

Neurorehabilitation

Neurorehabilitation is a complex medical process that aims to aid [recovery](#) from a [nervous system injury](#), and to minimize and/or compensate for any functional alterations resulting from it

It is an important aspect of continuing [care](#) for neurosurgical [patients](#) with [functional disability](#).

A Comprehensive Neurorehabilitation Program Should be an Integral Part of a Comprehensive [Stroke Center](#) ¹⁾.

Studies have indicated that successful integration of the traumatized patient is possible, provided that an early intensive care is succeeded by a comprehensive, individualized post-acute rehabilitation program, of which follow-up is a part, all within the frame of multidisciplinary collaboration ²⁾.

Critically ill patients consecutively admitted to early neurological [rehabilitation](#) were screened for eligibility. Boltzmann et al. assessed the correlation between the [Early Functional Ability scale](#) (EFA) and (i) the Early Rehabilitation [Barthel Index](#) (ERBI), and (ii) the Coma Recovery Scale-Revised ([CRS-R](#)). The 1-year outcome on the Glasgow Outcome Scale-extended (GOSE) was used to examine the predictive validity. Demographical and medical variables were entered into univariate and multivariate binary regression models to identify independent predictors of 1-year outcome.

Two hundred fifty-seven patients (168 men) with a median age of 62 years (IQR = 51-75) were enrolled. The correlation of the EFA scale with the CRS-R was high but low with the ERBI upon admission. Multivariate regression analysis yielded the vegetative subscale of the EFA scale as the only independent predictor for the 1-year outcome of patients admitted to early neurological rehabilitation.

This study shows a high correlation of the EFA scale with the CRS-R but a weak correlation with the ERBI in patients with low functional abilities. With improving patient abilities, these correlations were partly reversed. Thus, the EFA scale is a useful tool to assess the functional abilities and the prognosis of critically ill patients adequately and may be more feasible than other scales ³⁾.

In developing countries, where formal home nursing is frequently unavailable, ensuring care after discharge is a difficult task. Training attendants to provide nursing care is an alternate option.

A retrospective observational study conducted at the Aga Khan University Hospital [Karachi](#) consisted of two groups. Group 1 (consisted of patients cared for by professional nurse) included 94 patients and group 2 (patients cared for by family members) included 102. All these patients had Activity of daily living (ADL) score of ≥ 3 . Glasgow Outcomes Scale (GOS), time to decannulation, development/worsening of bedsores, and mortality were recorded and compared between the groups at follow up.

The study included 196 patients. Traumatic Brain Injury was the most common diagnosis. Nursing requirements were similar between the two groups and included tracheostomy care, PEG tube care, PICC line care, care of patients with no bone flap and logrolling. The outcomes of the two groups were comparable and included bedsores development/ worsening of grade, GOS at follow-up, time to

decannulation and 30-day mortality.

There was no statistically significant difference in outcomes of patients nursed by family members when compared to the patients looked after by professional nurses ⁴⁾.

1)

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2)

Christensen AL. Neuropsychological experiences in neurotraumatology. *Acta Neurochir Suppl*. 2005;93:195-8. Review. PubMed PMID: 15986754.

3)

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4)

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