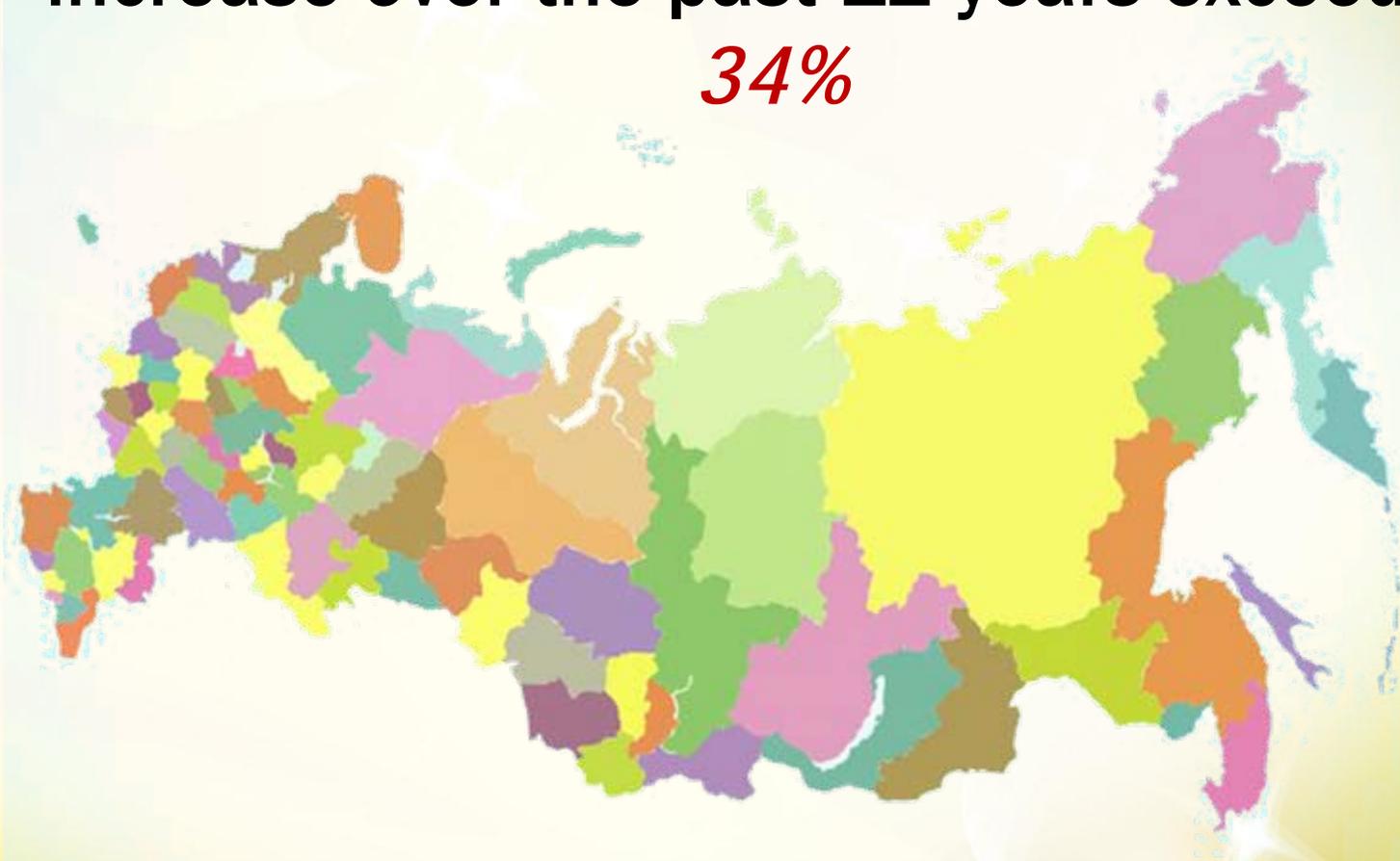


*Antibiotic resistance as a  
challenge to the global  
community:  
the view of a clinical  
pharmacologist*

Смолянинова Дарья Сергеевна

In the *Russian Federation* in 2017, the incidence of urolithiasis was more than 700 people per 100 000 population, and its increase over the past 12 years exceeded

**34%**



In the *Voronezh region*, relative to the incidence of urolithiasis, there is a steady increase in the level of general morbidity (about **500** cases per 100 000 population)



# The aim of the research is

- ✓ to assess the validity of the administration of antibacterial drugs in patients with acute urolithiasis

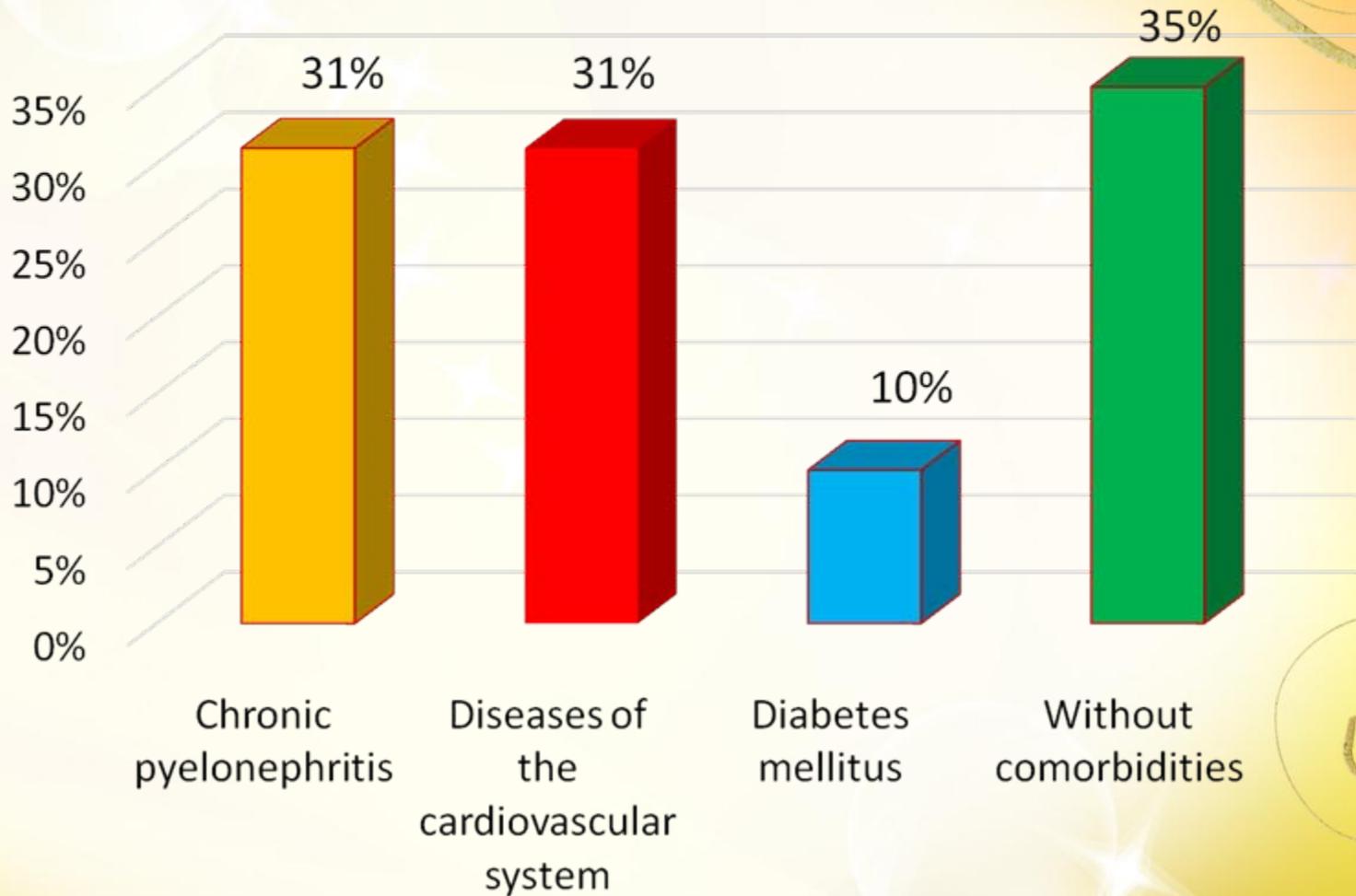


# Research materials and methods

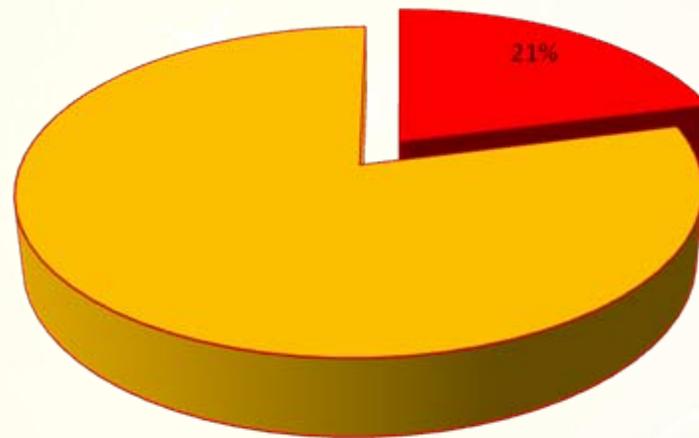
- ✓ retrospective analysis of **150** case histories of patients Hospitalized in the Urological Department of Voronezh Emergency Care City Clinical Hospital № 10 with a diagnosis of **urolithiasis** in **2019**



# Comorbidities in patients with urolithiasis

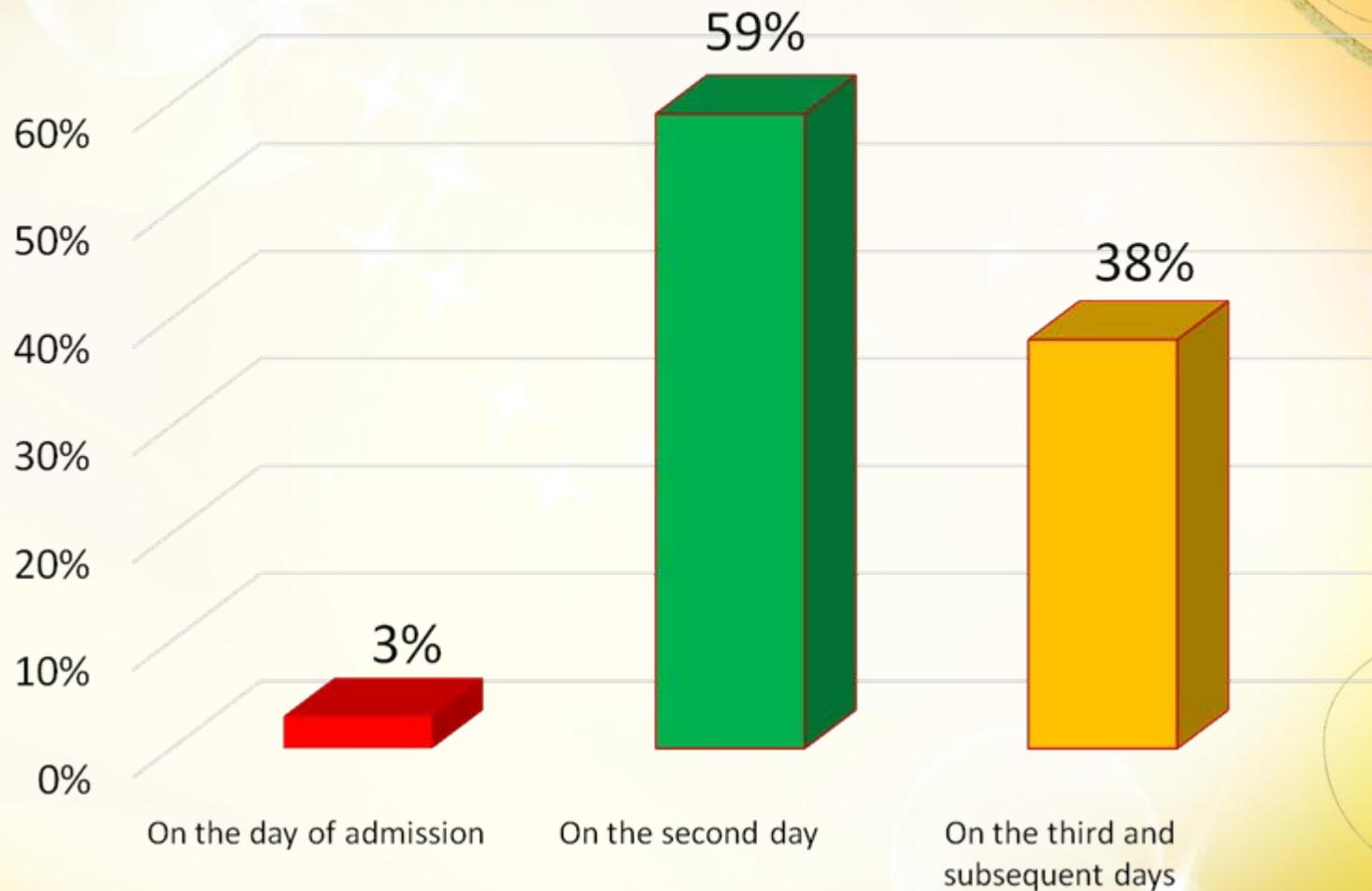


✓ *Before* taking *antibacterial drugs*,  
bacteriological urine culture was performed  
in *21%* of patients

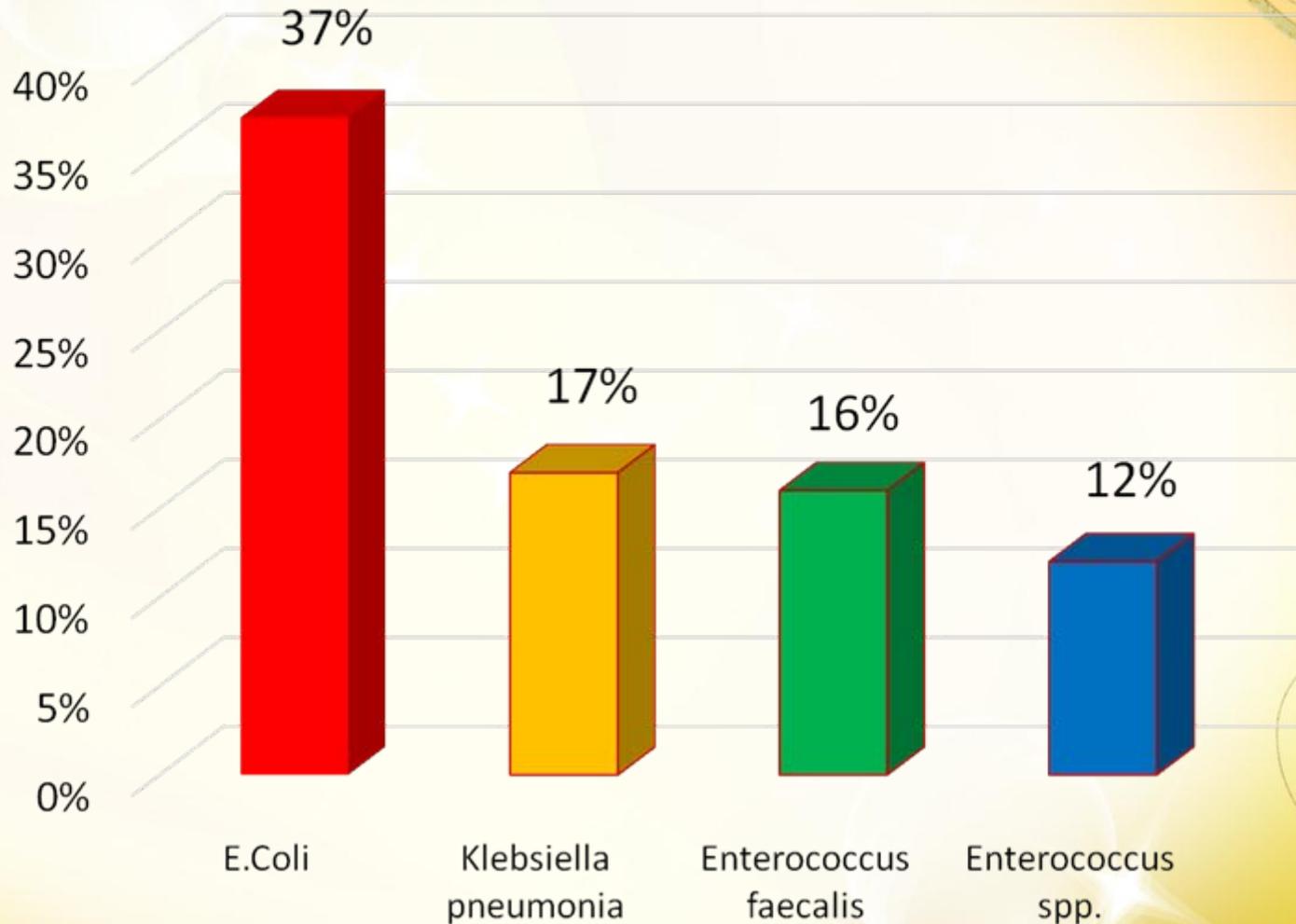


■ Before taking antibacterial drugs

# Timing of sampling of material for bacteriological examination of urine

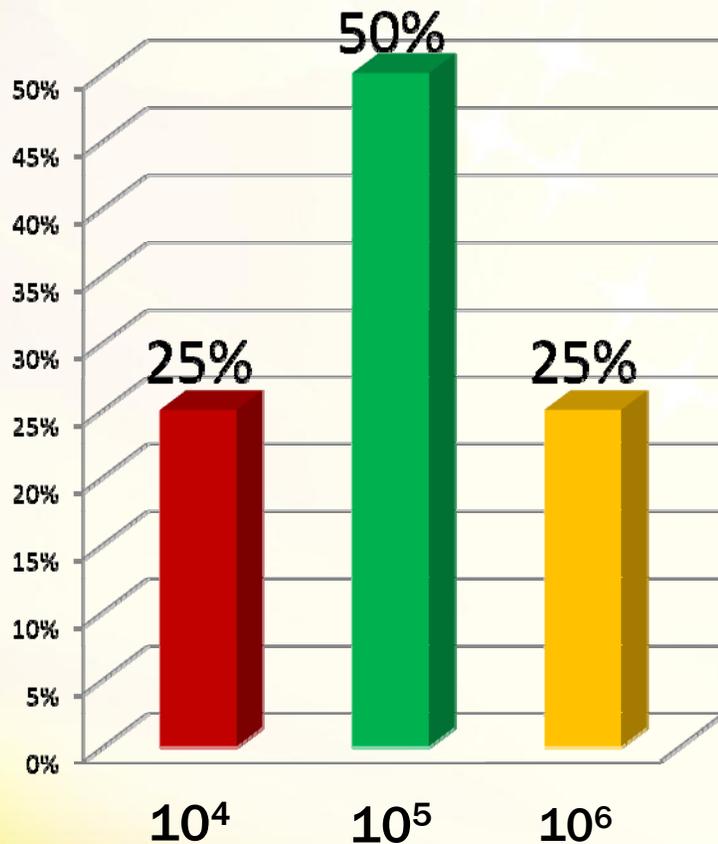


# The dominant microflora

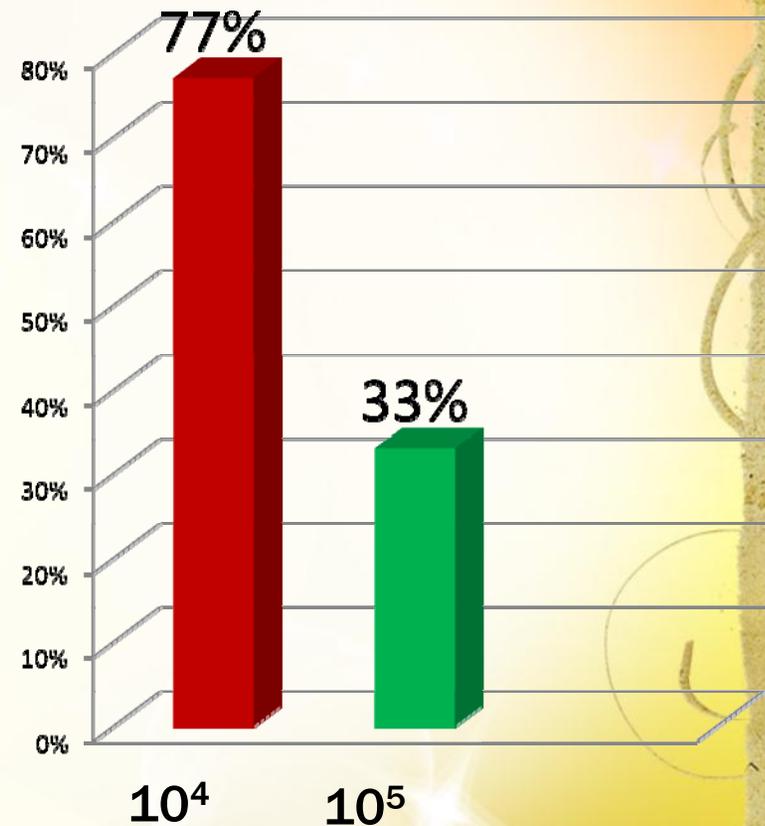


# *The number of inoculations*

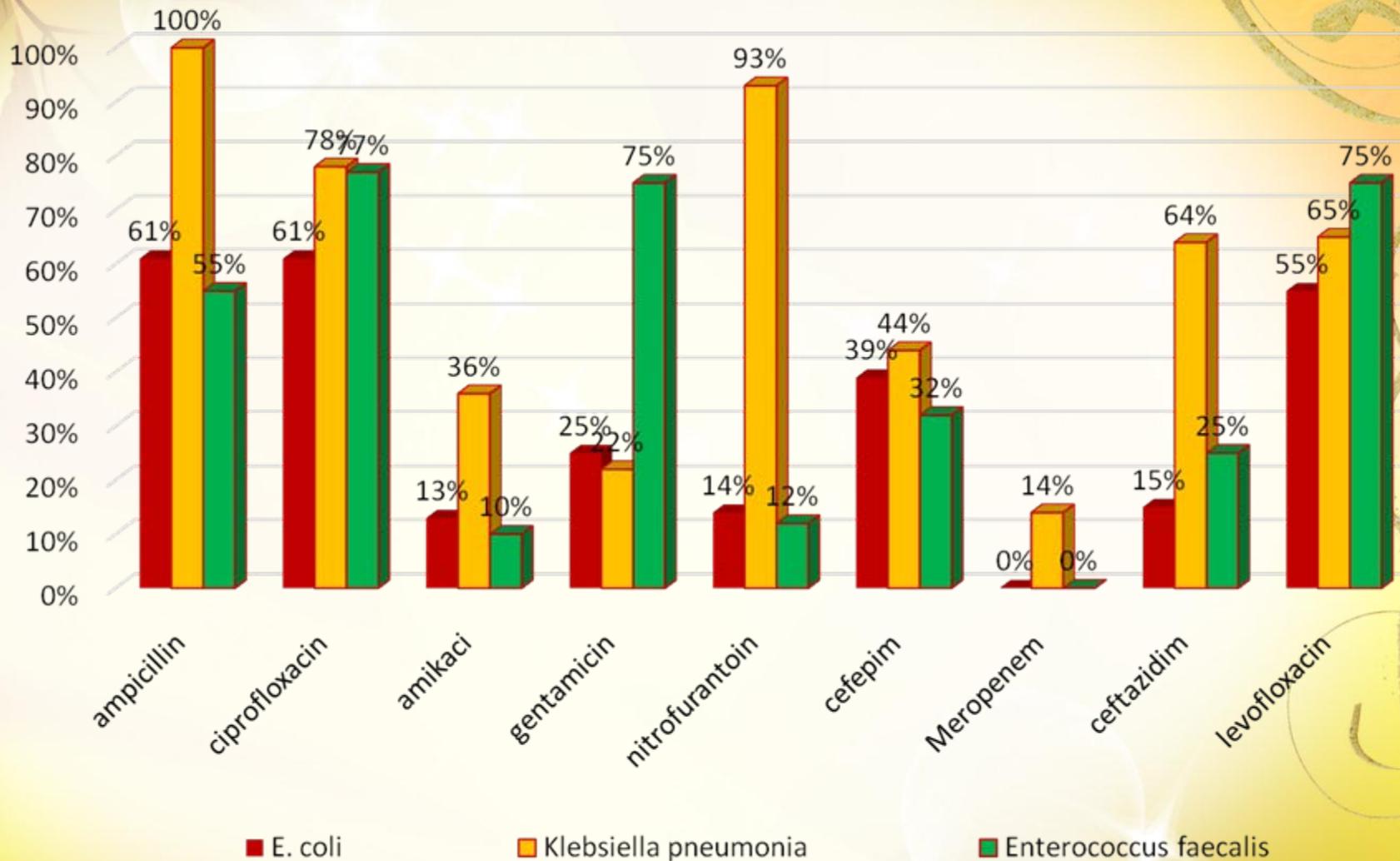
## **E.coli**



## **S.epidermidis**



# Antibiotic resistance



# 95% of patients received antibiotic therapy



*Ceftriaxone* - 86%

*Ciprofloxacin* - 9%



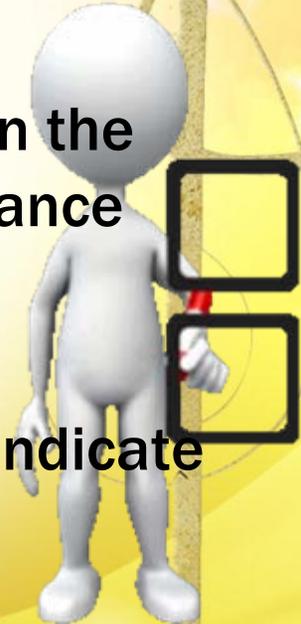
# The General blood test and the General urine test

- ✓ **29%** of patients had no signs of an inflammatory reaction (white blood cell counts within the normal range)
- ✓ Of these patients, **81%** received antibacter



# Conclusions:

- 1. In most cases, the initial antibacterial therapy is prescribed before the bacteriological study of the resistance of microorganisms**
- 2. The test material is taken on the second, third and subsequent days of hospitalization, that is, after the use of antimicrobial drugs, which leads to a decrease in the reliability of this result.**
- 3. When prescribing antibiotic therapy, the local data on the structure of pathogens and the level of antibiotic resistance are not taken into account.**
- 4. No attention is paid to the indicators of the systemic inflammatory response, which, being within the norm, indicate the need to avoid the appointment of antibiotics.**



A large, classical-style building with a portico and columns, surrounded by trees and a paved area. The building is yellow with white columns and a pediment. The scene is outdoors with a blue sky and some clouds. The foreground is a paved area with some trees and a fence.

*Thank you for your  
attention!*