

The Malnutrition Pathway

CASE STUDY SERIES: PRE-FRAILTY WITH SARCOPENIA RISK



This case study illustrates how the **Assessing Frailty, Sarcopenia and Malnutrition** pathway guides assessment, intervention, and monitoring for patients at risk.

Jean, 71, female - presents to GP following an unexplained fall at home

Social History:

- Lives with husband
- Works as a secretary, had to reduce part-time hours recently
- Feeling 'run down' and hence becoming more sedentary

Medical History:

- Fall at home 3 days ago with only minor bruising
- Feeling increasingly weak
- Other diagnoses include:
 - Osteoporosis
 - Cholecystectomy

Medications:

- Calcium and vitamin D
- Cholestyramine

Nutritional Status:

- Height: 5'5" (1.65m)
- Weight 6 months ago: 67kg (reported 'usual' weight from within last 6 months)
- Weight today: 64kg (23.5kg/m², representing a 4.5% weight loss)

STEP 1: Nutritional screening

Malnutrition Universal Screening Tool (MUST):

- BMI >20kg/m² - Score 0
- Unplanned weight loss >10% - Score 2
- Acute disease effect - Score 0 (rarely applies outside of hospital)
- Total 'MUST' score of 2 (high risk of malnutrition)

STEP 1: Identify individuals with potential frailty

Relevant factors:

- Fall
- Advanced age
- Subjective weakness
- Osteoporosis
- Decline in daily activities

Due to the presence of risk factors, the 'Assessing Frailty, Sarcopenia and Malnutrition' pathway is commenced to determine degree of frailty and opportunities for optimised management

STEP 2: SARC-F questionnaire:

Strength, Assistance with walking, Rising from a chair, Climbing stairs and Falls (SARC-F) Questionnaire:

- Some difficulty lifting and carrying 10lbs – Score 1
- No difficulty walking across a room – Score 0
- Some difficulty transferring from chair or bed – Score 1
- Some difficulty climbing stairs – Score 1
- One fall in the past year – Score 1

Total = 4 (high risk of sarcopenia)

STEP 3: Explore risk factors for malnutrition

- Experiences fatigue and low energy levels, with a moderate weight loss
- No noticeable appetite loss nor difficulty swallowing

Interpretation: risk factors for malnutrition are present and nutrition should remain a key consideration.

STEP 4: Determine frailty status (CFS):

Clinical Frailty Scale (CFS)

- Score of 4 – noticeably ‘slowing down’ despite not being dependent on others for her with activities of daily living

STEP 5: Classify frailty and determine interventions

Classification

- Pre-frail
- At risk of sarcopenia
- Risk factors for malnutrition present

Interpretation: sarcopenia and malnutrition are likely to be contributing towards physical decline. Treatment of these factors may be sufficient to reverse pre-frailty.

STEP 6: Take action

- Encourage a high-protein, nutrient-dense diet; provide Your Guide to Making the Most of Your Food leaflet.
- Resistance exercise encouraged - referral made to Physiotherapist for support with developing a resistance exercise-based program to be carried out at home
- Jean to monitor her weight once-weekly on home scales, contacting the GP practice if there are signs of further weight loss (i.e. weight <64kg)

Outcomes: at 12 weeks:

- Stronger, now doing 20 minutes of resistance exercise at home 2-3 times a week
- Weight stable (no further loss)
- SARC-F reduced to 3 (low risk) as now finding it easier to transfer out of bed/chair
- Remains pre-frail, but improving