# Read & Watch: Lecture Summary



**Prof Dr Philipp Schuetz** Head of Internal Medicine & Emergency Medicine, Kantonsspital Aarau, Switzerland.

# Do we need more EFFORT to improve nutritional status in the elderly patients

## Speaker biography

Prof. Philipp Schuetz was born in Switzerland and studied Medicine at the University of Basel, Switzerland, and the University Kremlin Bicetre in Paris, France. He is a board-certified internist, endocrinologist and specialist for clinical nutrition. He is head of internal medicine and emergency medicine at the at the Kantonsspital Aarau and Professor of Medicine and Endocrinology/Nutrition at the University in Basel, in Switzerland. He is also president of the Federal Commission for Nutrition in Switzerland. He has published > 300 studies and research articles in high-impact journals including the Lancet, JAMA, Annals of internal medicine among others. Prof. Schuetz obtained a research professorship of the Swiss National Science Foundation (SNF) and was principal investigator of the EFFORT trial, the largest-yet randomized-controlled trial looking at clinical effects of clinical nutrition in medical ward patients.



NESTLÉ HEALTH SCIENCE 2022 - ALL RIGHTS RESERVED

## Abstract

Malnutrition is a common condition among medically complex elderly inpatients. Emerging evidence demonstrates that malnutrition directly increases the risk for adverse clinical outcomes including mortality, morbidity and functional impairments, as well as increasing hospital length-of-stay and the risk for hospital readmission. The field of nutrition for elderly inpatients has advanced significantly in recent years with several recent trials looking at the role of nutritional support in the hospital having changed our understanding of nutrition.

Among these trials, the Swiss multicenter Effect of early nutritional support on Frailty, Functional Outcomes and Recovery of malnourished medical inpatients Trial (EFFORT) included >2000 patients and found strong reductions in the risk for morbidity and mortality for patients receiving individualized nutritional support.

EFFORT is a pragmatic, investigator-initiated, open-label, non-commercial, multicenter, randomized-controlled trial, that tested the hypothesis that individualized nutritional support to reach protein and energy goals reduces the risk of adverse clinical outcomes in medical inpatients at nutritional risk.

This effectiveness trial was conducted in eight Swiss hospitals and randomized 2028 medical inpatients at nutritional risk, defined by a Nutritional Risk Screening [NRS 2002] score >3 points, to receive protocol-guided individualized nutritional support to reach protein and energy goals (intervention group) or standard hospital food (control group).

The composite primary endpoint was adverse clinical outcomes defined as all-cause mortality, intensive care admission, non-elective hospital readmission, major complications and decline in functional status at 30 days, with mortality being the principal secondary endpoint of interest. In the trial, nutritional support was provided according to a previously established nutritional protocol<sup>2</sup>, which is in line with the ESPEN guidelines for polymorbid medical inpatients<sup>3</sup>. For each patient, individualized nutritional energy and protein goals were defined and setupon hospital admission. The protocol also proposed nutritional interventions to reach these goals by the establishment of an individual nutritional plan by a trained registered dietician.

The EFFORT trial found that nutritional goals could be reached, mostly by using oral nutrition including oral nutritional supplements (ONS), in a majority of intervention group patients. Importantly, regarding the primary endpoint, the trial found that upon 30 days 232 of 1015 patients (22.9%) in the intervention group experienced an adverse clinical outcome compared to 272 of 1013 (26.9%) of the control group patients corresponding to a number needed to treat of 25 to prevent one severe complication. There were also significant lower rates of death in the intervention group compared to the control group (7.2% vs. 9.9%) and notable improvements in functional outcomes and in quality of life measures.

These results provided strong evidence for the concept of systematically screening medical inpatients on hospital admission in terms of nutritional risk, independent of the medical



condition, followed by a nutritional assessment and initiation of nutritional support in at-risk patients.

Patients who struggle with their daily intake of ONS benefit from products designed to optimise compliance. There is a need for an ONS that optimises key compliance-enhancing features, but also offers highly energy-protein concentrated nutrition, including high-quality protein, to improve the nutritional status and net protein balance of malnourished individuals.

### Nutrition risk screening (NRS 2002) within 48 h of hospital admission in all patients

If increased risk for malnutrition > individual assessment of the patient > if risk for malnutrition is present and nutritional therapy is not contraindicated > establish strategy to achieve individual nutrition target

### Individual nutrition targets

#### Caloruc

requirements Harris-Benedict equation with adjusted bodyweight or indirect calorimetry Protein requirements 1-2-1-5 g/kg bodyweight per day (0-8 g/kg of bodyweight per day in patients with renal failure with no dialysis)

## Strategy to reach the nutrition targets

#### Micronutrient requirements Multivitamin use; other micronutrients according to specific laboratory results

#### Specific targets Disease-specific adaptations (eg. medium-chain triglycerides, low potassium in patients with renal failure)





NESTLÉ HEALTH SCIENCE 2022 - ALL RIGHTS RESERVED

# References

- 1. Schuetz P, Fehr R, Baechli V, Geiser M, Deiss M, Gomes F, et al. Individualised nutritional support in medical inpatients at nutritional risk: a randomised clinical trial. Lancet. 2019.
- 2. Bounoure L, Gomes F, Stanga Z, Keller U, Meier R, Ballmer P, et al. Detection and treatment of medical inpatients with or at-risk of malnutrition: Suggested procedures based on validated guidelines. Nutrition. 2016;32(7-8):790-8.
- **3.** Gomes F, Schuetz P, Bounoure L, Austin P, Ballesteros-Pomar M, Cederholm T, et al. ESPEN guidelines on nutritional support for polymorbid internal medicine patients. Clin Nutr2018;37(1):336-53.



**Watch** the 20 minute conference talk with Prof Dr Philipp Schuetz and hear about D0 WE NEED MORE EFFORT TO IMPROVE NUTRITIONAL STATUS IN THE ELDERLY PATIENTS

https://youtu.be/A33-fZvyFrE



