

STANDARD TREATMENT WORKFLOW (STW)

Neonatal Jaundice in Infants ≥ 35 weeks

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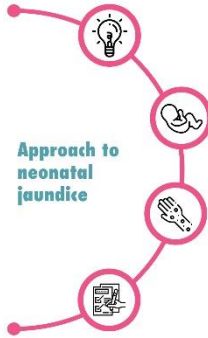
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Standard Treatment Workflow (STW)
NEONATAL JAUNDICE IN INFANTS ≥ 35 WEEKS
ICD-10-P59.9



VISUAL ASSESSMENT

- Examine the baby in bright natural/ white fluorescent light
- Make sure the baby is naked and no yellow/ off white background
- Examine blanched skin
- Assess severity of jaundice

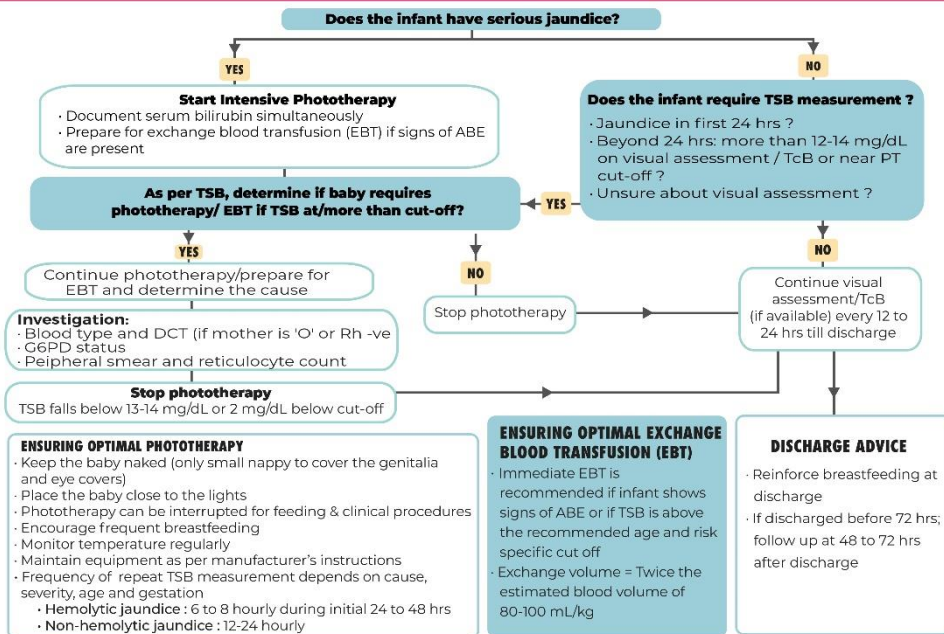
LOOK FOR THESE RISK FACTORS

- Gestation < 38 weeks
- Previous sibling requiring treatment for jaundice
- Blood group incompatibility (ABO/Rh)
- High prevalence of G6PD deficiency
- Exclusively breast fed baby with weight loss >3% per day; or >10% cumulative
- Total serum bilirubin (TSB) / Transcutaneous bilirubin (TcB) value in the high/ high-intermediate risk zone

ASSESSMENT OF SEVERITY OF JAUNDICE

Clinical examination every 12 hrs during the initial 3 to 5 days of life; use TcB if available		KRAMER ZONES	APPROX SERUM BILIRUBIN	ASSESS IF THE BABY HAS SERIOUS JAUNDICE?	SERIOUS JAUNDICE <ul style="list-style-type: none"> • Visible jaundice in first 24 hrs OR • Yellow palms and soles anytime OR • Signs of acute bilirubin encephalopathy (ABE) like poor suck/feeding, lethargy, hypotonia OR • Abnormal posturing such as arching, retrocollis, opisthotonus, convulsion, fever, high pitched cry 	
		1	Face and neck			4 to 6 mg/dL
		2	Chest and upper abdomen			8 to 10 mg/dL
		3	Lower abdomen and thighs			12 to 14 mg/dL
		4	Legs and arms/ forearms			15 to 18 mg/dL
5	Palms and soles	>15 to 20 mg/dL				

MANAGEMENT



SOME IMPORTANT DO'S ✓

- Encourage frequent breastfeeding
- Avoid exposure to naphthalene balls
- Complete evaluation of newborn is important to evaluate for risk factors and underlying causes
- Do pre-discharge risk assessment

SOME IMPORTANT DON'TS ✗

- Sunlight should not be used for treatment of hyperbilirubinemia
- Do not rely on visual assessment/ TcB while the baby is under phototherapy
- Do not give phenobarbitone for treatment of hyperbilirubinemia
- Do not stop breastfeeding

ABBREVIATIONS

ABE: Acute bilirubin encephalopathy	EBT: Exchange blood transfusion	TcB: Transcutaneous bilirubin
DCT: Direct coombs test	G6PD: Glucose-6-phosphate dehydrogenase	TSB: Total serum bilirubin

REFERENCES

1. Screening, Prevention and Management of Neonatal Hyperbilirubinemia. Clinical Practice Guidelines. National Neonatology Forum India 2020. www.nnfi.org/cpg
2. Management of hyperbilirubinemia in the newborn infant 35 or more weeks of gestation. American Academy of Pediatrics Practice Guidelines. www.cdc.gov

HYPERBILIRUBINEMIA IS A PREVENTABLE CAUSE OF BRAIN DAMAGE

This STW has been prepared by national experts of India with feasibility considerations for various levels of healthcare system in the country. These broad guidelines are advisory, and are based on expert opinions and available scientific evidence. There may be variations in the management of an individual patient based on his/her specific condition, as decided by the treating physician. There will be no indemnity for direct or indirect consequences. Kindly visit the website of DHR for more information: www.icmr.org.in for more information. ©Department of Health Research, Ministry of Health & Family Welfare, Government of India.