"Disease related malnutrition in Denmark -A hands-on practice cohort study Uniting Denmark Against Disease-Related Malnutrition"

Project team: Mette Holst, Anne Marie Beck, Tina Munk, Anne Wilkens Knudsen, Lise Laursen and Henrik Højgaard Rasmussen
Contact: Mette Holst, Professor, Ph.d. e-mail: mette.holst@rn.dk Phone: +4527113236

Description of the initiative

A national cohort study on hospital malnutrition will be conducted in all 54 Danish Hospitals in the spring of 2027, preceded by a pilot study in 15 hospitals covering all regions in November 2026. The study is anchored within the national NUTR-DK initiative supported by ONCA-DK and DSPEN.

Rationale for the initiative

- In 2022 the Danish Health Authority launched a comprehensive guideline for handling disease related malnutrition in Denmark. An economic evaluation regarding the consequences og malnutrition was launched in November 2024 (MENON-report).
- Despite these significant achievements, we have reason to believe that there is a great inequality in the implementation of the guideline between regions, hospitals and specialties, with serious consequences for patients outcomes

Objectives and scope

- ***The aim*** *is* to investigate prevalence and outcomes of hospital malnutrition, in order to set ground for a greater national implementation strategy for clinical nutrition management with national funding. ***Secondary objectives*** are to identify clinical and organizational determinants of malnutrition and insufficient nutritional intake, to quantify discrepancies between estimated requirements and actual intake, and to assess variation across regions, hospitals, and clinical specialties. ***Furthermore,*** the study aims to evaluate the consistency between screening, diagnosis, and treatment of malnutrition, thereby identifying critical gaps in the clinical pathway. The study is also designed to generate hypotheses for future intervention studies and to support the development of risk stratification approaches for targeted and effective nutritional care.

Planned activities & deliverables

- To ensure both feasibility and scientific depth, a steering group (authors) and a national project group has together formed three levels of data inclusion for the study: a mandatory core dataset and two optional extended datasets. This structure allows broad national participation while enabling more detailed analyses in selected centers.

- Data were decided on two workshops and a Delphi process in 2025. A feasibility cohort study will be conducted in May 2026 in the project group's hospitals. Difficulties in data access and other obstacles found, will be handled in a workshop in June 2026. A pilot cohort study across all regions will be conducted in Nov. 2026, and data from this presented nationally to encourage all hospitals to participate in the final cohort data collection in spring 2027. Patient Outcome data will be collected ultimo 2027.

- The study will deliver national, interdisciplinary results to ensure implementation of the Danish Health Authority`s guidance on malnutrition, improve the quality of nutrition efforts, and create a national data platform for research and monitoring. Further, experiences from this study will inform a later national cohort study including cross-sectional data
- Within 24 months, results from the feasibility and pilot cohort studies will be available, while findings from the national cohort study are being analysed. From that point, the politics of implementation will intensify..

Resources & enablers

- The steering group consists of an interdisciplinary team of highly qualified malnutrition researchers. The project group is represented across all Danish regions, enabling the launch of the pilot cohort study in 15 hospitals and supporting national outreach and inclusion of all hospitals in the national cohort study.. The Diet and Nutrition Association (DN) hosts meetings and the Regions support travel costs (funding from the DN and Regions amounts to approximately 25.000 EUROS); total budget: 65.000 Euros.
- The grant will support staffing at expert centres in each region to coordinate and secure data collection and analysis..
- The MNI grant will be critical to the success of the project by enabling the collection and analysis of this large data set, and by supporting repeated data collection to monitor implementation over the next five years.

Results, expected outcomes & impact

- This project will provide the first comprehensive national overview of disease-related malnutrition in Danish hospitals, based on standardized and clinically relevant data.
- At the clinical level, the study will identify patients who are not receiving adequate nutritional care and highlight specific points in the clinical pathway where care fails, such as gaps between screening, diagnosis, and treatment or insufficient coverage of nutritional requirements.
- At the organizational level, the study will document variation in practice across regions and specialties and identify system-level determinants of implementation success or failure. This will provide a robust basis for targeted quality improvement initiatives.
- At the research level, the project will establish a national data platform that enables further analytical and interventional studies. By linking information on nutritional status, intake, and treatment, the dataset will allow development of predictive models and identification of high-risk patient groups.
- The findings will be translated into clinical practice and policy through coordinated national efforts, supported by existing health-economic evidence. The project is expected to contribute to improved patient outcomes, more efficient use of healthcare resources, and strengthening of clinical nutrition as a core component of patient care.

X **Please tick to confirm the PEN letter of endorsement is attached.**