**Risk Factors Associated with Hospital Acquired Pneumonia (HAP) Patients for Getting Intubated in a Tertiary Hospital: A Prospective Unmatched Case-Control Study**

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**Abstract:**

**Introduction:** Hospital-acquired pneumonia (HAP) increases morbidity, mortality, and healthcare costs, thus additional epidemiologic studies are necessary to better understand the problem’s scope and develop interventions. Considering that HAP is an exogenous infection with nosocomial pathogens acquired from the hospital environment, evaluating hospital environment-related risk factors would be necessary. However, studies on hospital environment-associated risk factors for HAP are limited. In this analytic study, the association of risk factors and outcome of Hospital Acquired Pneumonias were determined.

**Objective:** This study evaluates different risk factors associated with Hospital-Acquired Pneumonia (HAP) resulting to intubation in a tertiary hospital in Iloilo City.

**Methods:** A prospective unmatched case-control study was conducted between August and October 2023 with 176 participants. Demographic and clinical characteristics were collected, with the presence of intubation as a clinical outcome. Odd’s ratios and Poisson regression were used as statistical method.

**Results:** Participants have a mean age of 53.76 years old. Being male increases the likelihood of developing HAP. Diabetes Mellitus, Hypertension, Dyslipidemia, Transaminitis, Malnourishment and Anemia are also significantly associated with increased risk of HAP. Length of hospital stay, presence of nasogastric tube, previous ICU admission, previous antibiotic use and antacid therapy indicates higher risk for HAP. The use of corticosteroids decreased risk of intubation by 99%. Previous exposure to mechanical ventilators are 53 times more likely to be re-intubated. Exposure to antacid therapy increased the risk of intubation by 9 times. Three microorganisms were observed to increase the risk of getting intubated: *A.baumanii*, *E. cloacae*, and *Proteus spp.*

**Conclusion:** The factors associated with HAP identified may be used to improve surveillance and allow early diagnosis, treatment and prognosis. Optimal therapy may help prevent clinical outcomes such as intubation.

**Biography of presenting author**

Dr. Gallego studied BS Nursing at West Visayas State University and graduated as Cum Laude in 2015. She then finished her medical degree in 2020 at same Institution. After her post graduate internship and passing the licensure exam, she is now on her 3rd year medical residency training in Internal Medicine at

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