

Título: IDENTIFICATION OF CHILDREN WITH ACUTE RESPIRATORY INFECTIONS CAUSED BY *CHLAMYDOPHILA PNEUMONIAE*

Autores: Alves, M.S.¹, de Sousa E.M.¹, Zagmignam, A.¹, Silva, E.S.A.¹, Felipe, K.K.¹, Vieira, V.A.¹, Cariolano, M.S.¹, Sousa, V.M.¹, Costa, L.D.², Amorim, A.M.M.², Lima-Neto, L.G.¹

Instituição: ¹ Universidade Ceuma (Rua Jose Montello, n 01 Renascença 2, 65.075.120, São Luís-MA). ² Hospital da Criança Dr. Odorico de Amaral Matos (Av. dos Franceses, 113, Alemanha , 65.036.281, São Luis-MA)

Resumo:

Acute respiratory infections (ARI) are a major cause of death worldwide, affecting mainly children in developing countries like Brazil. *Chlamydophila pneumoniae* (Cpn) is an obligate intracellular pathogen that is associated to infection of the respiratory tract, including pharyngitis, bronchitis and pneumonia. However, due to the difficulty of laboratorial identification of Cpn, the incidence of ARI caused by Cpn are unknown in Brazil. The aim of this study was to evaluate the incidence of children with ARI caused by *Chlamydophila pneumoniae* as well as describe the epidemiological profiles of the children with ARI. For that, thirty children (under twelve years old) with ARI were selected at one clinical center. DNA samples were purified from nasopharyngeal swabs and Cpn was identified using a polymerase chain reaction (PCR) assay targeting the 16S ribosomal DNA for rapid and more specific identification. Cpn AR-39 (ATCC 53592) was used as positive control. In addition, it was collected data related to epidemiological profiles [Age, Gender, Weight, Birthweight <2.5 kg, Breastfed, Exclusive breastfeeding (<6 months)]. Positive samples for Cpn-DNA were found in 40.0 % (12/30) of children with ARI. This frequency is considered high whereas the estimation of ANVISA for non-ARI individuals is up to 20%. The mean age and weight of the children was 59.4 months and 20.0 Kg, respectively. Fifty percent of the children were male. The nutritional assessment showed, on average, positive z-scores whereas the mean z-scores for weight-for-height was 3,3. The prevalence of children with z-scores under -2.0 was 3,33% (1/30). Twenty percent (6/30) of children with ARI had low Birthweight and forty-three percent (13/30) of children was the second (or third, fourth or fifth) birth. The minority of children (6,7%) was not breastfed. On the other hand, forty percent (12/30) of children with ARI had an exclusive breastfeeding inappropriate. The majority of children (97%) had a fully immunized and 10% percent (3/30) of children had a premature birth as well as 30% percent had a surgical delivery (Caesarean). Higher incidence of *Chlamydophila pneumoniae* was found in the Brazilian children with acute respiratory infections. Moreover, the knowledge of the risk factors related of epidemiological profile of children with ARI may reduce the incidence of ARI.

Palavras-chaves: Acute respiratory infections, *Chlamydophila pneumonia*, children.

Agencia de fomento: FAPEMA