Evaluation of Malnutrition Risk and Use of Oral Nutritional Supplements in Residential Care

Fatima Kamal Osman[1], Shauna Clarke[2]
Student Dietitian, UCD School of Public Health, Physiotherapy and Sports Science[1],
Clinical Specialist Home Enteral Nutrition Dietitian, HSE Dublin South, Kildare & West Wicklow Community Healthcare[2]

Introduction

- Malnutrition is associated with increased complication rates, morbidity, mortality, and hospital readmissions.[1]
- Prevalence of malnutrition in Ireland is increasing, with 34% of hospital admissions diagnosed with malnutrition in 2023 compared to 30% in 2011 (IrSPEN national malnutrition screening survey).[2]
- Oral nutritional supplements (ONS) are commonly prescribed to support nutritional intake and treat malnutrition; however inappropriate use has clinical and financial implications.

Research Objectives

- Determine the risk of malnutrition (using MUST screening tool) among residents across 3 residential units.
- Assess the proportion of residents receiving ONS across MUST categories.
- Quantify the financial cost of ONS provision across the 3 residential units.

Methodology

Design
Retrospective Clinical Audit

Setting
Single-centre
3 residential units in Cherry Orchard Hospital

Data Collection
Clinical Records of all residents (n=45)

Data Analysis
All data analysed descriptively & graphs generated using Microsoft Excel

Results

- In October 2025, 27% (n=12) of residents across the three residential units were at risk of malnutrition (MUST ≥1).
- We found that 53% (n=24) of residents were receiving ONS with 39% of these residents having a low risk of malnutrition (MUST 0), refer to Table 1.
- Seven residents (29%) were on more than 2 bottles of ONS per day, refer to Table 2.
- The cost per day of ONS for residents with low risk of malnutrition was €38.59, equating to 46% of overall cost, refer to Figure 1.

Figure 1: Cost of ONS across the three different MUST categories per day

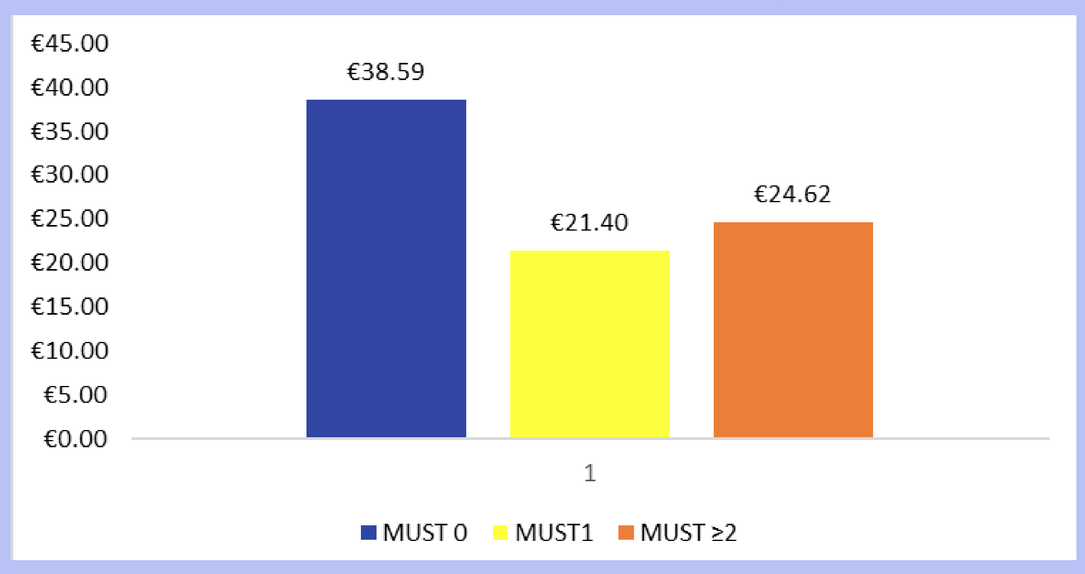

Table 1: Comparison across three different MUST score categories: number of patients, ONS, and Cost.

Must Score	Total	On ONS	Total Cost per day
0	33 (73%)	13 (39%)	€38.59 (46%)
1	7 (16%)	6 (86%)	€21.40 (25%)
≥2	5 (11%)	5 (100%)	€24.62 (29%)

Table 2: Daily Oral Nutritional Supplement intake among patients across three residential units.

Amount of ONS	Total N
0 ONS	21
1 ONS	8
2 ONS	9
3 ONS	3
4 ONS	4

Discussion/ Conclusion

There was a high prevalence of ONS prescribing in the residential care units, despite most residents being classified at low risk of malnutrition. The cost of ONS for residents with low risk of malnutrition was €38.59 per day, accounting for nearly half of the total ONS costs. If ONS was prescribed only to those with medium to high risk of malnutrition, the potential cost savings would be approximately €14,085 annually. Best practice recommends that ONS prescription should be guided by appropriate screening, continuous dietetic assessment, and clinical need.[3] ONS should be used to supplement diet rather than replace meals and should be prescribed alongside dietary advice, and not as a sole treatment.[3]

There is currently no funded dietetic position in the residential units. These findings highlight the importance of dietetic assessment and treatment to ensure that ONS use is clinically justified, appropriately dosed, regularly reviewed, and delivered alongside tailored dietary advice. Strengthening dietetic involvement within residential care settings may improve nutritional outcomes, reduce unnecessary supplementation, and promote more efficient use of healthcare resources.[4]

References

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