Abstract,

Antibiotics have become one of the most important medical discoveries needed for the complex medical approaches such as solid organ transplantation and management of patients with cancer, among others.

Unfortunately, with an increase in using antibiotics, it increases resistance too among common bacterial. pathogens are now threatening this therapeutic accomplishment.

In fact, the World Health Organization has named antibiotic resistance as one of the three most important public health threats of the 21st century.

Resistance can be naturally as in gram-negative against Penicillin and it can be accompanied as in gene mutation like gene responsible to release beta-lactamase to destroy beta-lactam antibiotics.