

CASE STUDY 4

Baby James

MODERATE

AGE 6 hours	SPIRITUAL/RELIGIOUS
SETTING ■ Small community hospital nursery	PSYCHOSOCIAL
CULTURAL CONSIDERATIONS	LEGAL
ETHNICITY ■ Black American	ETHICAL
PRE-EXISTING CONDITION ■ Fetal tachycardia	PRIORITIZATION
CO-EXISTING CONDITION/CURRENT PROBLEM ■ Jaundice; low APGARS; hypoglycemia; hypothermia; coarse breath sounds; TTN; RDS	DELEGATION
COMMUNICATIONS	PHARMAGOLOGIC
DISABILITY	ALTERNATIVE THERAPY
SOCIOECONOMIC STATUS	SIGNIFICANT HISTORY ■ Delivered by NSVD at 36 weeks gestation; no prenatal care; prolonged ruptured membranes

NEWBORN

Level of difficulty: Moderate

Overview: This case requires that the student understand how stress increases the neonate's metabolic rate and the effects this has on the infant's ability to survive. Requires critical thinking regarding differentiating a benign respiratory problem (TTN) and the life threatening condition of RDS. Requires knowledge regarding developing jaundice in the neonate under 24 hours.

Client Profile

Baby James was born via a normal spontaneous vaginal delivery (NSVD) at 36 weeks gestation in a small community hospital. The mother arrived at the emergency room at 9 cm, 100% effaced, reporting ruptured membranes for 22 hours. Baby's fetal heart tones were 170 bpm. The mother delivered in the emergency room 30 minutes after being examined. This is her seventh pregnancy, and she did not have prenatal care.

Case Study

Baby James was admitted to the observation nursery from the emergency room where he was born. He weighed 5 pounds and was 19 inches long. His APGARs were 6 at one minute, and 8 at five minutes. Points were initially taken off for tone, reflexes, and color. His initial glucose was 35 and vital signs were HR 150, respiratory rate 76, temperature 97.2. The nurse noted some nasal flaring, grunting, and coarse breath sounds. He was given 1 ounce of D₅W PO, oxygen therapy; his skin and nasal pharynx were cultured, and he was observed on a warmer with skin probe for temperature monitoring.

At two hours the baby's glucose was 40, the nasal flaring continued, respiratory rate was 100 and irregular with continued coarse breath sounds. He exhibited acrocyanosis, and his temperature was 96.8. The baby was treated for transient tachypnea of the newborn (TTN) with oxygen therapy and a warm environment.

At four hours the nurse noted that the baby was lethargic and difficult to arouse. He appeared pale with circumoral cyanosis, nasal flaring, and grunting with sternal retractions. The nurse notified the pediatrician, an IV was started, and the baby was transferred to the neonatal intensive care unit (NICU) at a hospital in the next town.

At six hours the mother called the NICU to check on his progress and was told that he had subsequently developed jaundice and was on a ventilator.

Questions

1. What is the significance of the fact that this mother had no prenatal care?
2. What are the risks involved in a precipitous delivery?
3. What do you think might have been done differently for this delivery had the mother come in at 4 to 6 cm instead of 9 cm?
4. List the progressive signs of respiratory distress exhibited by this infant after birth.
5. This baby is initially being screened for infection and treated for transient tachypnea of the newborn. What data supports this diagnosis?
6. What is the most likely reason for this baby's initial hypoglycemia?
7. Assess the baby's vital signs. Which ones are within normal range and which ones need attention?
8. List the risk factors that existed for infection.
9. Why is this baby hypothermic, and how does it affect this baby's transition?
10. How significant is the acrocyanosis?
11. What is the significance of jaundice in a 6-hour-old infant?

References

- Blackburn, S. (2003). *Maternal, fetal, and neonatal physiology* (2nd ed.). St. Louis, MO: W. B. Saunders Co.
- Littleton, L., & Engebretson, J. C. (2002). *Maternal, neonatal, and women's health nursing*. Clifton Park, NY: Thomson Delmar Learning.
- Simpson, K. R., & Creehan, P. A. (2001). *AWHONN perinatal nursing* (2nd ed.). Philadelphia: Lippincott, Williams & Wilkins.