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# PHARMACEUTICAL INTERVENTION FOR THE OPTIMISATION OF THE USE OF ANTIBIOTICS IN A TERTIARY HOSPITAL

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## Background and importance:

One of the main factors that increases antibiotic pressure and contributes to the development of bacterial resistance is an increase in duration of antibiotic treatment. Strategies to reduce the duration of antibiotic treatment should be implemented when it is not necessary to continue.

## Aim and objectives:

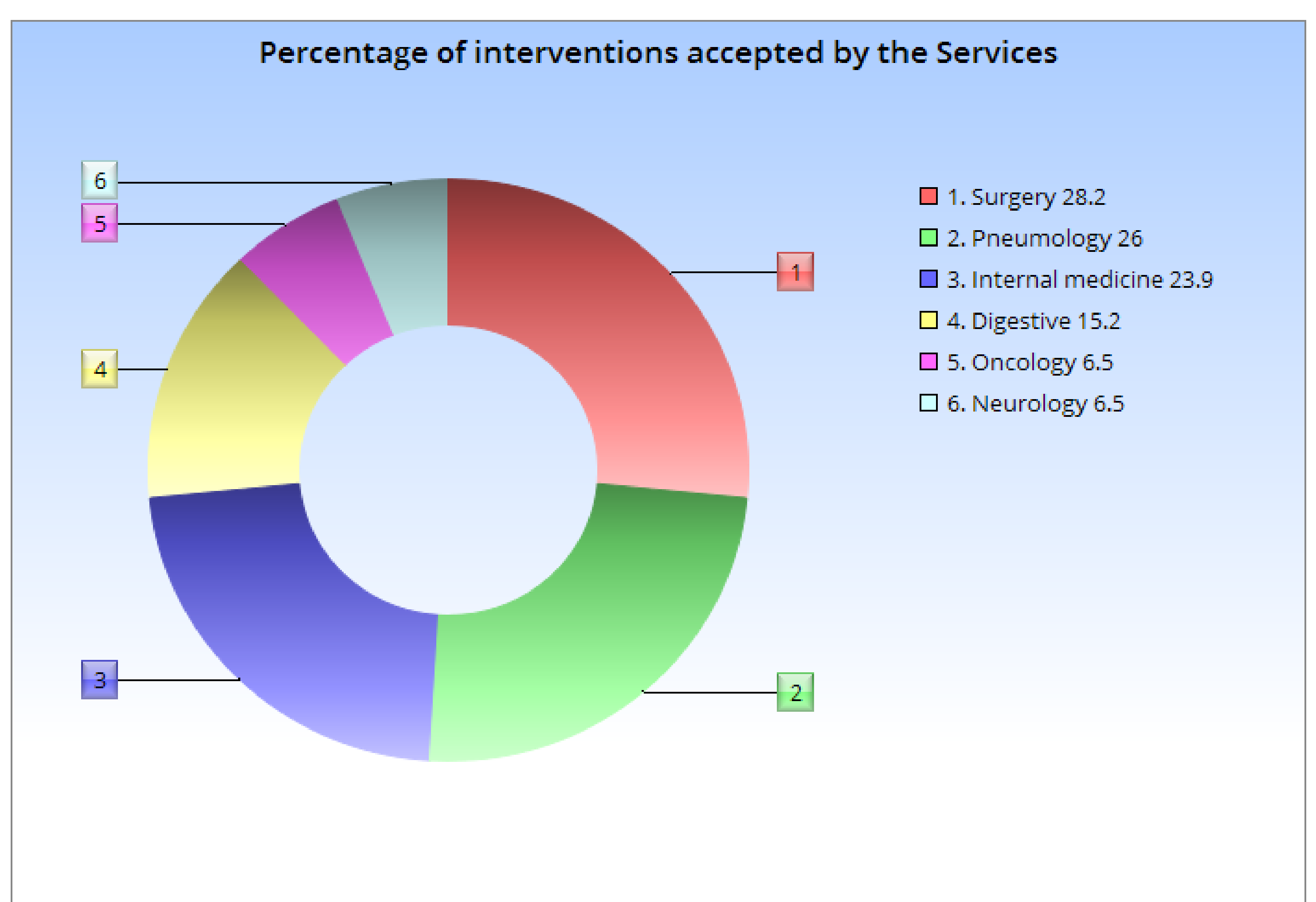
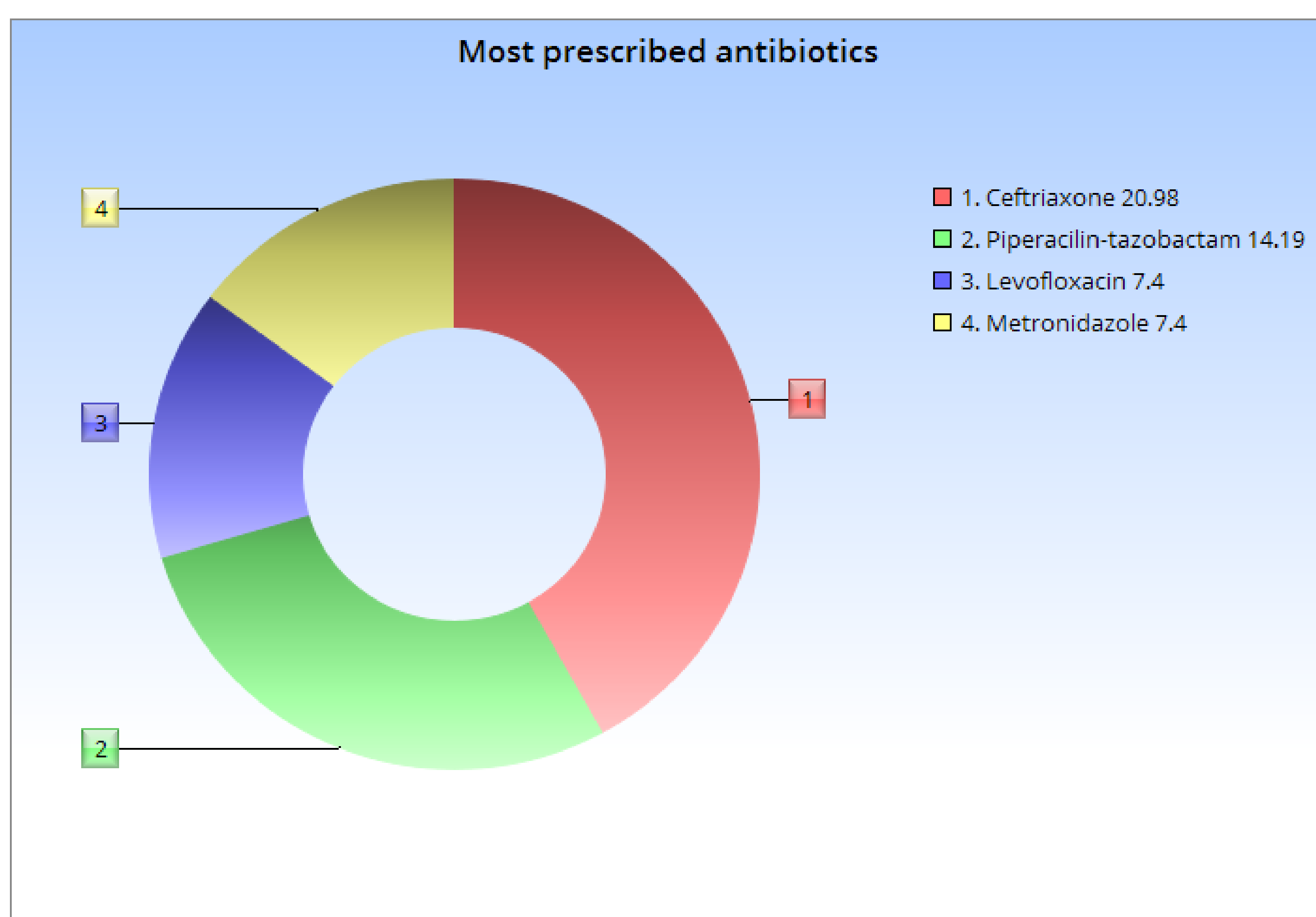
The aim of this study was to systematically review patients with antibiotic prescriptions with a duration of more than 10 days and to analyse the degree of acceptance of the interventions performed.

## Material and methods:

A prospective interventional study was conducted between February and April 2019. Twice a week, all patients receiving antibiotic treatment for >10 days were selected. These patients were analysed by two pharmacists. They checked if the patient needed to continue with antibiotic treatment. To assess the need for antibiotic treatment, they reviewed inflammatory markers (leucocytes and C reactive protein), microbiological cultures and clinical parameters, such as fever and blood pressure values. They also assessed if the patient's clinical situation had improved. The pharmacist intervention consisted of a message (with a recommendation to suspend treatment, through the electronic prescription programme) sent to the responsible physician, for those patients whose pharmacist considered that it was not necessary to continue antibiotic treatment.

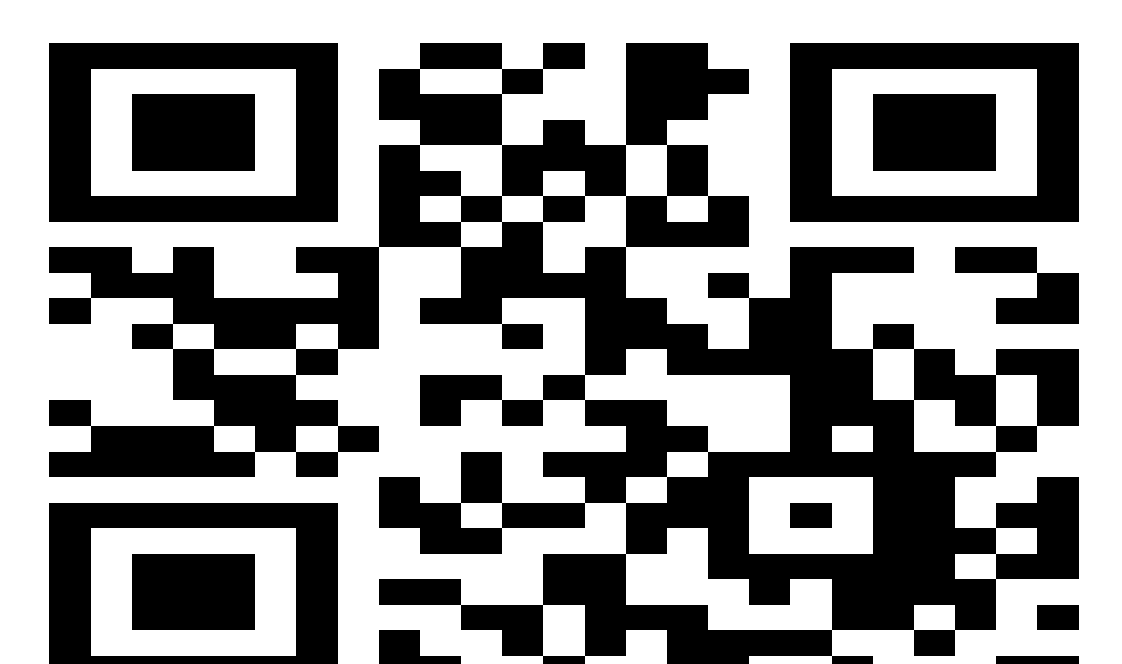
## Results:

A total of 162 patients were selected (55.1% men, median age 66 years). The intervention with a proposal for suspension of treatment was performed in 63 patients. The medical staff accepted 73% (46) of the interventions and 37% (17) were denied.



## Conclusion and relevance:

The review by the pharmacy service of antibiotic treatments longer than 10 days avoided longer durations than necessary, in addition to reducing antibiotic pressure. This is important to decrease adverse effects and prevent the development of bacterial resistance.



<https://www.eahp.eu/25-5PSQ-025>