

PHARMACOECONOMIC ASPECTS OF TREATMENT OF ACUTE PANCREATIS IN CENTRAL PART OF SERBIA - COST OF ILLNESS STUDY BASED ON DATA FROM TERTIARY REFERRAL HOSPITAL



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Objectives

Acute pancreatitis is a progressive inflammatory disease with significant economic burden due to obligatory treatment in hospital facilities which demands utilization of additional health services, increases total costs of treatment and reduces quality of life of patients.

The aim of our research was to evaluate total costs of treatment of acute pancreatitis in tertiary care facilities in central part of Serbia from payers' perspective (National Health Insurance Fund, NHIF).

Methods

This research was conducted as a pharmacoeconomic retrospective cost of illness study with from bottom to the top approach from payers' perspective (NHIF).

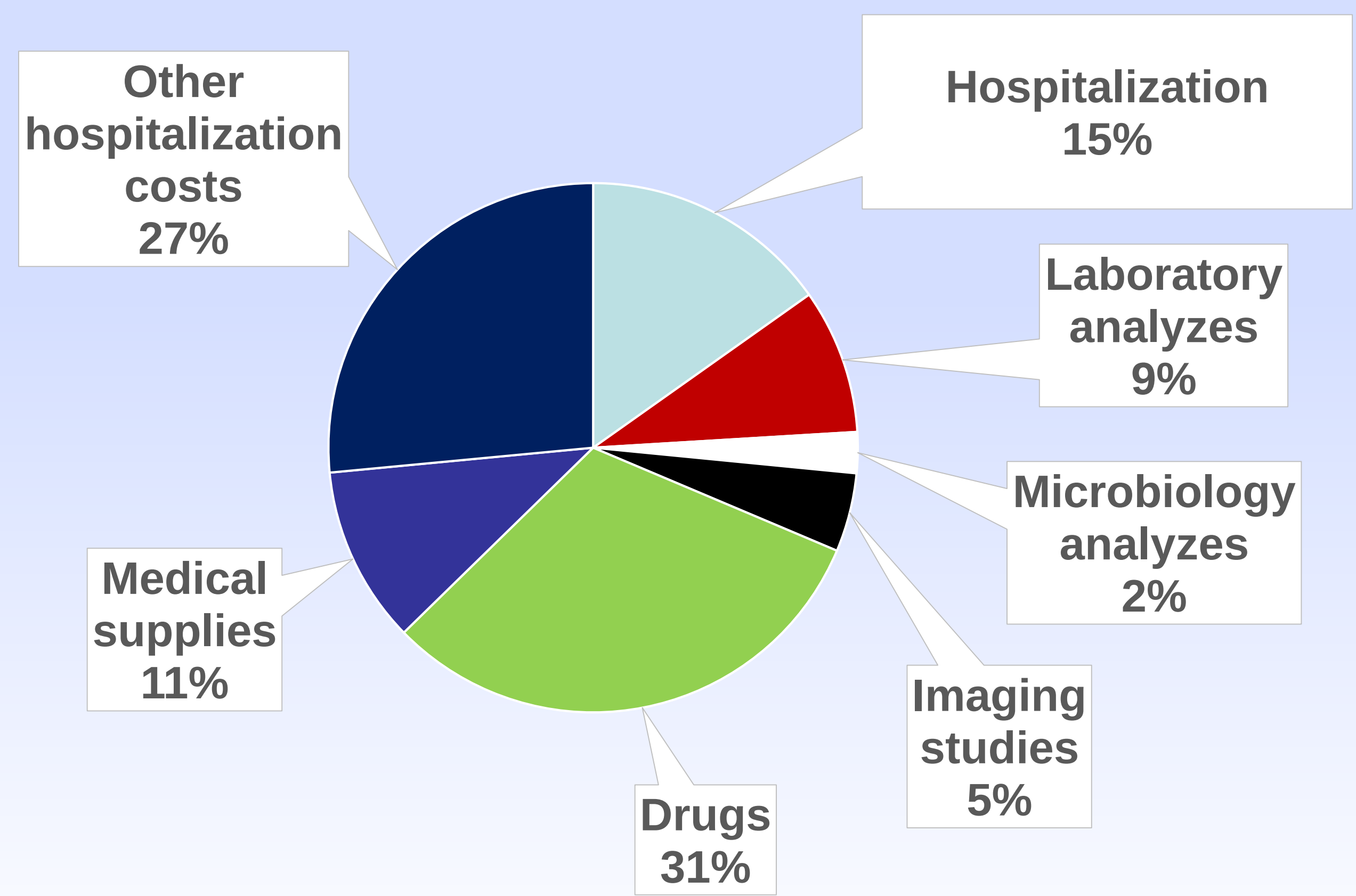
This study included 92 patients with diagnosis of acute pancreatitis who were treated at the General Surgery Clinic in the Clinical Center Kragujevac from October 2016 to October 2018. The total hospital costs were expressed in Euros and were presented as the total hospital costs and average hospital costs per patient.

Results

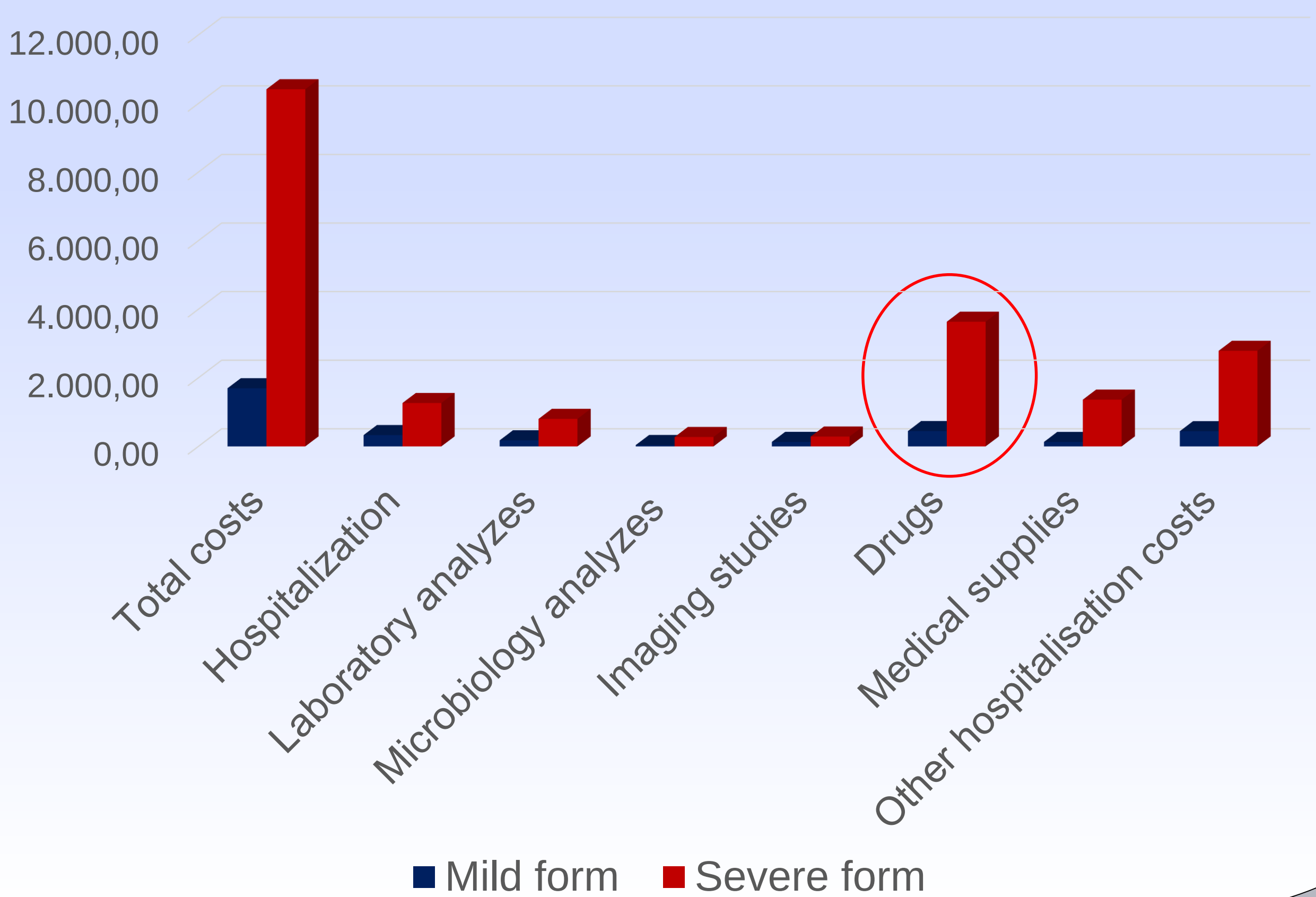
The structure of total costs of treating acute pancreatitis

Table 1	Average	Standard deviation	Median	Minimum	Maximum	Sum
Total costs/patient	3,307.25	5,114.18	1,165.24	125.78	23,931.36	304,266.89
Hospitalization	502.29	601.59	338.93	34.78	4,354.87	46,210.47
Laboratory analyzes	292.97	393.54	134.56	11.97	1,773.65	26,953.47
Microbiology analyzes	82.70	268.87	0.00	0.00	1,742.28	7,608.57
Imaging studies	159.34	133.06	122.93	0.00	614.69	14,659.26
Drugs	1,035.88	1,970.74	141.18	3.01	7,746.89	95,300.99
Medical supplies	357.59	651.91	62.67	2.51	2,822.83	32,898.73
Other hospitalization costs	876.47	1,458.73	332.52	12.18	8,416.19	80,635.39

The structure of direct costs



The distribution of the total cost of treating acute pancreatitis per patient in relation to the severity of the disease



Conclusions

- ✓ The total hospital costs of the treating acute pancreatitis in the Republic of Serbia (RS) are lower than in European countries
- ✓ The proportion of costs is similar as in other studies in European countries, but with differences in absolute values due to lower prices of medical services and drugs in the RS
- ✓ These differences can be explained by the policy of determining the prices of health services since these costs are significantly lower in the RS than in regional countries and other European countries
- ✓ Future economic evaluations are needed in order to provide new algorithms for better allocation of budget within health system in countries with recent history of economic transition

Literature

1. Andersson B, Appelgren B, Sjödin V, et al. Acute pancreatitis—costs for healthcare and loss of production. Scandinavian journal of gastroenterology. 2013;48(12):1459-65.
2. Yeh JL, Wu S, Wu BU. Regional cost variation for acute pancreatitis in the US. JOP. Journal of the Pancreas. 2014;15(5):448-54.
3. Murata A, Matsuda S, Mayumi T, et al. Multivariate analysis of factors influencing medical costs of acute pancreatitis hospitalizations based on a national administrative database. Digestive and Liver Disease. 2012;44(2):143-8.