



Title- Prevalence, Clinico-bacteriological profile of symptomatic Urinary Tract Infections in pregnant women

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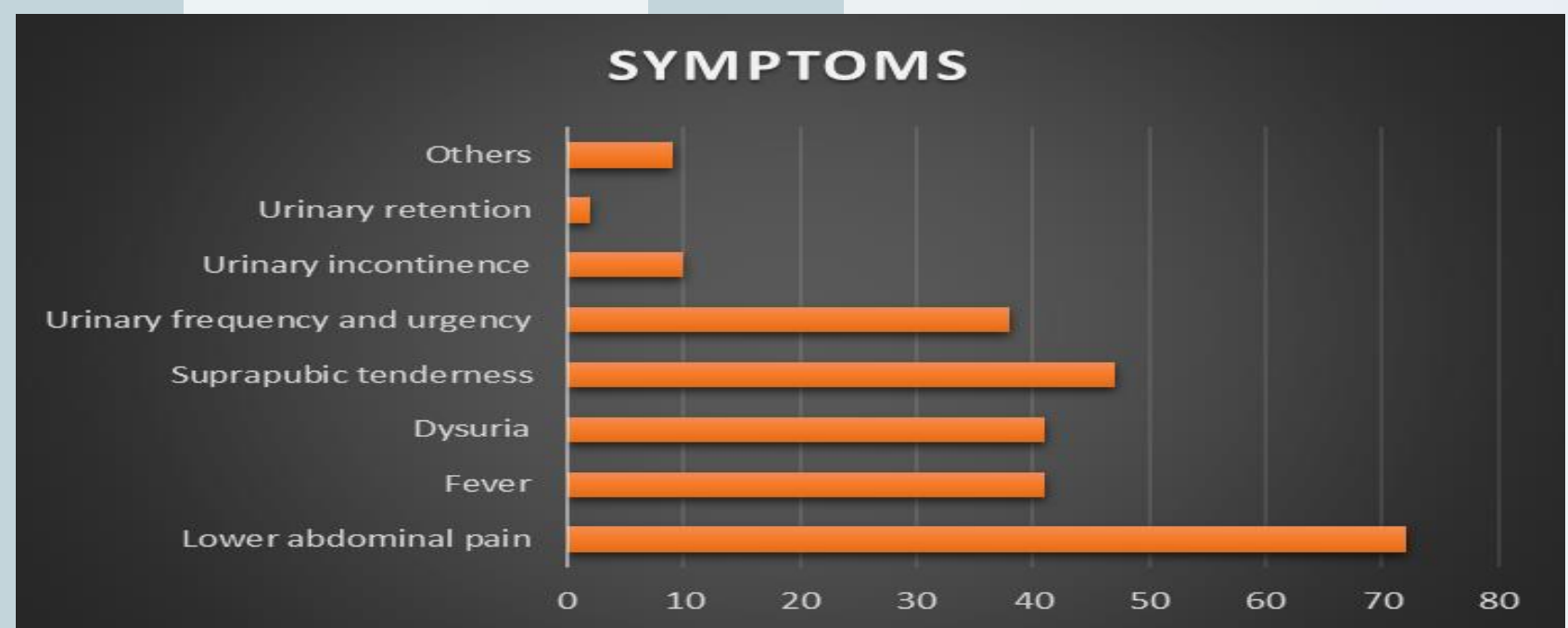
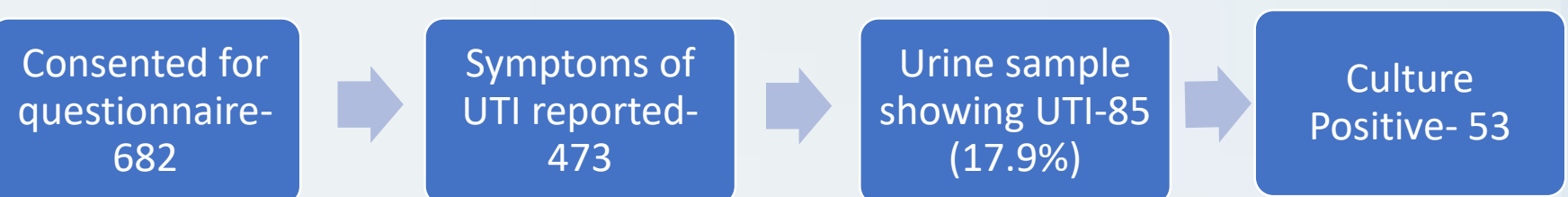
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Introduction

UTI is a common cause of hospital admission and complications in pregnancy. Prevalence varies between countries. Identifying the local prevalence, bacteriological profile and risk factors are of paramount importance for implementing and reinforcing judicious antibiotic usage policy and prevention of complications.

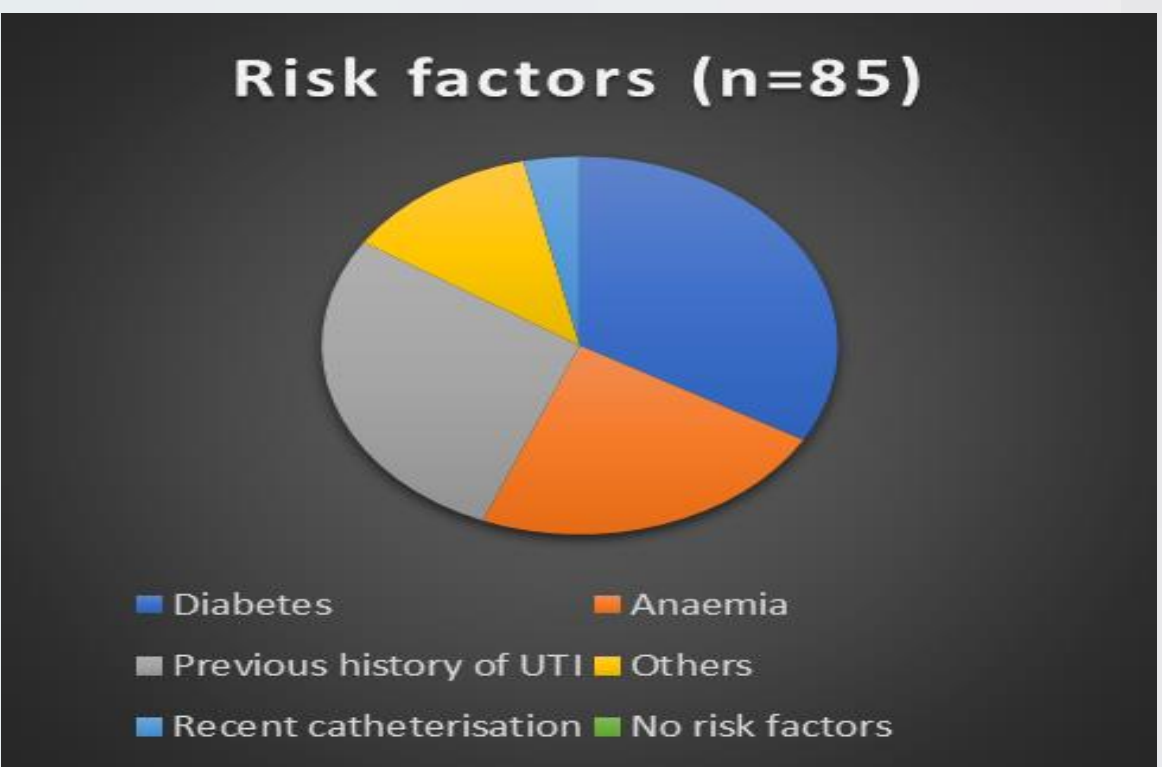
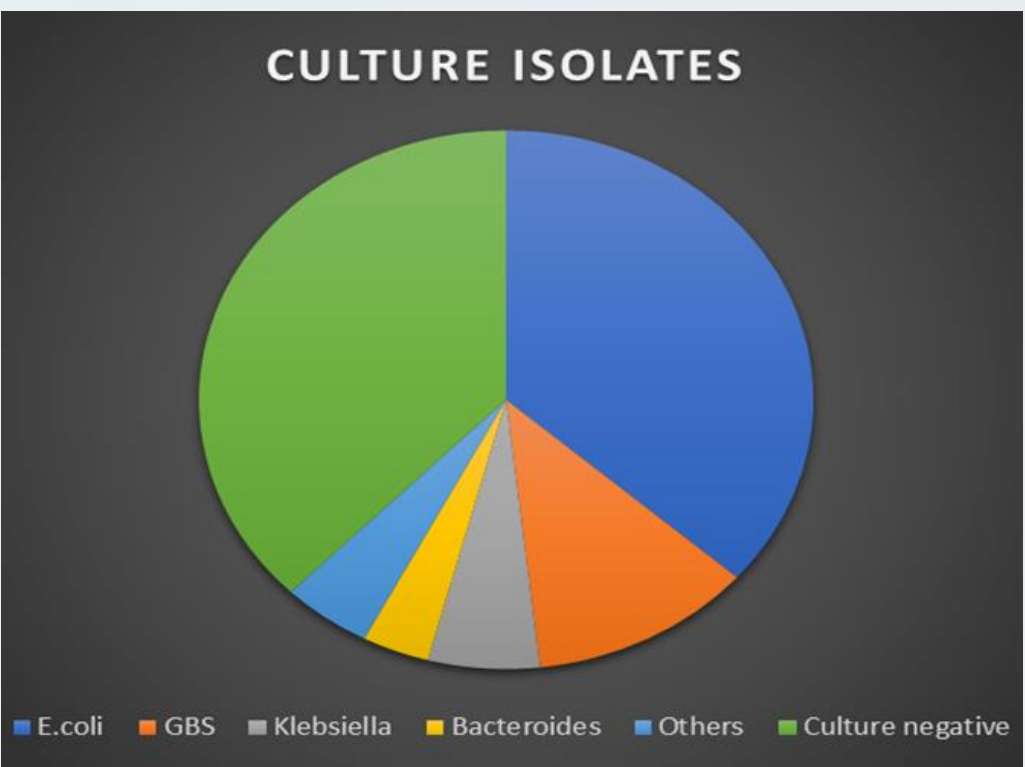
Objectives

- To estimate the prevalence of Symptomatic UTI in pregnancy in a secondary care hospital in Ras Al Khaimah, UAE.
- To study the Clinico-bacteriological profile and pregnancy outcome in women with UTI in pregnancy.
- To study the Antibiotic susceptibility of organisms causing UTI
- To analyze the risk factors in woman with symptomatic UTI in pregnancy



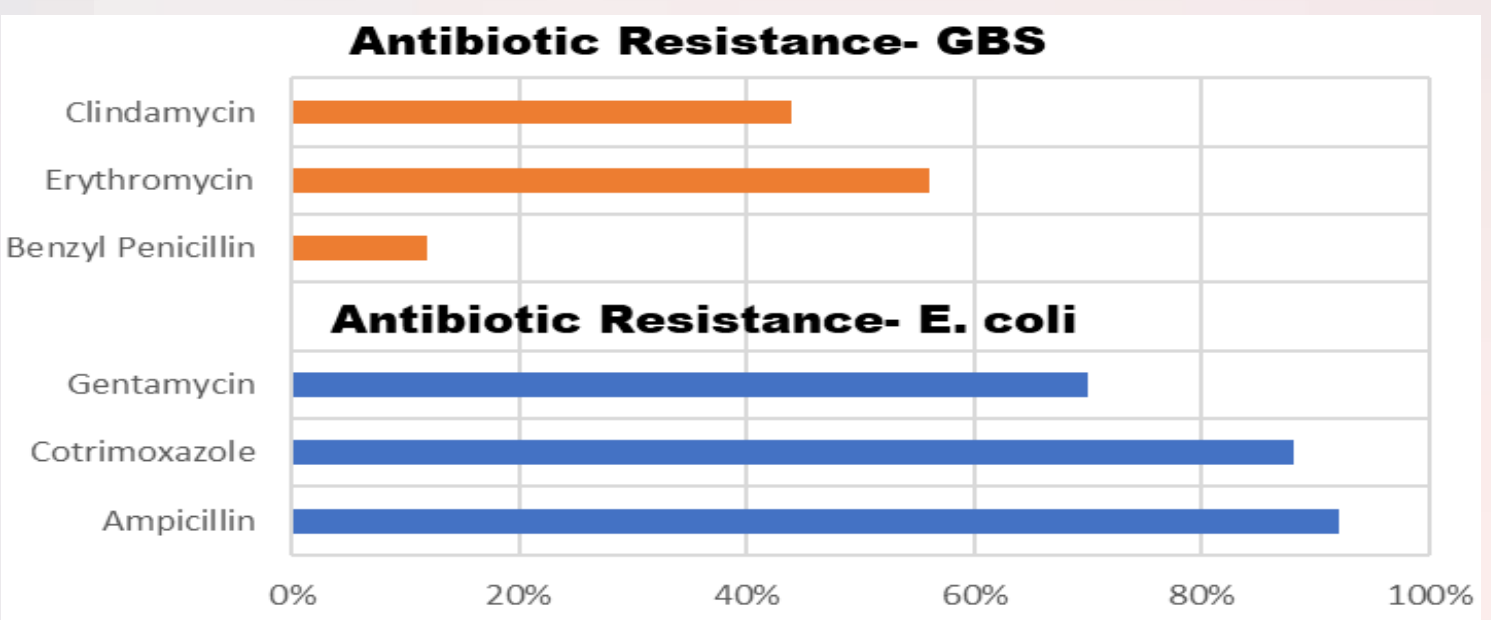
Materials & Methods

- Ethical approval-** Ministry of Health research and ethics committee at RAK.
- Site-** Abdullah Bin Omran Hospital, RAK, UAE
- Study period and sample-** All pregnant women attending the antenatal clinic between 1st January 2019 till 31st December 2019.
- Calculated sample size-** 341. Included 682.
- Consent-** Written consent obtained.
- Tool-** validated questionnaire for symptoms of UTI[1] - Data collection sheet to record epidemiological details, pregnancy details, risk factors, pregnancy outcomes, organism isolated and antibiogram.
- Method-** Instruction for sample collection given. -Midstream clean catch urine was sent for microscopy, culture and sensitivity profile. -Culture done in CLED agar, and antibacterial susceptibility of isolates tested by automated susceptibility testing using Vitek 2 AST 03 card (BioMérieux, Inc., Durham, NC) according to Clinical Laboratory Standard Institute (CLSI, 2017).
- Follow up- Women were treated for UTI and were followed up to record the pregnancy outcome.
- Data analysis- Done using SPSS software version 24. Descriptive statistics and comparisons used with a p-value < 0.05 being considered statistically significant.



Results

- The prevalence of symptomatic UTI -17.9%.
- Most common organism isolated- E.coli (27%) overall
- Most common organism among women needing in patient care- Group B streptococcus (GBS) (34%)
- Other organisms- Citrobacter, Pseudomonas, Garderenella and Enterobacter cloacae (1 case each)
- Most common symptoms-loin pain(85%), dysuria(48%), and fever(48%).
- Risk factors- Most common-Diabetes(23%), followed by previous history of UTI (19%), and anemia (15%).
- Commonest antibiotics used successfully-Cefuroxime and Benzyl Penicillin.
- Both ESBL producing organisms (E.coli and Klebsiella-1each) - successfully treated with Meropenem and Nitrofurantoin.
- Indication for hospitalization- Suspected preterm labor or pyelonephritis (n=52).
- Most cases were detected in second trimester, When compared with 1st and 3rd trimester, the difference not statistically significant (p>0.5 for both).
- Preterm labor was more common in women with culture positive UTI [not significant(p=0.071)] and in women over 30 years of age with UTI [significant(p=0.03)].
- Early pregnancy loss- seen in 6 women(7%).
- No increased risk of operative delivery in women with or without UTI.
- No cases of neonatal sepsis were found.



Discussion and Conclusions

- UTI is a common infection in pregnant women in UAE. The prevalence is higher in our study, which may be due to inclusion only of symptomatic women[2,3].
- The most common pathogen is E.coli but prevalence of GBS is higher compared to other studies[2-4].
- Antimicrobial resistance of E.coli and GBS was lower in this study compared to other countries [2-4].
- Most common risk factor was previous UTI in other studies, contrary to our findings [2-5].
- This study did not include cases with asymptomatic bacteriuria. No risk factors were present in about a third of the cases.
- Regular antenatal care and routine urine testing in all visits is recommended for early detection and treatment to prevent complications.

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