

nutritionDay – A project aiming to fight malnutrition in hospitals and nursing homes

From an inspiring idea to a worldwide unique initiative

Background

Would you like to be part of the world largest initiative to fight malnutrition in hospitalized patients and nursing home residents? Are you interested in finding out the prevalence of malnutrition in your institution and would you like to check your nutrition care and compare your performance to the rest of the world? Yes?

Then, we would like to encourage you to join the fight against malnutrition by joining the nutritionDay project, a not for profit initiative supported by ESPEN (European Society for Clinical Nutrition and Metabolism). Together with 5 500 other units and over 185 000 hospital patients and nursing home residents you can be part of the largest network in this field. With your participation you have the opportunity to find out more about the nutritional situation in your hospital ward or nursing home and you can compare your nutrition care to others around the globe.

Studies have shown that adequate nutrition care should receive more attention in the health care community and in the field of public health, because it is widely associated with positive outcomes on patients and nursing home residents.

In particular, adequate nutrition care positively influences infection rates, cardiac complications and wound healing. Furthermore, it can reduce hospital stays, improve quality of life and it may also prevent death. Malnutrition currently affects 20-40% of patients admitted to hospitals. Proper solutions may reduce the number of those currently affected. Attention has also to be paid to obese patients, because it is more likely to miss signs of malnutrition in this patient group.

The beginning of nutritionDay

The creation of nutritionDay is based on the Resolution ResAP(2003)3 on food and nutritional care in hospitals which was adopted by the Council of Europe in November 2003. 18 countries signed this resolution on European level. ESPEN founded the project nutritionDay with the intention of drawing attention to this important topic and to kick-start a process of reflecting present practices and initiating structural improvements.

The general idea of nutritionDay is that hospital units and nursing homes participate in a survey on one scheduled day each year. On that day data about nutritional care and the nutritional situation of patients/residents is collected using standardized questionnaires. Based on the collected information, units receive a feedback report showing the unit's results in a national or international comparison. This feedback raises awareness of the problem, generates knowledge in the hospital/ nursing home community and provides a benchmarking opportunity on international and national level. Above that, the feedback report can be used as a tool for quality assurance.

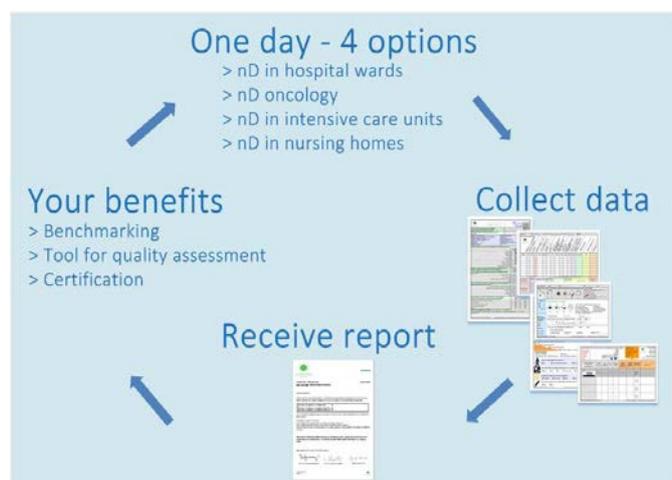


Figure 1: The nutritionDay process



ESPEN financially supports nutritionDay since 2006. Numerous National PEN societies support nutritionDay with their expertise.

nutritionDay in hospitals, intensive care units and nursing homes

nutritionDay is available for hospital units, intensive care units and nursing homes. Each hospital ward or nursing home can decide separately about joining the project year after year. Questionnaires are developed for each setting and are adapted to its specific needs. A disease specific module was created for oncological illnesses in order to better portray the nutritional requirements of cancer patients and to actively find solutions to improve nutritional status of people affected by cancer.

Methodology

nutritionDay is a worldwide cross sectional one-day survey with outcome evaluation after 30 days (non-ICU hospital wards) 60 days (ICU wards) or 180 days (nursing homes).

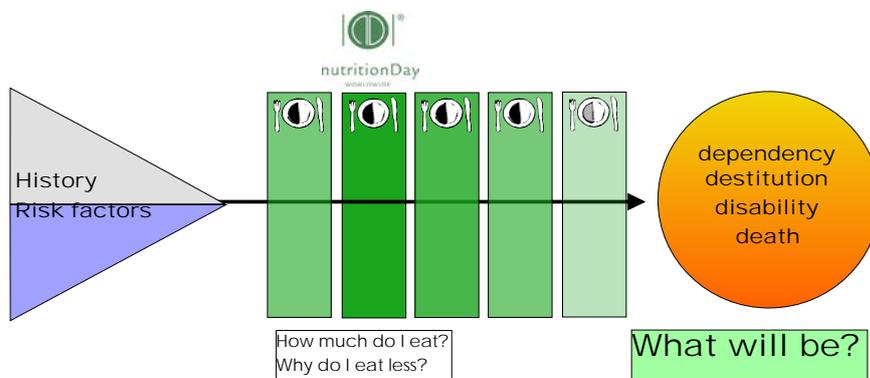


Figure 2: The nutritionDay methodology

How is nutritionDay performed?

Questionnaires:

nutritionDay takes place on **19th of November 2015**. Data collection is performed using standardized questionnaires. The questionnaires completed on that day are:

- 1 unit questionnaire
- 1 line per patient about risk factors and history
- 1 double-page patient questionnaire about the patient's well-being and nutritional behavior

The questionnaires comprise questions about „nutritional structures and standards“ on the ward, the „patients' profile & nutritional therapy“ and “eating behavior and weight change“. An additional questionnaire about the patient's outcome has to be completed after a pre-defined period of 30/60/180 days. Questionnaires are available in over 30 languages and can be downloaded here:

<http://www.nutritionday.org/en/30-languages/index.html>





Unit reports:

After participation, units receive a comprehensive unit report showing own results in a national or international comparison. To ensure comparability unit results are compared to the same specialty only.



Figure 3: Example report

Practical advice:

You or a unit staff member has to register online for nutritionDay in order to participate. Additionally, for anonymity reasons, you have to order codes for your centre and for each participating unit. Questionnaires and other important information material, such as a guide with “[12 steps to participate](#)”, are freely available for download from the nutritionDay website www.nutritionday.org. After nutritionDay and the data collection, all responses have to be entered into an online database by the staff or by students which will result in an immediately generated report. The estimated time for the preparation is ½ to 1 day depending on the unit size and your previous experience with nutritionDay. This includes time for registration, code ordering, downloading & copying questionnaires, pre-filling of the questionnaires and performing nutritionDay with one trial patient. Please also arrange enough time for the data collection on nutritionDay. We estimate that five to seven minutes per patient are required to inform patients, distribute and gather questionnaires and assist when needed. If possible, patients shall complete questionnaires without support. About five to seven minutes per patient are required for entering data into the online database. We recommend including all patients into the survey which are admitted to the ward on nutritionDay in order to receive a full picture of the unit.

What nutritionDay can answer for you:

- Which nutritional structures and processes exist in my institution and in the rest of the world?
- How do the nutritional profiles of the patients/residents look like in my facility compared to others?
- How did weight and nutritional intake of the patients/residents in my facility change in the last 3 months compared to others?
- How many patients/residents are malnourished? How high is the risk for my patients/residents to become malnourished? How prevalent is malnutrition in other facilities and units worldwide?
- What is the proportion of patients/residents in the different risk categories in my unit and in comparable units?
- What nutritional therapy do the patients/residents receive? Which nutritional treatment do patients/residents in comparable units receive?

The nutritionDay report gives a snapshot of the patients/residents in your facility and compares your institution to the rest of the world.

The principles of nutritionDay

The principles of nutritionDay are: no language barriers, easy implementation into daily routine and patient centered approach.

No language barriers! This important principle allows to also include minority groups and therefore 100% of the patients present in the ward. The translation of questionnaires and other information materials into national languages is essential. Thus, questionnaires are available in over 30 languages.

Easy implementation into daily routine! The most common barrier for hospital units and nursing homes to participate is the lack of human resources and therefore lack of time to perform nutritionDay. It was thus important to make the questionnaires easily understandable for all professions, to reduce the time needed to complete the questionnaires and to allow support by students. Also, the date for performing nutritionDay is flexible as one Thursday in November can be chosen per unit.

Patient centered approach! The idea of nutritionDay is to involve patients themselves in the survey in order to receive direct information about their well-being and their individual nutritional situation. Participation in nutritionDay still is free of charge.

Anonymity is of the utmost importance! Both, name of the institution and name of the ward or unit are encoded. The patients receive an individual patient's ID in order to remain anonymous.

Scientificity: the nutritionDay questionnaires are based on well known screening tools such as the MUST, the NRS-2002 and the AKE questionnaire. The data collected on nutritionDay is used for scientific purposes and will help to generate better knowledge about malnutrition and adequate nutritional care structures in hospital wards and nursing homes.



Results and Conclusions

Worldwide participation

Each year several 1 000 patients and nursing home residents contribute to the nutritionDay survey. Up to now over 185 000 patient/resident data have been collected making nutritionDay the largest project aiming to tackle malnutrition in health care settings. Altogether 1993 health institutions and 5500 units



from 58 countries have taken advantage of nutritionDay and benefit from the nutritionDay report which gives them better knowledge about the situation of malnutrition in their institution.

Abbildung 4 Worldwide participation



nutritionDay opens doors and takes a close look at malnutrition and nutrition related structures in your ward and helps you to find out what your unit does well already and detects room for improvement.

Malnutrition in hospitals

nutritionDay assesses malnutrition by analysing five parameters: “unintentional weight loss in the past three months”, “food intake in the week before nutritionDay”, “food intake on nutritionDay”, “patient was not allowed to eat” and “BMI < 18,5kg/m²”.

Aggregated data of the nutritionDay hospital survey of the years 2006-2012 shows that 44% of the patients admitted to hospitals loose weight in the three months before nutritionDay (Figure 7). 72% thereof loose more than 5% of their total body weight. More than half of the patients do not eat „normal“ in the week before nutritionDay and more than a quarter of all patients indicate to eat “less than half” or even “less than a quarter” (Figure 7). Most common reason for reduced food intake is in over 50% of the patients “loss of appetite”.

On nutritionDay more than half of the patients included in the study indicate to eat half of the portion served to almost nothing (Figure 7). Reasons for eating less on nutritionDay most often is „I was not hungry“ or „I did not like the taste“. 10% do not eat because they were not allowed to.

These results show that the risk of malnutrition in hospitalized patients does not only exist but may also be higher than expected. Nevertheless, only 7% of the patients admitted to the hospital on nutritionDay have a BMI < 18,5kg/m² (Figure 7). It therefore can be concluded that looking at BMI alone may not be sufficient to detect all patients who suffer from malnutrition or are at nutritional risk. Thus, the dimension of the problem may be greatly underestimated when not taking other parameters into consideration.

Which nutritional care do patients receive in a hospital?

Most patients receive regular hospital food or a „special diet“. Also 50-60% of the patients eating only half or a quarter of the portion served on nutritionDay do not receive any supplementation with artificial nutrition. Interestingly, patients eating only a quarter of the served portion are not really treated differently regarding nutrition supplementation to those eating the full meal. Only if patients do not eat anything the administration of nutritional therapy increases to about 30%. This brings us to the conclusion that the group of patients eating only a quarter seems to receive least attention.

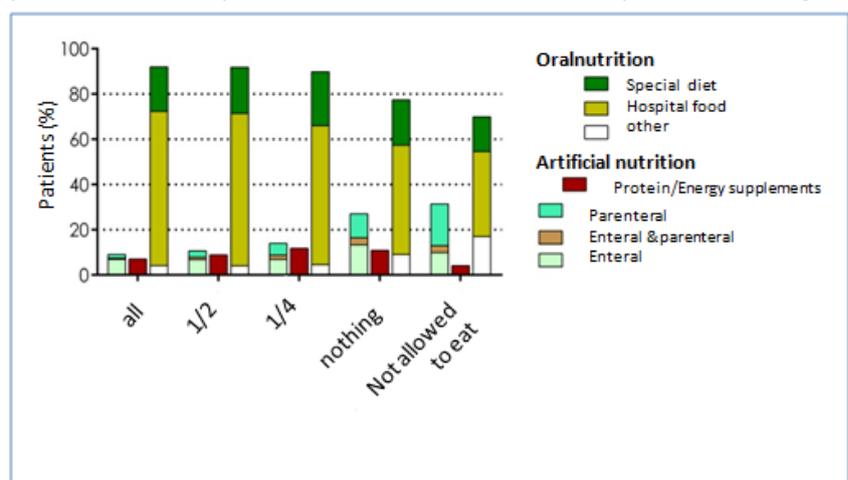
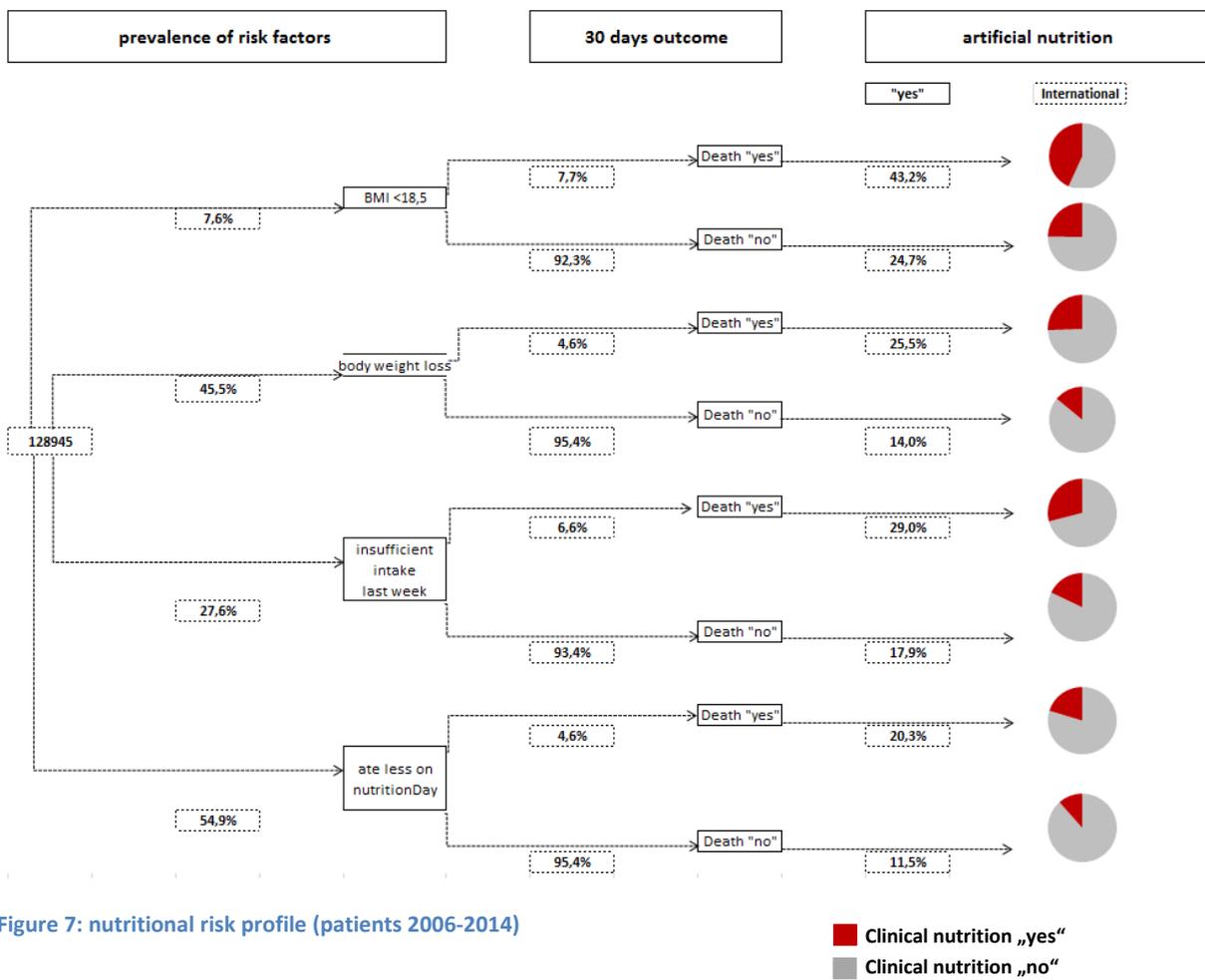


Figure 6: Food intake and nutrition therapy



Risk profile and outcome after 30 days

The nutritionDay risk profile shows the prevalence of risk factors in participating patients from 2006-2012 and if or if not the patients at risk had received nutritional therapy. The risk profile observes BMI < 18,5kg/m², unintentional body weight loss, insufficient food intake in the week before nutritionDay and insufficient food intake on nutritionDay as independent risk factors and also considers outcome after 30 days. The nutritionDay risk profile demonstrates that nutritional therapy (artificial nutrition) is provided more often to patients with BMI < 18,5kg/m², while it is only considered in 30-40% of the patients in case one of the other risk factors is present. Knowing that only 7% of the patients are suffering from BMI < 18,5kg/m² while 44% are affected by unintentional weight loss and over 50% ate less on nutritionDay it should become more clear that a great amount of patients at risk of malnutrition remain undetected if only BMI of patients is assessed on a regular basis.



Importance and benefits

With a little effort your unit will profit from a comprehensive unit report which portrays the nutritional situation of your patients/nursing home residents and the nutritional structures in your institution. Participating in the project offers you the possibility to compare your institution anonymously to other hospitals or nursing homes and therewith benchmark your nutritional care, discover strengths or potential for improvement. Repeating the participation year after year will



allow you to implement a continuous improvement cycle which can be used as a tool for quality assurance. This may reduce time to recover and increase quality of life of patients and residents.

Take this chance to fight malnutrition! Become part of this important worldwide initiative!

With your participation you will contribute to drawing attention to the importance of proper nutritional care and its influence on recovery. Beyond that you have the opportunity to receive a certificate for your institution.

Go to our website www.nutritionDay.org and register with your institution or your ward. The nutritionDay team is delighted to offer you support: office@nutritionday.org