Determinan Kejadian *Respiratory Distress Syndrome* pada Neonatus (P22.0) di Rumah Sakit Mitra Medika Bondowoso *(Determinants of Respiratory Distress Syndrome in Neonates (P22.0) at Mitra Medika Bondowoso Hospital)*

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ABSTRACT

Respiratory Distress Syndrome (RDS) is a respiratory disorder in newborns caused by surfactant deficiency. This disease is also known as Hyaline Membrane Disease (HMD). RDS cases at Mitra Medika Bondowoso Hospital ranked first among the top 10 inpatient diagnoses from 2022 to 2024. This study aims to analyze the relationship between gestational age, birth weight, gender, gestational diabetes, maternal hypertension, mode of delivery, premature rupture of membranes, multiple pregnancy, and maternal age with the incidence of RDS in neonates. This is a quantitative analytical study with a case-control design, using medical records from 95 cases and 95 controls selected by simple random sampling. Univariate analysis showed that 14.7% of babies were born preterm, 52.6% were male, and 10.5% had low birth weight. Maternal factors included hypertension (17.9%), cesarean section and assisted delivery (61.1%), premature rupture of membranes (27.4%), twin pregnancy (3.2%), and age < 20 or > 35 years (15.8%). No mothers with gestational diabetes were found. Bivariate analysis showed that RDS in neonates was associated with gestational age (p=0.001), birth weight (p=0.009), and premature rupture of membranes (p=0.034). Meanwhile, sex (p=0.309), maternal hypertension (p=0.570), mode of delivery (p=0.882), multiple pregnancy (p=0.211), and maternal age (p=0.320) were not associated with RDS in neonates. This study concludes that RDS in neonates is related to preterm gestational age, low birth weight, and premature rupture of membranes. Providing education through pamphlets and social media can help prevent premature birth, low birth weight, and premature rupture of membranes.

***Keywords**: birth weight, neonates, prematurity, RDS*