

Impact of hospital admission on nutritional status in patients with severe acute pancreatitis

- a service evaluation



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BACKGROUND

Severe acute pancreatitis (SAP) is a complex condition that presents significant challenges in delivery of nutritional care, including pancreatic exocrine insufficiency, pancreatogenic diabetes, malnutrition, sarcopenia and increased nutritional requirements.

Patients can have long, complex hospital admissions with nutritional support a cornerstone of management. Despite this, evidence is limited regarding the impact of SAP on nutritional status and nutritional support during hospitalisation.

RESEARCH AIM

This study aimed to evaluate the impact of SAP on nutritional status and understand which nutritional support interventions are implemented in clinical practice.

METHODS

- Inclusion criteria: ≥ 18 years of age, diagnosis of SAP of any aetiology admitted or transferred to the FH. Exclusion criteria: Those that died during admission
- Data collected between Feb 2020 and June 2023 were included in retrospective data collection.
- Data were extracted for patient demographics, length of stay (LOS), nutritional status (weight, height and body mass index), anthropometric measurements including hand grip strength (HGS) and nutrition support interventions.
- Global Leadership Initiative on Malnutrition (GLIM) criteria were applied to determine malnutrition prevalence.
- All analyses were performed with IBM SPSS 29 with $p < 0.05$ considered statistically significant.

RESULTS

Table 1. Population demographics

	n=53 (%)	SD \pm
Gender		
Male	35 (66)	
Female	18 (34)	
Mean age (years)	54.08	13.98
Aetiology		
Gallstone	35 (66)	
Alcohol	8 (15)	
Idiopathic	8 (15)	
Post-EUS	1 (2)	
ERCP	1 (2)	

Weight Change

- There was a mean weight loss of 9.95% during admission.

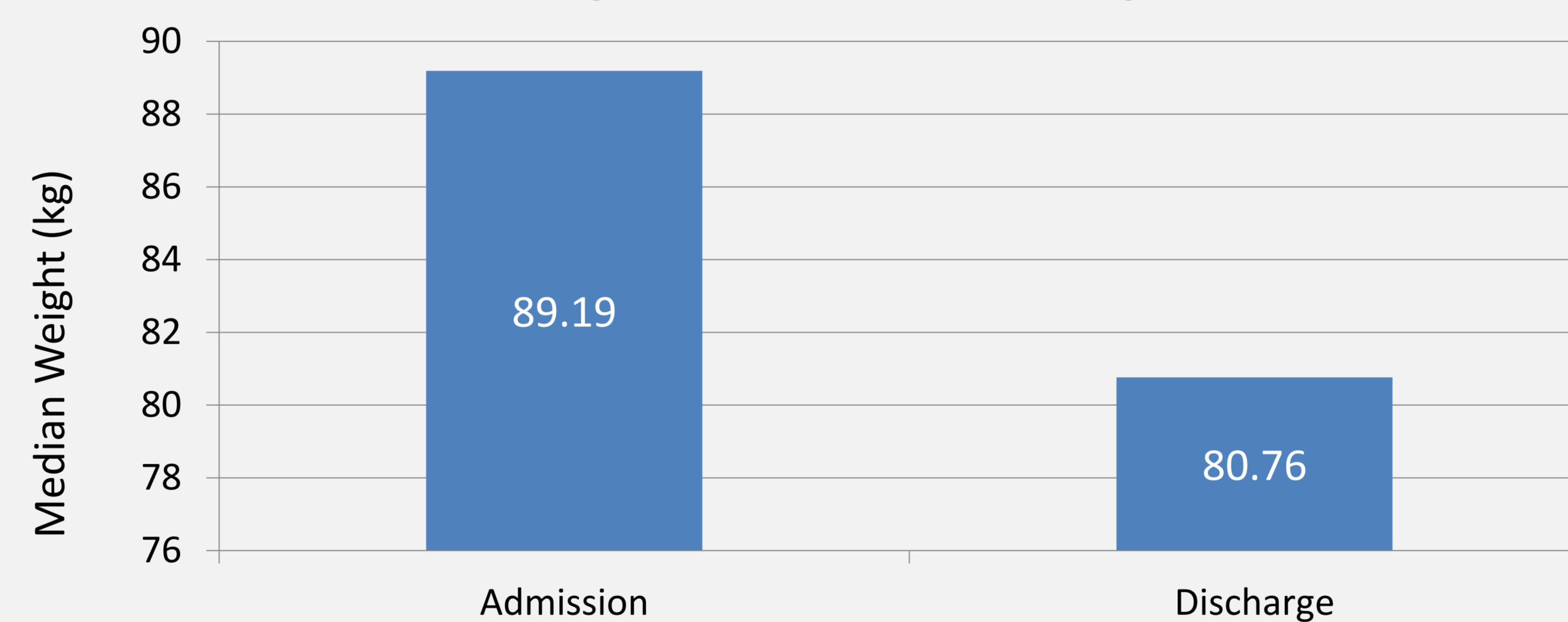


Figure 1. Median weight change from admission to discharge

Nutritional Interventions

- 92.5% of patients were seen by a dietitian during admission.

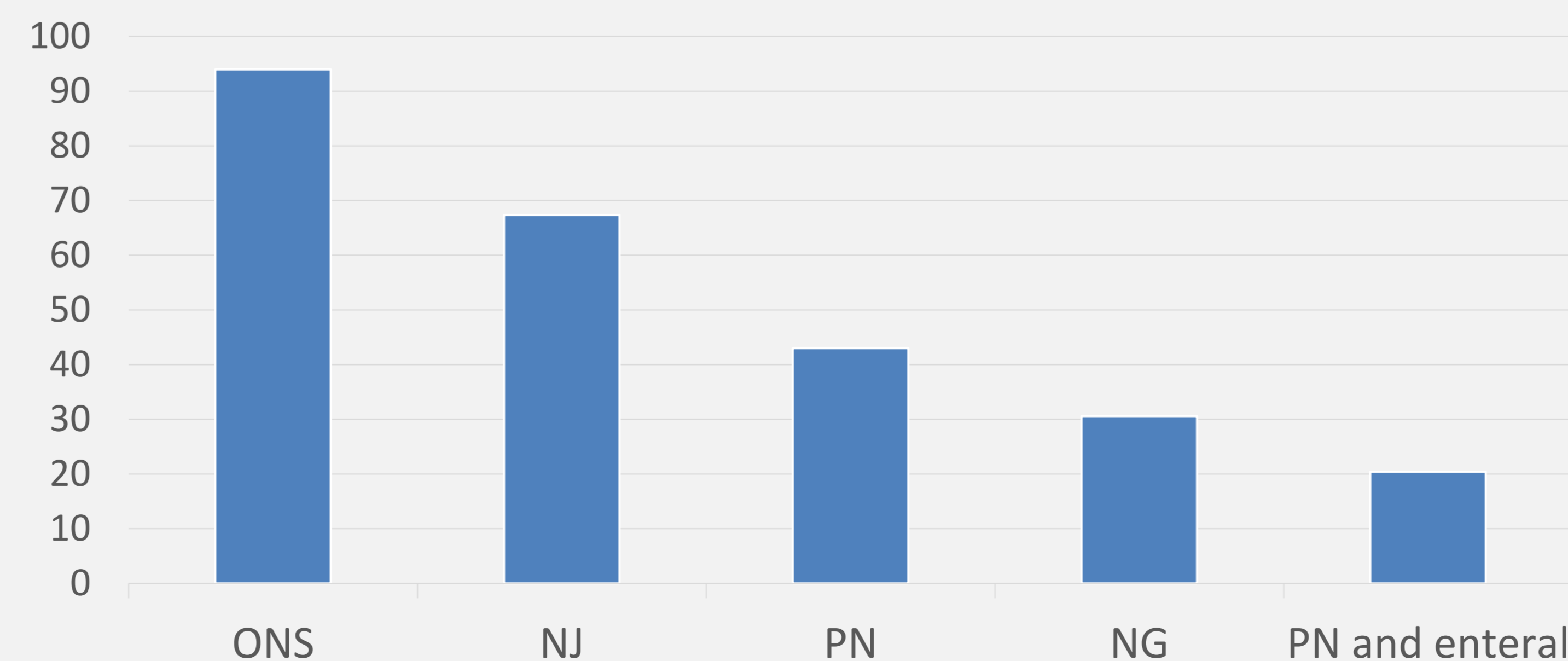


Figure 2. Nutrition support interventions used during admission

RESULTS

Figures 3 and 4 show malnutrition prevalence and classification on admission and discharge, respectively.

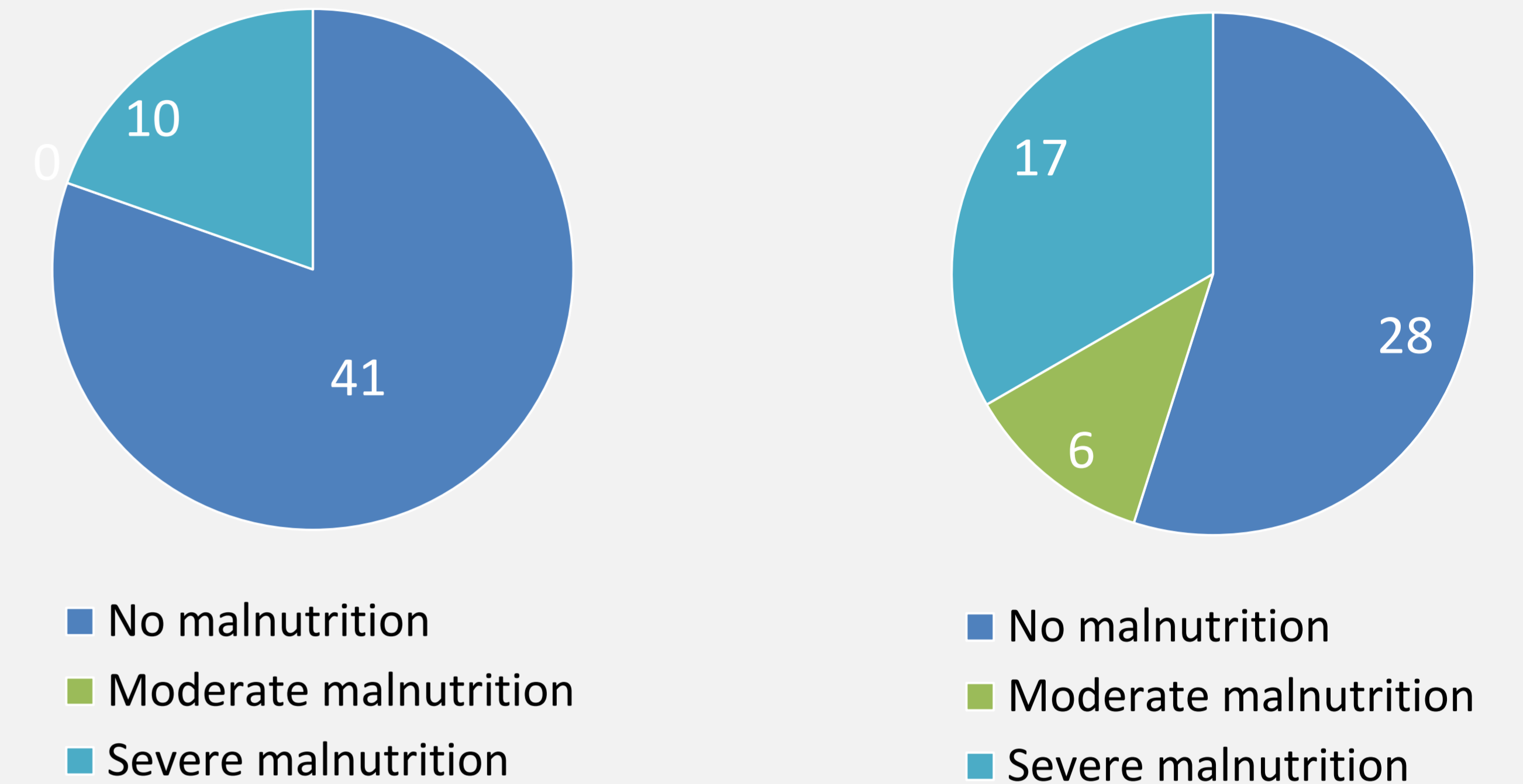


Figure 3. Admission malnutrition prevalence and severity as per GLIM

Figure 4. Discharge malnutrition prevalence and severity as per GLIM

51/53 (96%) patients were prescribed PERT on discharge

The percentage of patients diagnosed with diabetes increased from admission 17/53 (32%) to discharge 28/53 (53%) ($p = 0.683$)

CONCLUSIONS

- Despite specialist dietetic intervention and intensive nutrition support, patients with SAP lose significant weight during hospitalisation with a significant increase in malnutrition prevalence on discharge.
- This work provides important nutritional benchmarking data which will be used in future work. Increased implementation of anthropometric measures will facilitate greater understanding of body composition and function, thus providing an increased depth to measures of nutritional status beyond weight and BMI.