

## FULL-TERM AND PRETERM INFANTS WITH PNEUMONIA: A CLINICAL COMPARISON

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**Abstract.** *Pneumonia remains one of the leading causes of morbidity and mortality among children under 5 years of age, particularly in low- and middle-income countries. Despite numerous studies, data on differences in the clinical course of pneumonia between full-term and preterm infants under 1 year of age are still limited.*

**Keywords:** *pneumonia; preterm infants; full-term infants; clinical course; hospitalization; intensive care; oxygen saturation; infants under 1 year.*

**Relevance.** Pneumonia remains one of the leading causes of morbidity and mortality among children under 5 years of age worldwide, particularly in low- and middle-income countries. Despite numerous studies examining differences in the clinical presentation and outcomes of pneumonia across various pediatric age groups, comparative data on the course of the disease in full-term and preterm infants under 1 year of age remain limited. Given the high prevalence of pneumonia in this age group, assessing differences in the severity of clinical manifestations between full-term and preterm infants is essential for optimizing patient management and improving treatment outcomes. This study was designed to address this gap.

**Objective.** To compare the clinical features and course of pneumonia in full-term and preterm infants under 1 year of age. The analysis included fever intensity, duration of hospitalization, frequency of admissions to the intensive care unit, and oxygen saturation levels.

**Materials and Methods.** This retrospective study included 60 infants under 1 year of age hospitalized at ARDMMC with a diagnosis of community-acquired pneumonia between January 1 and December 31, 2022. Patients were divided into two groups: preterm (gestational age  $\leq 34$  weeks,  $n=30$ ) and full-term (gestational age  $>34$  weeks,  $n=30$ ). The parameters assessed were body temperature, length of hospital stay, frequency of ICU admissions, and oxygen saturation ( $SpO_2$ ). Statistical analysis was performed using the t-test, with  $p<0.05$  considered statistically significant.

**Results.** The mean age of the preterm group was  $6.1\pm 3.2$  months, while that of the full-term group was  $7.2\pm 2.9$  months ( $p=0.134$ ). Preterm infants had higher fever ( $39.1\pm 0.6^\circ C$ ) compared with full-term infants ( $38.7\pm 0.5^\circ C$ ,  $p=0.022$ ). The duration of hospitalization was also longer in preterm infants ( $8.6\pm 2.4$  vs.  $7.4\pm 1.9$  days,  $p=0.012$ ). ICU admissions were more frequent among preterm infants (60% vs. 30%,  $p=0.031$ ). In addition, preterm infants had lower oxygen saturation levels ( $91.5\pm 1.9\%$  vs.  $95.2\pm 1.2\%$ ,  $p<0.001$ ).

**Conclusion.** Pneumonia in preterm infants under 1 year of age follows a more severe clinical course compared to their full-term counterparts. It is characterized by higher fever, longer hospitalization, a greater need for intensive care, and lower oxygen saturation levels. These

findings underscore the need for closer monitoring and timely treatment of preterm infants to prevent complications and improve prognosis. In clinical practice, the identified differences should be considered when managing pneumonia in infants.

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