

# Read & Watch: Lecture Summary



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## Evidence-Based Approaches through High Energy Protein-Dense Oral Nutritional Supplements

### Speaker biography

Prof Philipp Schuetz, MD, studied Medicine at the University of Basel, Switzerland, and the University Kremlin Bicetre in Paris, France. With a strong passion for patient care and research, Prof. Schuetz has become a recognized expert in the fields of internal medicine, endocrinology, and clinical nutrition.

Currently, Prof. Schuetz holds the esteemed position of Director of the Medical University Clinic at Kantonsspital Aarau overseeing 10 medical clinics. He serves as the Head of Internal Medicine for inpatient care and the head of Endocrinology for outpatient care. With a strong commitment to education and mentorship, he supervises and guides a team of over 70 residents and more than 25 attending physicians and consultants.

His dedication to advancing medical knowledge is evident through his extensive involvement in various institutional responsibilities including president of the Swiss Commission for nutrition and the Swiss Society of Clinical Nutrition and Metabolism (GESKES).

With over 400 authored peer-reviewed publications in high ranked journals such as Lancet and JAMA, he also serves as Associate Editor of the American Journal of Clinical Nutrition, and is a regular reviewer of NEJM, Lancet, Annals of internal Medicine and for different funding institutions including the Swiss National Science Foundation (SNSF), the French Ministry of Social Affairs and Health, the National Institute of Health (NIH) and the National Medical Research Council (NMRC).

Prof Schuetz's unwavering dedication to patient care, research, and education has established him as a highly respected and influential figure in the medical community.

## Abstract

Disease-Related Malnutrition is a common condition among medically complex inpatients. Emerging evidence demonstrates that malnutrition directly increases the risk for adverse clinical outcomes including mortality, morbidity and functional impairment<sup>1-3</sup>. Data from the largest trial with over 2000 patients on the Effect of early nutritional support on Frailty, Functional Outcomes and Recovery of malnourished medical inpatients Trial (EFFORT) revealed that the nutritional support intervention was highly effective in lowering the risk for mortality with a number needed to treat (NNT) of 374.

Fortunately, current evidence from clinical trials indicates that malnutrition is a modifiable risk factor, through the application of nutritional support interventions<sup>4-6</sup>. A systematic review and meta-analysis examining the impact of oral nutritional supplements (ONS) in community settings on clinical outcomes has been published recently<sup>7</sup>. This review included 44 randomized controlled trials (29 surgical and 15 medical patients) with 5,716 participants aged on average 67 years; prescribed ONS provided mean intake of 588 kcal/day and 22 g/day protein, where the energy contribution from protein averaged at 22%. The mean duration of ONS prescription was 74 days. The data from most of the RCTs (77%) revealed that less complications were reported in the ONS group than the control group. In a meta-analysis of 39 trials, it was shown that consumption of ONS led to a significant decrease in complications – which includes infections and pressure ulcers, along with promoting wound and fracture healing factors. The statistics point towards reductions in case complications both when ONS were used at hospitals as well as communities (OR 0.72, 95% CI 0.59-0.87;  $p=0.001$ ), even more significantly when only used in the community (OR 0.65, 95% CI 0.52-0.80;  $p<0.001$ ). The reductions in complications were observed primarily in cases of high ONS adherence of 80% or more (OR 0.63, 95% CI 0.48-0.83;  $p=0.001$ ) and with the use of ready-to-drink ONS (OR 0.69, 95% CI 0.60-0.81;  $p<0.001$ ). A systematic review conducted by Hubbert et al. showed that high concentrated nutritional formulas (>2 kcal/mL) with low-volume formats, excellent palatability, and a wide choice of flavors improved compliance<sup>8</sup>.

Advancing the management of malnutrition in medical patients involves implementing evidence-based approaches, such as the use of high concentrated oral nutritional supplements, to effectively address the energy and protein deficits experienced by patients, optimizing patient compliance and outcomes, and reducing the risks associated with malnutrition.

Currently, the field moves more towards "personalized nutrition," where illness-specific factors (e.g., comorbidities, chronic or acute course), patient-specific factors (age, sex,

genetic elements), or nutritional biomarkers provide information on whether or not a patient is expected to benefit from nutritional support. Such an approach may help to further improve clinical outcomes of the vulnerable population of malnourished medical inpatients.

In this lecture we will discuss the “Evidence-Based Approaches through High Energy Protein-Dense Oral Nutritional Supplements”.

## References

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**Watch** the 17:32 minutes conference talk with Professor Philipp Schütz and hear about EVIDENCE-BASED APPROACHES THROUGH HIGH ENERGY PROTEIN-DENSE ORAL NUTRITIONAL SUPPLEMENTS



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