

HOW ACCURATE ARE PHYSIOTHERAPISTS AT PREDICTING THE OUTCOMES OF THEIR NEUROLOGICALLY IMPAIRED PATIENTS?

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Background: The primary aim of this study was to determine the extent to which physiotherapists at the DRC could accurately predict the motor outcomes of their patients. The unit specialises in the treatment of neurologically impaired adults between the ages of 16 and 65 years. Recent increases in the number of inpatients being admitted, without concomitant changes in staffing levels, had led to an increased focus on the prioritisation of physiotherapy caseloads. One aspect of this work had been to identify how well therapists were predicting the discharge motor outcomes for their newly admitted patients. A secondary aim was to analyse the relationship between accuracy of that prediction and 1) time between onset and admission, 2) gross diagnosis, and 3) cognitive deficit.

Method: A 2-year retrospective review of Functional Assessment Measure (FIM+FAM) records was undertaken. Patients were included if they had been diagnosed with stroke, head injury or sub-arachnoid haemorrhage. Accuracy was measured by establishing the discrepancy between the goal and discharge scores for 7 test items of the FIM+FAM's mobility section. Ethical approval was obtained from the Norwich District Ethics Committee.

Results: The percentage of patients (n=46) for whom the goal score had been exactly predicted varied for each motor task, ranging from 48.8% for tub/shower transfers to 69.6% for stairs. Dependency in tasks was more accurately predicted (50% for tub/shower transfers, 100% for wheelchair mobility). There was a roughly equal likelihood to over-predict as under-predict, depending upon test item. Kappa values, calculated to determine the overall level of agreement for each test item, ranged from 0.35 to 0.60, most indicating only a fair level of agreement. No relationship was found between the three independent variables and the discrepancy between the goal and discharge scores individually. However multiple regression revealed a statistically significant relationship ($p=0.021$) between gross diagnosis and cognitive score and the goal/discharge discrepancy.

Conclusion: The accuracy with which the unit's physiotherapists could predict patient outcomes was somewhat low, though this varied depending upon test item. Factors that may help to improve these predictions were however identified. As predictions help to define the amount of therapy input that individuals receive, this has clear implications for patient management. Further research is required to investigate the effect of various factors on prediction accuracy, as well as to investigate the nature and purpose of outcome prediction in an inpatient neurological setting.