

# URIN SYSTEM Plus

System for count, presumptive identification and Susceptibility Testing of microorganisms from urinary infections

**DIRECT INOCULATION FROM URINE SAMPLE**



**RESULTS AFTER 24 HOURS INCUBATION AT 36±1 °C**  
**SIMPLE LABORATORY EQUIPMENT**

## TOTAL BACTERIAL COUNT

### NO microbial growth



1-GR+, 2-GR+: violet  
No colour change

### Significant bacteriuria



1-GR+: from violet to yellow  
Significant bacteriuria ( $10^5 < \text{CFU/mL} < 10^6$ )

### Marked bacteriuria



1-GR+, 2-GR++: from violet to yellow  
Marked bacteriuria ( $\text{CFU/mL} > 10^6$ )

## PRESUMPTIVE IDENTIFICATION

### Escherichia coli

The presence of **Escherichia coli** is shown by colour change of well: 3 - ESC from red to blue



NEGATIVE

### Proteus spp.

The presence of **Proteus spp.** is shown by colour change of well: 4 - PRO from yellow to brown



NEGATIVE

### Pseudomonas spp.

The presence of **Pseudomonas spp.** is shown by colour change of well: 5 - PSE from yellow to green



NEGATIVE

### KES group

The presence of **KES Group** is shown by colour change of well: 6 - KES from violet to yellow



NEGATIVE

### Enterococcus spp.

The presence of **Enterococcus spp.** is shown by colour change of well: 7 - STR from yellow to black



NEGATIVE

### Staphylococcus aureus

The presence of **Staphylococcus aureus** is shown by colour change of well: 8 - STA from yellow to black



NEGATIVE

### Candida spp.

The presence of **Candida spp.** is shown by colour change of well: 9 - CAN from green to yellow



NEGATIVE

Observe the presence of chlamydoconidia and hyphae under microscopic observation (40x)



**Candida albicans** chlamydoconidia and hyphae

## SUSCEPTIBILITY TESTING



The **Sensitivity** to antibiotics is shown by colour of wells: **blue**

The **Intermediate sensitivity** to antibiotics is shown by colour change of wells: **from blue to grey**

The **Resistance** to antibiotics is shown by colour change of wells: **from blue to yellow**

The **Microbial Growth Control** is shown by colour change of well: 24-C **from blue to yellow**

## TEST PROCEDURE

Code 74160

20 test

### EXAMPLE OF RESULTS

①



Sample of urine with **Marked bacteriuria** (1-GR+, 2-GR++) and presence of **Proteus spp.** (4-PRO) and **Enterococcus spp.** (7-STR)

**Susceptibility testing:**  
10-AK, 11-CN, 12-TOB, 16-CTX,  
17-CAZ, 18-AMS, 19-NA,  
23-SXT = **Resistance**

②



Sample of urine with **Marked bacteriuria** (1-GR+, 2-GR++) and presence of **E. coli** (3-ESC)

**Susceptibility testing:**  
23-SXT = **Resistance**



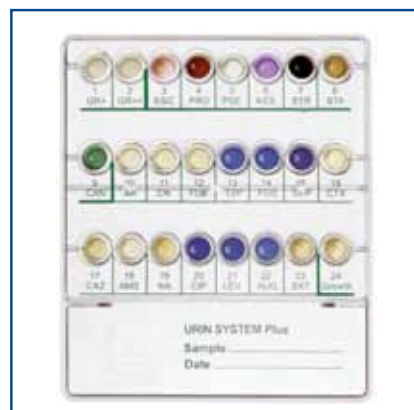
**Suspension A :**  
add 0.5 mL of urine to the vial of Physiological Solution.



**Suspension B :**  
add 0.2 mL of Suspension A to the vial of Suspension Medium.



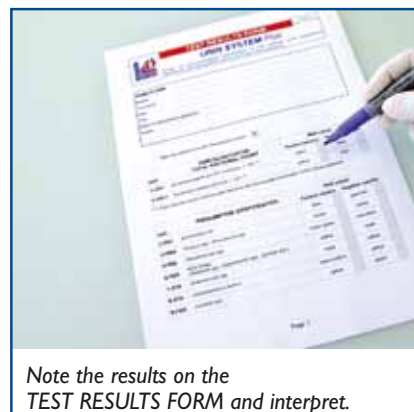
- Transfer 0.2 mL of **Suspension A** to each well from 1 to 9. (Total bacterial count and identification)
- Transfer 0.2 mL of **Suspension B** to each well from 10 to 24 (Susceptibility testing)



- Incubate in thermostat at  $36 \pm 1$  °C for 18-24 hours.
- At the end of incubation, observe the colour change of the wells and interpret the results.



Take a drop of liquid from well **9-CAN**, deposit it on a glass slide, place a cover slip on top and examine under the microscope (40x) for the presence of *Candida* spp. (chlamydospores and hyphae).



Note the results on the **TEST RESULTS FORM** and interpret.