of comparing the observed frequencies with the predicted frequencies between different groups, we used Pearson's χ^2 test. The results were evaluated as statistically significant at $p < 0.05$.

Results

In the sample of n = 137 (100 %) patients, 48 % were men and 52 % were women, the average of the entire sample was 76.2 years, most of the patients (51 %) were 65-74 years old. According to MNA®-FF, 9 % of patients had a normal nutritional status, up to 74 % were at risk of malnutrition and 17 % were malnourished (tab. 1). The average hospitalization duration was 4 days, the average number of hospitalizations was 1.5/year, the average BMI in the sample was 27.6, and the average weight report for the last 6 months was 2 kg; 99 % had polymorbidity and 96 % had polypharmacotherapy, with an average number of drugs of 12 in 24 hours (tab. 2). Regarding laboratory parameters, the patients had lower mean limit values of albumin and haemoglobin and an increased CRP value (tab. 3).

We found statistical significance between the resulting MNA®-FF score and the BMI value ($p < 0.001$) and between the weight loss in the last 6 months ($p < 0.001$) (tab. 2) and between the resulting MNA®-FF score and the haemoglobin value ($p = 0.033$) (tab. 3).

Discussion

In our sample of geriatric patients, after administration of the MNA®-FF tool, we identified up to 91 % of patients who were at risk of developing malnutrition or already had malnutrition. With the global demographic transition towards to an aging population, malnutrition in older age has become a global challenge as a major contributor to the morbidity and mortality of the geriatric patient (13). Malnutrition is caused by a variety of factors, including developmental changes, inadequate or unbalanced food intake, the presence of both acute and chronic diseases, and the extent and quality of health care (8). Many factors and methods are involved in the evaluation of nutritional status and an inaccurate or absent assessment of nutritional status by health care professionals can also have an impact on the emergence and development of malnutrition (14). BMI is important, but definitely not a decisive parameter for assessing the obesity index in individual patients. BMI analyzes weight categories that may lead to health problems, but does not diagnose an individual's body fat or health (15). Additionally, standardized "normal" BMI values may not be objective, as this index does not take into account body structure or subcutaneous fat thickness, nor sex and age (16). The optimal BMI for the senior population does not correspond to the optimal BMI for the

Tab. 2. *Health characteristics of the sample according to MNA®-FF (n = 137)*

Variable	MNA®-FF Median/IQR	Normal nutritional status Median/IQR	At risk of malnutrition Median/IQR	Malnourished Median/IQR	KW-χ^2	p value
Length of hospital stay	4/2-7	2/1-6	5/2-7	5/3-10	1.721	0.422
Number of hospitalizations/last year	1.5/1-2	2/1-2	2/1-2	2/1-2	1.213	0.545
BMI	27.6/23.9-30.8	27.9/26.6-33.8	27.5/24.3-29.7	20.6/18.5-22.8	35.898	<0.001***
Weight loss/past 6 months	2/0-5	2/0-3	4/1-7	10/5-15	29.107	<0.001***
Number of drugs/24 hours	12/8-18	12/9-14	12/9-18	13/8-17	0.326	0.849
	n/%	**n/%**	**n/%**	**n/%**	**χ^2**	**p**
Polymorbidity ≥ 5 chronic diseases	136/99	13/10	100/74	23/17	0.359	0.835
Polypharmacy ≥ 5 prescribed drugs	131/96	13/10	95/73	23/18	2.236	0.326

****p value < 0.001*

Tab. 3. *Laboratory parameters in the sample (n = 137)*

Variable / reference value	MNA®-FF Median/IQR	Normal nutritional status Median/IQR	At risk of malnutrition Median/IQR	Malnourished Median/IQR	KW-χ^2	p value
Albumin (35-52 g/l)	35/30-38	38/36-40	35/29-38	31/26-34	5.824	0.054
Transferrin (2.0-3.6 g/l)	2.1/2.0-2.9	—	2.1/1.1-1.8	1.4/1.7-2.8	2.261	0.132
Haemoglobin (Male 135-175 g/l, Female 120-160 g/l)	126/108-139	135/130-145	124/103-136	126/98-136	6.777	0.033*
CRP (< 5.0 mg/l)	7.9/2.5-33.9	19.3/7.4-34.8	10.7/2.7-32.6	9.7/3.5-57	0.471	0.789
Cholesterol (< 5.00 mmol/l)	4.5/3.7-5.8	5/3.5-6.0	5/3.6-5.8	4.1/3.9-5.9	0.151	0.927
Lymphocytes (0.8-4.0 × 109/l)	1.4/1.0-2.0	1.4/1.1-1.8	1.5/1.1-2.2	1.2/0.8-1.8	2.674	0.262

**p value < 0.05*