Determinants of rehabilitation outcome in geriatric patients admitted to skilled nursing facilities after stroke: a Dutch multi-centre cohort study.

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Source

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Abstract

OBJECTIVE:
to identify important demographic, clinical and functional determinants of successful discharge of geriatric patients from skilled nursing facilities (SNFs), particularly the role of multi-morbidity.

DESIGN:
prospective cohort study with data collection at baseline and at discharge.

SETTING:
fifteen SNFs in the Netherlands.

PARTICIPANTS:
of 378 eligible patients, 186 were included.

METHODS:
multi-disciplinary teams recorded demographic and disease characteristics, as well as functional status, cognitive functioning and multi-morbidity on admission. The study outcomes were discharge to an independent living situation within 1 year of admission and functional status at discharge (Barthel index).

RESULTS:
of the included 186 patients, 175 were followed up. Of these patients, 123 (70%) were successfully discharged. High Berg Balance Scale (BBS) and Star Cancellation test (SCT) scores independently contributed to 48% of the variance of functional status at discharge, while low age, high BBS and SCT scores were independently related to successful discharge, explaining 33% of the variance. Multi-morbidity was not an independent determinant of rehabilitation outcome.

CONCLUSION:

geriatric patients admitted for 'low intensity' rehabilitation in SNFs after stroke appeared to have a fair prognosis for being successfully discharged. Postural control was an important determinant of both outcome measures.
To what extent can multimorbidity be viewed as a determinant of postural control in stroke patients?

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Abstract

OBJECTIVE:

To investigate the determinants of postural imbalance after stroke in geriatric patients admitted for low-intensity rehabilitation in skilled nursing facilities (SNFs), particularly the role of multimorbidity.

DESIGN:

Cross-sectional study design.

SETTING:

Fifteen SNFs.

PARTICIPANTS:

All patients who were admitted for rehabilitation after stroke in one of the participating SNFs (N=378) were eligible.

INTERVENTIONS:

Not applicable.

MAIN OUTCOME MEASURES:

The Berg Balance Scale (BBS) was selected as a measure of standing balance and the Functional Ambulation Categories (FAC) as a measure of walking balance.

RESULTS:

Multimorbidity was present in 34% of the patients. The patients with multimorbidity differed from the patients without multimorbidity with respect to age, proprioception, and vibration sense, but not for any of the cognitive tests, muscle strength, or sitting balance. Patients with multimorbidity had, on average, lower scores on both outcome measures. In linear regression analyses, both the BBS and FAC were best explained by multimorbidity, muscle strength, and the interaction between muscle strength and static sitting balance (overall explained variance 66% and 67%, respectively), while proprioception added only to the variance of the FAC.

CONCLUSIONS:
Multimorbidity was independently related to postural imbalance after stroke in patients admitted for rehabilitation in SNFs. Muscle strength and the interaction of muscle strength with static sitting balance were important determinants of both standing and walking balance, indicating these factors as essential targets for rehabilitation.

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Predicting prosthetic use in elderly patients after major lower limb amputation.

van Eijk MS, van der Linde H, Buijck B, Geurts A, Zuidema S, Koopmans R.

Source

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Abstract

BACKGROUND:

The main determinants of prosthetic use known from literature apply to the younger patient with lower limb amputation. Studies aimed at identifying determinants of outcome of lower limb amputation in elderly patients with multimorbidity that rehabilitate in skilled nursing facilities (SNFs) are scarce.

OBJECTIVES:

To predict prosthetic use and physical mobility in geriatric patients admitted to SNFs for rehabilitation after lower limb amputation and the impact of multimorbidity.

STUDY DESIGN:

Prospective design.

METHODS:

Univariate and multivariate logistic and linear regression analyses were used to identify determinants that were independently related to prosthetic use and the timed-up-and-go test (TUG test).

RESULTS:

Of 55 eligible patients, 38 had complete assessments on admission and at discharge. Fifty per cent was provided with a prosthesis. Multimorbidity was present in 53% of the patients. Being able to ambulate independently, and having a transtibial amputation (rather than a higher level of amputation), without phantom pain determined prosthetic use (R(2)=56%), while cognitive abilities, low amputation level, and pre-operative functional abilities were independently associated with the TUG test (R(2)=82%).

CONCLUSIONS:

Elderly patients referred to an SNF for prosthetic training have a high probability of using a prosthesis when having an independent ambulation after transtibial amputation, without phantom pain. These patients should be considered for prosthetic training.
Geriatric rehabilitation of lower limb amputees: a multicenter study.

Eijk MS, van der Linde H, Buijck BI, Zuidema SU, Koopmans RT.

Source

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Abstract

PURPOSE:

The aim of this study was to determine factors independently associated with successful rehabilitation of patients with lower limb amputation in skilled nursing facilities (SNFs).

METHODS:

All patients admitted to one of the 11 participating SNFs were eligible. Multidisciplinary teams collected the data. Successful rehabilitation was defined as discharge to an independent living situation within 1 year after admission. Functional status at discharge, as measured with the Barthel index (BI), was a secondary outcome. Multivariate regression analyses were used to assess the independent contribution of each determinant to the two outcome measures.

RESULTS:

Of 55 eligible patients, 48 were included. Mean age was 75 years. Sixty-five percent rehabilitated successfully. Multivariate analyses showed that presence of diabetes mellitus (DM) (OR 23.87, CI 2.26-252.47) and premorbid BI (OR 1.37, CI 1.10-1.70) were the most important determinants of successful rehabilitation, whereas 78% of the variance of discharge BI was explained by premorbid BI, BI on admission, and 1-leg balance.

CONCLUSION:

The presence of DM and high premorbid BI were associated with discharge to an independent living situation within 1 year after admission. Premorbid BI, admission BI, and 1-leg balance were independently associated to discharge BI.