Respiratory Distress Syndrome

Signs & Symptoms

RDS immediately after birth or within 4hrs.:

- Tachypnea (>60 breaths/min)
- Intercostal and Subcostal retractions
- Nasal flaring / grunting
- Cyanosis in room air

Pathophysiology

The structurally immature and surfactant-deficient lung has decreased compliance and a tendency to atelectasis. Other factors are decreased alveolar radius and weak chest wall. In addition, high FiO2 may initiate release of inflammatory cytokines and chemokines causing more endothelial and epithelial cell injury that results in reduced surfactant synthesis.

Diagnostics/Labs

The clinical diagnosis is made in preterm infants with respiratory difficulty that includes tachypnea, retractions, grunting respirations, nasal flaring and need for increased FiO2.

Treatment/Management

- Oxygen supplementation
- Antenatal glucocorticoids
- Continuous positive airway pressure (CPAP)
- Artificial surfactant replacement therapy

Nursing Implications

- Optimize fluid management (humidified oxygen to prevent
  membranes)
- Reduce metabolic
  maximize nutrition
- Periodic arterial bl
  monitor oxygen co
  risk of hyperoxemia which can lead to ROP

Patient Teaching

- Cluster care (organize patient care
- Proper nutrition through breastmilk or formula

Priority Nursing Diagnosis

- Ineffective airway clearance
- Ineffective breathing pattern
- Activity intolerance

D.O.B.: **03/26/23**

Gestational Age: **40.1** Adjusted Gestational Age**: 40.3**

Birthweight: **8 lbs. 9.6 oz./3976grams**

Current weight: **8 lbs. 9.6 oz./3976grams**

APGAR at birth: **9**