

# The Aalborg model tackling nutritional challenges at hospital

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Le CHU d'Aalborg abrite un centre dédié à la nutrition et aux maladies intestinales ([www.CET.rn.dk](http://www.CET.rn.dk)).

### L'essentiel

La stratégie nutritionnelle du CHU d'Aalborg (Danemark) intègre recherche, enseignement, coopération internationale et développement de dispositifs notamment numériques, en liaison avec les services de restauration (la qualité culinaire et sensorielle et l'ambiance du repas sont étudiées dans les recherches en cours).

Mots-clés : nutrition ; recherche ; NutriDia.

Malnutrition in Danish hospitals is a major problem that causes decreased quality of life, poor treatment outcomes and increased cost due to increased length of stay. Taking into account that the cost of a stay in hospital is around 800 € per day and that annually more than 700,000 patients are admitted to Danish hospitals, prolonged length-of-stays are therefore very costly to the healthcare system. Studies have found that one-third of the patients that are admitted to hospitals are, or will become malnourished during their stay in hospital. This is critical to the well-being and patients' ability to recover. As a result, nutritional risk screening and follow-up have been introduced as a standard requirement in the Danish model for quality assurance model for hospitals. Aalborg University Hospital is one of the hospitals faced with some of the above challenges. It is the regional hospital of the Northern Region of Denmark based in the fifth biggest city of Denmark with about 135,000 inhabitants. It is one of Denmark's largest university hospitals with 925 beds and more than 6,500 employees. Aalborg University Hospital has been one of the first to develop a holistic strategy for dealing with nutritional challenges and has for many years been running the Center for Nutrition and Bowel Disease ([www.CET.rn.dk](http://www.CET.rn.dk)), which is in charge of providing both research, development and nutritional support services. As a university hospital, it works closely together with the nutrition research at Aalborg University to form what is often referred to as a knowledge triangle that involves both the medical practitioner level, the research level, the educational level as well as the innovation and market level. Recent projects that have been carried out in this way include the MORE [1], the DIMS [2] and the ongoing NutriDia [3] projects. The strategy of the activities in this nutritional knowledge triangulation also includes a close cooperation with the food service practitioner level since we apply a holistic view on eating and nutrition. That means that culinary and sensory quality and

## L'application NutriDia facilite l'aide à la décision et le dialogue nutritionnel avec les patients atteints de cancer.

eating ambience are some of the aspects that are dealt with in the ongoing research activities. An important part is the educational activities and Aalborg University Hospital engages in both nutritional training at both the graduate and at the postgraduate levels. The research, development and practice activities also include a well-developed international cooperation. Recently the European Society for Clinical Nutrition and Metabolism (ESPEN) congress was hosted with 4,000 participants and Aalborg University Hospital has been leading the Sino Nordic Food4Growth network that has established a cooperation to connect researchers in the Nordic countries and China in order to advance research and education within the area of both public health nutrition and clinical nutrition. The network has contributed conceptually to the development of the idea of a new public health<sup>1</sup> – the idea that the hospital nutritional excellence should not be limited to serve the patients but should benefit the hospital staff as well as the broader community. The Aalborg University Hospital nutrition research has resulted in the launch and successful completion of the award winning community based SoL (Sundhed og Lokalsamfund - Health in local Community) project – a community based nutrition intervention program targeting the foodscapes of everyday life such as schools, kindergartens and supermarkets [4-5]. The activities at Aalborg University Hospital also include digitalization and

intelligent welfare technology development. The DIMS is a device for capturing accurate data on a patient's meal both before and after consumption in a foodservice setting and can estimate the type and amount of food on a plate using an integrated technology based on imaging, weighing scale, infrared thermometer and identification technology. Based on patient driven data-collection and scenario building, NutriDia is an app-based device that can facilitate nutrition and eating focused dialogue between cancer patients and counsellors. The activities have now been written into a 2020 strategy that aims at integrating clinical, public health and experimental nutrition and that will further strengthen the work on nutrition for the benefit of the patients, staff and the wide community. ■

### References

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1- New public health: [http://www.capfoods.aau.dk/digitalAssets/121/121095\\_nmrreportknowledgegetribentspart.pdf](http://www.capfoods.aau.dk/digitalAssets/121/121095_nmrreportknowledgegetribentspart.pdf).

NutriDia screenshots