REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

| 4CPS-048 | QUALITY OF THE EMPIRIC ANTIBIOTIC TREATMENT IN COMMUNITY-ACQUIRED PNEUMONIA |

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Background Due to the increasing threat of antibiotic resistance it is highly important to fit the antibiotic therapy to the infectious disease and the most prevalent microorganism responsible for it.

Purpose Analyse the empirical antibiotic prescription (EAP) profile of the patients with community-acquired pneumonia (CAP) who required hospital admission depending on the clinical unit.

Material and methods A retrospective observational study was performed during March 2018 in which the EAP of the patients with CAP who were admitted to the internal medicine (IM) or pneumology (NEM) unit were monitored.

Age, sex, medical unit, comorbidities (chronic obstructive pulmonary disease, bronchiectasis, diabetes, nephropathy, heart failure), hospitalisation in the previous 30 days, C reactive protein and procalcitonine were registered. The FINE score was calculated to assess disease gravity. EAP was recorded.

Patients were stratified according to the medical unit and EAP was evaluated based on the agreement with clinical guidelines.

Quantitative variables are expressed as median and interquartile range and qualitative variables as percentages. The chi-squared test was performed (SPSSv.15).

Results A total of 45 patients were included. Sixty-seven per cent were admitted in the NEM unit (30/45) and 33% in the IM unit (15/45). Sixty-three per cent and 40% of the patients admitted in the NEM and IM units were women and median age was 73 (65–80) and 86 (78–91) years' old, respectively.

According to the FINE score, 57% of the NEM unit patients showed high risk and 30% medium risk. In the IM unit, 93% showed high risk.

Dual therapy based on ceftriaxone plus levofloxacin was the most frequent EAP in the NEM unit (43%), followed by levofloxacin (23%). However, in the IM unit levofloxacin (47%) was the most usual EAP followed by ceftriaxone plus levofloxacin (20%).

EAP in the NEM unit agreed with clinical guidelines and patient's condition in 50% of cases, while in the IM unit it agreed in the 80% of prescriptions (p=0.053).

Conclusion Empirical antibiotic treatment in community-acquired pneumonia is variable depending on the medical unit.

Although internal medicine patients showed greater severity of illness, dual therapy based on ceftriaxone and levofloxacin was prescribed in fewer rates than in the pneumology unit.

Thus, it is necessary to carry out educational activities to optimise empirical antibiotic therapy in community-acquired pneumonia.

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No conflict of interest.

| 4CPS-049 | CEFTOBIPROLE IN EMPIRICAL TREATMENT OF BONE AND JOINT INFECTIONS: SURVEY OF THE PRESCRIPTIONS, RESPECT OF THE PROTOCOL AND ECONOMIC EVALUATION OVER 6 MONTHS |

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Background In our hospital, a protocol is used in empirical treatment for bone and joint prosthetic device infections. It combines the use of efficient antibiotics on methicillin resistant staphylococci (MRS) with the search for gene *mec*A indicating resistance to methicillin (answer is obtained within 2 hours after the sampling). Since January 2018, the combination of daptomycin and cefepime as empirical antibiotic therapy has been replaced by ceftobiprole. Antibiotics are administered until the result of resistance genes is available. In the case of negative response, a relay by cefepime is performed until adaptation to antibiogram results.

Purpose The aim of this study was to evaluate the respect of this protocol and the economic impact of using ceftobiprole instead of the daptomycin-cefepime combination.

Material and methods A prospective monocentric study was performed between January and July 2018. Data, collected by the analysis of all prescriptions, were: indications, previous history of MRS, prescriptions (monotherapy, way of administration and posology), results of expression of *mec*A, number of administrations and relays. Ceftobiprole-related cost was compared to theoretical cost of the daptomycin-cefepime combination.

Results A total of 154 patients received ceftobiprole after surgery because of bone and/or prosthetic infections: (83/154 (55%) osteoarticular prosthesis; 59 (38%) osteosynthesis; 10 (6.5%) induced membrane technique; and one (0.5%) external fixator. Five (3%) patients had a previous history of MRS infection. Ceftobiprole monotherapy was given to 152 patients and cefepime combination in two. All prescriptions respected dosage and administration way. Eight (5%) of the prescriptions did not comply with the protocol, including indications (six; 4%) and monotherapy (two; 1%). *Mec*A search was negative for 139 (90%) of patients, positive for nine (6%) and uninterpretable for six (4%). Patients received 2.34±2.57 ceftobiprole injections (2.02±1.80 if *mec*A search was negative). When negative, a switch to cefepime was performed for 130 (94%) patients. The cost gain from this antibiotic therapy switch was € 24 501 in 6 months.

Conclusion This study showed a respect of ceftobiprole use in this protocol. Most of the prescriptions were compliant with protocol (indications, administrations). If *mec*A search was negative, the relay was appropriate mainly by cefepime. The economic gain was demonstrated over this period, but it will be reassessed with the arrival of the generic of daptomycin.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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