

## **IMPACT OF ESBL-PRODUCING E COLI INFECTIONS**

**Javier Garau**

**With the widespread use of extended-spectrum cephalosporins throughout the world, strains that produce ESBLs have been detected on every inhabited continent. These enzymes are most commonly found in *K. pneumoniae*, but they are increasingly found in *E. coli*, *Proteus mirabilis*, and other gram-negative bacilli. Until recently, most infections caused by ESBL-producing *Escherichia coli* (ESBLEC) or *Klebsiella pneumoniae* had mostly been described as nosocomially acquired or nursing home related. However, recent data indicate that infections due to ESBL-producing *E coli* is an emerging problem in outpatients in different countries.**

**Infections caused by these organisms are associated with a significantly longer duration of hospital stay and greater hospital charges. The optimal therapy for infections caused by ESBL-producing members of the family *Enterobacteriaceae* has yet to be established. Therapeutic options include  $\beta$ -lactam- $\beta$ -lactamase inhibitor combinations, cephamycin, carbapenems, fluoroquinolones, and aminoglycosides. Infections with ESBL-producing strains have been associated with higher mortality rates and lower rates of favorable clinical responses to antibiotic regimens that include extended-spectrum cephalosporins with or without aminoglycosides to which the infecting organisms were susceptible by in vitro testing. Carbapenem use and early administration of appropriate antimicrobials may reduce the rate of mortality among patients with infections caused by ESBL-producing organisms**