

# ANTIBIOTICS EFFECTS (CPROFLOXACIN-AUGMENTIN- GENTAMICIN-NORFLOXACIN- AMPICILLIN) ON BACTERIA (E.COLI STAPH ALBUS AND KLEBSIELLA)

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<http://dx.doi.org/10.26739/2573-5616-2018-1-2-2>

**Abstract:** The study included a statistical collection of 100 cases during 2017 for women with urinary tract infections (UTI) in Al-Dahra Clinic - Ibn Sina Clinic - Aqabah Laboratory for Medical Analysis in Bani Waleed city- Libya. After determining the type of bacteria, we tested the antibiotics to eliminate the bacteria as soon as possible, as explained in the practical part

First, the presence of bacteria in urine samples and we identified the type of bacteria and their proportion in the samples as shown in the following table (1).

We have observed that increasing the bacterial resistance of our local isolates under study may be due to the large random use of antibiotics, which allowed for increased bacterial resistance to various antibiotics.

**Key words:** bacteria; E.coli; Staph Albus; Klebsiella; Antibiotic

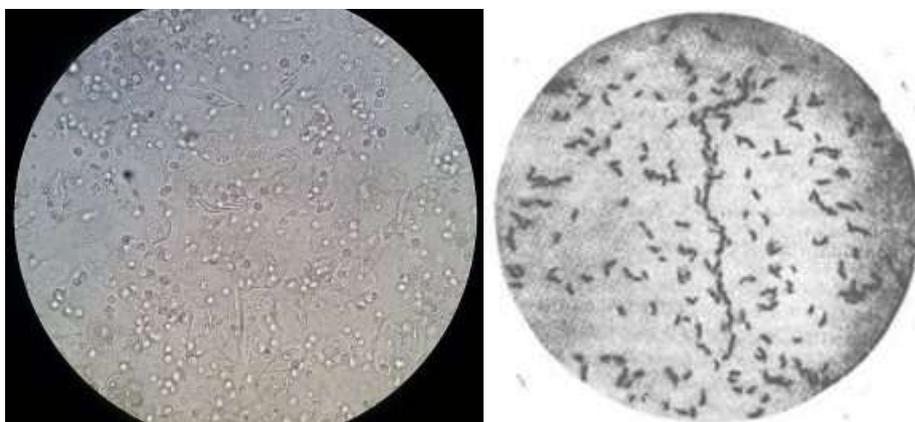
## 1. INTRODUCTION:

Urinary tract infection is one of the most common medical problems in most countries of the world. It comes as the 2nd common medical problem after respiratory tract infection.

Antibiotics are chemical substances that are biologically produced and have the ability to limit the spread of infectious diseases which caused by the pathogenic bacteria of the host. One of the most important qualities of the antibiotic which used to treat urinary tract infections is to be safe to use and to be excreted in a suitable concentration , and has no effect on intestine flora or (Normal Flora) of other places and does not lead to resistance.

## 2. Laboratory analysis of samples

We observed the presence of a bacteria under the microscope for infected people as shown in Fig. 1 and 2 and we planted urine for people with infections where.



**Figure (1)** the presence of bacteria in urine samples

The aim of the study is to examine the possibility of growth of some of the contamination elements in the urine such as bacteria, fungus and viruses parasites that can cause infections or contaminations in the urinary tract or the kidney. The urine samples is taken normally and sent to the laboratory for a specific examination and breeding of pollinators in the dishes in particular, urinary tract infection are often caused by the bacteria found in the digestive system. For example Escherichia E.coli is considered one of the most common types of bacteria causing inflammation of the urinary tract and it is estimated

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at 58% of cases of inflammation , and 25% of Staph Albs and Klebsilla 17% as shown in the following table:

**Table (1)** the bacteria causing infections

Type of bacteria	Number of cases	Percentage %
E.coli	58	%58
Staph Albus	25	%25
Klebsilla	17	%17
Total	100	%100

The second step:

We do the process of agriculture direct planning, this method is the best way, and here we use the dish MacConkey agar and the process is as follow:

1-Take the sample to be planted and spread to the dish in the form of straight lines 3-4 lines by wire loop.



**Figure (2)**

Demonstrates the way in which samples are taken, grown and spread on dishes

2 - Spread part of the end the previous lines to interrupt the initial lines and repeat the process in the same way of the other samples

3 - The dishes are placed in the incubator at 37 ° C for 24 hours in appropriate aerobic conditions

4 - Growth control

After the passage a good time right we look at the dishes and notice bacteria growth in the s on the first dish in form of pink colonies on MacConkey plate indicating the fermentation of lactose



**Figure**  
bacteria  
The



(3) growth of the  
E.coli  
second dish is the  
appearance of  
Klebsiella that are

colonies mucous and pink color in the MacConkey dish ,which is also  
fermented of lactose

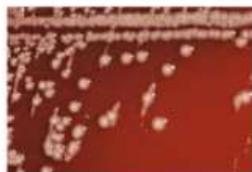


**Figure (4)**  
bacteria  
The third



growth of the  
Klebsiella  
is the appearance of

staph albus being golden colonies of yellowish color in the MacConkey agar

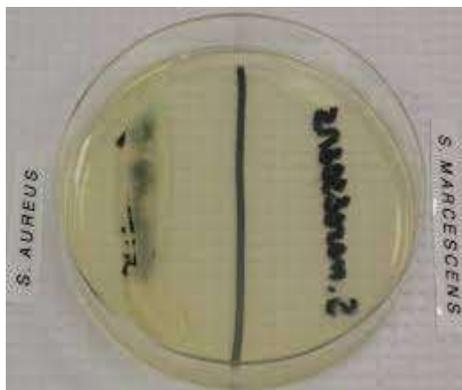


**Figure**

after

(5) growth of the bacteria *staph albs* we have noticed the bacteria growth of

the dishes , we must know the antibiotic to prevent these bacteria , so we choose an sensitive dish called sensitivity and we take a swab of the growth of *staph* bacteria , *klebsiella* and *E.coli* and we cultivate them in the dish of sensitivity of three types of bacteria and then we put the antibiotics in tablets, it is the best to put antibiotics that widespread to the perimeter of the dish , which carries a small antibiotic spread in the middle of the dish and then put the dish in incubator for 24 hour



**Figure (6)** the image of sensitive dish

After 24 hours we read the antibiotic for each type of bacteria so we have resolved the problem of inflammation and give the appropriate antibiotic for cases.

The figure below shows each bacterial and antibiotic type that destroys it



**Figure (7)** status of the antibiotic on bacteria



**Figure (8)** status of the antibiotic on bacteria E.coli

We found the appropriate antibiotic that kills bacteria in a few days.

- 1- Augmentin sensitivity degree +++++
- 2- Ampicillin sensitivity degree +++
- 3- Ciprofloxacin sensitivity degree +++



**Figure (9)** the appropriate antibiotic on the staph bacteria

We found the appropriate antibiotic that kills bacteria in a few days.

- 1- Amoxicillin sensitivity degree +++++
- 2- Ciprofloxacin sensitivity degree +++

#### Generalization of scientific results

3- Ampicillin sensitivity degree +++



**Figure(10)** the antibiotic on bacteria klebsiella

We found the appropriate antibiotic that kills bacteria in a few days.

1- Augmentin sensitivity degree +++

2- Amoxicillin sensitivity degree ++

3- Erythromycin sensitivity degree ++

4- Ampicillin sensitivity degree ++

### **Conclusion:**

We noticed the existence of a bacteria under the microscope for the infected people as shown in Figs. 1 and 2 and we implanted the urine for people with infections.

The purpose of the examination is to investigate the possibility of growth of some of the contaminated elements in the urine such as bacteria, fungi and various parasites, which can cause infections or infections in the urinary tract or in the kidney. The urine sample is taken normally and sent to the laboratory for a specific examination and breeding of pollinators in the dishes In particular, urinary tract infection is often caused by bacteria in the digestive system, such as E. coli, which is the most common type of bacteria causing urinary tract infections.

.This process is the best method. Here we use the maconkey dish.

After we have noticed the bacterial growth of the dishes must know the antibiotic to prevent these bacteria, so we take a sensitive dish called Sensitiphe and take a swab of bacteria E.coli - Klebsilla - Staph Albus and we plant in the dish of its own (meaning in the dish Sensitiphe covered by the three previous types of bacteria) We plant antibiotics and put them in the nursery for 24 hours. After 24 hours we read the antibiotic for each type of bacteria and so we have resolved the problem of inflammation and give the appropriate antibody for

**Generalization of scientific results**

cases. Here are the images shown below showing each type of bacteria and antibiotic that eliminates them.

The results show us that the best antibiotic that eliminates the bacteria is Augmentin.

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