in a community or tertiary hospital with an available Level II/III NICU will be transferred to the higher-level nursery for ongoing observation and care.
- Moderately unstable infants in a community hospital without a Level II/III will be assessed and stabilized in the Level I nursery. Management or transfer will be determined based on Licensed Independent Practitioner (LIP) assessment and consultation with Neonatology as needed.
- Moderately unstable infants in a rural hospital will be assessed and stabilized for transport as needed in consultation with Neonatology.

NEWBORN STABILITY CRITERIA

Newborn Stability Definitions		
Stable	Physical assessment (WNL): Pink, warm, no s/s of distress: <ul style="list-style-type: none"> ● Axillary temp: 36.5-37.5 C ● HR: 100-180 bpm ● RR: 30-60 per min ● CRT: < 3 sec, acrocyanosis ● SPO2: ≥ 92% (as applicable) ● Reflex/Muscle Tone: WNL 	Well Newborn
Moderately Unstable	Questionable physical assessment with/without altered VS: <ul style="list-style-type: none"> ● Temp: < 36.4 C or > 38 C x2 and > 30 min apart after intervention to stabilize ● HR: 80-100 bpm while awake and after stimulation, 180-205 bpm at rest. ● RR: 20-30 or 60-80 with/without s/s of resp distress requiring SPO2 monitoring ● CRT: > 3 sec, pale, mottled or visibly jaundiced by 24h of age ● SPO2: 90-92% ● Reflex/Muscle Tone: weak Moro, cry, suck, grasp or root, limbs not always flexed, asymmetrical movements or jittery 	Requires increased observation
Unstable	Abnormal physical assessment with altered VS: <ul style="list-style-type: none"> ● Temp: < 36.4 C or > 38 C x2 and > 2 hours apart after interventions to stabilize ● HR: < 80 bpm while awake and after stimulation or > 205 bpm at rest ● RR: < 20 or > 80 per min; apnea, decreased breath sounds, coarse rales, rhonchi, grunting, flaring or moderate retractions ● CRT: > 3 sec and central cyanosis, progressing pallor, mottled or jaundice with risk factors for hemolysis) ● SPO2: < 90% ● Reflex/Muscle Tone: lethargic, unable to arouse, persistently jittery, inability to eat or seizure activity 	Requires higher level of care

NURSERY LENGTH OF STAY

- Newborns may remain after their mothers have been discharged due to either their medical condition or social situation.
 - Extended stays beyond 5 days require Neonatology consultation and unit Medical Director notification (e.g., late pre-term, phototherapy, observed Neonatal Opioid Withdrawal, indicated prolonged antibiotic course).
- Extended newborn inpatient care needs beyond the immediate postpartum period may result in a transfer to a higher level of care.

NURSERY MANAGEMENT in a Community Level I NSY without a Level II or III (to include but not limited to):
Selection and management of ongoing neonatal therapies for the moderately unstable newborn will be decided based on patient presentation and the risk level appropriate to the facility's capabilities, coordinated via provider bedside assessment/order:

Respiratory/Early Lung Recruitment (ELR) (transition up to 6 hours)

- Follow [ELR Level I Guidelines](#).
- Post ELR: Oxygen therapy nasal cannula up to 2 L/minute, and up to 30% FiO₂ to keep oxygen saturation between 92% and 98%.
 - If Symptomatic (hypoxic or increased work of breathing), then CPAP and LIP bedside evaluation.
 - Oxygen at or greater than 2L/min (HFNC – High Flow Nasal Cannula) is considered critical care and requires Neonatology consultation and transport.
- Hypoxemia or Respiratory Distress developing outside of neonatal transition period– requires a bedside LIP evaluation. If there is an oxygen requirement at or greater than 2 L/min (HFNC) and or FiO₂ ≥ 30%, then a Neonatology consultation is required.

Newborn at Risk for Hypoxic Ischemic Encephalopathy

- Neonatology telehealth consultation and Sarnat assessment for hypoxic ischemic encephalopathy if:
 - Arterial cord or 1st hour Blood Gas: pH ≤ 7.00 or BE ≥ -16.
 - Arterial cord or 1st hour Blood Gas: pH 7.01 – 7.15 or BE ≥ -10 associated with perinatal event and Apgar < 5 at 10 minutes or assistant ventilation > 10 min of life.

Hypoglycemia Screening and Management

- Follow [Neonatal Hypoglycemia Clinical Pathway](#) up to and including D10 management.
- If indicated, IVF of D10W up to a rate of 100 ml/kg/d to maintain normal glycemia (based on hours of life).
- Newborn Hypoglycemia weaning guidelines – [Fast and Slow Wean](#).
- Neonatology consultation for infants unable to wean off IVF after 48 hours of IVF.

Neonatal Drug Withdrawal

- Evaluation for signs and symptoms of withdrawal.
- Neonatology consultation required for Newborn Withdrawal Inventory (NWI) scores of > 7.
 - Infants with a NWI ≥ 8 requiring pharmacologic intervention OR have persistent GI symptoms even if scores ≤ 7 will be transferred for higher level of care.
- See [Management of Neonatal Abstinence Syndrome Algorithm](#).

Hyperbilirubinemia

- Treatment of hyperbilirubinemia.

- Neonatology consultation if nearing exchange transfusion level threshold on the hour-specific bilirubin therapy chart.

Early Onset Sepsis

- Follow Early Onset Sepsis Guideline
- Screening and management per the Early Onset Sepsis risk category recommendations

Late Preterm

- Infants less than 35 weeks gestation will be transferred to a Level II/III NICU.
- Management of 35–36.6 week gestation infants per the [“Clinical Guideline - Late Preterm Infant Care”](#)

CAREGIVER COMPETENCIES:

See Addendum B

AVAILABILITY, CLINICAL NECESSITY, AND TIMELINESS OF SUPPORT SERVICES PROVIDED DIRECTLY OR THROUGH REFERRAL SERVICES.

(See [OBSTETRIC and NEONATAL LEVELS OF CARE](#) for more details)..

RECOGNIZED STANDARDS OR GUIDELINES FOR PRACTICE

Standards and Guidelines for practice are based on AAP, AWHONN, ACOG, and standards as referenced below.

- Guidelines for Perinatal Care. Eighth Edition. American Academy of Pediatrics. Sept. 2017
- American Academy of Pediatrics (2012). Levels of Neonatal Care. *Pediatrics* 130(3): 587-97
- American Academy of Pediatrics and American College of Obstetricians and Gynecologists (2017). Guidelines for Perinatal Care, 7th edition. Riley LE and Stark AR. (eds) Elk Grove Village, IL: American Academy of Pediatrics. `
- Association of Women’s Health, Obstetric and Neonatal Nurses (2010). Guidelines for Professional Registered Nurse Staffing for Perinatal Units.

Appendix A

Level I Well Newborn Nursery – Nursing Competency Checklist

Nursing Competency Group – Well Newborn LI	For LI NSYs in a facility without the availability of a higher level NSY, RNs will require a higher skill set to support rescue efforts for STABLE
---	---

- *Admission-Newborn Assessment
- *Airway/breathing compromise
- Car Seat Trial
- Circumcision
- *Critical Congenital Heart Disease (CCHD)
- Developmental Care-skin to skin holding
- Enteral Tubes-NICU
- Fall/Drop Prevention
- Feeding
 - Feeding Intolerance
 - Feeding Progression
 - Feeding-bottle feeding
 - Feeding-cue based
 - Feeding-formula
- IV skills

Feeding-gavage
Feeding-lactation
Feeding-positioning
Feeding-special circumstances
First Responder (Mock Code)
Hearing Screening
Heel stick
Hourly Rounding
*Hyperbilirubinemia
*Hypoglycemia
Identification-Newborn
Infant Safety
Lactation
*Late Preterm care
Maternal Discharge and Education
Medication Administration
Milk Administration Safety
*Neonatal Sepsis
*Neurologic Risk for HIE
*Newborn Drug Exposure and Withdrawal
Newborn Medication Administration
Newborn Pain assessment
Newborn vaccinations
Phototherapy
Psychosocial Well Baby/Level 1
Respiratory Care
Respiratory System- Equipment
*Routine systems assessment-Neonate
Safe Sleep/Back to Sleep Guidelines
Skin Care- Newborn Bath & Hygiene
Specimen Collection - Urine
State Newborn Screening Test
Subgaleal Hemorrhage
Thermoregulation of Newborn
Infant security - TotGuard
Uncircumcised Penis Care
Weight
Well newborn discharge