

## PATTERN OF NOSOCOMIAL PNEUMONIA IN THE INTENSIVE CARE UNIT IN SINGAPORE.

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Nosocomial pneumonia continues to be a common complication of hospital stay in patients with comorbidity. We conducted a descriptive prospective study of 150 consecutive patients who were admitted to the Medical Intensive Care Unit (MICU) over a six month period from June to December 1994 to assess the prevalence, risk factors, causative organisms, appropriateness of treatment and outcome of nosocomial pneumonia in the MICU. Nosocomial pneumonia was diagnosed based on the following criteria : new infiltration on chest radiograph more than 48 hours after admission to hospital not otherwise explained by other pathology and one of the following : white cell count more than  $10 \times 10^9 /L$ , fever of more than  $38^{\circ}C$  or purulent sputum/endotracheal aspirate. Samples of endotracheal aspirate or voluntary expectoration of sputum were sent to the microbiology laboratory on admission to MICU and every subsequent three days and processed by the microbiology laboratory. Out of 150 patients admitted to MICU, 11 patients developed ventilator-associated nosocomial pneumonia (12 episodes). 13 patients had acquired nosocomial pneumonia from the ward (16 episodes) requiring further MICU care. In the ventilator-associated pneumonia group, all patients had comorbid illness. The average duration of ventilation before the onset of ventilator associated pneumonia was 10.33 days. The mortality of the ventilator associated pneumonia group was 73% while that from the ward was 85%. The predominant causative organisms from the ventilator-associated pneumonia group were multiorganisms, *Pseudomonas* and MRSA ; for the ward-acquired nosocomial pneumonia group the predominant causative organisms were MRSA and multiresistant *Klebsiella*. In the ward-acquired nosocomial group, 6 patients out of 13 had previous lung disease and all patients had comorbid illness. We conclude that nosocomial pneumonia is a common complication of hospital stay and is associated with uniformly increased mortality.