

Class Preparation (Newborn Hepatic):

A mother just delivered a healthy, full-term infant. The mother is concerned because her first child required phototherapy for jaundice. As the nurse, what education would you provide for the mother about jaundice? What instructions are important to explain if the infant requires phototherapy? Are there ways to prevent the infant from developing jaundice?

The education that would be provided for the mother about jaundice is that it is the yellowish coloring of the skin and sclera (white part of the eyes). This occurs when the number of serum bilirubin exceeds the levels of 6-7mg/dL (indirect bilirubin). The newborn's immature liver has to bind and convert indirect bilirubin so that it can be excreted through stool or urine. When the liver can't keep up with this process, that is when jaundice occurs. It is usually first noticed in the eyes and travels down throughout the body. This can be caused by blood type incompatibilities, excessive bruising, birth trauma, inadequate feeding intake, infection, or the quick breakdown of fetal RBC due to a short lifespan. It can be categorized two different ways: physiologic or pathologic. Physiologic appear after 24hrs and usually resolves without the need for treatment in 2-3 weeks. Pathologic is the most severe form, occurs with the first 24hrs, and may be an indication for blood type incompatibilities or an underlying disease. The signs and symptoms include lethargy, poor feeding, a high pitched cry, possible seizures, and a decreased output.

Phototherapy is the treatment of choice. This will help the newborn's bilirubin start to decrease within 4-6 hrs after starting treatment. During the procedure it is important to keep the newborn undressed, maintain a eye mask over the eyes for protection, surgical mask over genitalia for males to prevent testicular damage, avoid lotion/ointment to the skin because it absorbs heat and can cause burns, remove the newborn every 4hrs and unmask to check for injury or inflammation, reposition the newborn every 2hrs to expose all body surfaces and prevent pressure sores, turn off the lights before drawing blood for testing. Holding and interacting with the newborn is encourages when the lights are off, watch for dehydration from insensible losses, encourage breastfeeding to promote bilirubin excretion in the stool, reassure the parent that most newborns experience some type of jaundice.

Ways to prevent newborn jaundice include early and frequent feedings, maintaining hydration by checking the amount of wet diapers the baby has, adequate prenatal care (knowing your blood type to prevent incompatibilities), providing the baby with indirect sunlight for a few minutes each day to help breakdown bilirubin in the skin.