



# CHARACTERISTICS OF PREGNANCY COMPLICATED BY URINARY TRACT INFECTIONS

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## Abstract

Urinary tract infections are currently among the most common infectious diseases observed in pregnant women. They negatively affect not only the mother's health but also the development of the foetus.

The World Health Organization has provided definitions regarding urinary tract infections and developed treatment guidelines.

A study was conducted at the Termiz branch of the Republican Specialised Scientific-Practical Medical Centre for Maternal and Child Health, in the Gynaecology and Pregnant Patients Departments, involving 90 pregnant and postpartum women diagnosed with urinary tract infections.

This article highlights the causes, types, clinical manifestations, principles of early diagnosis and treatment, as well as preventive measures of urinary tract infections during pregnancy.

**Keywords:** Pregnancy, urinary tract infection, asymptomatic bacteriuria, pyelonephritis, antibiotic therapy, infection prevention.

## Introduction

### Relevance of the Topic:

At present, urinary tract infections are widespread and have a significant impact on the health of pregnant women.



## 1. Main causative agents (microorganisms):

2. *Escherichia coli* (E. coli) – 70–90%

The most common pathogen. It spreads from the intestine to the urinary tract.

*Klebsiella, Proteus, Enterobacter* – 5–10%

Gram-negative enterobacteria, often acquired in hospital settings.

*Staphylococcus saprophyticus* – 5–10%

May occur in young women and pregnant patients.

Factors that increase the risk of urinary tract infections during pregnancy:

During pregnancy, hormonal and anatomical changes occur in a woman's body, which predispose to infection:

Increased progesterone levels – causes relaxation of the smooth muscles of the urinary tract, making it easier for the infection to ascend.

Enlargement of the uterus – compresses the ureters and slows the flow of urine, leading to urinary stasis.

Decreased immunity – natural reduction in resistance to infection.

Short urethra (female anatomical feature) – allows intestinal bacteria to enter the urinary tract more easily.

Poor perineal hygiene – increases the likelihood of *E. coli* contamination.

Types of urinary tract infections during pregnancy:

Asymptomatic bacteriuria: No clinical complaints.  $\geq 10^5$  bacteria per ml detected in urine culture.

Cystitis: Burning and pain during urination, lower abdominal discomfort, frequent urination.

Pyelonephritis: Fever up to 38–40°C, chills, flank or lower back pain, nausea, vomiting, leukocyturia, proteinuria and bacteriuria.

## Diagnosis:

During the study, the following examinations were conducted to identify urinary tract infections (UTIs) in 90 pregnant women:

General urinalysis – performed daily to assess the presence and quantity of protein, leukocytes and bacteria in the urine.

Nechiporenko test – a microscopic examination that allows a more accurate count of formed elements in 1 ml of urine, including white blood cells (leukocytes), red blood cells (erythrocytes) and casts (cylindrical structures formed in the urinary tract). Unlike a standard urinalysis, this method provides the exact number of cells per millilitre of urine rather than estimating them under the microscope.

Urine culture (with antibiotic sensitivity testing)

Complete blood count (CBC)

Ultrasound examination of the kidneys and urinary system

**Treatment:**

In pregnant women diagnosed with urinary tract infections, the following antibiotics are commonly prescribed:

Penicillins (Amoxicillin, Amoxiclav) – considered safe during the 1st to 3rd trimesters.

Cephalosporins (Cephalexin, Ceftriaxone) – most frequently recommended.

Nitrofurantoin – may be used during the 1st and 2nd trimesters but should not be prescribed after the 38th week of pregnancy.

Antibiotic therapy is prescribed based on the results of antibiotic sensitivity testing. In severe cases, patients are treated in inpatient (hospital) settings.

**Prevention:**

To prevent urinary tract infections during pregnancy, the following measures are recommended for pregnant women:

Adequate fluid intake

Observance of personal hygiene rules

Regular submission of urine analyses

Avoiding delays in urination

Strengthening the immune system

**Results:**

At the Termiz branch of the Republican Specialised Scientific-Practical Medical Centre for Maternal and Child Health, a total of 90 pregnant and postpartum women diagnosed with urinary tract infections were examined.

45 patients were from the Gynaecology Department.

45 patients were from the Department of Pregnant Patients.

Based on the diagnostic findings, the following types of urinary tract infections were identified among the pregnant women:

Type of infection Number (n) Percentage (%)

1 .Asymptomatic bacteriuria	45	50 %
2 .Cystitis	25	27.8 %
3. Pyelonephritis	20	22.2 %
4 .Total	90	100 %

These results indicate the necessity for regular screening and enhanced preventive measures to ensure early detection and timely treatment of urinary tract infections during pregnancy.

**Conclusion:**

Nowadays, urinary tract infections are very common among pregnant women. If all pregnant women register at family clinics on time every trimester, undergo regular blood and urine tests,



and follow hygiene rules, urinary tract infections can be detected early. When detected and treated in time, they do not cause serious harm to the health of the mother and the baby.

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