

3

Hyperbilirubinemia

Patient name: _____

Admission: _____

NRS
DATE INITIAL**I. The caregiver can define hyperbilirubinemia.**

- A. It is the excessive accumulation of bilirubin in blood (12 mg per 100 ml or greater).
- B. Bilirubin is caused by the breakdown of hemoglobin in the destruction of red blood cells.
- C. If bilirubin is 20 or greater, it is termed kernicterus and can cause permanent brain damage (signs and symptoms of kernicterus include lethargy, feeding difficulties, irritability, and seizures).
- D. A symptom of hyperbilirubinemia is jaundice (a yellowish discoloration of the skin).

II. The caregiver can list treatment for hyperbilirubinemia.

- A. Phototherapy (most common treatment) is used.
- B. In more severe cases, exchange transfusions may be used.
- C. Keep newborn hydrated with breast milk or formula.
- D. Stop breastfeeding for 1 to 2 days, and give formula, which may reduce jaundice.

III. The caregiver can define and explain purpose of phototherapy.

- A. Infant is placed under artificial light in a protected isolette to maintain constant temperature.
- B. A fiberoptic blanket (another form of phototherapy) is placed under baby (infant may remain dressed).
- C. Lights help break down bilirubin in the skin.
- D. Infant is clothed only in a diaper.
- E. The infant's eyes are protected from light source by eye patch or headbox.
- F. Bilirubin levels need to be taken at least daily.

NRS
DATE INITIAL**IV. The caregiver can list measures to protect infant during phototherapy.**

- A. Increase fluids by 20% to 25%.
- B. Turn regularly to expose all parts of body, at least every 2 hours.
- C. Make certain that eyelids are closed before applying eye shield.
- D. Check eyes for drainage or irritation frequently.
- E. Cover male genitalia to prevent damage from heat and light waves.
- F. Turn the light off, and unmask eyes at least every 3 to 4 hours (with feedings).
- G. Monitor body temperature every 2 hours.
- H. Avoid oils and lotions on the skin.
- I. Report any signs of increased lethargy, difficulty arousing infant, or changes in stools or urination.
- J. Monitor elimination, and weigh twice daily.
- K. Keep skin clean and dry.
- L. Assess for symptoms of dehydration, such as
 - Poor skin turgor
 - Sunken fontanels
 - Decreased urine output
- M. Turn off phototherapy unit before drawing blood for testing.

V. The caregiver can list possible complications of untreated hyperbilirubinemia.

- A. Dehydration
- B. Brain damage
- C. Blindness
- D. Loss of hearing

REFERENCES

- Ackley, B. J., & Ladwig, G. B. (2006). *Nursing diagnosis handbook: A guide to planning care*. St. Louis: Mosby Inc.
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