The use of a home phototherapy unit is considered medically necessary in newborns with neonatal jaundice when ALL of the following criteria are met:

- The infant is otherwise clinically appropriate for discharge from the hospital or, if already discharged, does not otherwise require readmission to the hospital.
- The infant appears healthy, active, and is feeding well.
- A primary liver disorder is not the cause of the elevated serum bilirubin.
- Arrangements have been made that include close visual follow-up by the primary care provider and/or an appropriately trained home health care nurse, as well as regular serum bilirubin determinations.

General Background

Hyperbilirubinemia, or neonatal jaundice, is a condition in which there is a higher-than-normal level of bilirubin in the blood. Bilirubin is a byproduct of the normal breakdown of hemoglobin. Hemoglobin is broken down into heme and globin, and the heme is converted to bilirubin. The bilirubin is carried by albumin to the liver and subsequently excreted by the liver into the gallbladder and the small intestine. From the small intestine it is eventually excreted in feces. Smaller amounts are also excreted in the urine. Bilirubin formation in newborns is two to three times higher than in adults due to the short life span of the red blood cells. Also, due to the lack of maturity of the liver and intestinal systems, newborns, especially premature infants, are unable to excrete bilirubin as fast as the body produces it, resulting in an imbalance between production and elimination of bilirubin. When blood levels of bilirubin become too high for the liver to process, bilirubin enters body tissues, producing the characteristic yellow eyes and skin of jaundice. Over 60% of all newborns will develop jaundice, with 25% being at risk for severe hyperbilirubinemia. While premature infants are much more likely to develop hyperbilirubinemia, it is also more common in certain ethnic groups, such as Native Americans and Asians. In most cases, hyperbilirubinemia causes no problems, and treatment is not necessary.

Severe hyperbilirubinemia is most likely to occur in infants whose gestation is below 38 weeks, are breastfeeding, have a history of significant jaundice in a sibling, and the jaundice presents prior to discharge from the hospital. In addition to jaundice, symptoms of hyperbilirubinemia may include lethargy, poor sucking reflex, shrill cry, fever, and apnea. The jaundice usually starts in the face and spreads to the extremities. If left untreated, the infant may develop encephalopathy or kernicterus (i.e., permanent,
bilirubin-related brain damage). Sick infants, lower birth weight infants, and lower gestation infants are at a greater risk of developing kernicterus at lower total serum bilirubin (TSB) levels.

The level of bilirubin in the blood is monitored by ongoing assessment of the TSB or transcutaneous bilirubin (TcB). Baseline levels should be established within the first 24 hours after birth for every infant who is jaundiced. Depending upon the level of the TSB/TcB, the infant may require treatment with phototherapy. A TSB of 25 milligrams per deciliter (mg/dL) is considered a medical emergency in any age infant. All TSBs should be interpreted according to the infant’s age in hours. The American Academy of Pediatrics (AAP) published guidelines on the treatment of hyperbilirubinemia. These guidelines place infants into risk groups according to the TSB level, risk factors and gestational age. Risk levels from birth to seven days based upon approximate TSB levels are 4–15 mg/dL, 5–18 mg/dL and 7–21 mg/dL, low-risk, medium-risk and high-risk, respectively. Low-risk infants are > 38 weeks gestation and well. Medium-risk infants are > 38 weeks gestation and have risk factors or are 35–37 6/7 weeks gestation and well. High-risk infants are 35–37 6/7 weeks gestation and have risk factors (AAP, 2004). Buhutani and Johnson (2004) developed risk groups based upon percentiles for the hour of life. They grouped TSB values per hour of life into severe, > 95th percentile; extreme > 99.9th percentile or TSB > 25.0 mg/dL; and dangerous > 99.99th percentile or TSB > 30 mg/dL.

**Phototherapy**

Phototherapy, the use of light to treat hyperbilirubinemia, is effective because bilirubin absorbs blue light and converts to a water-soluble compound, permitting more rapid excretion in the urine. Specific wavelengths of the light alter the bilirubin through photo-oxidation, configurational isomerization and structural isomerization. The goals of phototherapy are to prevent the already elevated TSB levels from rising higher, to prevent the occurrence of encephalopathy or kernicterus, and to prevent the TSB from rising to a level that requires exchange transfusion (i.e., 20 mg/dL). The effectiveness of phototherapy depends upon the type of light source used (i.e., dose, spectral emission curve, depth of penetration), the distance between the light and the infant, the surface area treated, the characteristics of the infant’s skin and tissue, the etiology of the jaundice, and the TSB level at the onset of the phototherapy.

Home phototherapy is initiated when the infant’s TSB reaches a level of clinical concern. Due to early postpartum discharge, many infants are at home when the TSB reaches its peak (i.e., ~96 hours) and jaundice becomes apparent. If the TSB level meets criteria for home treatment as outlined in the AAP 2004 Guideline, home phototherapy may be initiated as opposed to readmitting the child to the hospital. Home phototherapy should not be used on any infants with risk factors. Phototherapy should never be used to treat an infant with congenital porphyria or a family history of porphyria, or an infant on photosensitizer drugs and agents.

Home phototherapy is a generally safe treatment with minimal complications (i.e., dehydration and overheating). In infants with cholestatic jaundice, phototherapy may cause a discoloration of the infant’s skin called “bronze baby syndrome.” This condition is a grayish-brown discoloration of the skin, serum, and urine, which may last for weeks to months. Rarely pupura, bullous eruptions, blistering and photosensitivity have been seen in infants who have underlying conditions (i.e., cholestatic jaundice, erythropoietic porphyria).

**Light Sources**

There are no standardized methods for delivering home phototherapy. Light sources include fluorescent tubes, fiberoptic lights, halogen lights, blue light-emitting diode, and gallium nitride light-emitting diodes. Special blue fluorescent bulbs (i.e., F20 T12/BB, TL52/20W) are more effective than regular blue tubes (i.e., F20T12/B) because they provide a blue-green spectrum, which most closely mimics the bilirubin absorption spectrum. The blue-green spectrum penetrates the skin more effectively and has the highest absorption rate by bilirubin. The most effective light sources are those in a narrow wavelength, 400–520 emission range (nm), with a peak center of 460 ± 10 nm. The spectral irradiance (i.e., light intensity) determines the effectiveness of the treatment with higher doses delivering greater results. “Conventional phototherapy” refers to the use of halogen or fluorescent lights (Vreman, et al., 2004; Watchko and Maisels, 2003).

Fiberoptic pads are an alternative to fluorescent tubes. An advantage of fiberoptic lights is the ability to wrap the infant with the fiberoptic blanket and, therefore, their eyes do not need to be covered. The
disadvantage of fiberoptic lights is the inability to treat large areas of the skin due to the small size of the fiberoptic pads.

The newest light source is the gallium nitride light-emitting diode (LED). Not only is LED more efficient and provides a longer life span, but it emits little heat, requires less power, and can be applied closer to the infant. LED provides a selected peak wavelength and allows the capability of delivering narrow bilirubin-specific band irradiances. The safety of LED has not been proven, and it is still under investigation (Vreman, et al., 2004; Seidman, et al., 2003).

U.S. Food and Drug Administration (FDA)
Light sources for the treatment of hyperbilirubinemia are approved by the FDA as Class II, 510(k) neonatal phototherapy units. There are a variety of light sources on the market that are appropriate for home use, and the information below represents a sampling of these devices.

- Ohmeda Medical BiliBlanket® Plus High Output Phototherapy System (Ohmeda Medical, Laurel, MD)
- Natus® Blue Light Phototherapy Unit (Natus Medical Inc., SanCarlos, CA)
- neoBlue cozy™ LED Phototherapy System (Natus Medical, Inc., San Carlos, CA)
- Wallaby™ Phototherapy System (Respironics GA Inc., Marietta, GA)
- BiliBed® Phototherapy Unit (Medela, Inc., McHenry, IL)

Literature Review
Newman et al. (2006) conducted a prospective study to compare neurodevelopmental outcomes of infants who, within 30 days following birth, developed a TSB ≥ 25 mg/dL (27–45.5 mg/dL) to infants with a TSB < 25 mg/dL. From a cohort of 106,627 infants born in northern California Kaiser Permanente hospitals, 140 study subjects and 419 randomly selected-term and near-term infants met study criteria. Ten newborns had a TSB ≥ 30 mg/dL, and 130 newborns had a TSB between 25–29.9 mg/dL. Most TSBs peaked at three to seven days and declined to less than 20 mg/dL within 24 hours. Phototherapy was involved in the treatment of 136 cases; five infants received exchange transfusion. Outcome data were obtained from records, interviews, questionnaires and neurodevelopment evaluations. Neurological evaluations were performed on children, mean age 5.1 ± 0.12 years, by blinded examiners. In the study group, 82 children had formal evaluations; 19 completed questionnaires with or without follow-up; 31 had outpatient follow-up at age two or greater; and eight had less than two years of follow-up. In the control group, 168 had formal evaluations; 82 completed questionnaires with or without follow-up; 122 had outpatient follow-up at age two or greater; and 42 had less than two years of follow-up. There were no significant differences in the neurological findings, the intelligence testing, child behavior testing or the visual-motor integration testing between the two groups. Seventeen percent (14) of the study group had questionable or abnormal findings compared to 29% (48) of the control group. Subjects in the study group with positive direct antiglobulin tests had lower cognitive testing scores, but not more neurologic or behavioral problems. The authors concluded that “phototherapy and exchange transfusion were not associated with adverse neurodevelopmental outcomes in infants born at or near term.” As noted by the authors, the main limitation of the study was the inability to perform formal evaluations on all subjects.

A randomized controlled trial was conducted by Sarin et al. (2006) which compared a special blue compact fluorescent lamp (CFL) to a blue standard-length tube light (STL) to determine if the length of the lamp would affect the treatment outcome. Each group included 50 infants, gestational age > 34 weeks, with hyperbilirubinemia treated with phototherapy. Duration of phototherapy was the primary outcome, with secondary outcomes including rate of decline of TSB, temperature instability, evidence of dehydration and the need for exchange transfusion. TSB was measured every 12 hours until phototherapy was discontinued or exchange therapy was required. Urinary frequency, clinical signs of dehydration, weight, serum sodium and axillary temperature were also recorded every 12 hours. Estimated marginal mean TSB in the CFL group was significantly higher (15.53mg/dL) than in the STL group (14.55mg/dL). There were no significant differences in baseline characteristics, phototherapy duration (CFL group 40.66 ± 23.94 hours compared to STL group 40.78 ± 21.83 hours), actual time under phototherapy (CFL group 29.86 ± 17.57 hours compared to STL group 29.32 ± 16.00 hours), axillary temperatures, serum sodium, urine specific gravity, weight changes, and signs of dehydration between the two groups. Although not statistically significant, the number of infants requiring exchange
transfusions was higher in the CFL group. The authors concluded that the CFL was not superior to the STL in terms of efficacy and adverse effects.

Romagnoli et al. (2006) conducted a randomized controlled trial to determine the effectiveness of four phototherapy light systems in treating preterm infants, gestational age ≤ 30 weeks, with hyperbilirubinemia. When TSB reached 6.0 mg/dL, infants were randomly assigned to conventional phototherapy (i.e., four fluorescent lamps and four blue lamps placed over the infant) (n=35), fiberoptic Wallaby (i.e., halogen lamp and light filter placed under the infant) (n=35), fiberoptic Biliblanket (i.e., halogen light and light filter placed under the infant) (n=35) or combined phototherapy (i.e., conventional phototherapy plus Wallaby) (n=35). Outcomes were measured by periodic TSB levels (i.e., every 12 hours until 48 hours after cessation of phototherapy), phototherapy duration and need for exchange therapy. Phototherapy was considered a failure if TSB reached 14 mg/dL. The combined therapy infants demonstrated the lowest change in bilirubin concentration from baseline within 24 hours (16.0 ± 12.8%); the lowest, highest bilirubin level (7.6 ± 1.3mg/dL); and had only two infants whose bilirubin exceeded specified serum levels (> 10 mg/dL) compared to 7–11 infants in the other groups. The results demonstrated that the Biliblanket and Wallaby phototherapy systems were as effective as conventional therapy. However, the best outcomes were demonstrated in the combined therapy group. Thus, the authors concluded that combined phototherapy may be the treatment of choice for preterm infants with hyperbilirubinemia. Limitations of the study as noted by the authors included: small sample size, use of suboptimal conventional phototherapy and the lack of neurodevelopmental follow-up data.

Seidman et al. (2003) conducted a prospective, randomized, controlled trial to “compare, at similar light intensities, the efficacy of narrow spectral band blue and blue-green gallium nitride LED light versus conventional halogen-quartz phototherapy lamps.” Jaundiced, otherwise healthy, infants were randomized to the LED group (n=47) or to the conventional group (n=57) following the AAP practice parameters (AAP, 1994). The LED group was further randomized to blue (n=25) or blue-green (n=22) light groups. The LED device was built by the Stanford University Department of Pediatrics Laboratory and was designed to deliver the same light intensity as the conventional device. The outcome measures were the duration of phototherapy and the rate of decline in the TSB. The blue-green LEDs were found to be less effective than the blue LEDs and the halogen-quartz, but no statistical difference was observed. There was also no significant statistical difference in the efficacy of blue-green over blue or white light. Although there are advantages of the LED devices, they were not found to be more effective.

A randomized controlled trial conducted by Ebbesen et al. (2003) compared the effectiveness of six turquoise fluorescent lamps plus two daylight fluorescent lamps (n=42) to the effectiveness of six blue fluorescent lamps plus two daylight lamps (n=43). The infants were treated for 48 hours. Outcomes were based upon the TcB. There was no significant difference between the two groups in the decrease of TcB. The turquoise light resulted in the same reduction of TcB as the blue lights, but the light irradiance of the turquoise light was three quarters that of the blue light. Therefore, the authors concluded that the efficacy of the turquoise light was greater than that of the blue light.

A systematic review by Mills and Tudehope (2000) reported outcomes from 24 randomized trials, which included 1753 infants who met the study’s inclusion criteria. The purpose of the review was to evaluate the effectiveness of fiberoptic phototherapy compared to conventional phototherapy and to no therapy. The authors concluded that fiberoptic therapy was: 1) more effective than no therapy; 2) less effective than conventional therapy; 3) equally as effective as conventional phototherapy in preterm infants; and 4) fiberoptic therapy with conventional therapy (i.e., double phototherapy) was more effective than conventional phototherapy alone. The authors concluded that fiberoptic therapy may be a reasonable alternative to conventional therapy.

**Professional Societies/Organizations**
The California Perinatal Quality Care Collaborative (CPQCC) published a toolkit for “Severe Hyperbilirubinemia Prevention.” In the toolkit, the CPQCC supports the use of phototherapy for the treatment of hyperbilirubinemia following the 2004 hyperbilirubinemia guideline published by the AAP (Bell, et al., 2005).

The key elements in the Guideline state that clinicians should:

- promote and support successful breastfeeding
- establish nursery protocols for the identification and evaluation of hyperbilirubinemia
- measure the total serum bilirubin (TSB) or transcutaneous bilirubin (TcB) level on infants jaundiced in the first 24 hours
- recognize that visual estimation of the degree of jaundice can lead to errors, particularly in darkly pigmented infants
- interpret all bilirubin levels according to the infant’s age in hours
- recognize that infants at less than 38 weeks’ gestation, particularly those who are breastfed, are at higher risk of developing hyperbilirubinemia and require closer surveillance and monitoring
- perform a systematic assessment on all infants before discharge for the risk of severe hyperbilirubinemia
- provide parents with written and verbal information about newborn jaundice
- provide appropriate follow-up based on the time of discharge and the risk assessment
- treat newborns, when indicated, with phototherapy or exchange transfusion

Other recommendations include:

- A TcB and/or TSB measurement should be performed on every infant who is jaundiced in the first 24 hours after birth (Figure 1 and Table 1). The need for and timing of a repeat TcB or TSB measurement will depend on the zone in which the TSB falls (Figure 2), the age of the infant, and the evolution of the hyperbilirubinemia. Recommendations are for TSB measurements after the age of 24 hours (Figure 1 and Table 1).
- A TcB and/or TSB measurement should be performed if the jaundice appears excessive for the infant’s age. If there is any doubt about the degree of jaundice, the TSB or TcB should be measured. Visual estimation of bilirubin levels from the degree of jaundice can lead to errors, particularly in darkly pigmented infants.
- All bilirubin levels should be interpreted according to the infant’s age in hours (Figure 2).
- The possible cause of jaundice should be sought in an infant receiving phototherapy or whose TSB level is rising rapidly (i.e., crossing percentiles [Figure 2]) and is not explained by the history and physical examination.
- Before discharge, every newborn should be assessed for the risk of developing severe hyperbilirubinemia. Such assessment is particularly important in infants who are discharged before the age of 72 hours.
- The AAP recommends two clinical options used individually or in combination for the systematic assessment of risk: predischarge measurement of the bilirubin level using TSB or TcB and/or assessment of clinical risk factors. Whether either or both options are used, appropriate follow-up after discharge is essential.
- All hospitals should provide written and verbal information for parents at the time of discharge, which should include an explanation of jaundice, the need to monitor infants for jaundice, and advice on how monitoring should be done.
- All infants should be examined by a qualified health care professional in the first few days after discharge to assess infant well-being and the presence or absence of jaundice. The timing and location of this assessment will be determined by the length of stay in the nursery, presence or absence of risk factors for hyperbilirubinemia (Table 2 and Figure 2), and risk of other neonatal problems.
- Follow-up should be provided as follows:
  - infant discharged before age 24 hours should be seen by age 72 hours
  - infant discharged between 24 and ≤ 48 hours should be seen by age 96 hours
  - Infant discharged between 48 and 72 hours should be seen by age 120 hours
• For some newborns discharged before 48 hours, two follow-up visits may be required, the first visit between 24 and 72 hours and the second between 72 and 120 hours. Clinical judgment should be used in determining follow-up. Earlier or more frequent follow-up should be provided for those who have risk factors for hyperbilirubinemia (Table 2), whereas those discharged with few or no risk factors can be seen after longer intervals.

• If appropriate follow-up cannot be ensured in the presence of elevated risk for developing severe hyperbilirubinemia, it may be necessary to delay discharge until either appropriate follow-up can be ensured or the period of greatest risk has passed (i.e., 72–96 hours).

• The follow-up assessment should include the infant’s weight and percent change from birth weight, adequacy of intake, the pattern of voiding and stooling, and the presence or absence of jaundice. Clinical judgment should be used to determine the need for a bilirubin measurement. If there is any doubt about the degree of jaundice, the TSB or TcB level should be measured. Visual estimation of bilirubin levels can lead to errors, particularly in darkly pigmented infants.

• Recommendations for phototherapy and exchange transfusion treatment are given in the guidelines (Table 3 and Figures 3 and 4). If the TSB does not fall or continues to rise despite intensive phototherapy, it is very likely that hemolysis is occurring. The committee’s recommendations for discontinuing phototherapy can be found in Appendix 2 in the original guideline document. In using the guidelines for phototherapy and exchange transfusion (Figures 3 and 4), the direct-reacting, or conjugated bilirubin level, should not be subtracted from the total.

**Risk Factors**

According to Figure 3 in the July 2004, Clinical Practice Guideline, risk factors include isoimmune hemolytic disease, glucose-6-phosphate dehydrogenase (G6PD) deficiency, asphyxia, significant lethargy, temperature instability, sepsis, acidosis, and albumin < 3.0 mg/dL.

The original guidelines list the following risk factors for development of severe hyperbilirubinemia in infants of 35 or more weeks’ gestation (Figure 2):

- **major risk factors**
  - predischarge TSB or TcB level in the high-risk zone (Table 2)
  - jaundice observed in the first 24 hours
  - blood group incompatibility with positive direct antiglobulin test, other known hemolytic disease (e.g., G6PD deficiency), elevated end-tidal carbon monoxide corrected for ambient carbon monoxide (ETCO₂)
  - gestational age of 35–36 weeks
  - previous sibling received phototherapy
  - cephalohematoma or significant bruising
  - exclusive breastfeeding, particularly if nursing is not going well and weight loss is excessive
  - East Asian race as defined by mother’s description

- **minor risk factors**
  - predischarge TSB or TcB level in the high intermediate-risk zone
  - gestational age of 37–38 weeks
  - jaundice observed before discharge
  - previous sibling with jaundice
  - macrosomic infant of a diabetic mother
  - maternal age ≥ 25 years
  - male gender

- **decreased risk factors** (i.e., these factors are associated with decreased risk of significant jaundice, listed in order of decreasing importance)
  - TSB or TcB level in the low-risk zone (Figure 2)
  - gestational age ≥ 41 weeks
Home therapy should not be used in any infants with risk factors.

Appendix 2 of the guideline, entitled "Phototherapy," reviews "using phototherapy effectively." The content in Appendix 2 includes light source, distance from the light, and surface area. Appendix 2 also discusses home phototherapy, stating:

- Devices available for home phototherapy may not provide the same degree of irradiance or surface area exposure as those available in the hospital; therefore, home phototherapy should be used only in infants whose bilirubin levels are in the "optional phototherapy" range (Figure 3) and is not appropriate for infants with higher bilirubin concentrations.
- It is essential that serum bilirubin levels be monitored regularly.
- Prior to discharge, the newborn is assessed (predischarge measurement of the bilirubin level using TSB or TcB and/or assessment of clinical risk factors) for the risk of developing severe hyperbilirubinemia.
- The hospital has provided written and verbal information for parents at the time of discharge, including an explanation of jaundice, the need to monitor infants for jaundice, and advice on how monitoring should be done.
- The infant is scheduled to be examined by a qualified health care professional according to the following schedule:
  - infant discharged before age 24 hours should be seen by age 72 hours
  - infant discharged between 24 and ≤ 48 hours should be seen by age 96 hours
  - infant discharged between 48 and 72 hours should be seen by age 120 hours
- This follow-up examination should include the infant’s weight and percent change from birth weight, adequacy of intake, the pattern of voiding and stooling, and the presence or absence of jaundice. Clinical judgment should be used to determine the need for a bilirubin measurement. If there is any doubt about the degree of jaundice, the TSB or TcB level should be measured.

Summary
Hyperbilirubinemia is a common condition of newborns characterized by yellow skin and eyes. The condition is the result of an imbalance between the production and excretion of bilirubin. Based upon the infant’s gestational age, age in hours, and total serum bilirubin (TSB) or transcutaneous bilirubin (TcB), phototherapy may be indicated. Well established in safety and efficacy, phototherapy is the treatment of choice for hyperbilirubinemia. There are no standardized methods of delivery of phototherapy, and there are numerous approved U.S. Food and Drug Administration (FDA) devices available in the market. Peer-reviewed literature has established that blue light with blue-green spectrum is the most effective light source. The 2004 American Academy of Pediatrics Clinical Practice Guideline “Management of Hyperbilirubinemia in the Newborn Infant 35 or More Weeks of Gestation” provides guidance for the prevention and management of hyperbilirubinemia in the newborn.

Coding/Billing Information

Note: This list of codes may not be all-inclusive.

When medically necessary:

<table>
<thead>
<tr>
<th>CPT®* Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>No specific codes</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HCPCS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Codes</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>E0202</td>
<td>Phototherapy (bilirubin) light with photometer</td>
</tr>
<tr>
<td>S9098</td>
<td>Home visit, phototherapy services (e.g., Bili-lite), including equipment rental, nursing services, blood draw, supplies, and other services, per diem</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ICD-9-CM Diagnosis Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>773.4</td>
<td>Kernicterus due to isoimmunization</td>
</tr>
<tr>
<td>774.0</td>
<td>Perinatal jaundice from hereditary hemolytic anemias</td>
</tr>
<tr>
<td>774.1</td>
<td>Perinatal jaundice from other excessive hemolysis</td>
</tr>
<tr>
<td>774.2</td>
<td>Neonatal jaundice associated with preterm delivery</td>
</tr>
<tr>
<td>774.30</td>
<td>Neonatal jaundice due to delayed conjugation, cause unspecified</td>
</tr>
<tr>
<td>774.31</td>
<td>Neonatal jaundice due to delayed conjugation in diseases classified elsewhere</td>
</tr>
<tr>
<td>774.39</td>
<td>Other neonatal jaundice due to delayed conjugation from other causes</td>
</tr>
<tr>
<td>774.6</td>
<td>Unspecified fetal and neonatal jaundice</td>
</tr>
<tr>
<td>774.7</td>
<td>Kernicterus of fetus or newborn not due to isoimmunization</td>
</tr>
</tbody>
</table>


References


