COST-EFFECTIVENESS OF CEFEPIME VERSUS CEFOTAXIME WHEN ADDED TO METRONIDAZOLE IN COMPLICATED INTRAABDOMINAL INFECTIONS
Salas M	extsuperscript{1}, Caro J	extsuperscript{1}, Molinar F	extsuperscript{2}
\textsuperscript{1}Caro Research Institute, Concord, MA, USA; \textsuperscript{2}Intensive Care Unit, Medical Center “La Raza”, Mexico City, Mexico

OBJECTIVES: Intraabdominal infections, with their high morbidity and mortality, represent an immense treatment challenge because multiple microorganisms are involved. The addition of cefepime to metronidazole has been shown to be effective but the cost of the drug is high. Therefore, the objective of this study was to assess the cost-effectiveness of this combination compared to cefotaxime-metronidazole from the perspective of the third-party payer.

METHODS: Data were obtained on the resources consumed by 60 adults with intraabdominal infection enrolled in a randomized trial carried out in the Intensive Care Unit, Hospital of Specialties “La Raza”, Mexico City comparing cefepime to cefotaxime, both in addition to metronidazole. Clinical cure, improvement or failure, was determined according to presence of symptoms while bacteriological cure depended on absence of the initial microorganisms. For the economic study, data on length of stay (LOS); use of special care units, laboratory tests, radiology, nuclear medicine or other special studies; number and type of surgeries as well as duration of antimicrobial treatment were collected. Information was extracted from patient charts and case report forms. Unit costs were obtained from the hospital’s Finance Department and are reported in 2001 US dollars (1 USD = 10 MEX).

RESULTS: There were no statistically significant differences between groups in age, gender, number and type of diagnoses or severity of disease. Staphylococcus aureus, Streptococcus spp, Escherichia coli, Enterococcus spp and Pseudomonas aeruginosa were most frequently isolated. There were no statistically significant differences in the number and type of tests. Clinical and bacteriologic efficacy were similar between groups. However, patients receiving cefepime-metronidazole had shorter LOS than patients receiving cefotaxime-metronidazole (mean 21 days versus 27 days, respectively) and thus lower total hospitalization costs (mean $18,974 for cefepime-metronidazole vs. $20,092 for cefotaxime-metronidazole). Including the cost of the drugs, the difference is reduced to $503 in favor of cefepime-metronidazole.

CONCLUSIONS: The combination of cefepime with metronidazole reduces average total costs resulting in economic dominance over cefotaxime.