Pediatric ED Triage Protocol: Neonatal Jaundice

Inclusion Criteria:
- Age < 14 days
- Previously healthy
- Born at ≥ 35 weeks gestation
- Presentation or report of elevated bilirubin or jaundice

Exclusion Criteria:
- Presents with hypo/hyperthermia (temperature < 36°C or ≥ 38°C) per rectal temperature
- Ill appearing or suspected sepsis
- Direct hyperbilirubinemia
- Hyperbilirubinemia at < 24 hours of life

Does patient meet protocol criteria?

YES
1. Assign ESI Level 2
2. Apply heel warms upon arrival
3. Room immediately & notify physician/APC of patient arrival

NO
OFF Pathway

15 mins

Order and obtain STAT Bilirubin Panel: Total & Direct, heel stick preferred
Consider bedside blood glucose if concern for poor feeding
GOAL = 15 minutes from triage

30 mins

Initiate Intensive Phototherapy
- Remove clothing except diaper, place eye covers
- Bili-blanket + overhead light
- Initiate temperature monitoring
  GOAL = 30 minutes from triage

Promote Oral Feeding (breastmilk or formula)
- If breastfeeding, limit feed to less than 20 mins in duration. Remove overhead light. Maintain bili-blanket, eye cover, and swaddle.
- Continue intensive phototherapy if bottle fed.
- Monitor I & O – record time breastfeeding, weigh diapers.

If known TSB level is nearing exchange transfusion threshold, DO NOT interrupt intensive phototherapy.

Date Issued: 8/14/19
Version Date: 8/14/19
Originating Department: Advocate Children’s Hospital

Temperature Monitoring
- Correlate rectal baseline temp with an axillary temp
- Obtain axillary temp every 15 mins x 1 hour then every 2 hrs
- If patient unable to maintain normal temp, confirm by obtaining rectal temp and inform physician immediately

Link to References
Inpatient General Pediatric Protocol: Neonatal Jaundice

This information is meant as a guideline only and not a substitute for physician order or clinical judgement.

**Inclusion Criteria:**
- Age < 14 days
- Previously healthy
- Born at ≥ 35 weeks gestation
- Presentation or report of elevated bilirubin or jaundice

**Exclusion Criteria:**
- Presents with hypo/hyperthermia (temperature < 36°C or ≥ 38°C) per rectal temperature
- Ill appearing or suspected sepsis
- Direct hyperbilirubinemia
- Hyperbilirubinemia at < 24 hours of life

**Does patient meet protocol criteria?**

- NO → **OFF Pathway**
- YES

1. Set up room – open crib or cribette, Bili-blanket + overhead light
2. Notify physician/APC of patient arrival
3. Apply heel warmers upon arrival

**Order and obtain STAT Bilirubin Panel: Total & Direct, heel stick preferred**

- Consider bedside blood glucose if concern for poor feeding
  - **GOAL = 15 to 30 minutes** from patient arrival

**Initiate Intensive Phototherapy**
- Remove clothing except diaper, place eye covers
- **Bili-blanket + overhead light**
- Initiate temperature monitoring
  - **GOAL = 30 minutes** from patient arrival

**Promote Oral Feeding (breastmilk or formula)**
- If breastfeeding, limit feed to less than 20 mins in duration. Remove overhead light. Maintain bili-blanket, eye cover, and swaddle.
- Continue intensive phototherapy if bottle fed.
- Monitor I & O – record time breastfeeding, weigh diapers.

If known TSB level is nearing exchange transfusion threshold, **DO NOT** interrupt intensive phototherapy.

**Temperature Monitoring**
- Correlate rectal baseline temp with an axillary temp
- Obtain axillary temp every 15 mins x 1 hour then every 2 hrs
- If patient unable to maintain normal temp, confirm by obtaining rectal temp and inform physician immediately

**Link to References**
Neonatal Jaundice Pathway: ED/Inpatient Management Guidelines

This information is meant as a guideline only and not a substitute for physician order or clinical judgement.

### Inclusion Criteria:
- Age < 14 days
- Previously healthy
- Born at ≥ 35 weeks gestation
- Presentation or report of elevated bilirubin or jaundice

### Exclusion Criteria:
- Presents with hypo/hyperthermia (< 36°C and ≥ 38°C) per rectal temperature
- Ill appearing or suspected sepsis
- Direct hyperbilirubinemia
- Hyperbilirubinemia at < 24 hours of life

### Neurotoxicity Risk Factors
Isoimmune hemolytic disease - ABO or Rh incompatibility + evidence of hemolysis (+Coombs, elevated retic)
- Asphyxia
- Significant lethargy
- Temperature instability
- Sepsis
- Acidosis
- Albumin <3.0g/dL

### Care is continued from Inpatient General Pediatric Protocol and Pediatric ED Triage Protocol
- Continue Intensive Phototherapy: Bili-blanket + spot light
- Temperature monitoring †
  - Promote oral feeding every 2-3 hr. If breastfeeding, do not remove from phototherapy for more than 20min every 3h.
  - Remove overhead light and maintain bili-blanket, eye cover, and swaddle

### Initial Assessment
- History including:
  - Gestational age at birth
  - Time of birth/Age in hours of life
  - Weight and % change from birth weight
  - Adequacy of intake
  - Mom’s blood type
- Consider further labs‡:
  - ABO
  - Rh
  - Coombs
- Utilize BiliTool for phototherapy and transfusion exchange threshold

### Evaluate for Discharge:
- TSB below phototherapy threshold
- Feeding adequately (q 2-3h)
- Weight loss not greater than 10% from BW
- Follow up appointment scheduled per BiliTool recommendation
- No concern for hemolysis

### Inpatient Floor Admission Criteria:
- TSB at or above phototherapy threshold
- If within 2 mg/dL of exchange transfusion threshold, NICU consult required

### NICU Consult Criteria:
- TSB within 2 mg/dL of exchange transfusion level

### NICU Admission Criteria:
- TSB above exchange transfusion threshold
- Signs of acute bilirubin encephalopathy

### Discharge
- Follow Inpatient Management Guidelines

### NICU Admission Criteria:
- TSB above exchange transfusion threshold
- Signs of acute bilirubin encephalopathy

---

**Date Issued:** 8/14/19  **Author(s):** K. Clausen, J. Cochrane, K. Lubke, S. Maciolek, J. Panice, R. Patel, C. Spanierman, D. Zarleno  
**Version Date:** 8/14/19  **Originating Department:** Advocate Children’s Hospital
Inpatient Management Guidelines

- Encourage feeding q2-3h- If breastfeeding do not remove from phototherapy for more than 20min every 3h
- Continue Intensive Phototherapy: Bili-blanket + overhead light
- Consider lactation consultation

Bilirubin not improving as expected, consider:
- CBC
- Retic
- G6PD level (if appropriate ethnic group)
- Assessment for sepsis

TSB within 2 mg/dL of exchange transfusion threshold
- Recheck total bilirubin in 4 hours

TSB within 2-4 mg/dL of exchange transfusion threshold
- Recheck total bilirubin in 6 hours

TSB > 4 mg/dL below exchange transfusion threshold or down
- Recheck total bilirubin in 8-12 hours or with routine AM labs

Evaluate for Discharge:
- TSB below phototherapy threshold
- Feeding adequately (q2-3h)
- Follow up appointment scheduled per Bili tool recommendation
- Rebound TSB not routinely indicated