



CODEN [USA]: IAJPBB

ISSN : 2349-7750

## INDO AMERICAN JOURNAL OF PHARMACEUTICAL SCIENCES

SJIF Impact Factor: 7.187

Available online at: <http://www.iajps.com>

A Research article

### ASSESSMENT OF RISK FACTORS AND KAP QUESTIONNAIRE ON ANTIBIOTICS USAGE AND IMPACT OF CLINICAL PHARMACIST IN PEDIATRIC PATIENTS DIAGNOSED WITH LOWER RESPIRATORY TRACT INFECTIONS IN TERTIARY CARE TEACHING HOSPITAL

K. Roja

Pharm.D (Doctor of Pharmacy),

Chalapathi Institute of Pharmaceutical Sciences, Lam, Guntur,

**Article Received:** January 2021

**Accepted:** January 2021

**Published:** February 2021

**Abstract:**

**Aim:** To find out risk factors, KAP (knowledge, attitude and practice) questionnaire of antibiotic usage, identify incidence of various types of lower respiratory tract infections and the impact of clinical pharmacist in pediatric patients diagnosed with respiratory tract infections.

**Purpose:** Now a days the incidence of lower respiratory tract infections was increasing day by day in the present scenario. So here we need to assess the risk factors, incidence of various types of lower respiratory tract infections and to know the knowledge, attitude and practice of parents regarding infection control.

**Methods:** A prospective observational study proposed to be conducted in 6 months, all the patients were administering with KAP questionnaire, and by direct interviewing the patients regarding risk factors.

**Setting:** the study was conducted in government general hospital, Guntur.

**Participants:** the study included 158 subjects who were diagnosed with lower respiratory tract infection.

**Results:** Regarding the risk factors we assessed that pre term, lack of nutritional status, formula feeding, positive smoking exposure, low birth weight and incidence were as pneumonia, bronchiolitis, WALRTI, and tracheitis.

**Conclusion:** our study concluded that type of occurrence of lower respiratory tract infections are as follows pneumonia, bronchiolitis, WALRTI, and tracheitis. our study found that major risk factors are pre term, lack of nutritional status, formula feeding, positive smoking exposure, low birth weight. Regarding the KAP questionnaires, study revealed the poor knowledge, negative attitude and poor practice on usage of antibiotics. Preventive measures should be taken to prevent the occurrence of lower respiratory tract infections.

**Corresponding author:**

**K. Roja,**

PHARM.D (Doctor of Pharmacy),

Chalapathi Institute of Pharmaceutical Sciences, Lam, Guntur,

[Kvkatta196@gmail.com](mailto:Kvkatta196@gmail.com), 9666830742

QR code



Please cite this article in press K. Roja, Assessment Of Risk Factors And KAP Questionnaire On Antibiotics Usage And Impact Of Clinical Pharmacist In Pediatric Patients Diagnosed With Lower Respiratory Tract Infections In tertiary Care Teaching Hospital., Indo Am. J. P. Sci, 2021; 08(02).

**INTRODUCTION:****BACKGROUND:**

Respiratory tract infection (RTI) is defined as an infectious disease Categorized in to upper and lower respiratory tract infections. Upper respiratory tract infections (URTIs) include the common cold, laryngitis, pharyngitis/tonsillitis, acute rhinitis, acute rhino sinusitis and acute otitis media. Lower respiratory tract infections (LRTIs) include acute bronchitis, pneumonia, bronchiolitis and tracheitis.

**RISK FACTORS:**

1. Lack of breast feeding
2. Demographic factors
3. Environmental factors
4. Socio-economic factors
5. Nutritional factors
6. Immunization factors

**OBJECTIVES:****PRIMARY OBJECTIVES:**

- To identify risk factors for lower RTI
- To assess knowledge, attitude and practice of antibiotic usage
- To estimate the incidence of lower RTIs in pediatric population.

**SECONDARY OBJECTIVES:**

- To assess the impact of clinical pharmacist in improving the quality of life in patients with respiratory tract infection
- Identifying ADRs, patient compliance towards medication adherence
- To give patient counseling about disease, lifestyle changes, and preventive aspects of the RTIs.

**MATERIALS AND METHODS:**

**STUDY DESIGN:** Prospective Observational Study

**STUDY PLACE:** Department of Pediatrics, Government general hospital, Guntur

**STUDY PERIOD:** september 2019 to February 2020

**SAMPLE SIZE:** Pediatric patients who are diagnosed with lower respiratory tract infections.

**STUDY METHOD:** The study will be conducted in Government General Hospital, Guntur, a tertiary care teaching hospital. The method involves inpatients who will be selected based on inclusion and exclusion criteria and an Informed Assent is taken based on inclusion and exclusion criteria.

**MATERIALS USED:**

- Patient Assent form
- Patient data collection form
- Patient information leaflet (PILL)
- KAP questionnaires

**INCLUSION CRITERIA:**

- Patients of either gender and age 1 month to 5 years
- Patients diagnosed with lower respiratory tract infections
- Those who are willing to participate in study

**EXCLUSION CRITERIA:**

- Patients of age > 5 yrs.
- Patients diagnosed with other than respiratory infections
- Patients diagnosed with TB

**STATISTICAL ANALYSIS:**

The data obtained was entered in advanced Microsoft excel spread sheet and evaluated. For statistical analysis, Graph Pad Prism 8.1.0 was used and one sample t test was done with the 95% confidence interval at alpha value 0.05 and the p-values <0.05 are considered to be significant.

**RESULTS:**

- In our study we found the Incidence Rate during the study period i.e September 2019 to February 2020 and Incidence Rate was found to be 41.18%.
- Regarding the incidence based on the results obtained, our study revealed that distribution of LRTI as pneumonia 73(46%), bronchiolitis 59(37%), bronchitis 0, tracheitis 1(0.6%), WALRTI 2(1.26%).
- The risk factor distribution in subjects were with pneumonia are 73, bronchiolitis 59, bronchitis 0, tracheitis 1, LRTI 23, WALRTI are 2.
- we considered the risk factors as age, gender, gestational age, nutritional status, feeding status, low birth weight, passive smoking exposure. In that we assessed that gestational age (\*p value =0.4747), nutritional status (p value = 0.0080), feeding status (p value = 0.0080), low birth weight (p value = 0.0322), passive smoking exposure (p value = 0.0483) were risk factors for lower respiratory tract infections.
- Regarding the antibiotic usage, a KAP questionnaire survey was conducted in parents of pediatric population, the results shows that poor knowledge regarding proper usage of antibiotics, negative attitude towards usage, poor practice of antibiotics.

**CONCLUSION:**

Respiratory tract infections are one of the most common problems occurring in pediatric population and generate an elevated prescription of antibiotics. Based on results obtained, our study concluded that type of occurrence of lower respiratory tract infections are as follows pneumonia, bronchiolitis, WALRTI, and tracheitis. our study found that major risk factors are pre term, lack of nutritional status, formula feeding, positive smoking exposure, low birth weight. Regarding the KAP questionnaires, study revealed the poor knowledge, negative attitude and poor practice on usage of antibiotics. Preventive measures should be taken to prevent the occurrence of lower respiratory tract infections.

**REFERENCES:**

1. Respiratory tract infections antibiotic prescribing: prescribing of antibiotics for self-limiting respiratory tract infections in adults and children in primary care (cited on 2008 July). Available from: <https://www.ncbi.nlm.nih.gov/books/NBK53632/>
2. The primary NIH organization for research on acute bronchitis is the national Heart, lung, and blood institute. Available from: <https://medlineplus.gov/acutebronchitis.html>
3. Approved by the American lung association scientific and medical editorial review panel(cited on 2020 March 12).Available from: <https://www.lung.org/lung-health-and-diseases/lung-disease-lookup/acute-bronchitis/symptoms-causes-risk-factors.html>
4. Mayo clinic, Bronchiolitis(cited on 2020 Jan 15). Available from <https://www.mayoclinic.org/diseases-conditions/bronchiolitis/symptoms-causes/syc-20351565>
5. Very well health, Tracheitis symptoms, diagnosis and treatment (cited on March 23). Available from <https://www.verywellhealth.com/what-is-tracheitis-1192023>
6. WebMD medical reference on pneumonia Definition, symptoms, diagnosis, complications (cited on 2020 April 20). Available from <https://www.webmd.com/lung/understanding-pneumonia-basics#1>
7. Mayo clinic, Pneumonia symptoms, causes, prevention (cited on 2018 March 13). Available from: <https://www.mayoclinic.org/diseases-conditions/pneumonia/symptoms-causes/syc-20354204?page=0&citems=10>
8. Johns Hopkins medicine on pneumonia. Available from: <https://www.hopkinsmedicine.org/health/conditions-and-diseases/pneumonia>
9. Maria Regina Alres Cardoso, Simona Nicholas Cousens et al , “ Crowding: Risk factors or protective factor for lower respiratory disease in young children . to study risk factors, BMC public health .2004;4:19; june 3 2004.
10. James samwel Ngochou et al , conducted a study on “Modifiable risk factors for community-acquired pneumonia in children under 5 years of age in resource-poor settings: a case-control study ,Pubmed .gov. national center for biotechnology information , trumped int. health, 2019 Apr