

## **Extended spectrum beta-lactamases: definition, classification and epidemiology**

### **ABSTRACT**

Extended spectrum beta-lactamases (ESBLs) are defined as enzymes produced by certain bacteria that are able to hydrolyze extended spectrum cephalosporin. They are therefore effective against beta-lactam antibiotics such as ceftazidime, ceftriaxone, cefotaxime and oxyimino-monobactam. The objective of the current review is to provide a better understanding of ESBL and the epidemiology of ESBL producing organisms which are among those responsible for antibiotic resistant strains. Globally, ESBLs are considered to be problematic, particularly in hospitalized patients. There is an increasing frequency of ESBL in different parts of the world. The high risk patients are those contaminated with ESBL producer strains as it renders treatment to be ineffective in these patients. Thus, there are immediate needs to identify ESBL and formulate strategic policy initiatives to reduce their prevalence.

**Keyword:** Extended spectrum beta-lactamases