Clinical Policy: Home Phototherapy for Neonatal Hyperbilirubinemia

Reference Number: LA.CP.MP.150 Coding Implications

Last Review Date: 08/2020 Revision Log

See Important Reminder at the end of this policy for important regulatory and legal information.

Description

This policy details medical necessity criteria for home phototherapy for the treatment of neonatal hyperbilirubinemia. Almost all newborns will develop total serum bilirubin (TSB) levels greater than the upper limit of normal for adults, 1 mg/dL. Increasing TSB can cause jaundice, and newborns with severe hyperbilirubinemia are at risk for developing acute neurotoxicity as bilirubin crosses the blood-brain barrier. Acute bilirubin-induced neurologic dysfunction (BIND) can have chronic and permanent neurologic effects, termed kernicterus. Thus, screening for hyperbilirubinemia should be conducted on all infants prior to discharge.

Policy/Criteria

I. It is the policy of Louisiana Healthcare Connections that conventional phototherapy in the home, applied by a single light source in the blue-green spectrum, for the treatment of physiologic hyperbilirubinemia in *term* (≥ *38 weeks gestation)* infants is medically necessary when meeting all of the following guidelines:

A. Term infant status is one of the following:
1. Previously discharged home and readmission is being considered only for hyperbilirubinemia; or
2. Infant is currently inpatient and ready for discharge except for needing treatment for elevated bilirubin;

B. The infant is feeding well, is active, and appears well;

C. If the mother is breastfeeding, she has been offered lactation support from a qualified professional;

D. A primary provider willing to manage home care with established follow-up within the next 24-48 hours;

E. Infant has none of the following risk factors:
1. Isoimmune hemolytic disease
2. Glucose-6-phosphate dehydrogenase (G6PD) deficiency
3. Asphyxia
4. Significant lethargy
5. Temperature instability
6. Sepsis
7. Acidosis
8. Albumin < 3.0 g/dL (if measured)
9. Birth weight < 2500g
10. Significant cephalohematoma or bruising
11. Weight loss >10%
12. Elevated direct-reacting bilirubin
13. Jaundice appearance in first 24 hours of life

F. TSB is within the levels noted in Table 1 below[1]:

Table 1. Acceptable TSB levels for home phototherapy in infants without risk factors, by age

Age	TSB Level
24-36 hours	≤ 11 mg/dL
36-48 hours	≤ 14 mg/dL
48-60 hours	≤ 15 mg/dL
60-72 hours	≤ 16 mg/dL
>72 hours	≤ 17 mg/dL

II. It is the policy of Louisiana Healthcare Connections that when criteria for home phototherapy is met, inpatient phototherapy for hyperbilirubinemia is not medically necessary unless documentation of extenuating circumstances is provided.

III. It is the policy of Louisiana Healthcare Connections that other treatment for hyperbilirubinemia, including inpatient phototherapy and exchange transfusion, is medically necessary when meeting the most current version of the relevant nationally recognized decision support tools.

Background

Efforts to reduce kernicterus include prevention and management of hyperbilirubinemia. Preventive strategies focus on identifying at-risk infants and beginning preventive therapeutic interventions as needed, usually through universal screening of all neonates for hyperbilirubinemia, which may be performed by measurement of TSB or by use of a transcutaneous device.[2]

Phototherapy is considered first-line treatment for neonatal hyperbilirubinemia, defined as TSB > 95th percentile on the hour-specific Bhutani nomogram for infants ≥35 weeks gestational age (GA).[1] Phototherapy has been used widely for over 60 years and has been associated with few adverse events in term infants. Phototherapy decreases or reduces the rate of rise of bilirubinemia in almost all cases, regardless of the cause.[2] At the same time, it reduces the risk that TSB will reach the level at which exchange transfusion is recommended, and which is associated with increased risk of kernicterus.

Conventional phototherapy is delivered by a single light source, and intensive phototherapy is delivered by irradiance in the blue-green spectrum (wavelengths of approximately 430–490 nm) of at least 30 µW/cm2 per nm (measured at the infant's skin directly below the center of the phototherapy unit) and delivered to as much of the infant's surface area as possible. [3] Furthermore, conventional phototherapy may be delivered in the hospital setting or in the home.[4]

Some infants are more likely than others to be readmitted for treatment of hyperbilirubinemia after discharge from the birth hospitalization.[5] Infants discharged in the first two days after birth were more likely to be readmitted for jaundice compared with infants who stayed ≥ 3 days, an association that decreased with increasing GA.[6] Other risk factors identified were being born via vaginal delivery, being exclusively breastfed at discharge, being born to a primiparous mother,

having a mother aged <20 years being born to a mother who had an Asian country of birth, and higher TSB relative to the treatment threshold at phototherapy initiation.[5,6,]

American Academy of Pediatrics (AAP) [1]
In 2004, the AAP issued updated clinical practice guidelines concerning the assessment and treatment of neonatal hyperbilirubinemia in infants ≥35 weeks. They recommend support and promotion of successful breastfeeding; assessment for severe hyperbilirubinemia before discharge; early follow up based on risk of hyperbilirubinemia; and treatment with phototherapy and/or exchange transfusion to prevent BIND in infants at risk.

National Institute for Health and Care Excellence (NICE) [7]
NICE guidelines cover diagnosing and treating jaundice in order to detect and prevent very high levels of bilirubin. They provide consensus-based thresholds for when phototherapy and exchange transfusion should be initiated, by age in hours.

United States Preventive Services Task Force (USPSTF) [8]
The USPSTF stated there was insufficient evidence to make recommendations regarding screening for hyperbilirubinemia for infants ≥35 weeks. They note that risk factors for hyperbilirubinemia include family history of neonatal jaundice, exclusive breastfeeding, bruising, cephalohematoma, ethnicity (Asian or black), maternal age older than 25 years, male sex, glucose-6-phosphate dehydrogenase deficiency, and gestational age less than 38 weeks. The specific contribution of these risk factors to chronic bilirubin encephalopathy in healthy children is not well understood. Currently, the USPSTF notes this recommendation is "inactive".

Coding Implications
This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2019, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

CPT® Codes	Description
N/A	

HCPCS Codes	Description
E0202	Phototherapy (bilirubin) light with photometer
S9098	Home visit, phototherapy services (e.g., Bili-lite), including equipment rental, nursing services, blood draw, supplies, and other services, per diem

ICD-10-CM Diagnosis Codes that Support Coverage Criteria

ICD-10-CM Code	Description
P55.0-P55.9	Hemolytic disease of newborn
P58.0-P58.9	Neonatal jaundice due to other excessive hemolysis
P59.20-P59.9	Neonatal jaundice from other and unspecified hepatocellular damage

Reviews, Revisions, and Approvals	Date	Approval Date
Converted corporate to local policy.	08/15/2020	

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Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. LHCC makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable LHCC administrative policies and procedures.

This clinical policy is effective as of the date determined by LHCC. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. LHCC retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

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