ICON Journal of Applied Medical Sciences
Volume 02 | Issue 01 | 2026
e-ISSN: 3117-5635
p-ISSN: 3117-5627
Journal homepage: https://iconpublishers.com/icon-j-app-med-sci/

Research Article

DOI: 10.5281/zenodo.18537251

Asymptomatic UTI in Pregnant Women and Antibiotic Treatments

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Received Date: 12 Dec. 2025

Published Date: 31 Jan. 2026

Abstract

Urinary tract infections UTI containing asymptomatic bacteriuria (ASB), exemplify an important clinical valiant through pregnancy, pretense menaces to together mothers and, fetus. Physiological variations rise predisposition. Culturing of urine leftovers diagnostic importants typical, communal clinic appearances involved perseverance, Lower abdominal, Pelvic pain, Dysuria, Fever, and Hematuria, culturing of urine was main diagnosing means used. Escherichia coli is them more dominant Gram-negative isolated bacteria, shadowed Enterococcus faecalis, Pseudomonas aerogenosa, Staphylococcus epidermids is communal Gram-positive isolated bacteria, pH of urine wide-ranging, through Gram-positive infection interrelated with extra basic pH urine. Clinical manifestations of UTIs happening during pregnancy are dependable through latest researches. Gram negative bacterium, generally *Escherichia. coli* dominated. Culturing of urine remainders keystone of finding with pH range of urine possibly payment adjunctived analytic evidence.

Keywords: UTI, ASB, antibiotic sensitivity.

Introduction

Pregnant period the situation is most main menace aspect in UTIs. From 6 to 10% of pregnant have progress a Low Urinary Tract infection during pregnancy and the 10% of pregnancy hospitalizations are caused by UTI infections. Unrefined ASB bacteriuria is a danger cause for pyelonephritis and low weight at birth, preterm delivery. There are many physiological vagaries that happen during pregnancy and rises the risk of presenting UTI, ureteral dilatation secondary to the act of progesterone and uterine compression, vesicoureteral reflux, bladder stasis, enlarged glomerular filtration rate along glycosuria then aminoaciduria as well as raised, (pH). [1,2]

Peril Features

Many Diverse Menace Features for Emerging a Utis Through Pregnancy, Recurrent Uti of Asb, Renal Lithiasis, Urogynaecological Malformations, Vesicoureteral Reflux Failure of Kidney, Dm Type 2, Neurologicaii Disorder Incompleted Emptying, Neurogeniec Bladder, Etc., Disease of Sickle Cell Chlamydia Trachomatis Infections, Multiparty and Low Socioeconomic Levels. [3]

Bacterial isolation

Gram negative bacilli; *E. coli*, from enter bacterial normal flora is chief public bacterium complicated in mainstream of these infections while *Pseudomonas aerogenosa*, Gram-positive cocci; *Enterococcus feacalis*, *Staphylococcus epidermidis* are also insulated.[5]

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TYPES OF UTIS

A- ASB

Asymptomatic bacteriuria ASB remains definite as existence of extra reach to 100,000 Colony Forming Units CFU in mill of microbes in cultured urine of a patients that have no clinically symptom of UTI. Greatest ASB happen in the initial trimester of pregnancy (Asymptomatic UTIs). UTI may happen without seeming symptoms, mainly during pregnancy, asymptomatic bacteriuria, instead, might cause worries if not addressed38.[6]

Pervasiveness

Its occur in 3-10% of all cases, 25% of entreat ASB resolve grow an acute pyelonephriitis equated to 2% if they were treating with specific antibiotic, about more than 30% of the treated ABs resolve decline regardless of exact antibiotics treatment, hereafter standing of accomplishment gestation showing. Though rate and judgment of showing for ASB through pregnancy is open to discussion, gestational viewing is suggested at about 16 weeks or at the initial prenatal visit only if it is after the 12th week and it should only be frequent three-monthly if the pregnant woman has other menace factors (e.g. maternal kidney disease, pregnant with a solitary kidney, history of a kidney transplant, renal lithiasis, history of recurrent pyelonephritis or vesicoureteral reflux.[7]

Best antibiotics that castoff to treatment are (an antibi gram) is typically available as the microbiology diagnosis.
1- Fosfomycin trometamol, 3 gm orally (single dose isolated from meal) is the good treatments, never needed for order a second dosage after 48 to72 hour.
2- in case bacteriuria was affected by *E. faecalis*, treatments of best select shill be, Amoxicillins 500 mg all 8 hrs. for 4 to7 days.
3- patient with allergy or resistance to fosfomycin, must use an antibiotic affording to antibi gram, charitable precedence to 1st, 2nd generations cephalosporin and ducking using of amoxicillin clavulanic acid as extreme as promising, if Cefixime is do admin, using dose of 400 mg in 24 hrs. for 3 day, others antibiotic must be controlled for 4 to 7 days.
4- situation of beta lactam allergic case or resistant of Fosfomycins, Nitrofurantoin 50- 100 mg for 6 hrs. orally may use for 4 to 7 days, another alternate if no others practical medicines, use Cotrimoxazole, Category C160-800 mg every 12 hrs. for 3-5 days. [8,9]

select a lower-Spectrum antibiotic: Cefuroxime, Fosfomycin trometamol Amoxicillin 500 mg; Cefuroxime 250 mg; Amoxicillin-clavulanic acid500-125mg, Ampicillins, Cephalosporin, Cephalexin, Erythromycin, Nitrofurantoin; and Trimethoprim-sulfamethoxazole.

Recurrent Complicated UTIs:

The ideologies of considering recurrent complicated UTI contain initial using of broad-spectrum antibiotic. with alteration of antibiotic reporting based on culture outcomes, and challenges to sack any present urinary impediment based on the result of imaging trainings. Antibiotics regimen and treatment recommendations are not definite in this patient population, the varied variability of inclining factors and causative organism, and the variable antibiotic resistance assortments, make uniform recommendations challenging. Antibiotic medley must be based on community resistance arrays, and empiric initial treatment must be directed by likely organism. [10]

For pregnant treatment choice should be careful owing to the endangerment of antibiotics activity on fetus.[11]

Materials and Methods

a-Study design

50 Urine sample were accumulated from individually patient before taking any antibiotic as treatment by means of the midstream clean-catch technique in a sterilized urine containers or use a distinctive tubes for pediatric sample then all samples were cultured on UTI Chrome agar and Moller Hinton agar for antibiotic sensitivity , then each plate was incubate in aerobic condition at 37°C for 24 hrs. and recognized using typical protocols of microbiology. The isolate was tested for antibiotic susceptibility on Mueller- Hinton agar. [13,14]

b-Study population

Study population involved pregnant people aged 17–35 years who were 9 to 32 weeks' gestation, the samples were collected during September, 2025, and January 2026.[15]

Results

Four bacterial species were identified,0.51 % (26/50) Gram Negative, 0.47% (24/50) Gram-Positive). *E. coli* is the greatest commonly isolated bacteria 0.27% (14/50). *Enterococcus faecalis* 0.25% (13/50), *Pseudomonas aeruginosa* 0.24% (12/50) and *Staphylococcus epidermidis* 0.21% (11/50).

Table 1: Chi-square analysis of the Anti-biotic associated with UTI patients.

Anti biotic	p-value	Statistical Results
AMP	0.644	Non significant
AMX	0.215	Non significant
Ceph	**0.0028**	**High significant**
Fos	0.085	Non significant
Cefuro	0.111	Non significant
AMC	0.255	Non significant
Ery	0.085	Non significant
Nitro	0.111	Non significant
TMP	**0.038**	**significant**

*The *p*-value is < .00001. The result is significant at $p < .05$ for Ceph p=0.0028 and TMP p= 0.038 while the result of other antibiotic is no significant.

Conclusion

Escherichia. coli was the highest frequently isolated bacteria then *Enterococcus feacalis*, the outcome can denote that *Enterococcus feacalis*, is flattering progressively communal as an etiological cause of UTIs an elevated resistant headed for two antibiotics cephalosporin (p=0.0028) and TMP (P=0.038). The outcomes highpoint essential to observe for therapeutics guideline to treatment UTI and other diseases that caused by bacteria and not abuse antibiotic to avoid the appearance of multidrugs resistance bacterium.

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