



Nutrition Impact Symptoms and taste changes in patients undergoing hemodialysis

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Background

To gain a greater understanding on how the dietary guidance in patients undergoing hemodialysis can be optimized, we aimed to assess the prevalence of Nutrition Impact Symptoms (NIS), type of taste changes^a, and the relation with nutritional and functional variables.

Results

We included 134 patients (66% men), median age 71 years (IQR:71-79), BMI 25.0 kg/m² (IQR: 21.5–28.6), and NIS-points 9 points (IQR: 0-28).

A lower level of function was found in patients with more NIS-points (27 vs. 5 points, $p<0.0001$). No significant difference was found between NIS-points and BMI (19 vs. 6 points, $p=0.116$), or HGS (16 vs. 8 points, $p=0.941$).

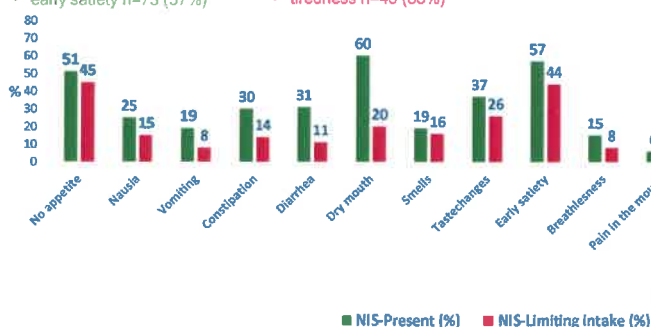
Figure 1.

The most frequent NIS-P were;

- tiredness $n=97$ (76%)
- dry mouth $n=78$ (60%)
- early satiety $n=73$ (57%)

The most frequent NIS-L were;

- no appetite $n=59$ (45%)
- early satiety $n=57$ (44%)
- tiredness $n=45$ (35%)



Method

A cohort study including patients in hemodialysis from Herlev Hospital.

The following data were collected:

- Sex, age, BMI (low BMI ≤ 20.5 kg/m²)
- Function (ECOG) (low function 3-4), and Hand grip strength (HGS) (low HGS, Men < 27 , Women < 16 kg)
- NIS were obtained using the EATEN-NIS-questionnaire including 16 questions on NIS-Present (NIS-P, yes/no) and NIS-Limiting intake (NIS-L, yes/no). Additionally, NIS-L were given points from 1-10 (NIS-points)
- Patients with taste changes present, were asked about type

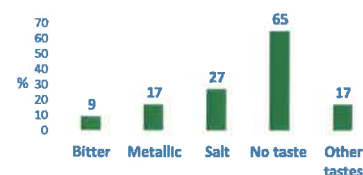


Figure 2.

- Taste changes were present in $n=40$ (33%)
- No taste was most frequent $n=15$ (65%)

Summary/ Highlights

In patients undergoing hemodialysis NIS-P and NIS-L were prevalent.

The most frequent taste change was "no taste".

Patients with more NIS-points had a lower self-evaluated functional status.

This emphasizes the importance of providing the patients guidance in coping with NIS.



References

- ^a Brennan, Frank, Jessica Dawson, and Mark A. Brown. 2022. "A Novel Clinical Tool for the Management of Taste Changes in Patients With Chronic Kidney Disease: The Chronic Kidney Disease Taste Plate." *Journal of Renal Nutrition* 32(4):483–88.

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Nutritional coverage and prevalence of malnutrition according to GLIM criteria in Danish hospitalized patients at nutrition risk – results of a cohort-study

ID: P768

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Background

A cohort study conducted in 2019 at our hospital revealed, that patients at nutrition risk had a low coverage of nutritional requirement¹. Since then, a more protein dense digital food-concept has been implemented (photo 1)². To encourage patient involvement, intake of requirements can be followed by a nutritional barometer (photo 2). Primary aim of this study was, to investigate the effect of this initiative on nutritional coverage in nutritional at-risk patients. Secondary, we wanted to investigate the prevalence of patients at nutritional risk (NRS 2002) and the prevalence of malnutrition according to GLIM.



Photo 1. Digital food-concept

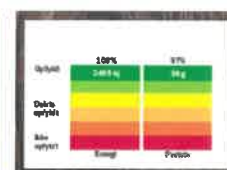


Photo 2. Nutritional barometer

Results

We included 124 (F:52%) patients, median age was 75y (IQR:66-83) and 81 (65%) were at nutrition risk. 69 patients at nutritional risk had their dietary intake assessed. Compared to 2019 a significant higher ($p < 0.001$) prevalence achieved at least 75% of energy and protein requirement (figure 1). 58 patients at nutritional risk could be assessed for malnutrition and of these 43 were diagnosed as malnourished (figure 2).

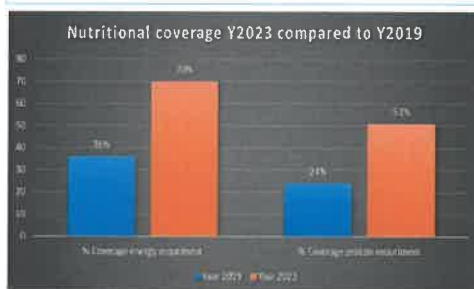


Figure 1.



Figure 2.

Method

The study, was performed at Herlev Hospital, in September 2023.

- Patients >18 and hospitalized for >4 days were enrolled.
- Exclusion criteria: admission to the intensive, palliative, emergency, or maternal ward.
- Patients at nutrition risk (NRS-2002) underwent a 24-h dietary recall to assess nutritional coverage.
- To assess malnutrition the GLIM criteria were used
 - Muscle mass was measured using edema and BMI adjusted calf circumference (Cut-off for low muscle mass was F:<32 and M:<33)
 - p-CRP was used to assess stress metabolism with a cut-off value of > 30.

Summary/ Highlights

Implementing a digital food concept with focus on patient empowerment seems to have a positive effect on nutritional coverage. However, more effort is needed to secure nutritional intake, especially protein coverage. According to the GLIM criteria, a high prevalence at nutritional at risk patients are malnourished. This indicates a need for nutritional follow-up after discharge.



1. Beck et al. Clin Nutr ESPEN. 2021;41:365-370
2. Svendsen et al. Clin Nutr ESPEN. 2024;60:86-94