

## **OUTCOMES AND COST ANALYSIS OF PATIENTS WITH SUCCESSFUL CARDIOPULMONARY RESUSCITATION.**

C-K Tan<sup>1</sup>, K-S Chan<sup>1</sup>, S-C Hsing<sup>2</sup>, S-C Lin<sup>2</sup>, K-C Cheng<sup>1</sup>.

Department of Intensive Care Medicine<sup>1</sup>, Respiratory Care Medicine<sup>2</sup>,  
Chi-Mei Medical Center, Tainan, Taiwan.

**BACKGROUND/AIMS:** To evaluate the outcomes of patients who were admitted to the ICU with successful cardiopulmonary resuscitation (CPR).

**METHODS:** Data was extracted from a prospectively maintained database of intubated and mechanically ventilated patients in a tertiary hospital. Adult patients (age  $\geq 18$ ) with successful CPR and admitted to the ICU were included for analysis.

**RESULTS:** Three hundred thirteen patients were included from 1 January 2004 to 31 December 2004 with 114(36.4%) admitted from the ER and 199 (63.6%) from the ward. The mean age was  $65.2 \pm 15.9$ , and subjects were predominantly males (60.1%). The in-hospital mortality was high (209 patients; 66.8%) with 130 (62.2%) patients dying within 24 hours. Only 73 (23.3%) patients were discharged to home and 31 (9.9%) were transferred to a chronic care center. There were no differences in age, gender, source (ER or ward) or department (surgical or medical) between survivors and non-survivors. The non-survivors had a significantly (all with  $p < 0.001$ ) higher APACHE II score ( $32.4 \pm 8.9$  vs  $19.9 \pm 8.5$ ) and TISS ( $34.8 \pm 8.9$  vs  $29.4 \pm 8.9$ ), but a shorter ICU stay ( $4.3 \pm 8.2$  vs  $15.8 \pm 12.3$ ), hospital stay ( $10.6 \pm 19.1$  vs  $39.7 \pm 33.4$ ), and mechanical ventilation (MV) hours ( $66.6 \pm 132.9$  vs  $257.9 \pm 278.6$ ), and less expenses ( $151133 \pm 247852$  vs  $445781 \pm 348167$ ). Among the non-survivors, patients with early mortality ( $< 24$  hours) had a significantly higher APACHE II score ( $p = 0.021$ ) and a greater portion that was admitted from the ward (45.6% vs 29.2%;  $p = 0.017$ ). Among the survivors, patients who were discharged to chronic care centers were older, had higher APACHE II scores, medical expenses and MV hours, and longer ICU and hospital stays than those discharged to home.

### **DISCUSSION/CONCLUSIONS:**

Given the fact that less than one-fourth of the successfully resuscitated patients had a favorable outcome and two-thirds of the mortality cases died within 24 hours, we have to find out in the future who might not be candidates for resuscitation. The goal of resuscitation is to reverse premature deaths and not to prolong inevitable deaths.

**Keywords:** cardiopulmonary resuscitation, outcomes, cost.