Parameters affecting length of stay among neurosurgical patients in an intensive care unit / Phuping Akavipat, Jadsada Thinkhamrop, Bandit Thinkhamrop, Wimonrat Sriraj

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Abstrak

Tujuan: untuk menentukan faktor-faktor prediktif penentu lama rawat inap pasien bedah saraf di ICU. Metode:
semua pasien yang masuk ICU bedah saraf RS Saraf Prasat, Bangkok, antara 1 Februari dan 31 Juli 2011 ikut
serta dalam penelitian. Data demografi dan data klinis pasien untuk setiap variabel dikumpulkan dalam waktu
30 menit sejak masuk rumah sakit. Lama rawat inap di ICU dicatat dan dianalisis menggunakan model regresi
linear dengan batas kemaknaan statistik p<0,05. Hasil: sebanyak 276 pasien masuk rumah sakit dan 89,1% di antaranya merupakan kasus elektif. Nilai rata-rata (IK 95%) dan median (minimum?maksimum) dari lama
rawat inap di ICU adalah 2,36 (2,09-2,63) dan 2 (1-25) hari. Variabel yang berkaitan dengan lama rawat inap
di ICU dan persentase perubahannya (IK 95%) meliputi Glasgow Coma Scale motor subscore (GCSm), 6,72%
(-11,20 hingga -2,01) lebih rendah untuk setiap perubahan 1 skor poin; pH darah, 1,16% (0,11 hingga 2,21) lebih tinggi untuk setiap perubahan 0,01 satuan; dan jenis kegawatdaruratan saat masuk rawat, 58,30% (29,16
hingga 94,0) lebih tinggi bila dibandingkan dengan masuk rawat karena alasan elektif. Kesimpulan: GCSm, pH
dan kegawatdaruratan saat masuk rawat ternyata merupakan variabel prediktif utama untuk lama rawat pasien
bedah saraf yang dirawat di ICU. Meskipun demikian, model ini perlu diteliti lebih lanjut pada ukuran sampel
yang lebih besar dan menggunakan analisis subkelompok.

Aim: to determine the predictive factors on the length of stay of neurosurgical patients in the ICU setting. Methods: all patients admitted to the neurosurgical ICU between February 1 and July 31, 2011 were recruited.
Patient demographics and clinical data for each variable were collected within 30 minutes of admission. The ICU length of stay was recorded and analyzed by linear regression model with statistical significance at p-value
<0.05. Results: there were 276 patients admitted, of whom 89.1% were elective cases. The mean (95% CI) and

median (min-max) of ICU length of stay were 2.36 (2.09-2.63) and 2 (1-25) days. The variables associated with
ICU length of stay and their percent change (95% CI) were the Glasgow Coma Scale motor subscore (GCSm),
6.72% (-11.20 to -2.01) lower for every 1 point score change; blood pH, 1.16% (0.11 to 2.21) higher for every
0.01 unit change; and emergency admission type, 58.30% (29.16 to 94.0) higher as compared to elective admission. Conclusion: the GCSm, pH and emergency admission were found to be the main predictive variables of neurosurgical patient length of stay in the intensive care unit, however, the model should be further explored
in a larger sample size and using subgroup analysis.