

Background/ Objectives

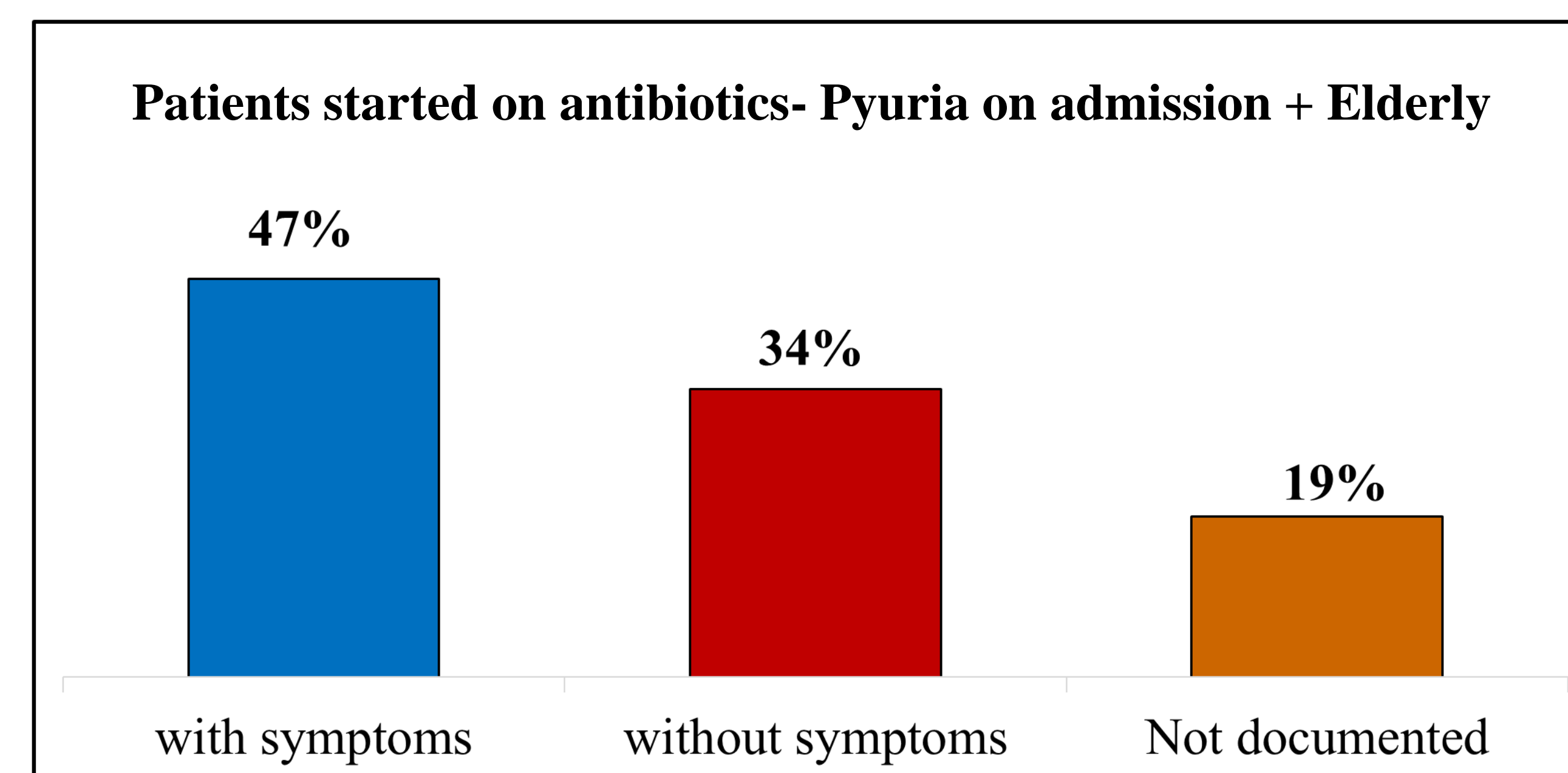
- ❑ Asymptomatic bacteriuria is often misdiagnosed as Urinary Tract Infection (UTI) in elderly patients.
- ❑ Studies suggest that 15-30% of males and 25-50% of females have asymptomatic bacteriuria.
- ❑ We wanted to estimate the percentage of elderly patients who are treated for UTI at our facility and if treatment was appropriate.
- ❑ The goal was to provide the staff with an educational opportunity and help decide if more antibiotic restriction policies would be beneficial.

Methodology

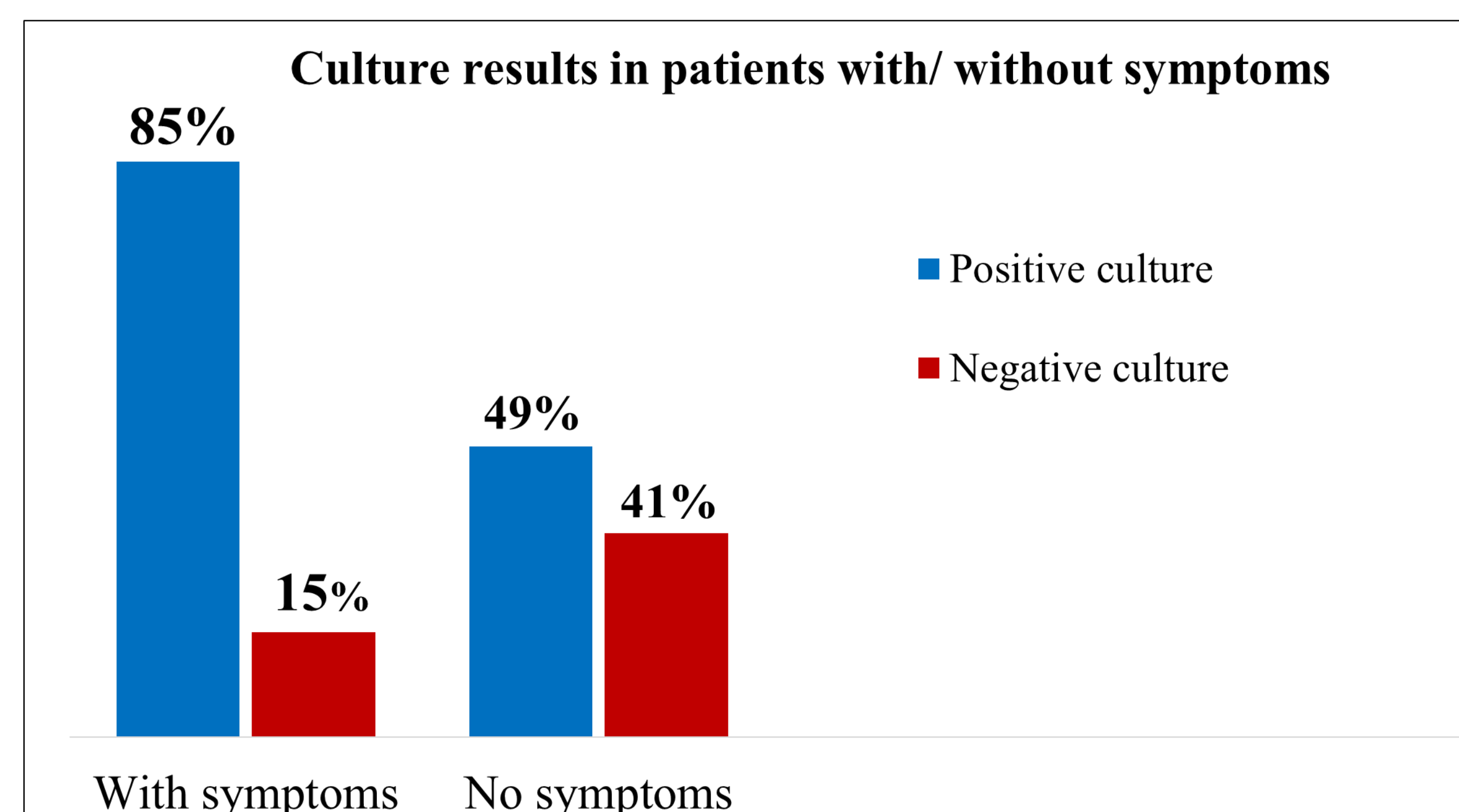
- ❑ Retrospective study, single center study
- ❑ Inclusion criteria:
 - patients > 65 years of age
 - Admitted between 7/2018 and 12/2018
 - started on antibiotics for presumed UTI
- ❑ Reviewed data includes:
 - Demographics
 - Admitting diagnosis
 - Presence or absence of symptoms of UTI
 - Urine culture results
- ❑ The data was presented at educational conferences and at antimicrobial stewardship meetings in our facility.

Results

- ❑ 234 patients were started on antibiotics on the basis of pyuria on admission. Of these, only 47% (n=110/234) had symptoms suggestive of UTI. (Figure 1)

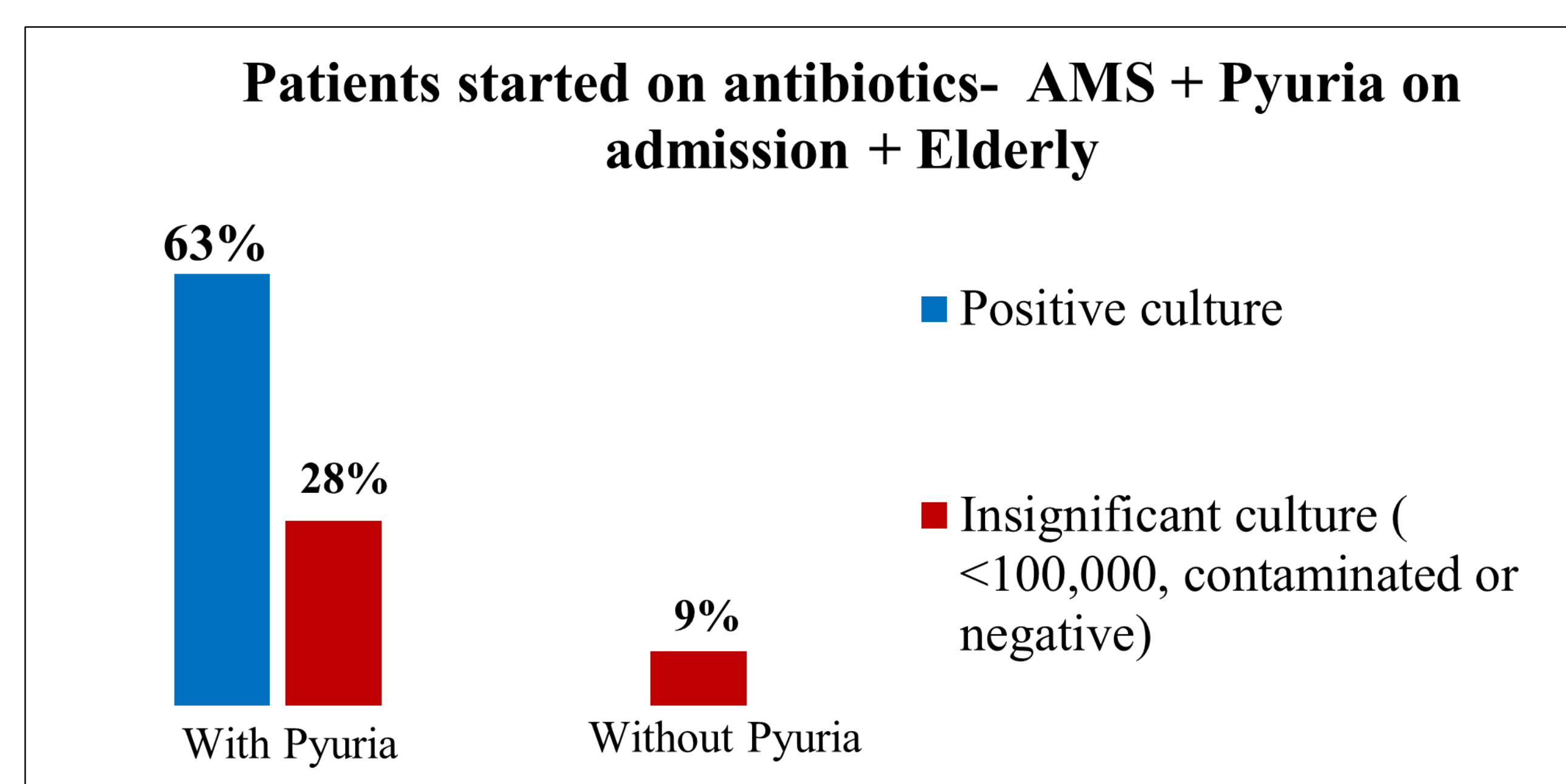


- ❑ Positive urine cultures were more common in symptomatic patients (n=93/110; 85%) compared with asymptomatic patients (n=47/80). (Figure 2)



- Pyuria (n=168): 61.9% (positive culture), 38.1% (negative).
- Fever and Pyuria (n=51): 60.7% (positive culture), 39.3% (negative culture).
- Leukocytosis >10K (n=159): 70.4% (positive culture), 29.6% (negative culture)
- 2 or more symptoms of UTI (n=12): 83.3% (positive culture), 16.7 % (negative culture)

- ❑ In addition, 90 patients (n=90/110; 81%) had a change in mental status on presentation and were started on antibiotics for suspected UTI. Approximately one third (n= 27/90) of these patients had eventual negative urine culture. (Figure 3)



Conclusions

- ❑ Diagnosing UTI in elderly patients with pyuria and asymptomatic bacteriuria is challenging, due to their inability to vocalize signs or symptoms of UTI.
- ❑ In addition, a percentage of asymptomatic patients were often started on antibiotics inappropriately on the basis of pyuria alone.
- ❑ Studies have shown that treating asymptomatic bacteriuria does not add a mortality benefit or lower risk of infection
- ❑ The CDC emphasizes the importance of assessing for clinical symptoms of UTI before treatment is considered.
- ❑ Our study highlights the importance of provider education.
- ❑ Antibiotic restriction policies may limit use of antibiotics for asymptomatic bacteriuria.
- ❑ This would in turn improve patient outcomes and decrease incidence of clostridium difficile associated colitis and other antibiotic use related complications

References

- ❑ <https://www.cdc.gov/nhsn/pdfs/tc/tcf-uti-protocol-current.pdf>
- ❑ Infectious Diseases Society of America Guidelines for the Diagnosis and Treatment of Asymptomatic Bacteriuria in Adults. Clinical Infectious Diseases, Volume 40, Issue 5, 1 March 2005, Pages 643-654