



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 ⁽¹⁾, 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 % ⁽²⁾, 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 ⁽³⁾.

A SIGNIFICANT HEALTHCARE BURDEN

UTIs represent a substantial financial burden on society.

For example, in the US, UTIs are responsible for:

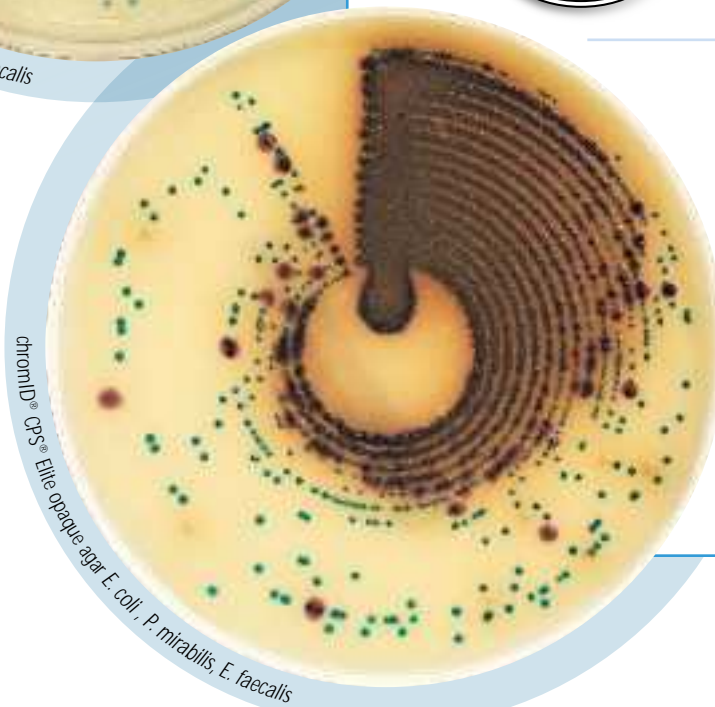
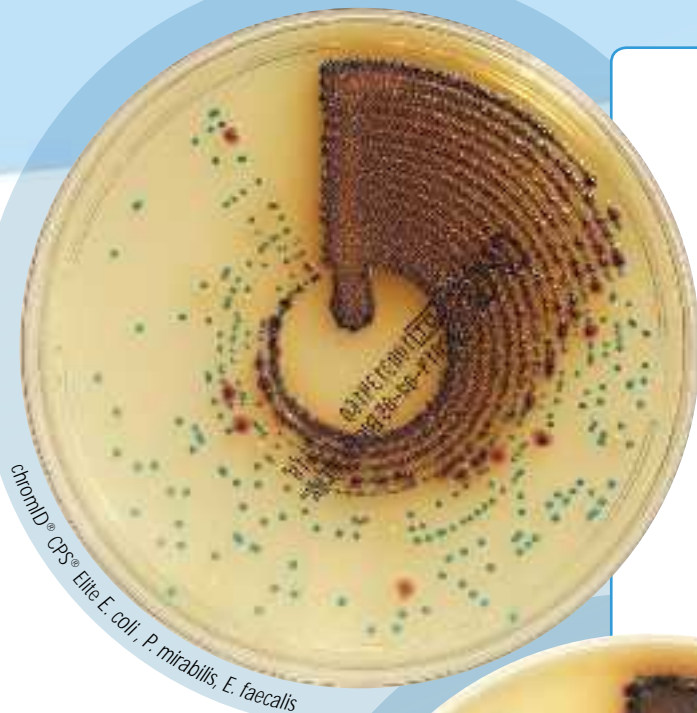
- over 7 million physician visits annually, including more than 2 million visits for cystitis
- approximately 15% of all community prescribed antibiotics
- an estimated annual cost of over US \$ 1.5 billion ⁽⁴⁾.

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** ^(5, 6).

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 ⁽⁷⁾.



URINE COLLECTION

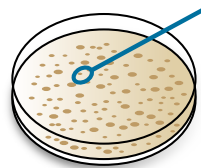
Processed immediately or refrigerated

Cytological examination

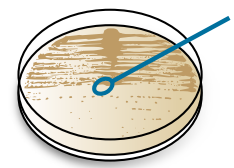
Microscopic examination with Gram staining

CULTURE

1 μ L



10 μ L



IDENTIFICATION

based on colony colour

ENUMERATION

For evaluation of the bacterial/yeast load

ANTIMICROBIAL SUSCEPTIBILITY TESTING

Protocol according to European Manual of Clinical Microbiology ⁽⁸⁾ – Cumitech ⁽⁹⁾

* 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

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

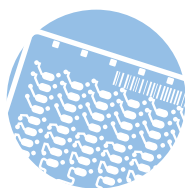
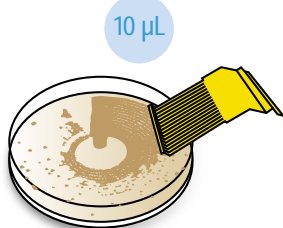
Incubation time at 35°C	chromID® CPS® Elite (CPSO)		Other chromogenic medium
	16-18h	18-24h	18-24h
<i>E. coli</i>	115	115	114
KEESC**	40	42	40
Proteaceae	20	24	23
<i>E. faecalis</i>	57	62	63
<i>S. agalactiae</i>	7	7	6
<i>S. aureus</i>	6	8	8

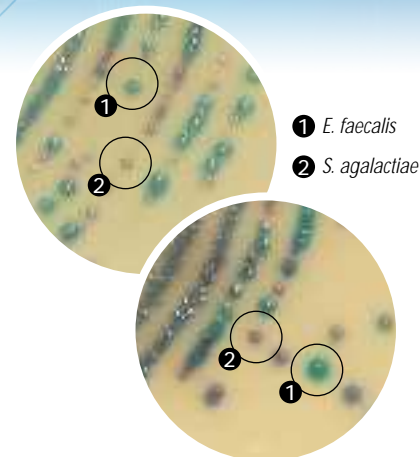
Increased isolation of Gram-positive pathogens often responsible for infections in young women

✓ 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





1 *E. faecalis*
2 *S. agalactiae*

CASA™	AEB520270	20 plates
chromID Candida agar	43631 / 43639	20 plates / 100 plates
chromID Candida / Sabouraud Gentamicin Chloramphenicol 2 agars	43464	20 bi-plates
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
NEW chromID® CPS® Elite OPAQUE agar 2 week storage at 15-25°C	418206 / 416173	20 plates / 100 plates
NEW 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	412108 / 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

BE S.M.A.R.T. WITH RESISTANCE™
Solutions to Manage the Antimicrobial Resistance Threat

chromID CARBA agar	43861	20 plates
chromID OXA-48 agar	414011	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.

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