STUDY OF RESPIRATORY DISEASE PATTERN IN CHILDREN IN AGE GROUP OF 2 MONTHS – 5 YEARS ADMITTED IN TERTIARY CARE HOSPITAL TIRUNELVELI MEDICAL COLLEGE

ABSTRACT:

AIM OF THE STUDY: The study of respiratory disease pattern in children of age group 2 months to 5 years, admitted in Tertiary care Hospital, Tirunelveli Government Medical College and assess the various risk factors associated with Acute Respiratory Infection that determines the morbidity and mortality.

DESIGN: Hospital based prospective observational study

STUDY PLACE: Department of paediatrics, Tirunelveli Government Medical College.

STUDY PERIOD: January 2016 to June 2017

PATIENTS: All children in the age group of 2 months to 5 years admitted with acute respiratory diseases like pneumonia, bronchiolitis, WALRI and croup are included in the study. All cases of Pneumonia were classified into pneumonia, severe pneumonia, very severe pneumonia according to WHO guidelines.

OUTCOME MEASURES: Following parameters were considered to assess the risk factors, morbidity and mortality among the study group.

1. Month of presentation
2. Sex
3. Immunisation status
4. Socio-economic status
5. History of exclusive breast feeding
6. Bad child rearing practice
7. Nutrition status (WHO weight for age < -2 Z score)
8. Need for mechanical ventilation
9. Prolonged PICU and hospital stay
10. Outcome

RESULTS: The incidence of Acute respiratory infections (ARI) cases among hospital admission is 10.95%. Infants constitute 43.5% of the total admissions with severe and very severe pneumonia are more in this age group with P value 0.001. Pneumonia is the most common diagnosis with 38.5% cases followed by bronchiolitis with 15.30%. Case fatality rate for the ARI cases was 5.90% with more number of death occurred in infants. There is significant influence of exclusive breast feeding, socio economic status, immunization status, malnutrition, bad child rearing practices over the morbidity and mortality of ARI cases. Evidence of sepsis has a significant influence over disease outcome
(death) with ODDS RATIO 11.52. There is significant influence of presence or absence of malnutrition over disease outcome with P value 0.001. Patient with malnutrition has 11 times more chance of mortality. There is significant influence of requirement of ventilation over disease outcome with P value of 0.001. Patient who move in direction of mortality had 28 times higher chance of ventilator requirement.

**CONCLUSION**: Case fatality rate of ARI cases was 5.90%. Requirement of mechanical ventilation was a significant risk factor followed by sepsis and malnutrition. There is significant influence of exclusive breast feeding, socioeconomic status, immunisation status and bad child rearing practice over the morbidity and mortality of ARI cases.

**KEY WORDS**: Acute respiratory infection, Pneumonia, Case fatality rate, Risk factors, Outcome.