

Enquête SPA-Carb – ICAAC 2012 - USA

How Carbapenems Are Used in French Health-Care Facilities in 2011

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Background. Understanding the profile of carbapenems (CP) use in hospitals is of paramount importance in the context of the increasing incidence of extended spectrum beta-lactamase (ESBL) and carbapenemase-producing enterobacteria.

Methods. We recorded patients' characteristics and antibiotic treatments (Rx) of at least 10 consecutive patients receiving CP from 10 to 12/2011 in a network of voluntary health-care facilities.

Results. Among the 248 centers, 44 had no patient treated with CP, and 102 had less than 10 patients treated with CP during the study-period. A total of 2218 patients were included (88% received imipenem). The median age was 68 y (25-75th %iles, 55-80), 63% had prior hospitalization, 51% prior antibiotic (ABX) Rx (45% with third-G cephalosporins, 48% with penicillin+inhibitors), 28% were in ICUs, and 6% in haematology. The CP Rx duration was more than 10 days in 30% of the cases. Rx re-evaluation at 72h was recorded for 60% of the patients. CP were associated with other ABX in 70% of the cases (57% aminoglycosides, 21% quinolones). CP were mainly used for pulmonary (27%), urinary (27%), and digestive tract infections (14%), and 34% of infections were considered community-acquired. The choice of a CP among other ABX was based on a sample positive for ESBL bacteria (21%), risk factors for multidrug resistance (MDR, 21%), severe infection (15%), or aggravation under non-CP ABX Rx (14%). Rx initiation was empirical in 52% of the cases, and 17% of the patients did not have microbiological sample drawn. Among the 1656 (75%) with bacteriological results, 48% had finally one ESBL enterobacteria positive sample. The main causes of CP Rx termination were stop of all ABX Rx (50%), de-escalation (19%), and death (8%).

Conclusions. As expected, CP are widely used in relation to suspected or proven MDR bacteria, and for severe infections. However, this study raises questions about the use of CP in patients without any microbiological sample and those treated for community infections. There may be room for improvement regarding the frequency of ABX association and Rx duration when considering the main infection sites.