

# Older patients (50+ y) declining participation in a randomized controlled nutritional trial have higher risk of readmissions

Jonas Anias Svendsen<sup>1</sup>, Tina Munk<sup>1</sup>, Anne Wilkens Knudsen<sup>1</sup>, Henrik Højgaard Rasmussen<sup>1,2</sup>, Anne Marie Beck<sup>1,3</sup>

1. Dietetic and Nutritional Research Unit, *EFFECT*, Herlev-Gentofte University Hospital, Herlev, Denmark.  
2. Center for Nutrition and Bowel Disease, Aalborg University Hospital, Denmark  
3. University College Copenhagen, Faculty of Health, Institute of Nursing and Nutrition, Copenhagen, Denmark

## RATIONALE

In nutritional RCT's it is not uncommon to see between 45 to 64 % of eligible older patients declining participation. Often, we have quite limited data on the decliners, typically reduced to age and gender. It questions whether we include the patients at greatest nutritional risk, thus patients with a high risk of readmission. This study aimed to compare older patients declining participation with patients accepting participation in a RCT<sup>1</sup> allocated to the control group. For more information on the RCT, please see the abstract and oral presentation: A multimodal nutritional intervention after discharge improves quality of life and physical function in older patient (BT29).

## METHODS

During recruitment for a nutritional RCT in a hospital setting, permission was obtained from older patients declining participation to collect baseline data on; gender, age, weight, NRS-2002 and reason for not participating. Follow-up data were collected on day 30 after discharge, on; readmission and length of stay (LOS). Data from the decliners were compared with the control group (n=98) from the RCT.

## RESULTS

Consent was obtained from 56 decliners. At baseline, we found no significant difference between controls and decliners in; gender, age, and NRS-2002 at risk. Decliners had a higher bodyweight than the controls (p=0.035). Looking at the NRS A-score (nutritional status), the controls were rated higher than the decliners (p=0.001), when comparing the NRS B-score (disease severity), the decliners were rated higher than the controls (p<0.000). At the 30 days follow-up, more decliners had been readmitted compared with the controls (32% versus 17%, p=0.035). The controls had a trend towards longer LOS when readmitted compared with the decliners (median 10 days (IQR 5-17) vs. 5 days (IQR 3-8.25), (p=0.057). A common reason (57%) for declining participation was the feeling of not being able to cope with the intervention.

Tabel 1

Baseline data	Control, n=98		Decliners, n=56		P-value
Gender, females, n (%)	66	(67)	35	(62)	0.543
Age, years, mean (sd)	76.2	(9.4)	74.9	(9.9)	0.41
Weight, mean (sd)	61.1	(12.6)	65.9	(14.6)	<b>0.035</b>
BMI, mean (sd)	22	(3.9)	23.5	(4.7)	0.066
Main diagnose, n (%)					
Cancer	9	(9.2)	9	(16.4)	0.251
Cardiovascular	14	(14.3)	4	(7.3)	
Gastro	18	(18.4)	14	(25.5)	
Respiratory	18	(18.4)	7	(12.7)	
Infections	26	(26.4)	10	(18.2)	
Other	13	(13.3)	11	(20)	
NRS Risk, n (%)					
In Risk	66	(67)	34	(60)	0.407
NRS score, mean (sd)	2.9	(0.8)	2.8	(0.8)	0.333
A-Score, n (%)					
None, (Score 0)	39	(40)	40	(71)	<b>0.001</b>
Mild, (Score 1)	54	(55)	14	(25)	
Medium, (Score 2+)	5	(5)	2	(4)	
B-Score, n (%)					
None, (Score 0)	51	(52)	12	(20)	<b>&lt;0.000</b>
Mild, (Score 1)	46	(47)	45	(75)	
Medium, (Score 2+)	1	(1)	3	(5)	

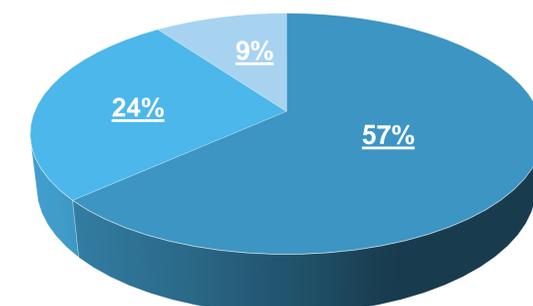
Tabel 2

Follow-up (30 days)	Control, n=98		Decliner, n=56		P-value
Readmissions, n (%)	17	(17)	18	(32)	<b>0.035</b>
Number of readmissions, mean (sd)	1.3	(1.3)	1.2	(0.4)	0.909
Length of stay, median (IQR)	10	(5-17)	5	(3-8.25)	0.057

## CONCLUSIONS

Older patients declining participation have higher disease severity and higher rate of readmissions. An effort is therefore needed to identify nutritional interventions they can cope with.

Reasons for not participating



■ Can not cope with the intervention ■ Do not want to participate  
■ Does not feel the need to participate

Figur 1

## Reference

1: (T. Munk, J. A. Svendsen, A. W. Knudsen, T. B. Østergaard, and A. M. Beck, "Effect of nutritional interventions on discharged older patients: study protocol for a randomized controlled trial," *Trials*, pp. 1-9, 2020.

## Contact:

Jonas Svendsen: [jonas.anias.svendsen@regionh.dk](mailto:jonas.anias.svendsen@regionh.dk)  
Tina Munk: [Tina.munk@regionh.dk](mailto:Tina.munk@regionh.dk)