

Urinary tract infections - local uropathogens and patterns of antibiotic resistance

INT - 012

Gordana Ljubojević, Milan Mastikosa

Institute for Physical Medicine and Rehabilitation „Dr Miroslav Zotović“, Pharmacy department
Banjaluka, Bosnia and Herzegovina



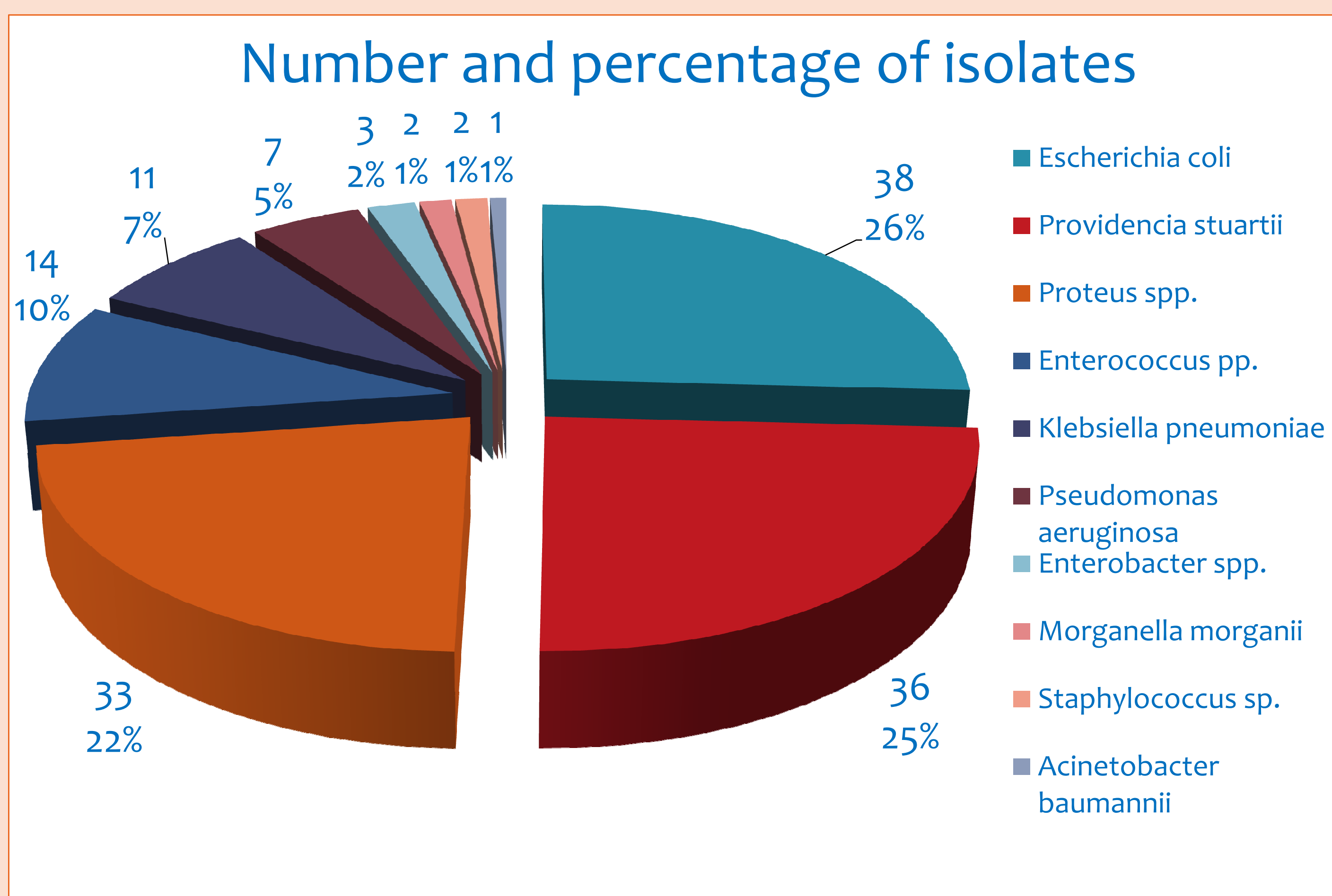
Objectives

The aim of the study was to assess the resistance of uropathogens to the antibiotics in the Institute for Physical Medicine and Rehabilitation “Dr Miroslav Zotović” Banjaluka. The main outcome measure was the prevalence of bacterial resistance to analysed antibiotics.

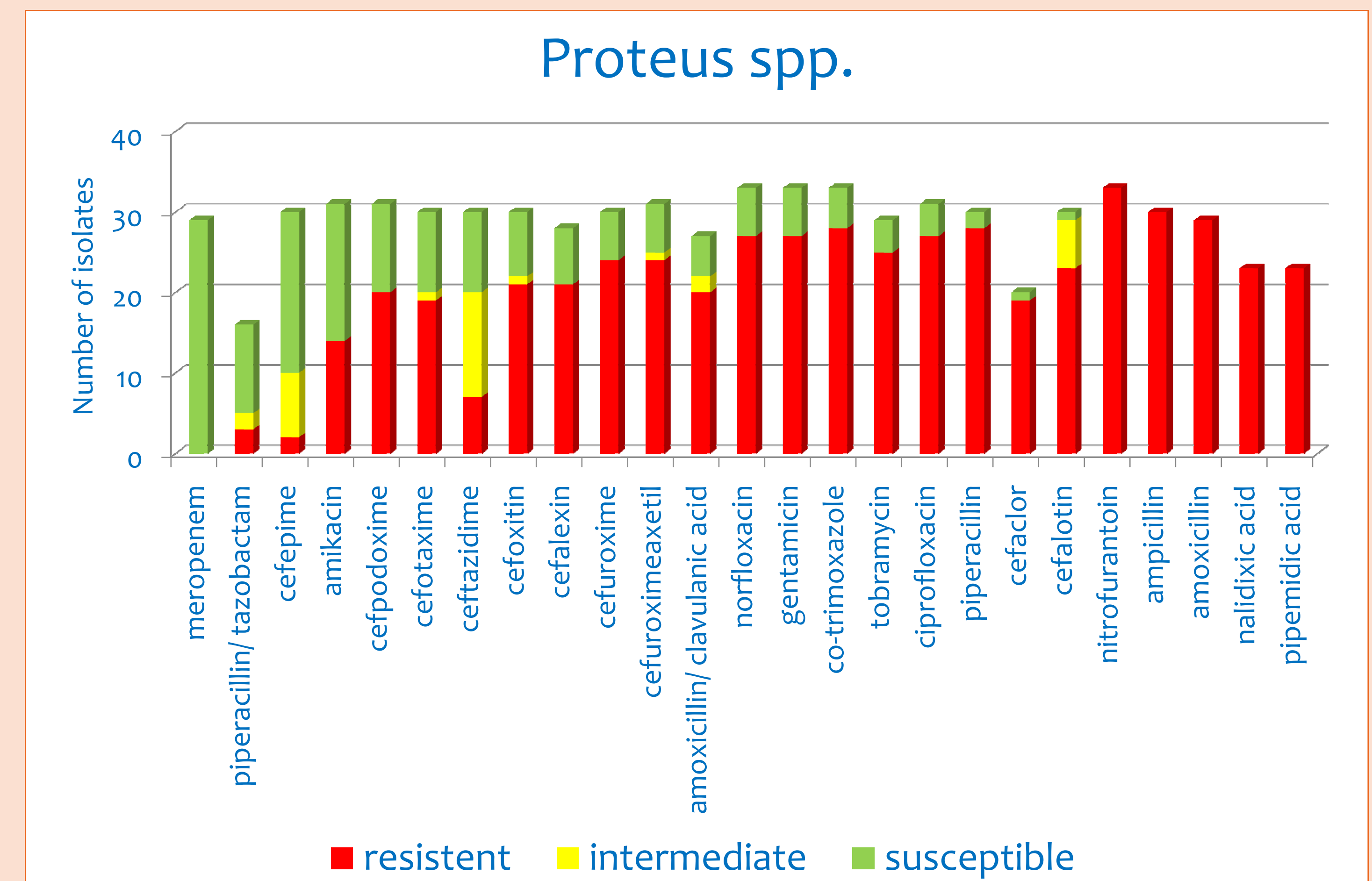
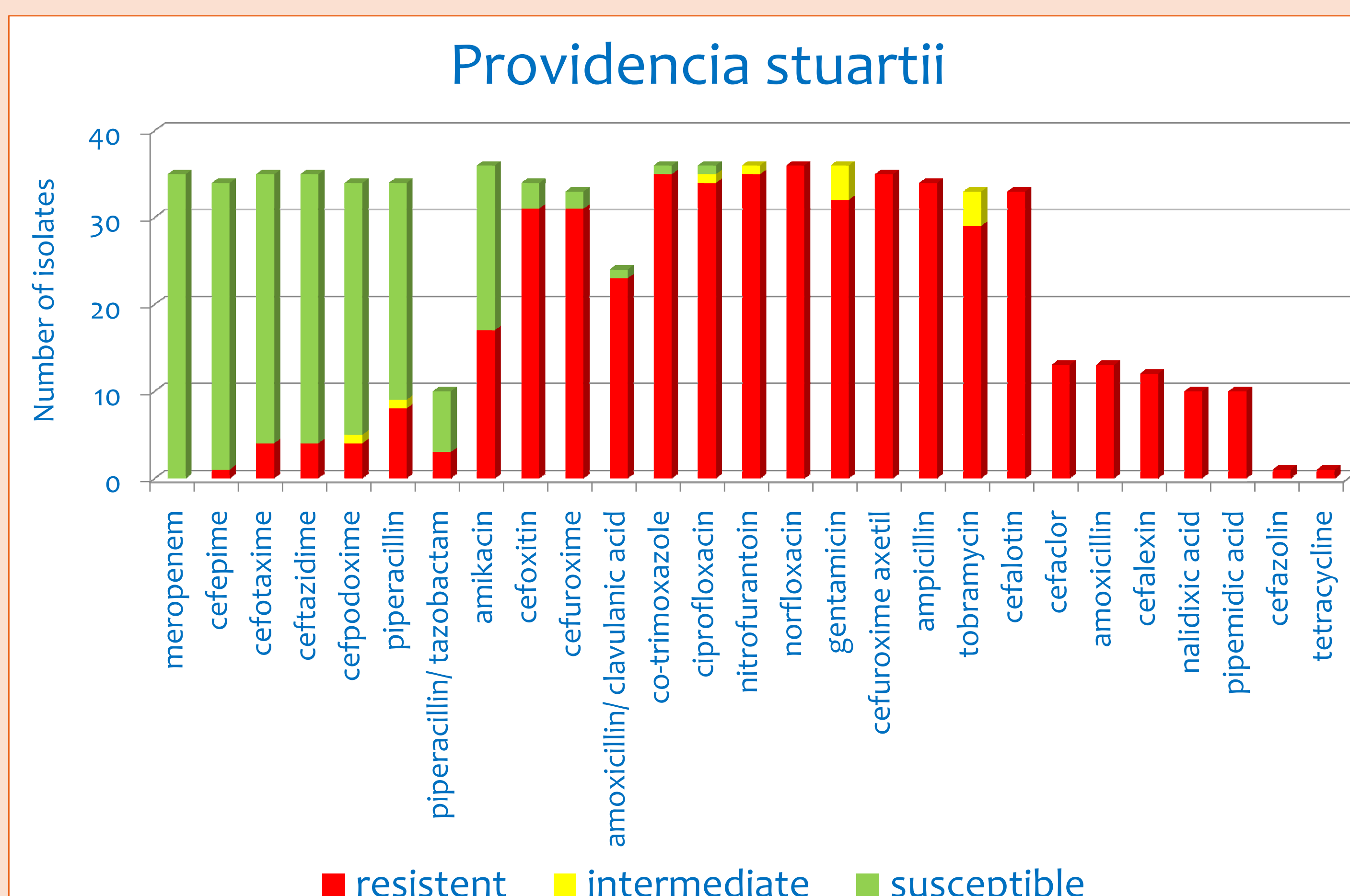
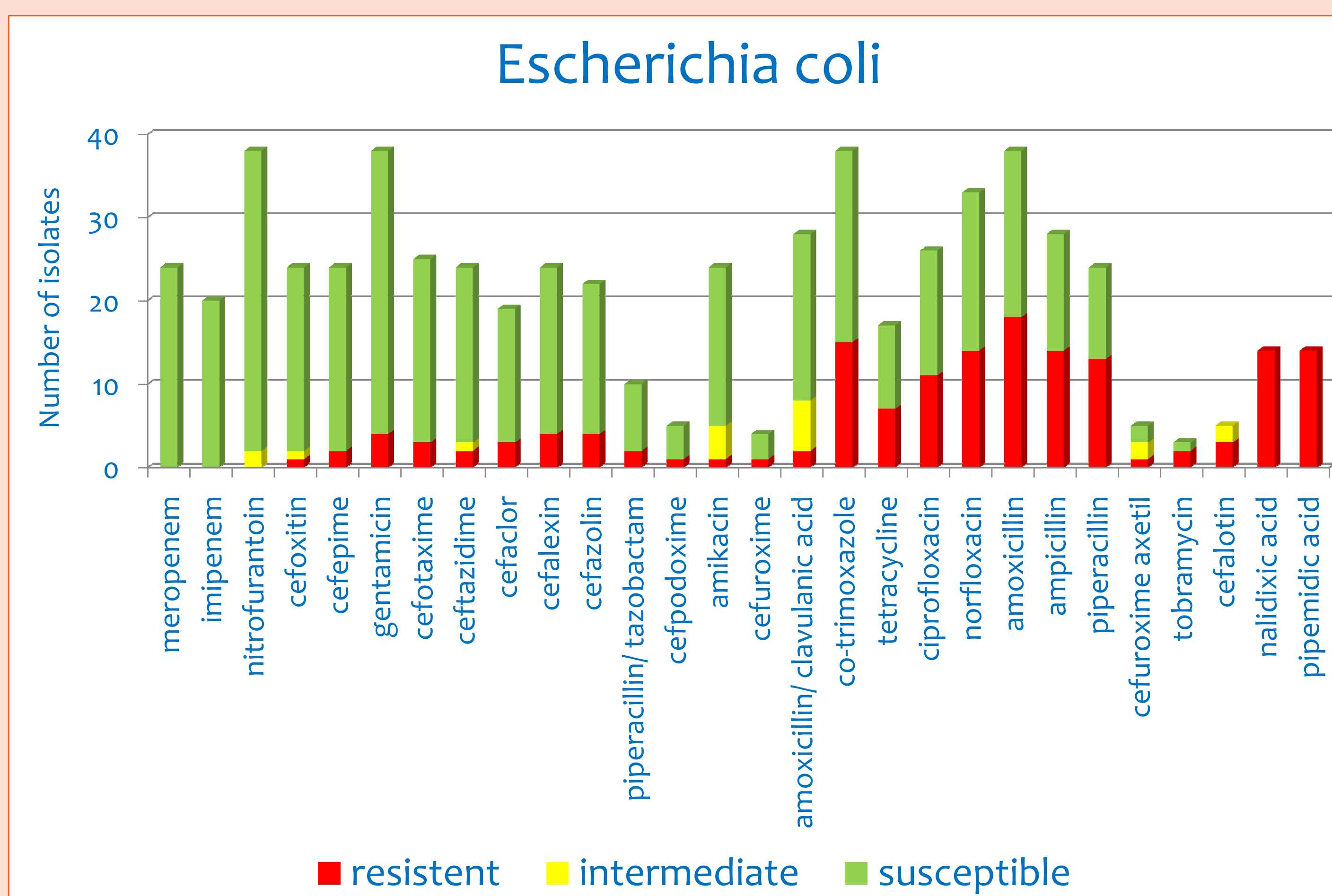
Methods

Retrospective analysis of antibiograms for the period February 2011-June 2012. Total of 147 bacterial isolates were found in 129 positive urine samples.

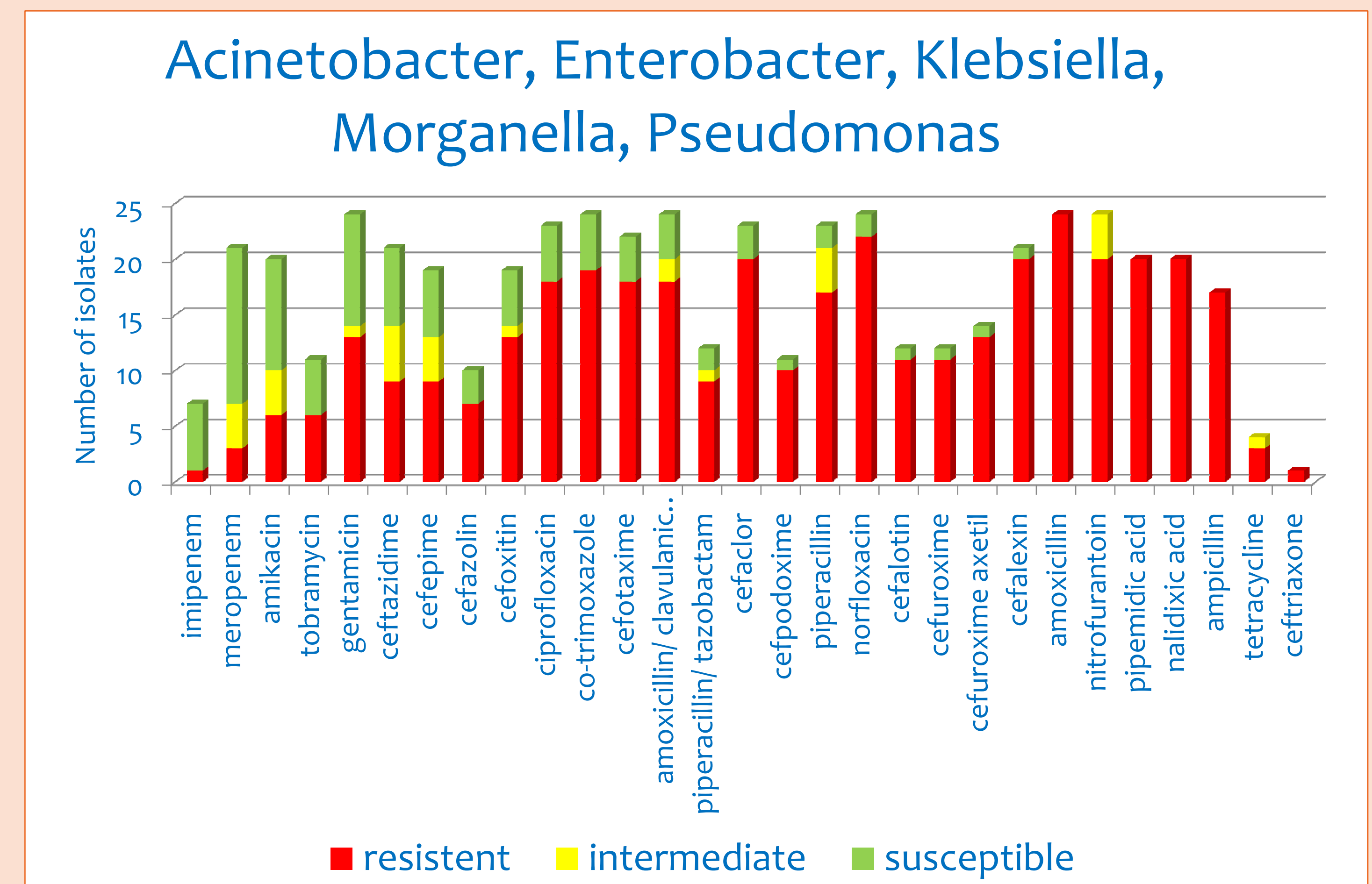
Results



Almost 73% of infections were caused by *Escherichia coli*, *Providencia stuartii* and *Proteus spp.*



Resistance to meropenem has been observed at *Acinetobacter baumannii*, *Enterobacter spp.* and *Pseudomonas aeruginosa*. Together with *Morganella morganii* and *Klebsiella pneumoniae*, these species are found to be highly resistant.



Discussion and conclusion

This analysis has shown a high resistance of microbial strains to many antibacterials. There are significant differences among departments.

Rod	Neurological rehabilitation block A	Neurological rehabilitation block B	Rehabilitation of children	Other departments	Total
<i>Acinetobacter baumannii</i>	1				1
<i>Enterobacter spp.</i>	1	1		1	3
<i>Enterococcus spp.</i>	7	5	2		14
<i>Escherichia coli</i>	12	13	7	6	38
<i>Klebsiella pneumoniae</i>	4	4	2	1	11
<i>Morganella morganii</i>	2				2
<i>Proteus spp.</i>	24	6	2	1	33
<i>Providencia stuartii</i>	35		1		36
<i>Pseudomonas aeruginosa</i>	6		1		7
<i>Staphylococcus spp.</i>	2				2
Total	94	29	15	9	147

Providencia and *Proteus* are dominant pathogens in department for neurological rehabilitation - block 1 where almost all patients are bedridden and catheterized. They are multiresistant - susceptible only to carbapenems and in certain percentage to ureidopenicillins, G3 and G4 cephalosporins. Resistance rate is very high for fluoroquinolones and aminoglycosides. *Escherichia* is dominant in other departments. Most isolates were susceptible to many antibacterials, including nitrofurantoin and cefalexin.

Knowing local uropathogens and their patterns of resistance is essential for the correct choice of antimicrobial drug and developing local guidelines for antibiotic prophylaxis and treatment of UTI. These actions would reduce the number of multiresistant bacteria.

Contacts:
Gordana Ljubojević email: gocalj@hotmail.com
Milan Mastikosa email: mmastikosa@gmail.com