REALQUALITY Carba-Screen



Real time PCR kit for the screening and identification of genes encoding Ambler class A, B and D carbapenemases responsible for carbapenem antibiotic resistance, and colistin resistance genes.





KPC, IMP, VIM, NDM, OXA-48, AcOXA, MCR 1, 2 e 4

ACTIVE SURVEILLANCE on ANTIBIOTIC RESISTANCE

WHO publishes list of bacteria for which new antibiotics are urgently needed. The list highlights in particular the threat of gram-negative bacteria that are resistant to multiple antibiotics. These bacteria have built-in abilities to find new ways to resist treatment and can pass along genetic material that allows other bacteria to become drug-resistant as well.

The most critical group of all includes multidrug resistant bacteria that pose a particular threat in hospitals, nursing homes, and among patients whose care requires devices such as ventilators and blood catheters. They include **Acinetobacter**, **Pseudomonas** and various **Enterobacteriaceae** (including Klebsiella, E. coli, Serratia, and Proteus). They can cause severe and often deadly infections such as bloodstream infections and pneumonia. These bacteria have become resistant to a large number of antibiotics, including carbapenems the best available antibiotics for treating multi-drug resistant bacteria.

"We need effective antibiotics for our health systems. We have to take joint action today for a healthier tomorrow. Therefore, we will discuss and bring the attention of the G20 to the fight against antimicrobial resistance. WHO's first global priority pathogen list is an important new tool to secure and guide research and development related to new antibiotics."

Mr Hermann Gröhe, Federal Minister of Health, Germany

https://www.who.int/news



Carbapenemases are enzymes produced by microorganisms able to inactivate antibiotics that have a beta-lactam ring, including carbapenems, broad spectrum antibiotics used in the last line.

Invasive infections from CRE (Carbapeneme-resistant Enterobacterales) and, in particular, from CPE (Carbapenemase-Producing Enterobacterales) are under surveillance set up by the WHO.

It is particularly important to promptly identify patients carrying pathogens with resistance genes in order to isolate them from other patients and limit the spread of associated resistance.

Colistin is a last choice antibiotic used to treat severe infections, when other antibiotics are no longer effective. In recent years, genes associated with colistin resistance, called mcr (mobile colistine resistance), have been identified. These genes are carried by plasmids and thus transmissible between different bacterial species. It is therefore extremely important to identify the potential presence of colistin resistance genes as well.



ADVANCED BIOMEDICINE Tel. +39 049 761689 | Fax. +39 049 8709510 | www.abanalitica.com | customersupport@abanalitica.it