



IS IT POSSIBLE TO RATIONALISE THE ANTIBIOTIC USE AMONG HOSPITALISED PATIENTS BY CLINICAL PHARMACISTS' ACTIVITY?



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BACKGROUND

Many of hospitalized patients require antibiotic therapy as a result of either community acquired or nosocomial infections. The consequence of an inappropriate antibiotics use carries the risk of undesirable side-effects and facilitates the selection of resistant bacteria. Therefore, it is important to prioritize targeted therapy and to encourage the switch therapy.

METHODS

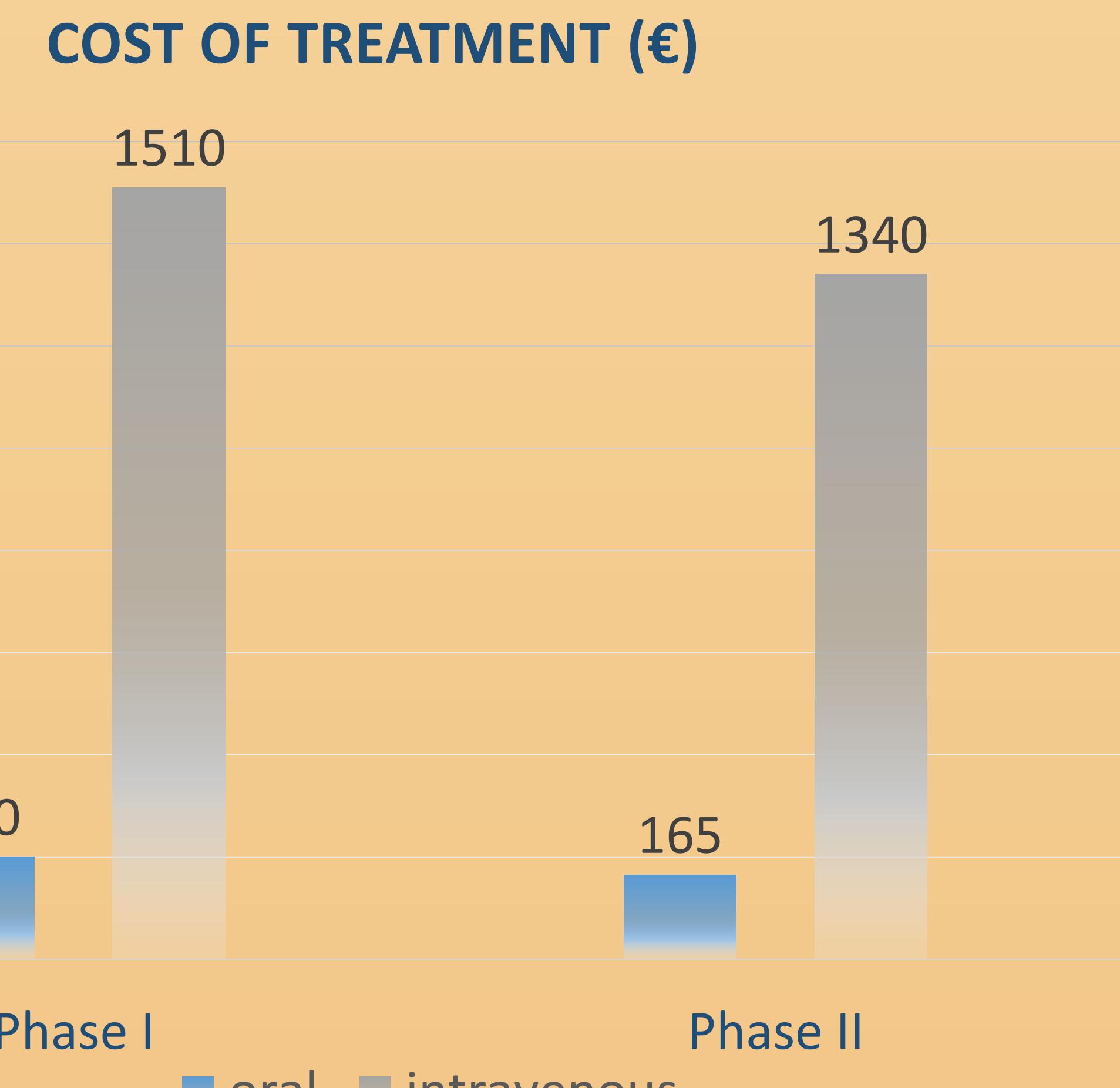
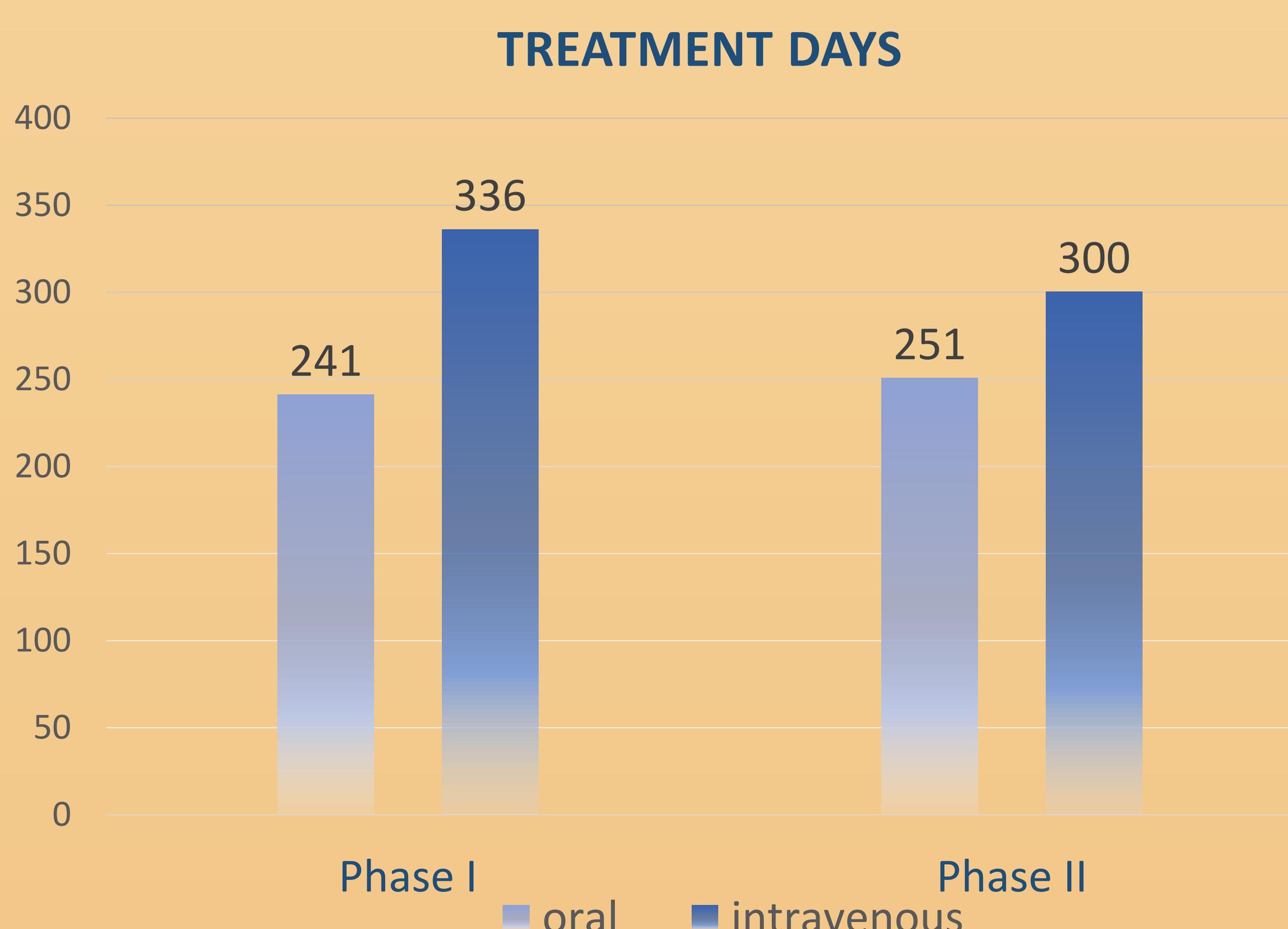
Our prospective study took place in two times 3 months-period in 2018-2019 based on patients' medical records. The medication of 50-50 randomized patients of all the patients receiving antibiotic therapy was analyzed. In the first phase of the study, the use of antibiotics was analyzed without the counseling of a pharmacist. In the second phase, all observations regarding the therapy were reported to the responsible physician. We compared the periods based on specific indicators such as therapy choice (empirical or aimed), duration of antibiotic therapy and costs.

RESULTS

The empirical therapy was the dominant in both phase (71% vs. 74%), the most frequently prescribed antibiotics were ceftriaxone, piperacillin/tazobactam, metronidazole, clarithromycin. The duration of intravenous treatment was reduced by 11% in the second phase, while oral therapy showed a small increase, as a result of the promotion of switch therapy. There was also a decrease in the total number of treatment days, consequently antibiotic treatment costs were reduced by 12%. In the second phase, we had suggestions in 38% of the patients regarding the modification of therapy. This represents 24 interventions of which 19 were fully or partially accepted. The rejections were explained by special instructions from the infectologist.

PURPOSE

We performed a pilot study aiming to monitor the nature of antibiotic prescribing on a ward with gastroenterology and endocrinology profile in the 1st Department of Internal Medicine at Semmelweis University. In addition, we would like to prove that the help of a clinical pharmacist in systematic review of therapies are important parts of patient-centered care.



	Phase I	Phase II
Patient number (after randomisation)	50	50
Therapy duration (iv)	336	300
Therapy duration (oral)	241	251
Therapy duration (total)	577	551
Therapy costs (iv)	1510	1340
Therapy costs (oral)	200	165
Therapy costs (total)	1710	1505

4,5 % decrease in total duration
12 % decrease in total costs

INTERVENTIONS	24
Accepted	10
Partially Accepted	9
Rejected	5

CONCLUSION

As a result of the monitoring, the appropriateness of antibiotic use has increased. This study also confirms that the presence and counseling of a ward pharmacist could be helpful regarding the rationalization of drug therapy.

