



BIONEXT

LABORATOIRE LUXEMBOURGEOIS
D'ANALYSES MÉDICALES



URINARY TRACT INFECTION FROM DIAGNOSIS TO TREATMENT

Cytology and urine culture can address a variety of clinical situations: confirmation or otherwise of a urinary tract infection, presence of urinary colonisation, detection of multidrug-resistant bacteria.

The starting of appropriate treatment, deferred as far as possible, will help **fight resistance to antibiotics**.

That is why BIONEXT has developed a diagnostic strategy that will allow you to obtain **a result**:

- **within a short time**: report available on D+1, including with an antibiogram
- **interpreted** according the clinical context and all the biological parameters
- if necessary, accompanied by a **targeted antibiogram** that can allow you to select the most suitable treatment

Results within 24 hours

Whenever that is possible, it is crucial to **defer** the start of antibiotic treatment and wait for the results of the antibiogram in order to avoid the use of broad-spectrum antibiotics that apply significant selective pressure.

The **results are thus available on the day after the sample is collected**, including along with an antibiogram.

Emergent urinary pathogens

The importance of these organisms is underestimated because of the difficulty to isolate and identify them, requiring specific protocols put in place in the laboratory.

The main bacteria involved and the affected patient populations are indicated below:

Aerococcus urinae
Aerococcus sanguinicola

Actinotignum schaalii

Lactobacillus delbrueckii

Alloscardovia omnicolens

Elderly

Elderly
Children

Elderly women

Elderly
Immunodeficient

The addition of treatment advice in the report will guide you in the management of these patients.

Urinary tract infection in men

A urinary tract infection in men is always considered to be a complication risk.

1

Prefer substances that are
well diffused in the prostate
Duration of treatment

Fluoroquinolones
Co-trimoxazole
14 days



2

Adverse development

Test with urine culture
after 72 hours

X

Substances not to be used
(due to inadequate prostate diffusion)

Cefixime
Nitrofurantoin

Fosfomycin
Amoxicillin-clavulanic acid

Urinary colonisation

Urinary colonisation is a situation of carrying, where a micro-organism is revealed by a correctly tested urinary sample, but does not result in clinical signs.

Colonisation is very frequent in older individuals (at the age of 80, 50% of women and 25% of men show colonisation).

Colonisation must therefore not be confused with infection. The symptoms are often atypical (unexplained falls, confusion syndrome, decompensation of comorbidities, loss of independence etc.) with no urinary signs.

Urinary colonisation should not be treated, except during pregnancy (from the fourth month) and before a scheduled invasive urological procedure.

Antibiotic treatment of colonisation would even be a factor that promotes the recurrence of UTIs. The frequency of colonisation in the elderly population makes it difficult to interpret urine cultures, especially since leukocyturia is not specific to infections.

Targeted antibiogram

Why?

The choice of antibiotic therapy is influenced by the results of antibiograms that conventionally include several substances, some of which are not recommended for the treatment of the relevant infection.

A targeted antibiogram makes it possible to use the appropriate substance, in accordance with the recommendations of learned societies, and thus reduce the selective pressure applied by broad-spectrum substances. That helps limit resistance to antibiotics by reducing the frequency of inappropriate antibiotic treatment.

What is a targeted antibiogram?

It consists in showing in the report, for **enterobacterial urinary infections**, the antibiotics to use as first-line treatment according to the recommendations applicable and the resistance profile of the isolated micro-organism.

For which patients?

Targeted antibiograms are available for women from the age of 12 and men from the age of 16.

A complete antibiogram is available on request from 27 321 285 or by email bio@bionext.lu.

In practice

Obtaining rapid management of samples:

- ✓ Opening of some **laboratories in the afternoon**
- ✓ Bionext can collect your sample in the office every day; for more information: ☎ 27 321 285 ✉ bio@bionext.lu
- ✓ The sample collection kit can be picked up and handed over **in pharmacies partnered with Bionext**

Find this information on: bionext.lu/centres



Key points

To help fight against antibiotic resistance, Bionext optimises the management of urinary tract infections:

- ✓ Result on D+1
- ✓ Detection of emergent urinary pathogens
- ✓ Systematic interpretation
- ✓ **Targeted antibiogram**