

Prevalence of Diagnosed Malnutrition and Associated Frailty Markers in Frail Older Adults



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Background

Frailty is a nutrition related condition which is reversible if modifiable risk factors including malnutrition are identified at an early stage. Over 1/3 of older adults presenting to the Emergency Department(ED) are malnourished or at risk of malnutrition[1].

Aim

This study evaluates the prevalence and severity of malnutrition, diagnosed through dietetic assessment, and associated frailty markers.



Methods

A retrospective study of frail patients >65 years old, presenting to a level 4 ED, assessed by a Dietitian in March 2024 was completed. Each patient had a Comprehensive Geriatric Assessment performed. A referral to Dietetics was indicated by: Malnutrition Screening Tool(MST) score ≥ 2 , enteral feeding, dysphagia, grade ≥ 2 pressure ulcer or prescribed oral nutritional supplements. Malnutrition was diagnosed by the Dietitian using the GLIM and/or ASPEN criteria[2]. Excel was used to collate MST score, malnutrition diagnosis, Clinical Frailty Score, diagnosed dementia, falls history and dysphagia.

Figure 1: Process of frail patients presenting to ED and referred to Dietetics

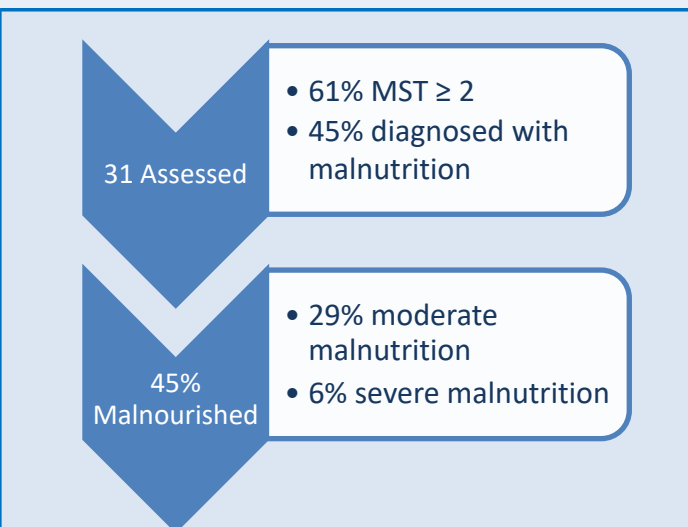


Figure 2: Prevalence and severity of malnutrition through Dietetic Assessment

Results

31 frail patients were assessed by the Dietitian. 61% were female. The median age was 81 years. The median CFS was 6.

61%(n=19) MST ≥ 2

45%(n=14) were diagnosed with malnutrition

- 29%(n=9) moderate malnutrition
- 6%(n=5) severe malnutrition

Of those with diagnosed malnutrition(n=14):

- 21%(n=3) had dysphagia
- 50%(n=7) had a fall in the past 1 year
- 14%(n=2) had dementia

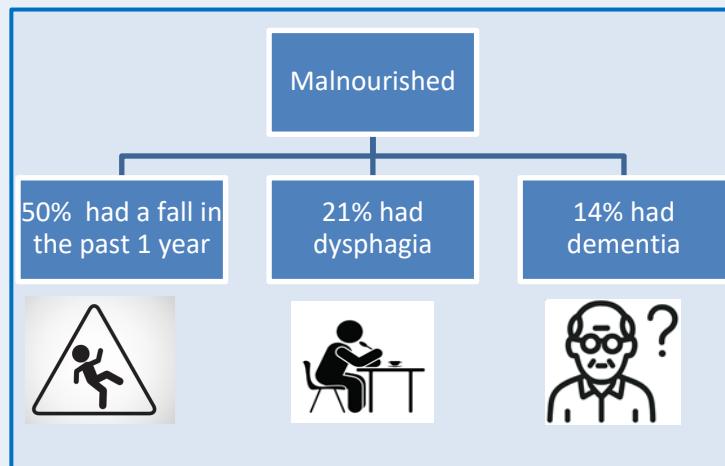


Figure 3: Frailty markers identified in those with diagnosed malnutrition

Conclusion

Frail older adults with a falls history should be highlighted for dietetic assessment. Measurement of hand grip strength has been introduced to CGA to further increase the identification of malnutrition and sarcopenia in this cohort. Early identification of malnutrition with responsive dietetic intervention in ED can counteract negative health outcomes for older adults



72: Vitamin D Levels and Supplementation in Frail Older Adults Presenting to an Irish Level 5 Emergency Department (ED)

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Background

- The Department of Health published new guidance in November 2020 "Vitamin D advice for people aged 65 and older" which states that all adults > 65 years should be supplemented with 15 micrograms of Vitamin D daily. Adequate vitamin D is essential for bone and muscle health in adults > 65 years.
- TILDA research states that 55.5 % of adults >65 years have either insufficient or deficient vitamin D levels in winter (TILDA 2020).
- The MMUH Frailty Intervention Team (FIT) assess frail adults > 65 years in the ED using medication review and Comprehensive Geriatric Assessment (CGA) to identify vitamin D supplementation.

Aim

To determine if the new guideline "Vitamin D advice for people aged 65 and older" is being implemented in frail older adults presenting to an Irish Level 5 ED.

Methods

- The audit was approved by the MMUH Clinical Audit & Effectiveness Committee
- All patients who had a medicine reconciliation (MR) completed by the FIT Pharmacist in January 2021 were included in a retrospective audit.
- Patients were identified from the pharmacists worklist.
- Data was collected from the Hospital Clinical System using an excel data collection sheet.
- The data recorded included: Variable Indicative of Placement risk (VIP), Age, Sex, Rockwood Clinical Frailty Score (CFS), serum vitamin D level, date of last serum vitamin D level and vitamin D supplementation.



Figure 1: Process of frail patients presenting to ED

- All data was obtained from the Hospital Clinical System biochemistry results, medication reconciliation and CGA documentation as routinely collected data.

Results

The FIT Pharmacist completed 60 MRs in January 2021;

- Mean age (+/-SD) was 81.9 (+/- 7.9) years
- Male to female ratio was 1:2.3
- Median CFS was 5 (mildly/moderately frail) with an IQR of 2

70% (n=42) were prescribed vitamin D.

- Of those 92% (n=39) were prescribed a supplement containing at least 15 micrograms of vitamin D.
- The most common supplementation (45%, n=27) was 800 international units (20 micrograms) of vitamin D.

85% (n=51) had a vitamin D level reported in the preceding 6 years:

- 19 in 2021, 13 in 2020, 8 in 2019, 2 in 2018, 6 in 2017 and 3 in 2016.
- Of those 76% (n=39) had sufficient vitamin D levels (>50nmol/L), 21% (n=11) had insufficient or deficient vitamin D levels (<50nmol/L).

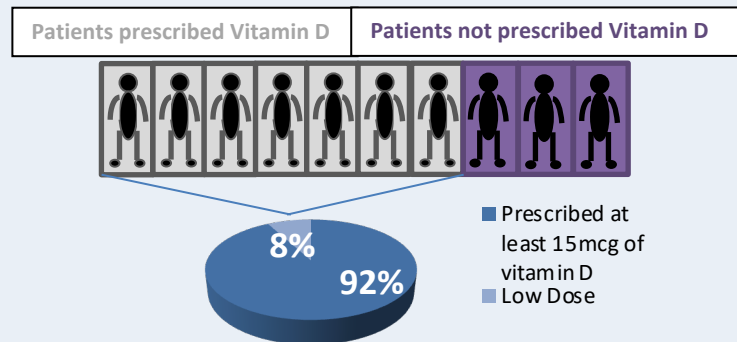


Figure 3: Frail patients receiving at least 15mcg of vitamin D

Vitamin D Levels and Supplementation

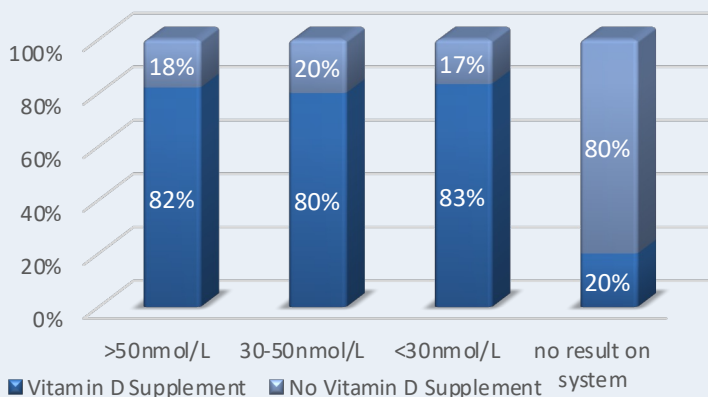


Figure 2: Vitamin D levels and supplementation

Conclusion

- The new guideline was implemented in 65% (n=39) of frail patients > 65 years.
- The rate of vitamin D insufficiency in this cohort was lower than TILDA research suggests.
- The audit results were presented at MMUH Journal Clubs.
- The MMUH Vitamin D Policy was updated following the audit to include the new recommendation.
- While it is important that adults > 65 years are prescribed a supplement containing at least 15 micrograms of vitamin D it is essential to ensure only one form of vitamin D is in use to prevent the adverse effects of vitamin D toxicity.