Clinical UM Guideline

Subject:	Neonatal Levels of Care		
Guideline #:	CG-MED-26	**Publish Date:**	07/01/2025
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Description

This document addresses levels of care **for neonates who meet criteria for inpatient care under applicable inpatient care guidelines**. Hospitals vary in the type of newborn care they provide. Not all facilities are capable of providing all types of care needed for sick newborns. The American Academy of Pediatrics (AAP) has defined the levels of care (LOC) required for the normal healthy newborn to the critically ill newborn. These LOC correspond to the therapies and services provided in each nursery. Facilities offering neonatal intensive care must meet healthcare standards through federal/state licensing or certification. All LOC described in this document are based upon clinical care needs and are not dependent upon the physical location of the infant within the health care facility or the name of the unit where the care is delivered.

A medically necessary neonatal level of care indicates the intensity of services needed or rendered based on an infant's clinical status and is not the same as AAP levels of nursery designation, which are based on the facility clinical service capabilities.

Clinical Indications

Medically Necessary:

Admission to and continued stay in appropriate neonatal levels of care are considered **medically necessary** for the following indications:

General Nursery or Well-Baby Nursery:

This level of care is for healthy neonates who are physiologically stable and receiving evaluation and observation in the immediate post-partum period. Care may take place in a nursery or in the birth mother's room ("maternal rooming-in"). Infants weighing 2000 grams or more at birth and clinically stable infants at 35 weeks gestational age or greater may be cared for in a well-baby nursery. This is not a neonatal intensive care level. Intravenous (IV) fluids or medications and antibiotic therapy are not appropriate for General Nursery or Well-Baby Nursery level of care.

Examples of types of services neonates receive or clinical conditions managed at this level of care are:

- Hyperbilirubinemia requiring phototherapy unless an individual has evidence of hemolysis;
- Oral (nipple) feedings for asymptomatic hypoglycemia not requiring subsequent IV therapy;
- Treatment of asymptomatic hypoglycemia with oral glucose gel;

- Laboratory tests (examples include, but are not limited to, bilirubin, blood glucose, blood type, direct antiglobulin test [DAT] also known as the direct Coombs test, complete blood count [CBC], C-reactive protein, screening blood culture) or oximetry when no therapy is given;
- Observation for development of signs of neonatal abstinence syndrome in an infant with known antenatal exposure to opioids or benzodiazepines. Well-Baby Nursery level of care excludes pharmacologic therapy of neonatal abstinence syndrome;
- Transient use of an external heat source to maintain temperature stability in an otherwise well infant;
- Routine transitional and stabilization care provided in the first 8 hours after birth;
- Infants who continue to require inpatient care but do not require a neonatal intensive care unit (NICU) level of care are suitable for care in a well-baby nursery.

Level I Surveillance Special Care Nursery:

This level of care covers neonates who are medically stable but require surveillance/care at a higher level than provided in the general nursery.

Examples of types of services neonates receive or clinical conditions managed at this level are:

- Apnea/Bradycardia
  - Oral pharmacologic therapy for a baby who has been apnea-free for at least 72 hours; **or**
  - Surveillance without pharmacological intervention and 48 hours or more since last episode requiring intervention;
- Diagnostic work-up/surveillance, on an otherwise stable neonate, under 35 weeks gestational age, where no therapy is initiated;
- Hyperbilirubinemia requiring phototherapy with evidence of hemolysis;
- Infants transferred from a higher level of care who are physiologically stable, breathing room air, in an open crib, and taking either no medications or on a stable or declining dose of oral medications and requiring observation to document successful nipple feeding;
- Initial sepsis evaluation without antibiotic treatment for an asymptomatic neonate receiving monitoring (for example, CBC, blood culture);
- Antibiotic administration pending culture results (48 hours of incubation) in asymptomatic infants with normal sepsis screening laboratory tests who are taking enteral feedings and IV is for antibiotic administration only;
- IV fluids and enteral feedings, as follows:
  - IV fluids administered at 50 ml/kg/day or less for routine fluid, electrolyte, glucose and nutritional purposes in stable infants who are being weaned off of IV fluids and receiving enteral feedings by any combination of nasogastric, gastrostomy or nipple feedings, without other clinical conditions qualifying for a higher level of care; **or**
  - Nipple feedings are greater than 50% of total enteral feedings;
- Services rendered for neonatal abstinence syndrome:
  - Continuation of medication weaning for infants whose neonatal abstinence scores are 8 or less; **or**
  - Non-pharmacologic management of neonatal abstinence scores by provision of a non-stimulating environment, which may include maternal rooming-in or care in a non-NICU setting;

- Services rendered to growing premature infant without supplemental oxygen or IV fluid needs or environmental control needs (other than blankets, cap, swaddling, etc.);
- Services rendered for stable infants on nasal cannula flow support, with or without supplemental oxygen, where clinical discharge milestones set by hospital are met and infant will be discharged with durable medical equipment (DME); parental training on DME should be completed while infant still requires hospitalization.

Level II Neonatal Intensive Care:

Newborns admitted or treated at this level are those with physiological immaturity combined with medical instabilities.

Examples of types of services neonates receive or clinical conditions managed at this level of care are:

- Infants born 32 weeks gestation or greater and under 35 weeks gestation or infants weighing 1500 grams or more who have physiologic immaturity and who are moderately ill with problems that are expected to resolve rapidly and are not anticipated to need subspecialty services on an urgent basis;
- Apnea or Bradycardia
  - Apnea or Bradycardia episode requiring stimulation; **or**
  - Oral pharmacologic treatment for apnea or bradycardic episodes when last episode requiring intervention was less than 72 hours ago;
- Enteral feedings as follows:
  - Enteral feedings via a feeding tube located within the duodenum or jejunum; **or**
  - In infants receiving gavage and nipple feedings, where the volume delivered by gavage feedings is at 50% or greater of the total enteral feeding volume;
- Incubator or Warmer therapies
  - Documented need for environmental control via an incubator/warmer for thermoregulation; **or**
  - Physiologically stable infants in the process of being weaned from an incubator/warmer to an open crib;
- IV Therapy
  - IV fluids, inclusive of total parenteral nutrition, greater than or equal to 50 ml/kg/day; **or**
  - IV medications in a physiologically/clinically stable infant via PICC line or peripheral IV; **or**
  - IV treatment of hypoglycemia;
- Respiratory support
  - Nasal cannula with flow less than or equal to 2 liters per minute or continuous positive airway pressure (CPAP) less than or equal to 4 cm H_2O pressure; **or**
  - Supplemental oxygen via oxygen hood or nasal cannula when effective fraction of inspired oxygen (FiO_2) of less than or equal to 40% is sufficient to maintain acceptable blood oxygen saturation; **or**
  - Infants with stable respiratory status transitioning to home on a home ventilator awaiting family teaching and/or placement availability;
- Sepsis
  - Initial sepsis evaluation (CBC, blood culture, and other blood tests or cultures) for an asymptomatic neonate who requires antibiotic treatment pending laboratory and/or culture results; **or**

- Documented sepsis;
- Pharmacologic treatment of neonatal abstinence syndrome
  - The score is greater than or equal to 8 and non-pharmacologic therapy has failed; **or**
  - Infant is unable to meet any one of the following parameters while provided supportive care in a non-stimulating environment:
    - Able to be breastfed or take greater than or equal to 1 ounce from a bottle per feed; **or**
    - Able to sleep undisturbed for greater than or equal to 1 hour; **or**
    - Able to be consoled within 10 minutes after the onset of crying.

Level III Neonatal Intensive Care:

This level of care is directed at those neonates that require invasive therapies and/or are critically ill with respiratory, circulatory, metabolic or hematologic instabilities and/or require surgical intervention with general anesthesia.

Examples of types of services neonates receive or clinical conditions managed at this level of care are:

- Apnea and/or Bradycardia
  - Episodes requiring IV pharmacologic treatment; **or**
  - Self-refilling bag valve unit resuscitation ("bagging"); **or**
  - Other intervention beyond vigorous stimulation (for example, CPAP);
- Blood or blood product transfusion;
- Chest tube;
- Exchange transfusion, partial or complete and up to 48 hours after exchange transfusion dependent on clinical stability;
- Feedings complicated by episodes of apnea, bradycardia, or desaturations requiring stimulation for recovery;
- Infants less than 32 weeks gestational age or less than 1500 gms birth weight for the first 24 hours of life;
- IV Therapy
  - Inborn error of metabolism requiring IV therapy or specialized formula until tolerating full enteral feeds; **or**
  - Metabolic acidosis or alkalosis or electrolyte imbalance requiring IV therapy; **or**
  - Seizures requiring IV therapy (this criterion includes IV glucose administration for seizures caused by hypoglycemia);
- Peritoneal dialysis on automated recycler;
- Respiratory Services
  - Nasal cannula with flow greater than 2 liters per minute or CPAP greater than 4 cm H_2O pressure; **or**
  - Positive pressure ventilator assistance with intubation and 24 hours post-ventilator care; **or**
  - Supplemental oxygen via oxygen hood or nasal cannula when effective FiO_2 of greater than 40% is required to maintain acceptable SaO_2 or neonate is intubated (Note: Intubation in the delivery room when the endotracheal tube is removed prior to leaving the delivery room or brief intubation for administration of surfactant or deep tracheal suctioning does not meet level III criteria for intubation); **or**

  - Nasal intermittent positive pressure ventilation; **or**
  - Infants on chronic ventilators who are not sufficiently stable to transition to home ventilators/homecare or long term care;
- Surgical conditions requiring general anesthesia and two days post-op;
- Therapies for retinopathy of prematurity (ROP);
- Umbilical Artery Catheters (UACs), Peripheral Artery Catheters (PACs), Umbilical Vein Catheters (UVCs) and/or Central Vein Catheters (CVCs) when used for active monitoring or arterial or venous pressures.

Level IV Neonatal Intensive Care:

This level of care covers hemodynamically unstable or critically ill neonates including those with respiratory, circulatory, metabolic or hemolytic instabilities, as well as conditions that require surgical intervention, and the first 24 hours of monitoring of infants with major congenital anomalies or extreme prematurity who are at risk for hemodynamic instability.

Examples of types of services neonates receive or clinical conditions managed at this level of care are:

- Extracorporeal membrane oxygenation (ECMO)/nitric oxide (NO);
- High frequency ventilation (HFV) used when conventional mechanical ventilation fails;
- Hypothermia therapy for hypoxic-ischemic encephalopathy-total body or selective head cooling;
- Pre and post-surgical care for severe congenital malformations or acquired conditions such as gastroschisis, coarctation of the aorta or other heart defects or bowel perforation, that require the use of advanced technology and support;
- Continuous or closely monitored medication infusion where an interruption of the medication could result in hemodynamic instability or other severe morbidities; examples of such medications include, but are not limited to, prostaglandin E, vasoactive or inotropic drugs, and insulin;
- Hemodynamic instability (including hypertension)
  - Invasive hemodynamic monitoring and CNS pressure monitoring; **or**
  - Requiring IV volume bolus therapy and/or inotropic or chronotropic drugs, Ca++ channel blockers, and IV prostaglandin therapy;
- IV bolus or continuous drip therapy for severe physiologic/metabolic instability;
- Renal replacement therapy with any form of hemodialysis or filtration, or peritoneal dialysis until on automated recycler.

Not Medically Necessary:

Admission to and continued stay in appropriate neonatal levels of care are considered **not medically necessary** when the above criteria are not met.

Coding

Coding edits for medical necessity review are not implemented for this guideline. Where a more specific policy or guideline exists, that document will take precedence and may include specific coding edits and/or instructions. Inclusion or exclusion of

a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement policy. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

Discussion/General Information

Hospitals with obstetric services must also care for the newborn. In most cases, newborns do not require care beyond that of a general nursery. However, newborn complications can occur even when an uneventful birth is anticipated. It is important that facilities have equipment and capabilities to address these events or the process to stabilize and transport the ill newborn to a facility that does. The high-risk neonate is a newborn who has encountered an event in prenatal, perinatal, or postnatal life that requires admission to a NICU.

Complications requiring a NICU admission can occur in premature and term infants. The American Academy of Pediatrics (AAP) 2019 Clinical Report *Updates on an At-Risk Population: Late-Preterm and Early-Term Infants* (Stewart, 2019) defines infants born between 37 weeks and 38 weeks as early-term. Infants born between 39 weeks and 40 weeks are term, and those born at 41 weeks or later are late term. Infants born before 37 weeks are considered preterm or premature.

The Centers for Disease Control and Prevention (CDC, 2024) reported that in 2022, preterm birth (less than 37 completed week's gestation) affected about 1 of every 10 infants born in the United States.

Newborn complications include, but are not limited to:

- Cardiac conditions: Congenital heart defects, cyanotic and acyanotic cardiac disease;
- Endocrine disorders: Infant of a diabetic mother;
- Genetic: Chromosomal anomalies (for example: Trisomy 13, 18, 21, Turner's);
- Gastrointestinal: Surgical emergencies such as necrotizing enterocolitis, perforated viscus, intestinal obstruction, diaphragmatic hernia, esophageal or gut atresia, gastroschisis, omphalocele, imperforate anus, esophageal atresia, tracheoesophageal fistula;
- Hematologic conditions: Indications for phototherapy, exchange transfusion in the premature or ill neonate, erythroblastosis fetalis, hydrops fetalis, and partial exchange transfusion for anemia or polycythemia;
- Infectious disease: Intrauterine viral infections, Group B Streptococcal infections, neonatal sepsis and meningitis, herpes simplex; infant of HIV, hepatitis, or syphilis; fungal infections;
- Neurologic disorders*:* Hypoxic-ischemic encephalopathy, intraventricular hemorrhage, retinopathy of prematurity, drug withdrawal, central apnea, seizures, hydrocephalus, spina bifida;
- Pulmonary disorders: Hyaline membrane disease (respiratory distress syndrome), transient tachypnea, meconium aspiration, amniotic fluid aspiration, persistent pulmonary hypertension of the newborn, pneumonia, pneumothorax, bronchopulmonary dysplasia, atelectasis.

In 2012 (reaffirmed 2015), the AAP issued a policy statement outlining the designations of levels of neonatal care to distinguish and standardize newborn care capabilities offered by hospitals. The AAP designations consist of levels I-IV and encompass all newborn care, from general care of the healthy newborn to care of the critically ill newborn. Each level reflects the minimal capabilities, functional criteria, and provider type required. However,

examples of medically necessary levels of neonatal care (such as hyperalimentation and treatment of apnea/bradycardia) noted in this document indicate the intensity of services needed or rendered based on an infant's clinical status as described by expert clinical input and are not the same as AAP designations, which are based on the facility clinical service capabilities.

In 2017 the AAP and American College of Obstetrics and Gynecology (ACOG) issued their *Guidelines for Perinatal Care*. In it they recommend that term and late-preterm infants be closely observed for the first 4-8 hours during the transition period following birth.

A 2020 study by Akangire and colleagues sought to decrease the use of antibiotics for suspected but not yet confirmed early-onset sepsis in neonates 34 weeks gestation or greater. The authors note that further research is necessary for neonates less than 34 weeks gestation.

The 2022 Clinical Practice Guideline by the AAP on Management of Hyperbilirubinemia in the Newborn Infant 35 or More Weeks of Gestation notes that infants with risk factors for hyperbilirubinemia need closer monitoring than infants without these risk factors. Relevant risk factors include:

- Lower gestational age
- Jaundice in the first 24 hours after birth
- Predischarge transcutaneous bilirubin (TcB) or total serum bilirubin (TSB) concentration close to the phototherapy threshold
- Hemolysis from any cause
- Phototherapy prior to discharge
- Parent or sibling requiring phototherapy or exchange transfusion
- A family history or genetic ancestry suggestive of inherited red blood cell disorders, including glucose-6-phosphate dehydrogenase (G6PD) deficiency
- Exclusive breastfeeding with suboptimal intake
- Scalp hematoma or significant bruising
- Down syndrome, or
- Macrosomic infant of a diabetic mother

Risk factors can be identified by physical exam, laboratory data, and obtaining a family history of blood disorders or neonatal jaundice. The guidelines also note "Whenever possible, phototherapy should be provided in the mother's room or in a room in which the mother can remain with the infant."

Experienced clinicians advise that peritoneal dialysis on an automated recycler requires NICU level of care with renal replacement therapy handled at the highest level of NICU.

Consensus from experienced clinicians is that infants requiring nasal cannula flow of greater than 2 liters per minute may require the equivalent CPAP also greater than 4.

Patrick and colleagues (2020) for the AAP released a neonatal opioid withdrawal syndrome report. They indicate the most commonly used tool in the United States to quantify the severity of neonatal withdrawal is the modified Neonatal Abstinence Scoring System. The system assigns a cumulative score based on the interval observation of 21 items relating to signs of neonatal withdrawal. Signs of neonatal withdrawal scored on the tool include central

nervous system disturbances, metabolic/vasomotor/respiratory disturbances, and gastro-intestinal disturbances. An alternative tool is called Eat, Sleep, Console (ESC). The aim of this scoring tool is to guide treatment by the infant's clinical signs of withdrawal through their ability to eat, sleep undisturbed, and be consoled. Currently the ESC approach has only been studied through quality improvement initiatives and it is unclear if improvements are as a result of the ESC approach itself or from better adherence to nonpharmacologic management. Both the Neonatal Abstinence Score and the ESC method are in common use. Neither has been shown to be clinically superior to the other.

Prior to discharge, infants may require a lesser level of care other than NICU. They may still need active care and have stability confirmed prior to discharge. However they may not require the intensity of a NICU level. In order to be discharged, infants would typically need to be able to thermoregulate without incubation, breathe without the use of pressure support and without significant apnea, and be able to eat without a nasogastric tube. In 2022, Sullivan reported five maturational milestones very low birth weight infants achieve as they approach postmenstrual age. These include transition off CPAP, discontinuation of caffeine therapy, the ability to thermoregulate without incubation, resolution of significant apnea of prematurity, and full oral feeding.

Definitions

Finnegan neonatal abstinence scoring system (modified): A system that assigns a cumulative score based on the interval observation of the following 21 items related to signs of neonatal drug withdrawal:

SIGNS AND SYMPTOMS	SCORE
CENTRAL NERVOUS SYSTEM	
Continuous High Pitched (or other) Cry	2-if high-pitched up to 5 minutes 3-if high-pitched for more than 5 minutes
Sleep	3-sleeps less than 1 hour after feeding 2-sleeps less than 2 hours after feeding 1-sleeps less than 3 hours after feeding
Moro Reflex	2-if hyperactive 3-if markedly hyperactive
Tremors	1-mild tremors disturbed 2-moderate-severe tremors disturbed 3-mild tremors undisturbed 4-moderate to severe tremors undisturbed
Increased Muscle Tone	2
Excoriation (Specific Area)	1
Myoclonic Jerks	3
Generalized Convulsions	5
METABOLIC/VASOMOTOR/RESPIRATORY DISTURBANCES	
Sweating	1
Fever	1-if 100.4°-101°F (38°-38.3°C) 2-if more than 101°F (38.3°C)

Frequent Yawning (More than 3-4 times/interval)	1
Mottling	1
Nasal Stuffiness	1
Sneezing (More than 3-4 times/interval)	1
Nasal Flaring	2
Respiratory Rate	1-if more than 60/minute 2-if more than 60/minute with retractions
GASTROINTESTINAL DISTURBANCES	
Excessive Sucking	1
Poor feeding	2
Regurgitation	2
Projectile Vomiting	3
Stools	2-if loose 3-if watery

(Finnegan, 1990; Patrick [AAP], 2020)

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History

Status	Date	Action
Revised	05/08/2025	Medical Policy & Technology Assessment Committee (MPTAC) review. Revised "Examples of types of services neonates receive or clinical conditions managed at this level of care" sections of the Clinical Indications section. Revised Discussion/General Information, References and Websites sections.
Reviewed	02/20/2025	MPTAC review. Revised Discussion/General Information, References and Websites for Additional Information sections.
Reviewed	02/15/2024	MPTAC review. Revised Discussion/General Information, References and Websites for Additional Information sections.
Reviewed	02/16/2023	MPTAC review. Updated Discussion/General Information and References sections.

Revised	02/17/2022	Medical Policy & Technology Assessment Committee (MPTAC) review. Addition to General Nursery or Well-Baby Nursery level of care: "Infants who continue to require inpatient care but do not require a neonatal intensive care unit (NICU) level of care are suitable for care in a well-baby nursery." Revision to Level I Surveillance Special Care Nursery: changed nipple feedings to greater than 50% of total enteral feedings. Updated Discussion/General Information and References sections.
Revised	02/11/2021	MPTAC review. Revisions to General Nursery or Well-Baby Nursery level of care: Added "Routine transitional and stabilization care provided in the first 8 hours after birth." Revisions to Level I Surveillance Special Care Nursery: added "for example" and "receiving monitoring" to initial sepsis evaluation. Revisions to Level II Neonatal Intensive Care: Revised nasal cannula flow from 1 to 2 liters per minute. Revisions to Level III Neonatal Intensive Care: Deleted "Feedings greater than 30 minutes via an orally or nasally inserted tube, for example, nasogastric, orogastric, nasojejunal, or gastrostomy tube" and revised to "Feedings complicated by episodes of apnea, bradycardia, or desaturations requiring stimulation for recovery." Added "Peritoneal dialysis on automated recycler." Revised nasal cannula flow from 1 to 2 liters per minute. Revisions to Level IV Neonatal Intensive Care: Added "Renal replacement therapy with any form of hemodialysis or filtration, or peritoneal dialysis until on automated recycler." Updated Discussion/General Information and References sections.
Revised	11/05/2020	MPTAC review. Removed "high-flow" from nasal cannula in levels II and III Clinical Indications. Updated Description, Discussion/General Information, and References sections.
Reviewed	11/07/2019	MPTAC review. Discussion/General Information, References, and Websites sections updated.
Revised	11/08/2018	MPTAC review. Examples of levels of care for General Nursery, Level I, Level II, and Level III updated in Clinical Indications section. Discussion/General Information, References, and Websites sections updated.
Reviewed	07/26/2018	MPTAC review. The document header wording updated from "Current Effective Date" to "Publish Date." References and Websites sections updated.
Revised	08/03/2017	MPTAC review. Examples of levels of care in Clinical Indications section updated. Definition section added. Description, Discussion and References sections updated.
Revised	08/04/2016	MPTAC review. Removed abbreviation "i.e." and formatting updated in clinical indication section. Examples of level of care updated for Well-Baby Nursery and Level 1. References section updated.
Revised	08/06/2015	MPTAC review. Description and Reference sections updated. Example for Level II, infants transitioning home on a home ventilator clarified in medically necessary statement.
Revised	08/14/2014	MPTAC review. Examples for levels of care I, II, and III in medically necessary statement updated. Discussion, Links in Reference and Websites sections updated.

Revised	02/13/2014	MPTAC review. Examples for levels of care in medically necessary statement updated. Not medically necessary statement added. Discussion and Reference sections updated.
Revised	08/08/2013	MPTAC review. Medically necessary statement updated with "and continued stay in."
Revised	02/14/2013	MPTAC review. Levels in medically necessary statement updated. Description, Discussion and Reference sections updated.
Reviewed	02/16/2012	MPTAC review. References updated.
Reviewed	02/17/2011	MPTAC review. References updated.
Reviewed	02/25/2010	MPTAC review. References updated.
Reviewed	02/26/2009	MPTAC review. Case management section deleted, references updated.
Reviewed	02/21/2008	MPTAC review. References updated.
Revised	03/08/2007	MPTAC review. Criteria revised. References updated.
Revised	06/08/2006	MPTAC review. Revision based on Pre-merger Anthem and Pre-merger WellPoint Harmonization.

Pre-Merger Organizations	**Last Review Date**	**Guideline Number**	**Title**
Anthem, Inc.			None
WellPoint Health Networks, Inc.	12/01/05	Guideline	Neonatal Levels of Care