

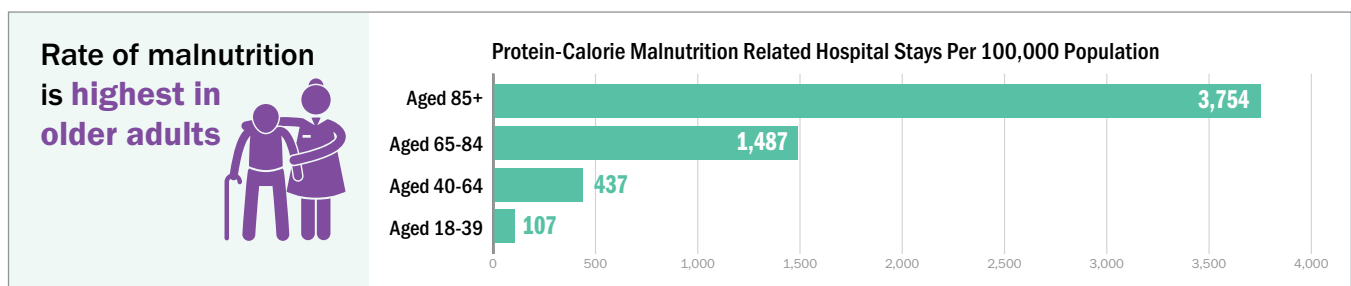
Protein Supplements for Patients in Long-Term Care: When and Why it is Appropriate

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:
 - » 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

References

- 1 Goates S, Du K, Braunschweig CA, et al. Economic burden of disease-associated malnutrition at the state level. *PLoS One*. 2016;11(9):e0161833-e0161833
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- 6 Pullen K, Collins R, Stone T, et al. Are energy and protein requirements met in hospital? *J Hum Nutr Diet* 2017; 31(2):178-187.
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- 8 Rattray M, Desbrow B, Roberts S. Comparing nutritional requirements, provision and intakes among patients prescribed therapeutic diets in hospital: An observational study. *Nutrition* 2017; 39-40:50-56.
- 9 Volkert D, Beck AM, Cederholm T, et al. ESPEN guideline on clinical nutrition and hydration in geriatrics. *Clin Nutr* 2018;38(1):10-47.
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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:



Breakfast

2 eggs and bowl of cereal = **14 gm**



Lunch

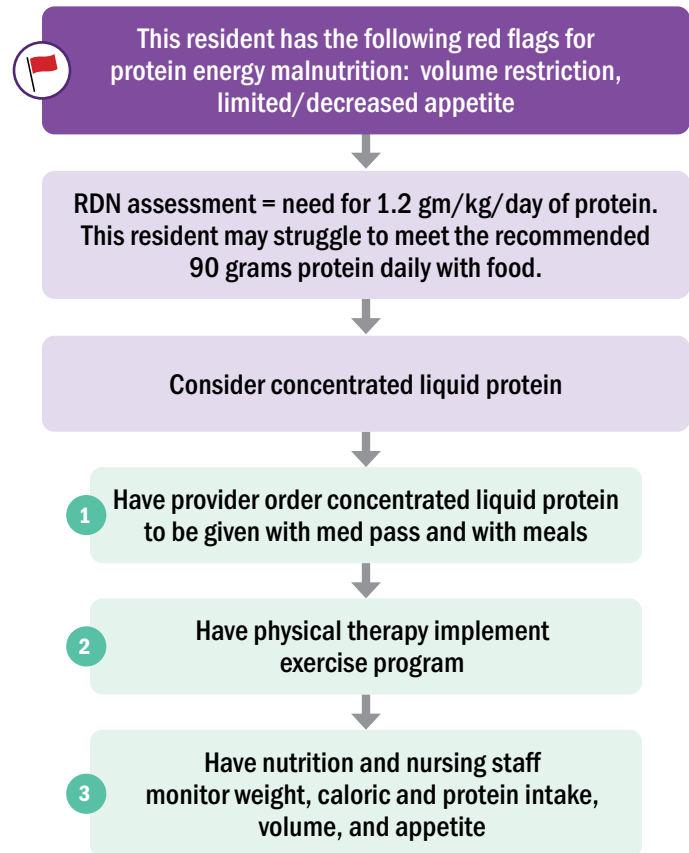
Cheeseburger on a roll = **29 gm**



Dinner

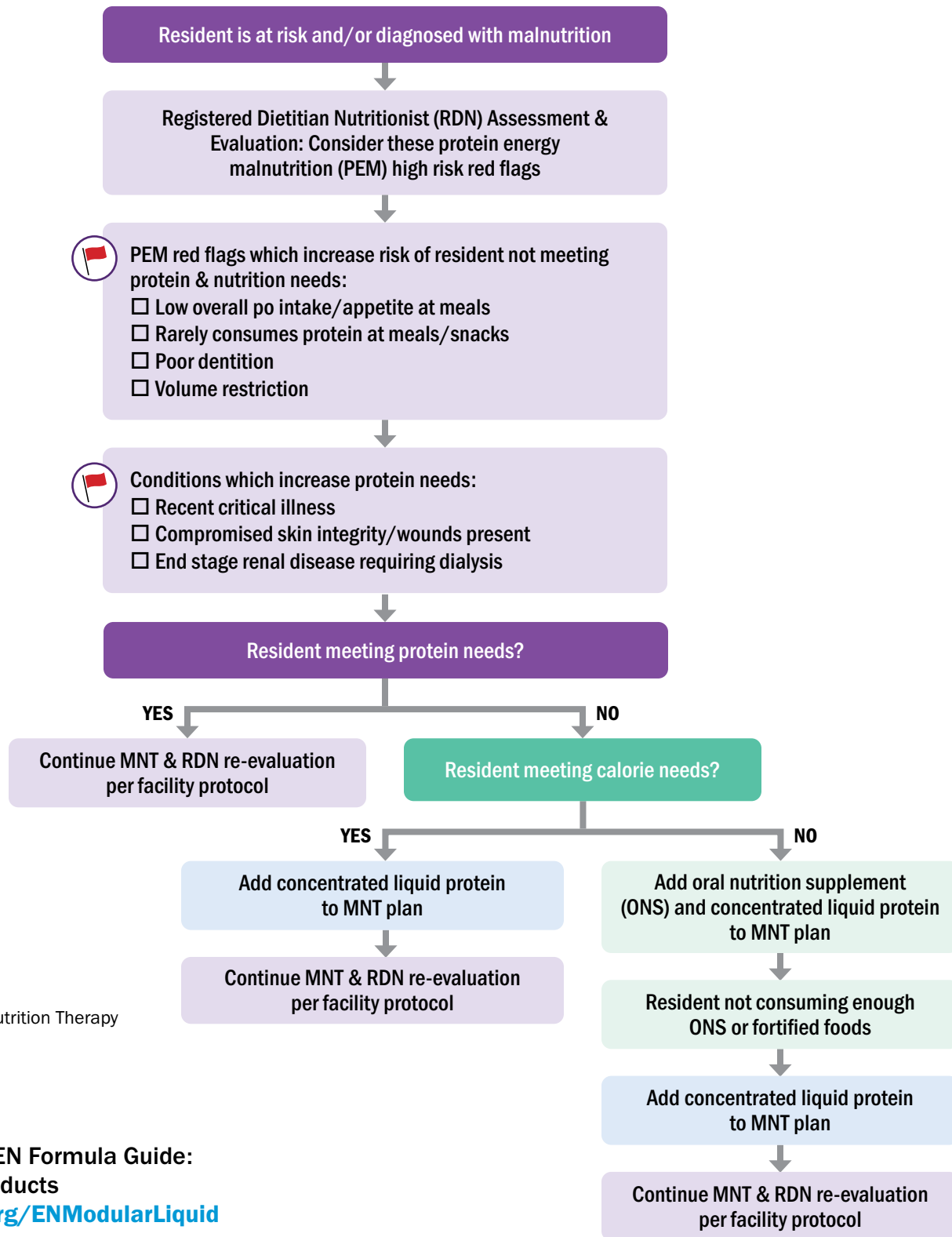
Chicken breast and 8 oz. of milk = **35 gm**

Even if he was able to consume all of that, he would still need 12 more grams of protein. How can you make that happen?



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CLINICAL DECISION TREE FOR PROTEIN SUPPLEMENTATION IN LONG-TERM CARE PATIENTS



MNT = Medical Nutrition Therapy

Link to ASPEN EN Formula Guide:
EN Modular Products
nutritioncare.org/ENModularLiquid

Visit nutritioncare.org/MAW
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