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Resource Guide for Nurses: Patient Teaching on Newborn Jaundice (Hyperbilirubinemia)

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Background:

- Newborn jaundice (hyperbilirubinemia) is an excessive level of accumulated bilirubin in the blood (American Liver Foundation, 2015).
- Evidence of newborn jaundice is the appearance of a yellowish coloration of the skin and sclera, appears cephalad to caudal, and regresses in the reverse order (National Association of Neonatal Nurses, Board of Directors, 2010).
- Newborn jaundice affects up to 84% of term newborns and is the most common cause of hospital readmission in the neonatal period (Muchowski, 2014).
- Proposed risk reduction strategies include pre-discharge bilirubin measurement with standing orders, allowing nurses to order total serum bilirubin (TSB) levels or Transcutaneous Bilirubin (TcB) levels for newborns (Kaplan et al. 2011)
- The causes of newborn jaundice include an ABO or Rh factor incompatibility between mother and baby, premature liver functioning, an infant of a diabetic mother, and improper latch of newborn to breast during breastfeeding (Lowdermilk & Perry, 2016).

Goal:

- The purpose of this capstone project was to create a teaching tool for the maternity nurses to use as a way to provide consistent and accurate education, while supporting patient-friendly care to newborn parents regarding about hyperbilirubinemia.

Implementation of Project:

- Teaching tool created as a resource guide for nurses to better inform new parents of newborns facing newborn jaundice (hyperbilirubinemia).
- Discusses general understanding of newborn jaundice (hyperbilirubinemia), causes, risk factors, measurement, and treatment

~ QUICK FACTS ~



Resource Guide for Nurses: Patient Teaching on Newborn Jaundice (Hyperbilirubinemia)

- **What is Newborn Jaundice (Hyperbilirubinemia)?**
 - Excessive level of accumulated bilirubin in the blood
 - Characterized by yellowish discoloration of skin, sclera, nails, and other organs
 - May be found in up to 80% of newborns
- **Causes of Newborn Jaundice (Hyperbilirubinemia)**
 - Increased production of bilirubin and/or decreased bilirubin excretion
- **Major Risk Factors**
 - ABO Incompatibility and Rh factor
 - Premature liver function
 - Dehydration due to lack of adequate nutrition
- **How is Newborn Jaundice (Hyperbilirubinemia) measured?**
 - Drager Jaundice Meter – transcutaneous bilirubinometry tool
 - Bilirubin risk nomogram – risk for developing hyperbilirubinemia
- **Treatment for Newborn Jaundice (Hyperbilirubinemia)**
 - Phototherapy
 - Supplementation with formula
 - Ensure proper feeding techniques when breastfeeding
- **Long term complications of Newborn Jaundice (Hyperbilirubinemia)**
 - Kernicterus (two-phase chronic form of brain damage)

Family-Centered Care:

- Family-centered care is a culture of collaboration and information sharing in which the health care team, patients, and families participate in health care delivery and decision making (Hockenberry & Wilson, 2015).
- Family-centered care is associated with many positive outcomes (Hockenberry & Wilson, 2015).
- Family-centered care is based on core concepts that include information sharing, respect and honoring differences, partnership and collaboration, negotiation, and care in the context of the family's and patient's community (Hockenberry & Wilson, 2015).
- Parents are the primary caregiver of the newborn.
- The family is the child's primary source of strength and support (Hockenberry & Wilson, 2015).
- Numerous studies have documented the fact that informed patients are more likely to comply with medical treatment plans, more likely to find innovative ways to cope with illness, and less likely to experience complications (Bastable, 2017).

Evaluation:

- Resource guide booklets left on the unit for nurses to use as consistent reference/teaching for patients

Conclusion:

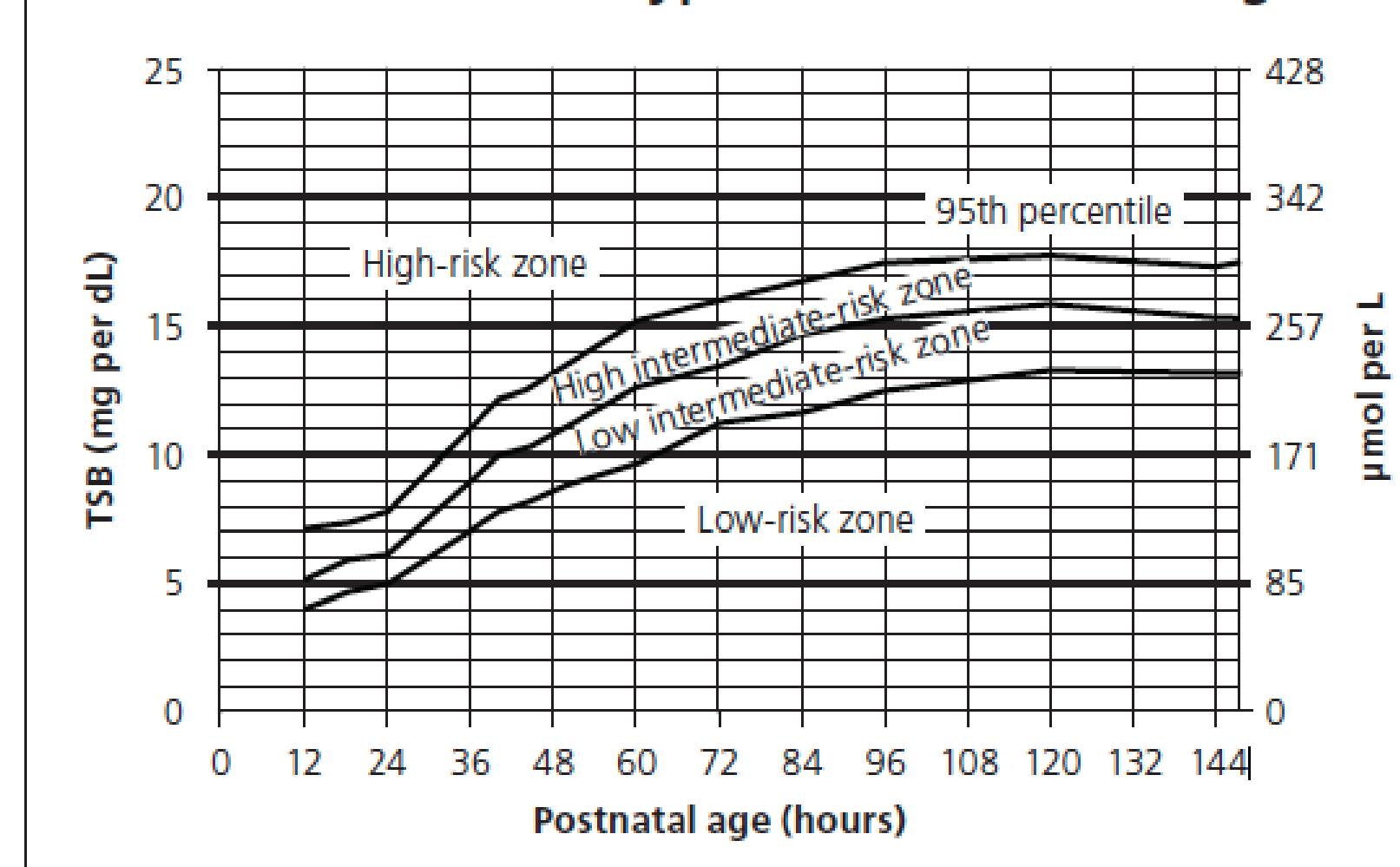
- Better understanding leads to better outcomes.
- Through a more consistent resource guide available to nurses, it is proposed that there will be an increase in effective, and consistent, patient teaching to properly address the newborn disease.
- Awareness of the newborn disease to new parents is critical in ensuring good outcomes for the family.
- Regardless the experience level, having a resource guide to refer to is important in good patient care.

References available as a handout

Nursing Role/Responsibilities:

- Teaching is an important aspect of the nurse's professional role (Bastable, 2017).
- The teaching role is a unique part of a nursing's professional domain (Bastable, 2017).
- The purpose of patient education is to increase the competence and confidence of clients for self-management (Bastable, 2017).
- The single most important action of nurses as teachers is to prepare patients for self-care, including that of their newborn child (Bastable, 2017)

Risk Assessment for Hyperbilirubinemia Using TSB



High-risk: repeat in 4-8 hours
High intermediate-risk: repeat in 8-12 hours
Low intermediate-risk: repeat within 48 hours
Low-risk: follow up at age 3-5 days
(Bhutani & Johnson, 2009)

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