

# THE USE OF SWALLOWING TEST FOR PREVENTION OF PNEUMONIA IN PATIENTS WITH STROKE

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## Introduction

- According to the WHO, 15 million people suffer stroke worldwide each year. Of these, 5 million die and another 5 million are permanently disabled.
- In the Republic of Moldova, the share of stroke in the structure of cerebrovascular diseases, on average, is 25.0%, and the average mortality is 201.2 cases per 100,000 inhabitants.
- Up to 95% of patients have at least one complication in the first 3 months after a stroke and about a third of them die during hospitalization due to it.
- The most common are infectious complications, including pneumonia, which occur in 30% of post-stroke patients.
- The frequency of pneumonia associated with stroke is between 5 and 22%, half of which occur in the first 48 hours after the onset of stroke.
- The main factor causing pneumonia is dysphagia detected in approximately 55% of patients with acute stroke. Dysphagic patients are 3 times more likely to develop pneumonia, and those with confirmed aspiration eleven times more likely.

## Keywords

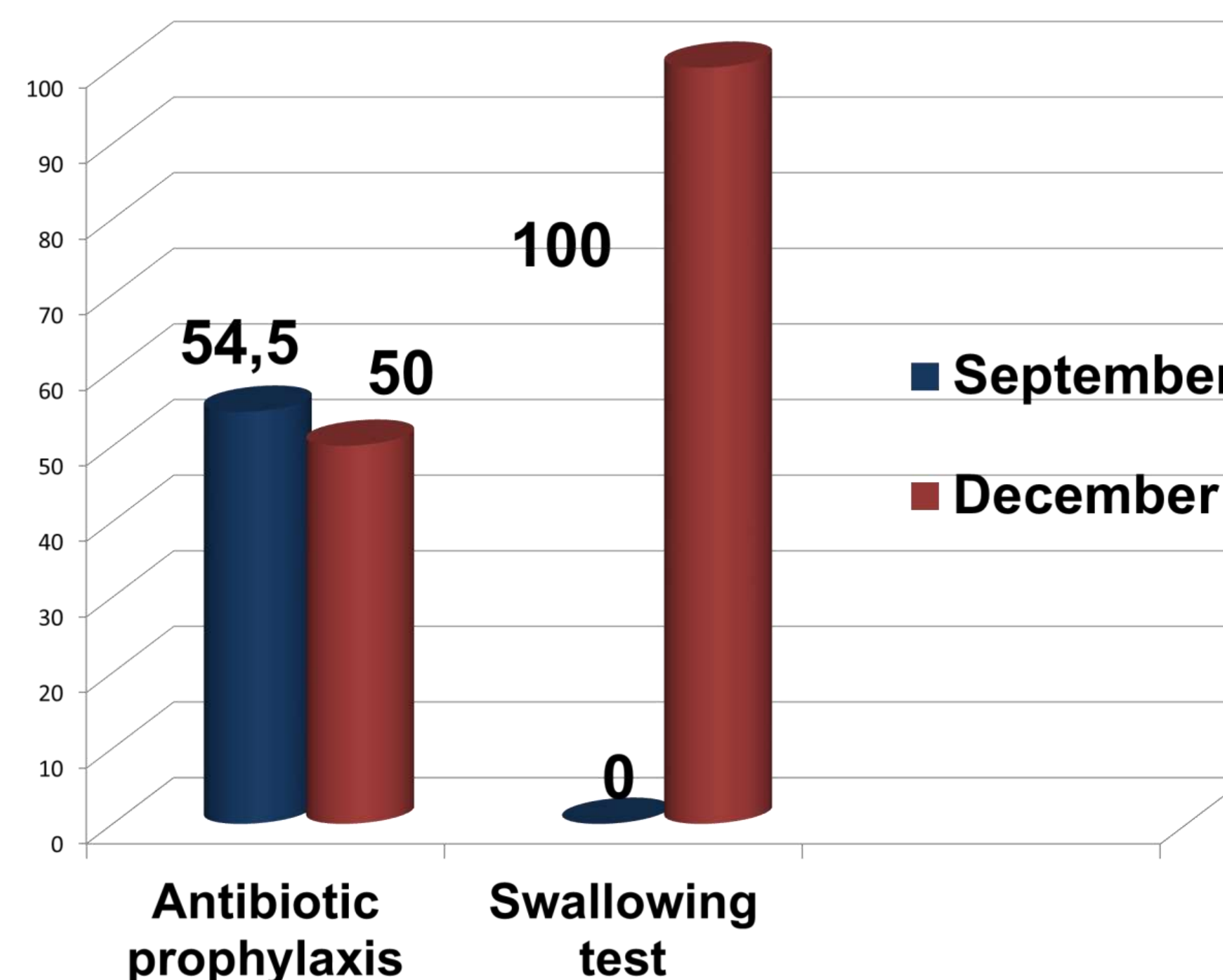
- Stroke-Associated Pneumonia;
- swallowing test;
- Quality in Acute Stroke Care (QASC);

## Keywords

- Analysis of evolution in patients with Stroke associated pneumonia, according to the applied methods of prevention.

## Materials & Methods

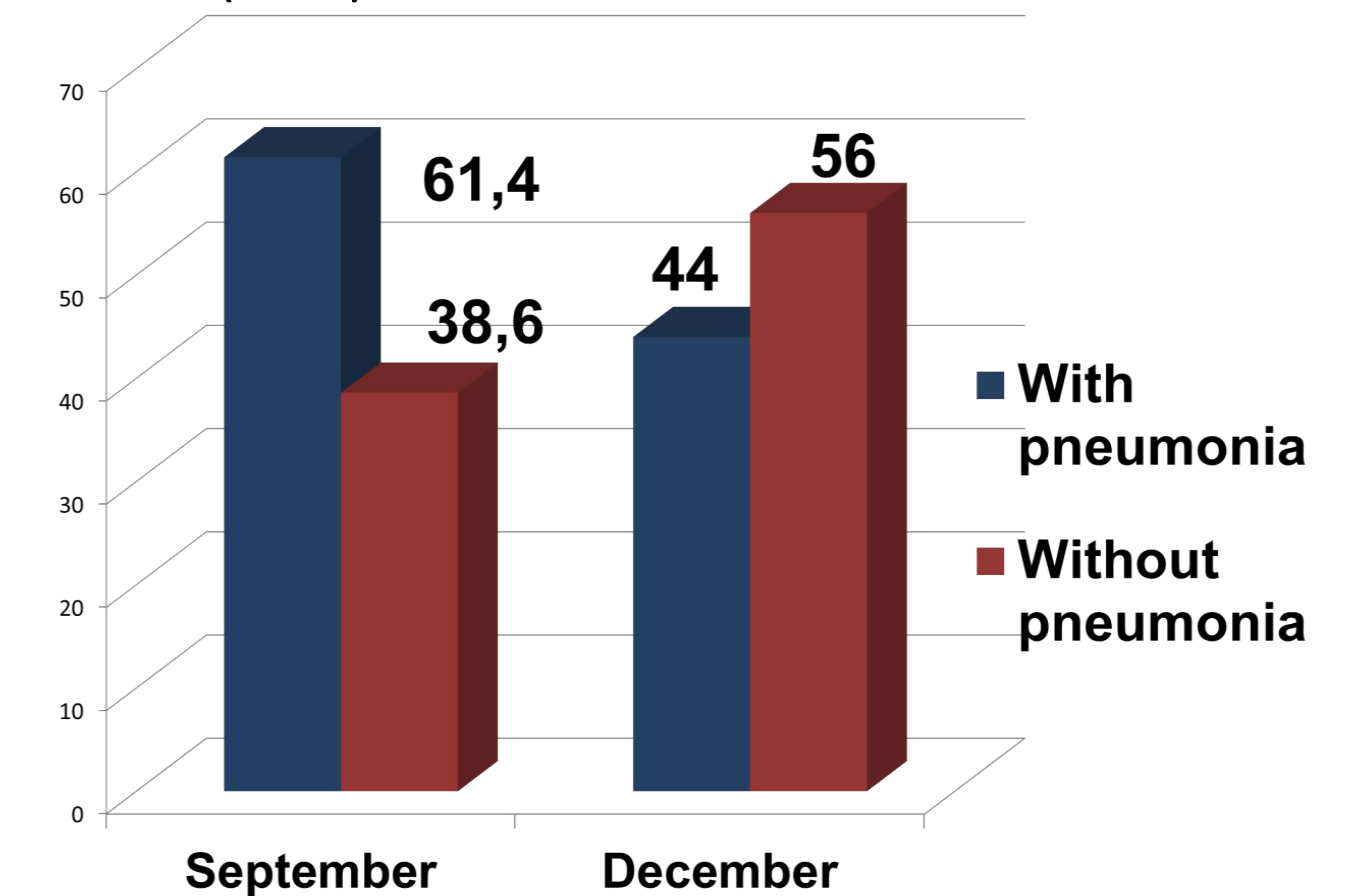
- It is presented a retrospective research of 94 patients hospitalized in the Neuro Emergency Department of the Institute of Neurology and Neurosurgery, during September (44 patients) and December (50 patients) 2019, with the diagnosis of acute stroke.
- Of these, 50 patients were participants in the QASC (Quality in Acute Stroke Care) program, undergoing the FeSS (Fever, Sugar, Swallow) protocol.
- The material was selected according to a questionnaire that included clinical and paraclinical examination, evaluation scales (NIHSS, mRS, GCS) and methods applied to prevent pneumonia.



Graph 1. The composition of the groups according to the applied prevention methods (in %).

## Results

- By analyzing the graph.1, it has been determined that there was no essential difference in number of patients (50% of each lot) who received antibiotic prophylaxis during hospitalization. As well, only subjects of December were tested for swallowing problems- 50 patients (100%), with an important statistical difference ( $p < 0,05$ ).
- On this line, in graph.2, it was observed that the incidence of pneumonia in September is higher- 27 patients (61.4%), in comparison with December- 22 patients (44%).



Graph 2. Prevalence of pneumonia according to the period of hospitalization (in %).

## Conclusions

- The use of swallowing test ( $p < 0,05$ ), has contributed to the decrease of frequency of pneumonia by 17,4% cases, being far superior to antibiotic prophylaxis that proved no efficiency in preventing stroke associated pneumonia.