

Jaundice Guidelines Key Points

1. Use TSB as definitive test to guide treatment.
2. Neurotoxicity risk factors lower threshold for treatment.
 - Gestational age <38 wk/Albumin <3.0 g/dL/Isoimmune hemolytic disease (ie, positive DAT), G6PD deficiency, or other hemolytic conditions/Sepsis/Sig clinical instability in previous 24 h
3. All infants should be visually assessed for jaundice at least every 12 hours following delivery until discharge. TSB or TcB should be measured as soon as possible for infants noted to be jaundiced <24 hours after birth.
4. TcB/TSB between 24 and 48 hours after birth or before discharge if that occurs earlier.
5. TSB should be measured if TcB exceeds or is within 3 mg/dL of the phototherapy treatment threshold or if the TcB is ≥ 15 mg/dL.
6. A rapid rate of increase (≥ 0.3 mg/dL per hour in the first 24 hours or ≥ 0.2 mg/dL per hour thereafter) is exceptional and suggests hemolysis. In this case, perform a DAT if not previously done.
7. For breastfed infants who are still jaundiced at 3 to 4 weeks of age, and for formula-fed infants who are still jaundiced at 2 weeks of age, the total and direct reacting (or conjugated) bilirubin concentrations should be measured to identify possible pathologic cholestasis
8. Intensive phototherapy is recommended at the total serum bilirubin thresholds on the basis of gestational age, hyperbilirubinemia neurotoxicity risk factors, and age of the infant in hours.
9. For hospitalized infants, TSB should be measured within 12 hours after starting phototherapy. Earlier if risk factors/High TSB/Age of child etc.
10. For infants requiring phototherapy-evaluate cause HB/Hct, DAT, G6PD as indicated.
11. Discontinuing phototherapy is an option when the TSB has decreased by at least 2 mg/dL below the hour-specific threshold at the initiation of phototherapy. A longer period of phototherapy is an option if there are risk factors for rebound hyperbilirubinemia (eg, gestational age <38 weeks, age <48 hours at the start of phototherapy, hemolytic disease).
12. Rebound TSB after 12-24 hrs in general. Option to do TCB after 24 hours of stoppage of phototherapy.
13. Care should be escalated when an infant's TSB reaches or exceeds the escalation-of-care threshold, defined as 2 mg/dL below the exchange transfusion threshold.
14. For infants requiring escalation of care, blood should be sent STAT for total and direct reacting serum bilirubin, a complete blood count, serum albumin, serum chemistries, and type and crossmatch. Infants requiring escalation of care should receive intravenous hydration and emergent intensive phototherapy. A neonatologist should be consulted about urgent transfer to a NICU that can perform an exchange transfusion.
15. TSB should be measured at least every 2 hours from the start of the escalation-of-care period until the escalation-of-care period ends.
16. Intravenous immune globulin (IVIG; 0.5 to 1 g/kg) over 2 hours may be provided to infants with isoimmune hemolytic disease (ie, positive DAT) whose TSB reaches or exceeds escalation of care threshold. The dose can be repeated in 12 hours.
17. An urgent exchange transfusion should be performed for infants with signs of intermediate or advanced stages of acute bilirubin encephalopathy.
18. An urgent exchange transfusion should be performed for infants if the TSB is at or above the exchange transfusion threshold. If, while preparing for the exchange transfusion but before starting the exchange transfusion, a TSB concentration is below the exchange transfusion threshold and the infant does not show signs of intermediate or advanced stages of acute bilirubin encephalopathy, then the exchange transfusion may be deferred while continuing intensive phototherapy and following the TSB every 2 hours until the TSB is below the escalation of care threshold.

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Phototherapy threshold minus TcB or TSB		Discharge Recommendations
0.1-1.9 mg/dL	Age <24 hours	Delay discharge, consider phototherapy, measure TSB in 4 to 8 hours
	Age ≥ 24 hours	Measure TSB in 4 to 24 hours ^a Options: • Delay discharge and consider phototherapy • Discharge with home phototherapy if all considerations in the guideline are met • Discharge without phototherapy but with close follow-up
2.0-3.4 mg/dL	Regardless of age or discharge time	TSB or TcB in 4 to 24 hours ^a
3.5-5.4 mg/dL	Regardless of age or discharge time	TSB or TcB in 1-2 days
5.5-6.9 mg/dL	Discharging <72 hours	Follow-up within 2 days; TcB or TSB according to clinical judgment ^b
	Discharging ≥ 72 hours	Clinical judgment ^b
≥ 7.0 mg/dL	Discharging <72 hours	Follow-up within 3 days; TcB or TSB according to clinical judgment ^b
	Discharging ≥ 72 hours	Clinical judgment ^b

Phototherapy Thresholds, ≥ 35 wk, without Neurotoxicity Risk Factors (AAP 2022)

	6 hr	12 hr	18 hr	24 hr	30 hr	36 hr	42 hr	48 hr	54 hr	60 hr	72 hr	4 day	5 day	8 Day	12 Day
≥ 40 wks	10	11.1	12.2	13.3	14.3	15.3	16.2	17.1	17.8	18.5	19.8	21.8	21.8	21.8	21.8
39 wks	9.5	10.6	11.8	12.8	13.8	14.8	15.7	16.6	17.4	18.1	19.5	21.5	21.7	21.7	21.7
38 wks	9	10.1	11.2	12.3	13.3	14.2	15.1	16	16.8	17.5	18.8	20.8	20.9	21.2	21.7
37 wks	8.4	9.5	10.7	11.8	12.6	13.6	14.5	15.4	16.2	16.9	18.1	20	20.2	20.4	20.9
36 wks	7.9	9	10.2	11.2	12.2	13	14	14.8	15.5	16.2	17.5	19.4	19.5	19.8	20.1
35 wks	7.3	8.5	9.7	10.6	11.5	12.5	13.4	14.2	14.9	15.6	16.8	18.5	18.8	19	19.4

Phototherapy Thresholds, ≥ 35 wk, with Neurotoxicity Risk Factors (AAP 2022)

	6 hr	12 hr	18 hr	24 hr	30 hr	36 hr	42 hr	48 hr	54 hr	60 hr	72 hr	4 day	5 day	8 Day	12 Day
≥ 38 wks	7.4	8.4	9.5	10.5	11.5	12.3	13.2	14	14.6	15.2	16.5	18.2	18.2	18.2	18.2
37 wks	6.8	7.9	9	10	11	12	12.8	13.5	14.2	14.8	16	17.9	18	18.2	18.2
36 wks	6.3	7.5	8.4	9.5	10.4	11.2	12	12.8	13.5	14.1	15.2	17	17.1	17.5	18
35 wks	5.8	6.9	7.9	8.9	9.8	10.5	11.2	12.1	12.8	13.4	14.5	16.1	16.2	16.6	17.1

Exchange Transfusion Thresholds, ≥ 35 wk, without Neurotoxicity Risk Factors (AAP 2022)

	6 hr	12 hr	18 hr	24 hr	30 hr	36 hr	42 hr	48 hr	54 hr	60 hr	72 hr	4 day	5 day	8 Day	12 Day
≥ 38 wks	18.8	19.8	20.5	21.3	22	22.8	23.4	24	24.6	25	25.9	27	27	27	27
37 wks	17.8	18.8	19.4	20.3	21	21.8	22.4	23.1	23.7	24.3	25.1	26.6	26.8	27.0	27.0
36 wks	16.5	17.5	18.2	19.1	19.8	20.5	21.2	21.9	22.4	23	24	25.5	25.8	26.2	26.9
35 wks	15.5	16.3	17.2	17.9	18.5	19.2	20	20.8	21.2	21.9	22.9	24.5	24.8	25.2	26

Exchange Transfusion Thresholds, ≥ 35 wk, with Neurotoxicity Risk Factors (AAP 2022)

	6 hr	12 hr	18 hr	24 hr	30 hr	36 hr	42 hr	48 hr	54 hr	60 hr	72 hr	4 day	5 day	8 Day	12 Day
≥ 38 wks	15.5	16.4	17	17.8	18.3	18.9	19.6	20.1	20.6	21.2	22.1	23.5	23.5	23.5	23.5
37 wks	15	15.8	16.4	17.2	17.8	18.4	19	19.7	20.2	20.8	21.8	23.1	23.3	23.5	23.5
36 wks	14.3	15.2	16	16.6	17.2	17.9	18.5	19.1	19.5	20	20.9	22.1	22.3	22.8	23.3
35 wks	13.8	14.7	15.3	16.1	16.6	17.3	17.8	18.3	18.9	19.3	20.1	21.1	21.3	22	22.7

Phototherapy Thresholds for neonates < 35 wks (NICE 2015)

	0 hr	6 hr	12 hr	18 hr	24 hr	30 hr	36 hr	42 hr	48 hr	54 hr	60 hr	66 hr	≥ 72 hr
34 wk	2.3	3.2	4.4	5.6	6.1	7	8.2	8.8	10.2	11.1	12.3	13.2	14
33 wk	2.3	3.2	4.1	5.3	6.1	7	7.9	8.8	9.6	10.5	11.7	12.6	13.5
32 wk	2.3	3.2	4.1	5	5.8	6.7	7.6	8.5	9.4	10.2	11.1	12	12.9
31 wk	2.3	3.2	4.1	4.7	5.8	6.4	7.3	8.2	9.1	9.9	10.8	11.4	12.3
30 wk	2.3	2.9	4.1	4.7	5.6	6.1	7	7.9	8.5	9.4	10.2	11.1	11.7
29 wk	2.3	3.2	3.8	4.4	5.3	6.1	6.7	7.6	8.2	9.1	9.9	11	11
28 wk	2.3	2.9	3.8	4.4	5	5.8	6.4	7	7.9	8.5	9.4	9.9	11
27 wk	2.3	2.9	3.5	4.1	4.7	5.6	6.1	6.7	7.6	8.2	8.8	9.4	9.9
26 wk	2.3	4.9	3.5	4.1	4.7	5.3	5.8	6.4	7	7.6	8.2	8.8	9.4
25 wk	2.3	2.9	3.4	3.9	4.5	5	5.6	6.1	6.6	7.2	7.7	8.2	8.8
24 wk	2.3	2.8	3.3	3.8	4.3	4.8	5.3	5.8	6.2	6.7	7.2	7.7	8.2

Exchange Transfusion Thresholds for neonates < 35 wks (NICE 2015)

	0 hr	6 hr	12 hr	18 hr	24 hr	30 hr	36 hr	42 hr	48 hr	54 hr	60 hr	66 hr	≥ 72 hr
34 wk	4.7	5.8	7	8.2	9.6	11.1	12.3	13.5	14.6	15.8	17.5	18.7	19.9
33 wk	4.7	5.8	7	8.2	9.4	10.5	11.7	13.2	14.3	15.8	17	18.1	19.3
32 wk	4.7	5.8	7	8.2	9.4	10.5	12.3	12.9	14	15.2	16.4	17.5	18.7
31 wk	4.7	5.8	7	8.2	9.4	10.2	11.4	12.6	13.5	14	15.8	17	18.1
30 wk	4.7	5.8	6.7	7.9	9.1	9.9	11.1	12.3	13.2	14.3	15.5	16.4	17.5
29 wk	4.7	5.8	6.7	7.6	8.8	9.6	10.8	11.7	12.9	14	14.9	15.8	17
28 wk	4.7	5.6	6.7	7.6	8.5	9.4	11	11	12	13	15	15	16
27 wk	4.7	5.6	6.7	7.3	8.5	9.4	10	11	12	13	14	15	16
26 wk	4.7	5.6	6.4	7.3	8.2	9.1	9.9	10.8	11.7	12.6	13.5	14.3	15.2
25 wk	4.7	5.5	6.3	7.2	8	8.8	9.6	10.5	11.3	12.1	13	13.8	14.6
24 wk	4.7	5.5	6.2	7	7.8	8.6	9.4	10.1	10.9	11.7	12.5	13.3	14

