

Detection of serinocarbapenemases class a and other mechanisms of enzymatic resistance to β -lactams in enterobacteria strains with diminished susceptibility to carbapenems isolated of patients in a university hospital

Detección de serinocarbapenemasas de

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© 2014, Sociedad Chilena de Infectología. All rights reserved. Background: The emergence of carbapenemase mediated resistance in Enterobacteriaceae has a strong clinical impact. This study aimed to do a genotypic and phenotypic characterization of the enzymatic resistance to β -lactams in clinical Enterobacteriaceae isolates with decreased susceptibility to carbapenems in a university medical center in Santiago. Methods: During April-September 2010 at Hospital Clinico Universidad de Chile, 23 isolates of carbapenem non susceptible Enterobacteriaceae were collected. We used PCR for the detection of class A carbapenemases (SME, IMI, NMC, GES and KPC) and the modified Hodge with the boronic acid test to phenotypically assess the presence of serine-carbapenemases. To assess extended spectrum β -lactamases (ESBLs) the CLSI phenotypic tests were performed. Metallo- β -lactamases (MBL) and AmpC were assessed with commercial tablets. Results: 18/23 were *Klebsiella pneumoniae* and 5/23 strains were E