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**Identification of Nutrition Risk in
Hospitalised Older Adults
at North Shore and Waitakere Hospitals,
Auckland, New Zealand**

**A Thesis Presented in Partial Fulfilment of the
Requirements for the Degree of**

**Master of Science
in
Nutrition and Dietetics**

at Massey University, Albany, New Zealand

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Abstract

Background:

The proportion of older adults in the New Zealand population is increasing, and due to the significant increase in chronic diseases and disability with age, the demand for health and disability support services is also likely to increase. A key aim of the Health of Older People Strategy is improving the health of older New Zealanders' and assisting them to continue living safely in their communities. Adequate nutrition is an essential factor in promoting health and managing chronic diseases in older adults, however many changes associated with ageing predispose older adults to nutrition risk. Poor nutrition status is associated with many adverse consequences, especially for hospitalised older adults in rehabilitation wards. However, nutrition risk screening is a simple method of using nutrition risk factors to identify individuals with poor nutrition status, prompting dietetic referral and intervention.

Aim and Objectives:

The aim of this study is to determine the prevalence of nutrition risk among older adults in the Assessment, Treatment and Rehabilitation (AT&R) wards at North Shore and Waitakere Hospitals. This study has three main objectives:

Objective one: to determine nutrition risk prevalence and associated risk factors, using the Mini Nutritional Assessment-Short Form (MNA-SF).

Objective two: to determine dysphagia risk using the Eating Assessment Tool-10 (EAT-10).

Objective three: to identify sociodemographic, health, and support service factors associated with nutrition risk.

Methods:

This study was a cross-sectional, observational study. Participants were consecutively recruited according to the eligibility criteria, within five days of admission. Face-to-face interviews were conducted on the AT&R wards using a questionnaire developed for the study. This questionnaire incorporated sociodemographic, health and support service questions, as well as three previously validated screening tools: MNA-SF (nutrition risk), EAT-10

(dysphagia risk), and the Montreal Cognitive Assessment (cognitive function).

Results:

This study had 57 participants with a median age of 83 years (range, 66-95 years). Nutrition risk was evident in 81 percent of the study participants (23% were 'malnourished,' and a further 58% were 'at risk of malnutrition'). Therefore, only 19 percent of the study participants had 'normal' nutrition status on admission to the AT&R wards.

Using the MNA-SF nutrition risk factors, those at nutrition risk vs. those not at risk had a higher prevalence of decreased food intake (37% vs. 18%); weight loss (57% vs. 9%); underweight BMI (13% vs. 0%); reduced mobility (87% vs. 64%); mild dementia (22% vs. 9%); and psychological stress or acute disease (94% vs. 18%). In relation to sociodemographic risk factors, those at nutrition risk were more likely to be widowed (46% vs. 36%), receive a pension only income (65% vs. 36%), and have primary as their highest level of education (52 % vs. 36%). Participants who were not at nutrition risk were more likely to take nutrition supplements (46% vs. 24%) and receive regular support services (55% vs. 46%). Overall, dysphagia risk was low, and the prevalence was similar between the two nutrition status groups.

Conclusion:

The current study suggests a high prevalence of older adults admitted to AT&R wards may be at nutrition risk. This highlights the importance of patients being screened for nutrition risk on admission to AT&R wards, since poor nutrition status has far-reaching consequences. Patients can then be promptly referred to a dietitian for nutrition intervention to improve patient outcomes.

Key Words:

Older adults, AT&R, nutrition risk, nutrition screening, dysphagia.

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Abbreviations

AMDR	Acceptable Macronutrient Distribution Range
AT&R	Assessment, Treatment and Rehabilitation
BMI	Body Mass Index
CC	Calf Circumference
COPD	Chronic Obstructive Pulmonary Disease
DNA	Deoxyribonucleic Acid
EAR	Estimated Average Requirement
EAT-10	Eating Assessment Tool-10
HOPS	Health of Older People Strategy
IHD	Ischaemic Heart Disease
MMSE	Mini-Mental State Examination
MNA	Mini Nutrition Assessment
MNA-SF	Mini Nutrition Assessment-Short Form
MoCA	Montreal Cognitive Assessment
MOW	Meals on Wheels
NHANES	National Health and Nutrition Examination Survey
NICE	National Institute for Health and Care Excellence
NZANS08/09	New Zealand Adult Nutrition Survey 2008/09
NZHS12/13	New Zealand Health Survey 2012/13
SENECA	Survey in Europe on Nutrition and the Elderly: a Concerted Action
WDHB	Waitemata District Health Board
WHO	World Health Organisation