

The New Mobility Score as a Predictor of Early Independency in Basic Mobility after Hip Fracture Surgery.

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Background and Purpose

If patients are to return directly to their own home in the community, instead of transfer to a secondary rehabilitation unit or nursing home, the regain of independency in basic mobility is necessary. Therefore, a method for an early, quick and valid prediction of short-term rehabilitation outcome is important for ward personnel to adjust and plan expectations and rehabilitation needs for each patient.

This study validated the New Mobility Score (NMS) as a predictor of the postoperative day of independency in basic mobility, functional mobility at discharge and length of stay before discharge to own home .

Materials

A total of 436 consecutive hip fracture patients at a median age of 81 (IQR 74-87) admitted from own home to a special hip fracture unit in an orthopaedic ward.

Methods

All patients followed a well defined multi-modal fast track rehabilitation program including surgery within 24 hours and an intensive physiotherapy program.

The **New Mobility Score** that measures the prefracture functional level was recorded on admission. The NMS is a composite score of the patient's ability to perform: indoor walking, outdoor walking and shopping before the hip fracture, that provides a score between 0 and 3 for each function, resulting in a total score from 0 to 9, with 9 indicating a high prefracture functional level.

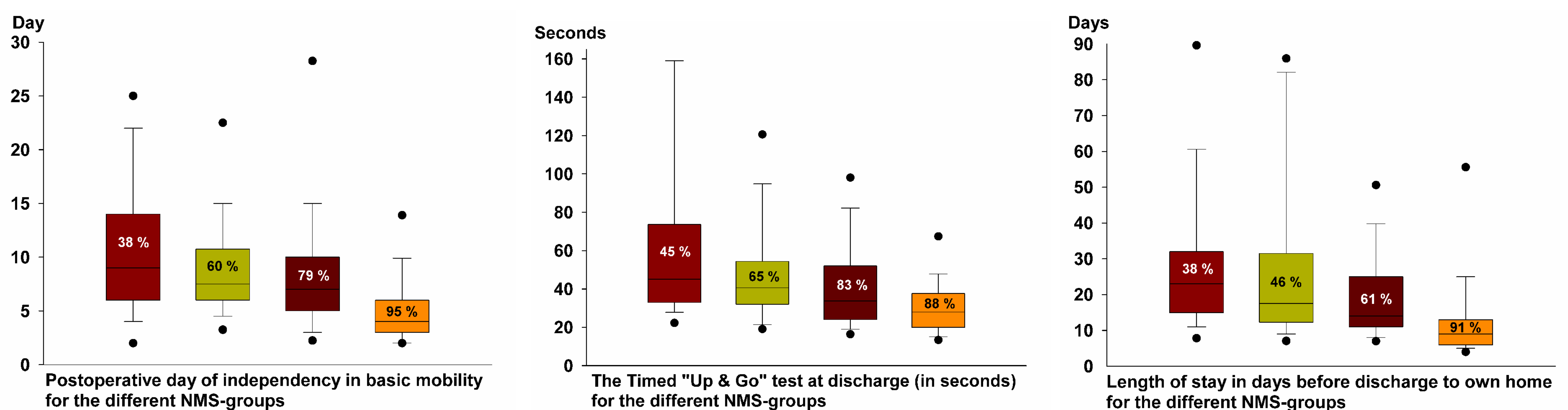
Postoperative day of independency in basic mobility was defined as; Day of independency in ability to get in and out of bed, up and down from chair and walking with an aid, during admission.

Functional mobility at discharge was evaluated by; The Timed "Up & Go" test that measures the time in seconds that it takes a person to rise from an armchair, walk 3 meters to a drawn line on the floor, and return to the chair.

Results

Boxes represent 25-75 % quartiles with median, whiskers represent 90th percentiles, outliers 5th/95th.

Percentage (%) in boxes represent number of patients out of total numbers in each NMS-group



The New Mobility Score (NMS)

Mobility	No difficulty	With an aid	With help from another person	Not at all
Indoor walking	3	2	1	0
Outdoor walking	3	2	1	0
Shopping	3	2	1	0

NMS grouping in boxes

- New Mobility Score 2 and 3
- New Mobility Score 4 and 5
- New Mobility Score 6 and 7
- New Mobility Score 8 and 9

A cutoff point of 7 gave the highest negative predictive value and sensitivity of the NMS to patients not achieving independency in basic mobility during admission and to patients not being discharged directly to own home.

Conclusion

The New Mobility Score is a valid and easily applicable score that provides the ward personal with a predictive value of how early independency in basic mobility can be expected in acute hip fracture patients.