Protein Supplements for Patients in Long-Term Care: When and Why it is Appropriate

INTRODUCTION

Elderly patients in long-term care settings are at risk for malnutrition, pressure injuries, falls, sarcopenia, and healthcare-acquired infections. These residents may also have conditions such as obesity, shortness of breath, volume restriction, decreased appetite, low oral intake, and/or weight loss. This tool will help clinicians in a long-term care setting identify situations where concentrated liquid protein is appropriate for consideration as part of medical nutrition support therapy, and how to implement.

CLINICAL FACTS

- 29% of all patients aged 65 years and above discharged from US hospitals in 2016 were discharged to a nursing home or rehabilitation facility.
- Malnutrition is associated with a variety of health complications, including increased mortality, immune suppression, muscle wasting, longer length of hospital stay, and higher healthcare costs in older adults.^{1,2}

- Older adults need more dietary protein to support good health, promote recovery from illness, and maintain functionality.³
- Older adults need to make up for age-related changes to protein metabolism and offset inflammatory and catabolic conditions associated with chronic and acute illnesses commonly associated with aging.³
- Nursing home residents had the following nutrition parameters:
 - $\scriptstyle >$ Up to 18.2% had a BMI of less than 20
- » Up to 7.7% had weight loss
- » Up to 8.2% had severe decrease in food intake⁴
- Most older adults need a daily protein intake of 1.0-1.2 grams/kg/day and those who have acute or chronic disease need even more (1.2-1.5 grams/kg/day) except for those with severe kidney disease not on dialysis.³
- A systematic review and meta-analysis demonstrated that geriatric rehabilitation patients with protein supplementation had better functional outcomes.⁵



Barrett ML, Bailey MK, Owens PL. Non-maternal and Non-neonatal Inpatient Stays in the United States involving malnutrition, 2016. U.S. Agency for Healthcare Research and Quality. www.hcupus.ahrq.gov/reports.jsp.

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CLINICAL ACTIONS

- Perform nutrition screening followed by completion of a nutrition assessment by the registered dietitian nutritionist in those identified at nutrition risk for malnutrition or diagnosed with malnutrition on admission to your facility.
- Recognize that older adults often eat poorly. Data suggests patients consume less than 50% of both protein and energy requirements from meals.^{6,7}
- Avoid dietary restrictions and provide more liberal oral diets to promote greater nutrient intakes.^{8,9}
- Initiate oral nutrition supplements (ONS) when oral intake is inadequate. Use of ONS can improve dietary intake and body weight and lower the risk of complications during the hospital stay.⁸
- Provide concentrated liquid protein when the patient is consuming adequate calories but not enough protein.
- Add concentrated liquid protein when the patient is eating enough calories and/or declines ONS.
- Incorporate exercise in combination with increased protein at individualized levels that are safe and tolerated.³
- Continue nutritional care and follow-up in malnourished patients through dietitian consultation. Hospital readmissions can be reduced with ongoing nutritional follow-up from a dietitian after hospital discharge.¹⁰

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CASE STUDY

A 70-year-old male resident with some chronic diseases including COPD and CHF weighing 75 kg (165 lbs.) requires a minimum of 1.2 grams/kg/day which is 90 grams of protein. He is somewhat fluid restricted and has a limited appetite. To consume 90 grams of protein he would have to eat:





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