RISK FACTORS ASSOCIATED WITH RADIOLOGICALLY CONFIRMED PNEUMONIA AMONG PEDIATRIC PATIENTS AGES 3 MONTHS TO 5 YEARS OLD AT THE EAST AVENUE MEDICAL CENTER

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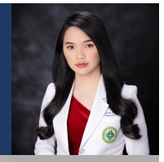

BACKGROUND

Pneumonia is one of the most important causes of mortality and morbidity among young children. Prompt diagnosis and treatment is critical to improve survival rates.

OBJECTIVE

To determine the risk factors associated with radiographically confirmed pneumonia among patients 3 months to 5 years with clinical pneumonia at the East Avenue Medical Center

METHODOLOGY

Cross-sectional analytic study design

SUBJECTS

105 patients ages 3 months to 5 years old with clinical pneumonia

DATA ANALYSIS : Descriptive statistics (frequencies, proportions, means, standard deviations) were used for categorical and continuous variables. Associations were determined using **Fisher's Exact** or **Chi-square test. SPSS version 27** was used for data analysis.

RESULTS

Table 3. ***Association of clinicodemographic profile of patients ages 3 months to 5 years old with clinical pneumonia with radiologically confirmed pneumonia***

Clinical Profile	OR (95% CI)
Gender	
Female	10.853 (0.595 - 197.90)
Presence of Crackles	6.571 (1.02 - 42.35)
Peripheral Oxygen Saturation level of less than 95%	0.113 (0.0062 - 2.0622)

Table 4. ***Validity of Single Variables***

Clinical Profile	Sensitivity	Specificity
Tachypnea	68%	100%
O2 Saturation <95% at room air	70%	0%
Nasal Discharge	86%	14%
Retraction	96%	66%
Lymphadenopathy	89%	8%

Table 5. ***Validity of Combination of Variables***

Combination of Variable	Sensitivity	Specificity
1. Fever & Cough + O2 sat <95%	30%	67%
2. Fever &Cough + Crackles	53%	83%
3. Fever & Cough + Tachypnea	10%	100%
4. Fever & Cough + Retraction	34%	100%
5. Fever + Cough + Nasal Discharge	46%	67%

94% (N=99), **radiologically confirmed pneumonia** **male** predominance

No associations with the following: age, immunization, breastfeeding, preterm birth, low birth weight and exposure to cigarette smoke

CONCLUSION

The **female gender** and the presence of **crackles** were *significant risk factors associated with radiologically confirmed pneumonia.*

The presence of **retractions** (96%) was the *single most sensitive sign that may be used as a screening tool for radiologically confirmed pneumonia.*

The absence of retractions and tachypnea ruled out radiologically confirmed pneumonia.

Significantly associated with radiologically confirmed pneumonia:

Gender

Crackles

O2 saturation level of < 95%