

# Basic Care Revisited – Nursing Nutrition Interventions (NNI) to decrease and prevent undernutrition at home and in hospital

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## Introduction

Undernutrition is a common complication of disease and remains a highly prevalent, and a costly problem for patients and the health care system<sup>1,2</sup>. Undernutrition is preventable and reversible and can be sufficiently recognized and treated by nurses<sup>3</sup>. We aim to develop and evaluate a nursing nutrition intervention (NNI) following the guidelines of the Medical Research Council (MRC) in three different settings: 1) the outpatient clinics, 2) in the hospital, and 3) home care.

### NNI at the outpatient clinic

*Method:* RCT in 143 patients planned for surgery (MUST 1 and 2)

The developed NNI:

- nutritional advice
- counseling
- food diary
- telephone follow up before hospitalization



*Results:*

	Control group N=73	Intervention group N=60	Sample T-Test
Energy Kcal/Day Mean (SD)	1499 (665)	2368 (865)	0.000
Protein gram/day Mean (SD)	57 (28)	93 (31)	0.000
Length of stay Mean(SD)	5.2 (8.9)	5.2 (5.8)	0.963
Change in Weight in kg Mean (SD)	-0.5 (2.6)	-0.3 (2.6)	0.754

### NNI in the hospital

*Method:* Intervention mapping steps; 1) Interviews to describe patients' nutrition care experiences and malnutrition risk factors and 2) a systematic review of the literature to provide an overview of the existing NNI's to treat or prevent malnutrition in the hospital.

*Results:* 1) 57 interviews with 26 patients; identified risk factors were poor screening, loss of appetite and functional autonomy, delayed functional recovery, risk of depressive symptoms and 2) 12 studies were found with different methodological quality.

### NNI in home care

*Method:* A mixed method approach including a systematic review, focus groups, interviews and a questionnaire. Here, researchers, experts, nurses and dietitians, patients and their caregivers collaborated. *Results:* All patients are screened for undernutrition. In patients with no risk, advice is given to maintain a proper nutritional status. In patients with (risk of) undernutrition a nutritional plan (including nutritional supplements) is initiated, where interacting patient factors and a supportive environment are taken into account.

## Conclusion

Intake improves in undernourished patients planned for surgery with the NNI at the outpatient clinic. For the home care and hospital setting, the NNI are currently being developed. Following the guidelines of MRC, pilot RCTs are planned for these settings.



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