DIAGNOSIS OF URINARY TRACT INFECTIONS

chromID® CPS® Elite
Get a step ahead in urinary pathogen identification
THE FACTS

Urinary tract infections (UTI) are some of the most common community-acquired infections.

UTIs occur four times more frequently in females than males, with half of women having at least one infection at some point in their lives.

Recurrences are common, with nearly half of people getting a second infection within a year.

In the hospital environment, UTIs are the main cause of healthcare-associated infections (HAIs), accounting for up to 40% of HAIs, of which 15% are linked to catheters.

Most uncomplicated cases of urinary tract infections can be treated with a short course of antibiotics, although resistance to many of the antibiotics used to treat UTIs is increasing.

A SIGNIFICANT HEALTHCARE BURDEN

UTIs represent a substantial financial burden on society. For example, in the US, UTIs are responsible for:

- over 7 million physician visits annually, including more than 2 million visits for cystitis
- approximately 15% of all community-prescribed antibiotics
- an estimated annual cost of over US$1.5 billion.

DIAGNOSIS OF UTI

Although medical history and urinalysis with dipsticks may be sufficient for the diagnosis of most acute and uncomplicated UTIs (mainly young, healthy non-pregnant women), the gold standard for diagnosis of UTI includes a bacteriological urine culture with identification of the causative agent and antimicrobial susceptibility testing.

In the era of increasing microbial resistance, antibiotics should be prescribed carefully, for the benefit of both the individual and public health in general. This justifies more systematic urine cultures, bacterial identification and susceptibility testing, which are also useful for epidemiology purposes.

Most UTIs are caused by Gram-negative bacteria, most commonly Escherichia coli or species of Klebsiella, Proteus, Pseudomonas, or Enterobacter, although other strains, such as Staphylococcus and Serratia, are emerging.

URINE COLLECTION

Processed immediately or refrigerated
Cytological examination
Microscopic examination with Gram staining

CULTURE

1 µL
10 µL

IDENTIFICATION

based on colony colour

ENUMERATION

For evaluation of the bacterial/yeast load

ANTIMICROBIAL SUSCEPTIBILITY TESTING

Protocol according to European Manual of Clinical Microbiology – Cumitech

* ID/AST: Identification and Antibiotic Susceptibility Testing
** Data from clinical trials - Klebsiella, Enterobacter, Serratia, Citrobacter
*** Compatibility certificates available at www.biomerieux.com/techlib
chromID® CPS® Elite

for isolation, enumeration and direct or presumptive identification of urinary pathogens in one single step

Earlier reading of results at 16 hours versus 18-24 hours previously means faster processing of urine specimens from collection to ID / AST* (Table 1)

✔ Earlier patient treatment with the most relevant antibiotic

Increased isolation of Gram-positive pathogens often responsible for infections in young women

✔ Improved detection of UTI in susceptible patient population

Integrated product within a comprehensive ID/AST range, ensuring full traceability and compatibility ***

✔ Expert interpretation of AST results to guide therapeutic decision-making

Table 1: Number of strains obtained per species or group of species **

<table>
<thead>
<tr>
<th>Incubation time at 35°C</th>
<th>chromID® CPS® Elite (CPSO)</th>
<th>Other chromogenic medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-6-18h</td>
<td>16-24h</td>
<td>18-24h</td>
</tr>
<tr>
<td>E. coli</td>
<td>112</td>
<td>112</td>
</tr>
<tr>
<td>KESC**</td>
<td>40</td>
<td>42</td>
</tr>
<tr>
<td>Proteae</td>
<td>20</td>
<td>24</td>
</tr>
<tr>
<td>E. faecalis</td>
<td>57</td>
<td>62</td>
</tr>
<tr>
<td>S. agalactiae</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>S. aureus</td>
<td>6</td>
<td>8</td>
</tr>
</tbody>
</table>

More information in the Instructions For Use.
Get a colour ahead in identification

**NEW**

- CASA™ AEB520270 20 plates
- chromID Candida agar 43631 / 43639 20 plates / 100 plates
- Sabouraud Gentamicin Chloramphenicol 2 agars
- chromID C. difficile agar 43871 20 plates

**NEW**

- chromID® CPS® Elite agar 2 week storage at 15-25°C 418284 / 416172 20 plates / 100 plates
- chromID® CPS® Elite OPAQUE agar 418206 / 416173 20 plates / 100 plates
- chromID® CPS® Elite / Columbia CNA + 5% sheep blood 418229 20 bi-plates
- chromID CPS / chromID ESBL agars 43469 20 bi-plates
- chromID P. aeruginosa agar 43462 20 plates
- chromID Salmonella Elite 412306 / 415005 20 plates / 100 plates
- chromID Salmonella / Hektoen agars 43465 20 bi-plates
- chromID S. aureus agar 43371 20 plates
- chromID Strepto B agar 43461 20 plates
- chromID Vibrio agar 43762 20 plates

**NEW**

- chromID CARBA agar 43861 20 plates
- chromID OXA-48 agar 41401 20 plates
- chromID CARBA SMART 414685 20 bi-plates
- chromID ESBL agar 43481 20 plates
- chromID VRE agar 43004 / 43851* 20 plates
- chromID ESBL / chromID VRE agars 43470 20 bi-plates
- chromID MRSA agar 43451 / 43841* / 43549 20 plates / 100 plates
- chromID MRSA SMART agar 413050 / 413051 20 plates / 100 plates
- chromID MRSA / chromID S. aureus agars 43466 20 bi-plates

* FDA cleared.