

RISK FACTORS OF SEVERE RESPIRATORY SYNCYTIAL VIRUS (RSV) INFECTION COURSE IN HOSPITALIZED CHILDREN

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Background: RSV often leads to hospitalization and precise knowledge on risk factors is crucial.

Methods: We retrospectively analysed laboratory-confirmed RSV hospitalizations in terms of pregnancy factors, birth status, cigarette smoke exposure, social conditions, feeding, clinical presentation and severe disease defined as passive oxygen therapy (pO₂Tx), respiratory failure, intensive care unit (ICU) transfer, presence of pneumonia, and antibiotic treatment.

Results: A univariate analysis included 594 children (median age 4 months) and revealed pO₂Tx relationship with prematurity (OR=1.69), smoke exposure during pregnancy (OR=2.41), being born during RSV season (OR=1.72), aged <3 months (OR=1.56), and presence of apnea (OR=5.81). Respiratory failure was related with age <3 months (OR = 7.79), prematurity (OR = 3.86), and apnea (OR = 18.78), while ICU transfer with age <3 months (OR=8.37), prematurity (OR=3.42), and apnea (OR=17.18). Pneumonia was related with maternal smoke exposure (OR=5.01), fever (OR=1.90), history of aspiration (OR=4.63), and inversely with age <3 months (OR=0.45), whereas antibiotics were related with maternal smoke exposure (OR=4.13), household crowding (OR=1.61), fever (OR=2.43), aspiration (OR=8.44), presence of complications (OR=63.03), and inversely with age under 3 mo (OR=0.37), birth during infection season (OR=0.51), rhinitis (OR=0.61).

Conclusions: Prematurity, smoke exposure, and young age are significant independent risk factors of severe RSV course, and a special attention should be paid to apnea.