



Newborn with Respiratory Distress

Simulated Clinical Experience (SCE™) Overview

Location: Level II Nursery (Intermediate Care/High Risk Nursery)

History/Information:

An infant male was born at 36-weeks gestation. His mother, a 27-year-old gravida 2 para 1, was admitted with contractions five minutes apart. Her membranes ruptured 34 hours before admission. The amniotic fluid was clear. The onset of labor was approximately six hours before admission. On admission to Labor and Delivery, the mother's data revealed: Temp 37.5°C, HR 90, RR 24, and BP 126/86. The infant was born two hours after his mother's admission to the hospital with APGAR scores of 7/9, heart rate of 160, respiratory rate 40 with scattered rales in the right upper lobe, and birth weight of 2900gm. He was transferred to the Transitional Care Nursery. During the three hour transitional period, his breath sounds progress from scattered rales in the upper right side to bilateral rales and expiratory grunting. The infant was transferred to the Level II Nursery four hours after birth. The transferring nurse indicated that the infant had experienced two episodes of apnea and bradycardia in one hour. His temperature has fluctuated between 35.5°C and 37.3°C. Prior to transfer, his HR was 168 and RR 70. He was transported with oxygen per mask at 1.5LPM. His father accompanied the infant and transport nurse to the Level II Nursery. Since a peripheral line could not be started, the Healthcare Provider inserted a left femoral vein IV.

Healthcare Provider's Orders:

Transfer to Level II Nursery
Isolette isolation
D10%W IV at 8mL/hour
Sepsis Workup: Gram stain cultures of blood, urine, spinal fluid, and gastric aspirates
Order tray for lumbar puncture STAT
Arterial blood gas
Heel stick for capillary blood glucose
CBC
Portable Chest x-ray
Ampicillin 74mg (75mg/kg per day) every 8 hours IV
Gentamicin 3mg (2.5mg/kg per day) every 12 hours IV
Pulse oximeter
Strict Intake and Output
NPO

Learning Objectives

1. Uses assessment data to develop a plan of care for an infant with sepsis experiencing respiratory distress (APPLICATION).
2. Determines priorities for treatment and nursing interventions (ANALYSIS).
3. Institutes therapeutic interventions for an infant with respiratory distress (APPLICATION).
4. Evaluates the effectiveness of interventions (EVALUATION).
5. Modifies care as indicated (APPLICATION).
6. Effectively communicates with the physician, family, and other healthcare providers on the progress of the infant (APPLICATION).

Questions to Prepare for the Simulated Clinical Experience

1. Why does premature rupture of the membranes place the neonate at risk for sepsis?
2. What are the pathological alterations in sepsis that can result in respiratory distress?
3. What is the most common causative organism for early onset sepsis secondary to premature rupture of the membranes?
4. What are the sign and symptoms of a neonate experiencing respiratory distress?
5. What nursing interventions are essential for a neonate with sepsis experiencing respiratory distress?
6. What medications are used to treatment respiratory distress in neonates?
7. What are the consequences of cold stress in a newborn?
8. What is the purpose of a neutral thermal environment?
9. What are the expected findings indicative of sepsis for the ordered diagnostic tests (Arterial Blood Gases, White Blood Cell Count with Differential, C- Reactive Protein and Chest x-ray)?

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