

# Clinical Guideline

 This guideline should not replace clinical judgment.

## Hyperbilirubinemia for Pediatric ED

Pediatric Emergency Medicine, Neonatology, and Pediatric Nursery

### Risk Factors for Developing Significant Hyperbilirubinemia

- Gestational age < 40 weeks  
Jaundice in 1st 24 hrs after birth
- Discharge TSB or TcB close to the Phototherapy Threshold
- Hemolysis from any cause, or rapid rate of increase of TSB or TcB: > 0.3 mg/dL per hour in the 1st 24 hrs or > 0.2 mg/dL per hour thereafter
- Phototherapy before discharge from the birth hospital
- Parent, sibling requiring phototherapy or exchange transfusion
- Family history, genetic ancestry suggest inherited RBC disorder including G6PD deficiency
- Exclusive breastfeeding with suboptimal intake
- Down syndrome
- Macrosomic infant of diabetic mother

### Hyperbilirubinemia Neurotoxicity Risk Factors

- Isoimmune hemolytic disease
- Other hemolytic diseases, e.g., G6PD Deficiency
- Significant clinical instability in the previous 24 hours: e.g., sepsis, acidosis, asphyxia, significant lethargy, temperature instability
- Albumin < 3.0 g/dL

Infant with hyperbilirubinemia/jaundice  
Less than 14 DOL

#### Triage

- RN to place heel warmer in triage
- RN to obtain heel stick total bilirubin

If infant is ill appearing or in distress go off guideline and place in appropriate room

- History and physical by provider
- Gestational age/determine age in hours
- Place on triple Bili lights while waiting for results

- Calculate total serum bilirubin (TSB=BU+BC)
- Look up Exchange Normogram
- Plot on appropriate curve (according to risk factors)

TSB above Phototherapy Threshold

Yes

No

Are any of the following present?

- TSB within 2mg/dl or exchange threshold
- Less than 35 weeks gestation
- Ill appearing

Yes

No

- Start Phototherapy
- Give 20ml/kg NS bolus
- Start IV fluids at 100ml/kg/day
- Call Nicu- 1st call fellow 2nd call attending

- Start Phototherapy
- Admit to Newborn Nursery
- Encourage PO: consider NG/OG
- Consider IV if clinically dehydrated

# Hyperbilirubinemia Guideline

## Executive Summary

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### Children's Hospital of Richmond ED Hyperbilirubinemia Workgroup

Pediatric ED Owner: Judy Barto, MD, Pediatric Nursery: Tiffany Kimbrough, MD, Neonatology:

### Approved (January 2023)

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### References:

**Guidelines Reviewed:**

Kemper, Alex R., et al. "Clinical practice guideline revision: management of hyperbilirubinemia in the newborn infant 35 or more weeks of gestation." *Pediatrics* 150.3 (2022).

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