

Factors related to home discharge in malnourished community-dwelling older adults

A retrospective longitudinal cohort study

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Abstract

Patients who become malnourished during hospitalization because of illness or treatment often receive intervention from a nutrition support team (NST). The NST intervention not only enhances the nutritional status but also decreases medical expenses and catheter-related complications. However, the impact of the NST intervention on the home discharge of hospitalized community-dwelling older adults remains unclear. Hence, this study aims to investigate factors related to home discharge in malnourished community-dwelling older adults.

In this retrospective longitudinal cohort study, examined 191 community-dwelling older adults aged ≥ 65 years (108 males; mean age: 80.9 ± 7.8 years) who received the NST intervention. All participants were categorized into two groups based on whether they were home discharged or not (home discharge group and non-home discharge group). We performed intergroup comparisons using serum albumin (Alb) as an index of the nutritional status and functional independence measure (FIM: motor and cognitive items) as an index of activities of daily living (ADL). Furthermore, we constructed a prognostic model of home discharge using the logistic regression analysis.

The home discharge group had 94 participants, with a home discharge rate of 50.8%. Baseline body mass index (BMI), motor-FIM score, and cognitive-FIM score were significantly higher in the home discharge group compared with the non-home discharge group ($P = .002$, $P < .001$, $P < .001$, respectively). In the home discharge group, BMI declined significantly, Alb elevated significantly, and both motor-FIM and cognitive-FIM score enhanced significantly by the completion of the NST intervention ($P < .001$, $P < .001$, $P < .001$, $P = .005$, respectively). The adjusted logistic regression analysis extracted the baseline BMI (odds ratio [OR], 1.146; 95% confidence interval [CI]: 1.034–1.270), baseline motor-FIM score (OR, 1.070; 95% CI: 1.036–1.105), and extent of change in the motor-FIM score (OR, 1.061; 95% CI: 1.026–1.098) as independent factors that predict home discharge.

This study highlights the significance of higher baseline BMI, higher baseline ADL level, ADL enhancements, and improvements in the nutritional status by the NST intervention in malnourished community-dwelling older adults considering home discharge.

Abbreviations: ADL = activities of daily living, Alb = serum albumin, BMI = body mass index, CI = confidence interval, cognitive-FIM score = cognitive items of functional independence measure, FIM = functional independence measure, IADL = instrumental activities of daily living, IQR = interquartile range, JSPEN = Japanese Society for Parenteral & Enteral Nutrition, MNA-SF = mini-nutritional assessment short form, motor-FIM score = motor items of functional independence measure, NST = nutrition support team, OR = odds ratio, SD = standard deviation, SGA = subjective global assessment.

Keywords: activities of daily living, albumin, community-dwelling, functional independence measure, home discharge, malnutrition, nutritional support, patient discharge

1. Introduction

Community-dwelling older adults experience multiple aging-related functional impairments and are at high risk of developing

health problems, including issues with activities of daily living (ADL), disease onset, and hospitalization.^[1,2] A longitudinal study reported that 90.7% of malnourished community-dwelling older adults were frail or in a prefrail state.^[3] Malnourished

Editor: Giovanni Tarantino.

The Committee of Ethics of Kitasato University Kitasato Institute Hospital reviewed and approved this study protocol (No. 11018). Informed consent was obtained in the form of opt-out on the website (<https://www.kitasato-u.ac.jp/hokken-hp/chiken/REC/optout/11018.pdf>).

This study was supported by the Special Research Grant from Kitasato University Kitasato Institute Hospital.

The authors have no funding and conflicts of interest to disclose.

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Medicine (2019) 98:27(e16290)

Received: 23 April 2019 / Received in final form: 6 June 2019 / Accepted: 10 June 2019

<http://dx.doi.org/10.1097/MD.0000000000016290>

community-dwelling older adults often experience not only declined physical function but also ADL disorders^[4–6] and instrumental ADL (IADL) disorders^[4,6]; these concerns contribute to hospitalization. Once hospitalized, home discharge often becomes challenging for this population. Another longitudinal study reported that the admission rate of community-dwelling older adults requiring care by the long-term care insurance system of Japan is 57.9%, with more hospitalization or institutionalization expected as the care support level is higher.^[7]

Malnutrition is associated with decline in functional status, impaired muscle function, decreased bone mass, immune dysfunction, anemia, reduced cognitive function, poor wound healing, and delayed recovery from surgery.^[8] A study reported the prevalence of malnutrition as 3.1% for malnutrition, 26.5% for risk of malnutrition in community-dwelling older adults, as well as 22.0% for malnutrition and 45.6% for risk of malnutrition in hospitalized patients.^[9] In developed countries, the primary cause of malnutrition is disease; any chronic or acute disorder could cause or exacerbate malnutrition.^[10] Moreover, malnutrition tends to hinder discharge to home because it correlates with falls.^[11] Reportedly, malnutrition increases the hospital stays, readmission rate, and mortality among hospitalized elderly patients.^[12–15] In addition, malnutrition estimates the future care needs of community-dwelling older adults.^[16] Patients who become malnourished during hospitalization because of illness or treatment often receive intervention from a nutrition support team (NST), a multidisciplinary collaborative team that cooperates with doctors and medical professionals to offer safe and effective nutrition management. The NST intervention not only enhances the nutritional status^[17,18] but also decreases medical expenses and catheter-related complications.^[19] Nevertheless, the impact of the NST intervention on the home discharge of hospitalized community-dwelling older adults remains unclear. If home discharge could be estimated early, it might help decrease the economic burden on society in terms of social resource utilization.

Hence, this study aims to investigate factors related to home discharge among hospitalized community-dwelling older adults who received the NST intervention.

2. Materials and methods

2.1. Study design and participants

In this retrospective longitudinal cohort study, we enrolled community-dwelling older adults aged ≥ 65 years who were admitted to Kitasato University Kitasato Institute Hospital (Tokyo, Japan) from December 2014 to December 2018 and received the NST intervention. The NST at Kitasato Institute Hospital comprises doctors, pharmacists, nurses, nutritionists, clinical laboratory technicians, a physical therapist, an occupational therapist, a speech-language-hearing therapist, and administrative staff. NST rounds are conducted once a week. Then, targets for intervention by the NST involved those with serum albumin (Alb) at admission ≤ 3.0 g/dL and who required comprehensive improvement in the nutritional status following nutrition assessment based on the subjective global assessment (SGA)^[20] by nutritionists who completed NST professional therapist training (administered by the Japanese Society for Parenteral & Enteral Nutrition; JSPEN)^[21] and nurses in each ward. Of note, the SGA is an extensively accepted nutritional assessment tool as an internationally unified standard. Educated

medical staff can efficiently perform a nutritional assessment based on interview and physical findings. In the section on history, we evaluated the correlation between weight change, dietary intake change, gastrointestinal symptoms, functional capacity, and disease and its association with nutritional requirements. In the section on physical findings, we evaluated the loss of subcutaneous fat, muscle wasting, ankle edema, sacral edema, and ascites. The Committee of Ethics of Kitasato University Kitasato Institute Hospital reviewed and approved this study protocol (No. 11018).

2.2. Eligibility criteria

In this study, the inclusion criteria were as follows: (1) received NST intervention, Alb at admission ≤ 3.0 g/dL (Alb 3.0 g/dL is considered high risk for malnutrition with various nutritional screening tools^[22]), and required comprehensive improvement of the nutritional status; (2) community-dwelling older adults aged ≥ 65 years; (3) admitted to our hospital directly from their home; (4) required comprehensive improvement of the nutritional status because of the deterioration of the nutritional status during hospitalization. The exclusion criteria were as follows: (1) aged < 65 years, (2) nursing home residents, (3) admitted from other hospitals, and (4) received only one NST intervention.

2.3. Baseline data collection

We collected baseline data including age, gender, duration of the NST intervention, body mass index (BMI), Alb, ADL, and cause of hospitalization. The functional independence measure (FIM)^[23] was used as an index of ADL and scores were obtained for motor items (motor-FIM score; 13–91 points) and cognitive items (cognitive-FIM score; 5–35 points). The motor-FIM score is evaluated on the basis of 13 items (each is scored on a 1–7-point scale)—eating, grooming, bathing, dressing upper body, dressing lower body, toileting, bladder management, bowel management, transfer to bed/chair/wheelchair, transfer to toilet, transfer to tub/shower, walk/wheelchair, and stairs. The cognitive-FIM score is evaluated on the basis of 5 items (each is scored on a 1–7-point scale)—comprehension, expression, social interaction, problem solving, and memory. Of note, the FIM score was obtained every week to assess ADL changes. We classified causes of hospitalization using the following nine diagnoses: cancer, gastrointestinal disease, pneumonia, orthopedic disease, respiratory disease (excluding pneumonia), cardiovascular disease, neurological disease, renal disease, and other diseases. Furthermore, BMI, Alb, motor-FIM score, and cognitive-FIM score were evaluated at two timepoints, i.e., at initiation and completion of the NST intervention. Notably, data at the NST intervention initiation were considered baseline values.

2.4. Outcome measures

After completion of the NST intervention during hospitalization, follow-up was performed to investigate patient discharge by medical records. In this study, the primary outcome measure was the attainment of “home discharge” after hospitalization, which was assessed by dividing participants into a home discharge group and a non-home discharge group. As secondary outcome measures, we used Δ BMI, Δ Alb, Δ motor-FIM score, and Δ cognitive-FIM score, which were obtained by subtracting the values at the NST initiation from the values at the NST

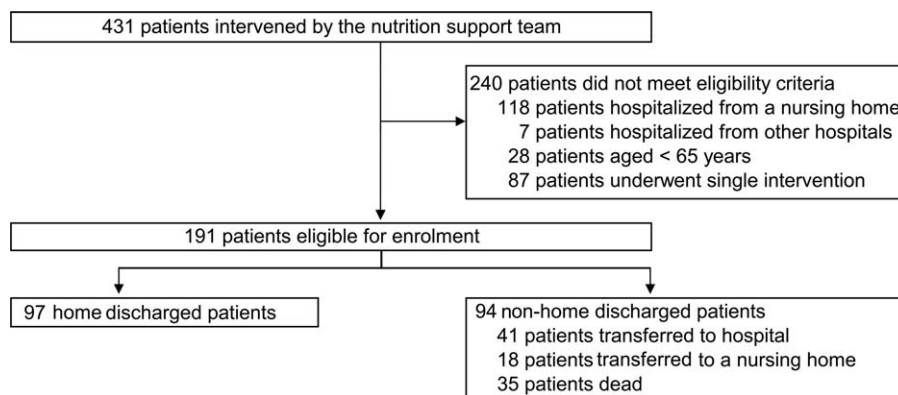


Figure 1. The trial profile.

completion. As critical outcomes in NST are nutritional status improvements, we investigated the obtained relationships to assess correlations of Δ BMI, Δ motor-FIM score, and Δ cognitive-FIM score with Δ Alb.

2.5. Statistical analysis

All categorical variables are expressed as frequency and percentage, while continuous variables are presented as mean and standard deviation (SD) or median and interquartile range (IQR) based on the normal distribution assumptions were comprehensively evaluated using the Shapiro–Wilk test and quantile–quantile plots.

For the univariate analysis, we used the Student’s *t*-test to compare mean values. In addition, the Mann–Whitney *U*-test and Wilcoxon signed-rank test were used to compare the median values after validating the presence or absence of independence. Using the Chi-square test, we compared frequencies and ratios (%). Moreover, Pearson’s correlation coefficients were obtained to assess correlations. Furthermore, we investigated the obtained relationships to assess correlations of Δ BMI, Δ motor-FIM score, and Δ cognitive-FIM score with Δ Alb.

Next, we performed the logistic regression analysis to identify independent predictors of home discharge using variables deemed significant by the univariate analysis. We constructed a prognostic model for home discharge and assessed the effect size of variables by calculating odds ratios (ORs) and 95% confidence intervals (95% CIs). Analyses were crude logistic regression model (model 1) and age, gender, and diagnoses were adjusted to control the confounders or potential confounders (model 2). In this study, we considered two-sided $P < .05$ as statistically significant. IBM SPSS Statistics version 24.0 (IBM Corp., Armonk, NY), and R version 3.5.2 (R Foundation for Statistical Computing, Vienna, Austria) were used to perform all statistical analyses.

3. Results

3.1. Participants’ baseline characteristics

Of 431 participants who received an NST intervention during the study period, we excluded 240 (118 were admitted from nursing homes; 7 were admitted from other hospitals; 28 were aged < 65 years; and 87 received only one NST intervention). The home discharge group consisted of 97 participants, with a home

discharge rate of 50.8%. The non-home discharge group consisted of 94 participants; of these, 41 (21.5%) were transferred to other hospitals, 18 (9.4%) were transferred to nursing homes, and 35 (18.3%) died (Figure 1).

Thus, 191 participants (108 males and 83 females; mean age: 80.9 ± 7.8 years) fulfilled the eligibility criteria and thus, they were enrolled. The mean NST intervention duration was 3.0 (IQR 2.0–6.0) weeks. The baseline values were as follows: BMI, 19.4 ± 4.1 kg/m²; Alb, 2.41 ± 0.48 g/dL; motor-FIM score, 21.0 (IQR: 13.0–40.0) points; and cognitive-FIM score, 23.0 (IQR: 12.0–31.0) points. Diagnoses on admission were as follows: cancer ($n=44$, 23.0%); gastrointestinal disease ($n=32$, 16.8%); pneumonia ($n=29$, 15.2%); orthopedic disease ($n=25$, 13.1%); respiratory disease other than pneumonia ($n=15$, 7.9%); cardiovascular disease ($n=12$, 6.3%); neurological disease ($n=7$, 3.7%); renal disease ($n=3$, 1.6%); and other diseases ($n=24$, 12.6%; Table 1).

3.2. Comparison of participants’ baseline characteristics

The baseline BMI, motor-FIM score, and cognitive-FIM score were significantly higher in the home discharge group compared with the non-home discharge group ($P = .002$, $P < .001$, $P < .001$, respectively). However, age, gender, NST intervention duration, Alb, and diagnosis at admission did not differ markedly between the two groups.

3.3. Correlation between NST intervention initiation and completion

In the home discharge group, the BMI declined significantly, Alb elevated significantly, and both motor-FIM and cognitive-FIM scores enhanced significantly by the NST intervention completion ($P < .001$, $P < .001$, $P < .001$, $P = .018$, respectively). However, although Alb elevated significantly, the BMI and both motor-FIM and cognitive-FIM scores did not exhibit any significant change from the NST intervention initiation to the NST intervention completion in the non-home discharge group (Table 2).

3.4. Changes in each parameter between NST intervention initiation and completion

Table 3 presents changes in each parameter between NST intervention initiation and completion. Δ BMI, Δ Alb, and both

Table 1**Baseline participant characteristics.**

Characteristics	Total (n = 191)	Non-home discharge (n = 94)	Home discharge (n = 97)	P-value
Age, yrs mean \pm SD	80.9 \pm 7.8	82.1 \pm 7.7	81.2 \pm 8.4	.364
Gender, n (%)				.737
Male	108 (56.5)	52 (55.3)	56 (57.7)	
Female	83 (43.5)	42 (44.7)	41 (42.3)	
Duration of NST intervention, wks median (IQR)	3.0 (2.0–6.0)	4.0 (2.0–6.0)	3.0 (2.0–5.0)	.066
BMI, kg/m ² mean \pm SD	19.4 \pm 4.1	18.7 \pm 4.0	20.6 \pm 4.0	.002
Alb, g/dL mean \pm SD	2.41 \pm 0.48	2.44 \pm 0.46	2.37 \pm 0.46	.332
Motor-FIM score, median (IQR)	21.0 (13.0–40.0)	17.0 (13.0–27.0)	32.5 (17.0–55.0)	<.001
Cognitive-FIM score, median (IQR)	23.0 (12.0–31.0)	20.0 (12.0–30.0)	30.0 (19.0–35.0)	<.001
Diagnoses, n (%)				.190
Cancer	44 (23.0)	20 (21.3)	24 (24.7)	
Gastrointestinal disease	32 (16.8)	13 (13.8)	19 (19.6)	
Pneumonia	29 (15.2)	17 (18.1)	12 (12.4)	
Orthopedic disease	25 (13.1)	10 (10.6)	15 (15.5)	
Respiratory disease (e.g., Pneumonia)	15 (7.9)	8 (8.5)	7 (7.2)	
Cardiovascular disease	12 (6.3)	7 (7.4)	5 (5.2)	
Neurological disease	7 (3.7)	7 (7.4)	0 (0.0)	
Renal disease	3 (1.6)	1 (1.1)	2 (2.1)	
Other disease	24 (12.6)	11 (11.7)	13 (13.7)	

Alb = serum albumin, BMI = body mass index, cognitive-FIM score = cognitive items of functional independence measure, IQR = interquartile range, motor-FIM score = motor items of functional independence measure, NST = nutrition support team, SD = standard deviation.

Δ motor-FIM and Δ cognitive-FIM scores were significantly higher in the home discharge group compared with the non-home discharge group ($P = .010$, $P < .001$, $P < .001$, $P = .015$, respectively).

3.5. Correlation among Δ Alb and Δ BMI, Δ motor-FIM score, and Δ cognitive-FIM score

Figure 2 presents correlations among Δ Alb and Δ BMI, Δ motor-FIM score, and Δ cognitive-FIM score. Δ Alb significantly and positively correlated with the Δ motor-FIM score in the home discharge and non-home discharge groups ($r = 0.368$ and $r = 0.204$; $P < .001$ and $P = .049$, respectively). Contrarily, Δ Alb did not markedly correlate with Δ BMI and Δ cognitive-FIM score in the home discharge and non-home discharge groups.

3.6. Prognostic model for home discharge

The logistic regression analysis revealed the baseline BMI (OR, 1.119; 95% CI: 1.019–1.228), baseline motor-FIM score (OR, 1.060; 95% CI: 1.030–1.090), and Δ motor-FIM score (OR, 1.053; 95% CI: 1.020–1.087) to be independent predictors of home discharge (Nagelkerke $R^2 = 0.401$). In addition, considering the

impact of disease-related malnutrition,^[10] we performed the logistic regression analysis adjusted by age, gender, and diagnoses. The adjusted logistic regression model established the baseline BMI (OR, 1.146; 95% CI: 1.034–1.270), baseline motor-FIM score (OR, 1.070; 95% CI: 1.036–1.105), and Δ motor-FIM score (OR, 1.061; 95% CI: 1.026–1.098) as independent predictors of home discharge (Nagelkerke $R^2 = 0.468$; Table 4).

4. Discussion

This study established the baseline BMI, baseline motor-FIM score, and Δ motor-FIM score as independent predictors of home discharge of malnourished community-dwelling older adults. The findings highlight the significance of having a high ADL level at the time of initiating an NST intervention and the need of comprehending not only the nutritional status but also the baseline ADL level when considering home discharge in the investigated patient population. If the baseline ADL level is low when initiating the NST intervention, ADL recovery could be insufficient, making it challenging for patients to return home; in such cases, the use of social resources and reviewing the recuperative environment at an early stage should be considered. Boyd et al^[24] reported that when ADL at discharge was recovered

Table 2**Changes in each parameter from NST initiation to NST completion.**

	Non-home discharge (n = 94)		P-value	Home discharge (n = 97)		P-value
	NST initiation	NST completion		NST initiation	NST completion	
BMI, kg/m ² mean \pm SD	18.7 \pm 4.0	18.3 \pm 4.0	.055	20.6 \pm 4.0	19.6 \pm 3.9	<.001
Alb, g/dL mean \pm SD	2.44 \pm 0.46	2.50 \pm 0.52	.247	2.37 \pm 0.46	2.69 \pm 0.51	<.001
Motor-FIM score, median (IQR)	17.0 (13.0–27.0)	19.0 (13.0–31.0)	.025	32.5 (17.0–55.0)	46.5 (27.0–75.0)	<.001
Cognitive-FIM score, median (IQR)	20.0 (12.0–30.0)	17.0 (9.0–27.0)	.270	30.0 (19.0–35.0)	30.0 (21.0–35.0)	.005

Alb = serum albumin, BMI = body mass index, cognitive-FIM score = cognitive items of functional independence measure, IQR = interquartile range, motor-FIM score = motor items of functional independence measure, NST = nutrition support team, SD = standard deviation.

Table 3
Changes in each parameter from NST initiation to NST completion.

	Total (n = 191)	Non-home discharge (n = 94)	Home discharge (n = 97)	P-value
ΔBMI, kg/m ² mean ± SD	-0.50 ± 1.85	-0.36 ± 1.79	-1.04 ± 1.62	.010
ΔAlb, g/dL mean ± SD	0.17 ± 0.48	0.06 ± 0.47	0.32 ± 0.44	<.001
Δmotor-FIM score, mean ± SD	4.6 ± 17.5	1.5 ± 13.3	11.5 ± 16.8	<.001
Δcognitive-FIM score, mean ± SD	-0.8 ± 7.4	-1.1 ± 6.7	1.2 ± 4.7	.015

Alb = serum albumin, BMI = body mass index, cognitive-FIM score = cognitive items of functional independence measure, motor-FIM score = motor items of functional independence measure, SD = standard deviation.

to the level of that 2 weeks before admission, 67.0% of subjects could maintain that ADL level even 1 year post-discharge; however, those who did not recover experienced further decline in ADL and even death. Thus, early rehabilitation during hospitalization and improving patient ADL level could increase the likelihood of being discharged home.

In this study, the baseline BMI and motor-FIM score were markedly higher in the home discharge group compared with the non-home discharge group, which could indicate the higher ADL level in the former because of their larger skeletal muscle mass.^[25] Moreover, in the non-home discharge group, the baseline BMI was near the lower limit for a normal body type (18.5 kg/m²). As the skeletal muscle mass of older adults with declined Alb decreases,^[26] it might increase the chances of not being able to return home. Pedersen et al^[27] reported that early nutritional follow-up by visiting home discharged patients at the risk of malnutrition effectively maintained ADL level 8 weeks after hospitalization than nutritional counseling by phone. Perhaps, the nutritional status of our participants did not enhance sufficiently at the time of completing the NST intervention. Thus, early nutritional follow-up for those at risk of malnutrition during hospitalization might help maintain ADL levels, thereby facilitating them to continue living at home for as long as possible.

In the home discharge group, the baseline cognitive-FIM score was markedly higher compared with the non-home discharge group, suggesting that community-dwelling older adults maintain cognitive function, and compared with those with cognitive

impairments, the rate of ADL recovery in these adults is high.^[28] Moreover, those with higher cognitive function are likely to recover ADL more readily. In this study, the cognitive-FIM score was low in the non-home discharge group. Reportedly, the risk of caregiver burden tends to increase when care recipients are cognitively impaired,^[29] which is likely an obstacle for home discharge.

At the time of completing the NST intervention, Alb levels had elevated and the motor-FIM score had enhanced markedly in the home discharge group. Conversely, only the motor-FIM score markedly enhanced, and Alb had not substantially increased in the non-home discharge group. We found a significant positive correlation between ΔAlb and Δmotor-FIM score in the home discharge and non-home discharge groups. A prospective cohort study reported that patients determined as malnourished or at risk for malnutrition using the Mini-Nutritional Assessment-Short Form (MNA-SF) during hospitalization exhibited a marked correlation between Alb and ADL at discharge.^[30] In addition, a 2-year follow-up study of frail community-dwelling older adults reported a marked correlation between decreases in Alb and decreases in ADL.^[31] However, to date, no study has reported any correlation between increased Alb and ADL improvement. Hence, this study suggests a correlation between increased Alb and ADL improvements with home discharge among malnourished community-dwelling older adults, implying that besides improvements in the nutritional status through the NST intervention during hospitalization, ADL improvements are just as crucial for home discharge. In the non-home discharge group,

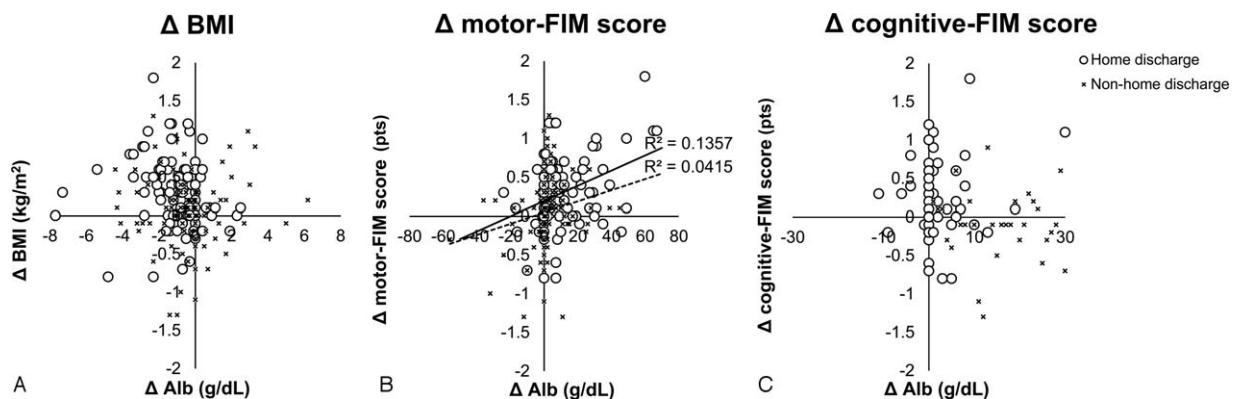


Figure 2. Association of ΔBMI, Δmotor-FIM score, and Δcognitive-FIM score with ΔAlb. ΔBMI was obtained by subtracting the values at the NST initiation from the values at the NST completion. Δmotor-FIM score was obtained by subtracting the values at the NST initiation from the values at the NST completion. Δcognitive-FIM score was obtained by subtracting the values at the NST initiation from the values at the NST completion. ΔAlb was obtained by subtracting the values at the NST initiation from the values at the NST completion. The approximate curve describes the home discharge group as a straight line and non-home discharge group as a broken line. Alb = serum albumin, BMI = body mass index, cognitive-FIM score = cognitive items of functional independence measure, motor-FIM score = motor items of functional independence measure, NST = nutrition support team.

Table 4
Prognostic model of home discharge.

Variables	Model 1: crude			Model 2: adjusted		
	OR	95% CI	P-value	OR	95% CI	P-value
BMI (baseline)	1.119	1.019–1.228	.018	1.146	1.034–1.270	.009
Motor-FIM score (baseline)	1.060	1.030–1.090	<.001	1.070	1.036–1.105	<.001
Cognitive-FIM score (baseline)	0.978	0.930–1.028	.375	0.975	0.922–1.032	.382
ΔBMI	0.844	0.673–1.059	.142	0.824	0.653–1.040	.104
ΔAlb	2.177	0.960–4.936	.063	2.273	0.899–5.751	.083
ΔMotor-FIM score	1.053	1.020–1.087	.001	1.061	1.026–1.098	.001
ΔCognitive-FIM score	1.020	0.941–1.105	.636	1.012	0.928–1.104	.781

Alb = serum albumin, BMI = body mass index, CI = confidence interval, cognitive-FIM score = cognitive items of functional independence measure, motor-FIM score = motor items of functional independence measure, OR = odds ratio.

Model 1 crude model. Model 2 adjusted for age, gender, and diagnoses.

Model 1: (Nagelkerke $R^2 = 0.401$).

Model 2: (Nagelkerke $R^2 = 0.468$).

37% of patients died, indicating the lack of improvement in the nutritional status and ADL, as well as deterioration in their general condition.

This study has some limitations worth acknowledging. First, this was a retrospective study with relatively small sample size, thereby unable to generalize the results to humans until further research. Second, the assessment of the nutritional status was based on Alb and thus, it does not exclude the potential effects of nephrotic syndrome, liver disorder, infectious disease, sepsis, cancer, trauma, and postoperative status. Hence, the nutritional status might not have been reflected precisely.^[32] In addition, home discharge might have been affected by other factors, such as the severity of disease leading to hospitalization, swallowing function, nutritional route, and ADL level before hospitalization. Finally, home discharge could have been affected by factors such as the availability of a caregiver, accessibility to nursing care services, and availability of social resources, which were not assessed in this study.

5. Conclusion

This study highlights the significance of higher baseline BMI and higher baseline ADL level when considering home discharge for hospitalized malnourished community-dwelling older adults. Furthermore, besides improving the nutritional status through the NST intervention during hospitalization, enhancement in the ADL level is a critical factor to consider for home discharge.

Acknowledgments

We thank NST members and staff of the Department of Rehabilitation of our hospital.

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