Table 1 – Main demographic and clinical characteristics of the study sample.

|  |  |
| --- | --- |
|  | Total  N=60 |
| **Male,** n (%) | 47 (78.3) |
| **Age (**years)1 | 63.5 (46.0-72.3) |
| **Comorbidities,** n (%)  Alcoholism  Chronic Heart Failure  Chronic Kidney Disease  Chronic Liver Disease  Chronic Respiratory Failure  Diabetes Mellitus  Drug addiction  HIV/AIDS  Neoplasia  Neurological Disease/TBI | 42 (70)  10 (16.7)  1 (1.7)  9(15.0)  2 (3.3)  5 (8.3)  17 (28.3)  2 (3.3)  1 (1.7)  11 (18.3)  11 (18.3) |
| **SAPS II at ICU admission (**points)1 | 49.0 (32.8-65.5) |
| **Community-Acquired Pneumonia**, n (%)  Microbiological documentation, n (%) | 21 (35)  12 (57.1) |
| **Aspiration Pneumonia**, n (%)  Microbiological documentation, n (%) | 19 (31.7)  15 (78.9) |
| **Bacteremia**  Community-acquired  ICU-acquired  Hospital-acquired  Primary  Secondary  Endovascular  Intra-abdominal  Pulmonary  Urological | 20 (33.3)  5 (25.0)  6 (30.0)  9 (45.0)  4 (20.0)  16 (80.0)  3 (18.8)  6 (37.5)  2 (12.5)  5 (31.3) |
| **Median highest lactate concentration of the day,** (mmol/l)1  Day 0a  Day 4b  Day 7c | 2.2 (1.3-3.1)  1.4 (1.1-1.9)  1.3 (0.9-1.6) |
| **Vasopressor support, n (%)** | 39 (65) |
| **Appropriate antibiotic therapy, n (%)** | 39 (83.0) |
| **Overall antibiotic therapy duration** (days)1 | 9.0 (7.0-14.0) |
| **Appropriate antibiotic therapy duration**d **(**days)1 | 10.0 (8.0-14.0) |
| **ICU length of stay, (**days)1 | 11.5 (6.3-21.8) |
| **Hospital length of stay,** days1 | 26.5 (14.3-43.0) |
| **ICU Mortality, n (%)** | 5 (8.3) |
| **Hospital mortality, n (%)** | 12 (20) |
| **28-days mortality, n (%)** | 8 (13.3) |
| **6 months mortality, n (%)** | 19 (31.7) |
| **1 year mortality, n (%)** | 31 (51.7) |

n=number of participants; 1data presented as median (25th-75th percentile); CAP-community acquired pneumonia, AP – aspiration pneumonia, TBI – traumatic brain injury. Relative frequencies of CAP, AP and Bacteremia are related to those diseases. Microbiologic documentation is related to CAP and AP. Missing data for: a – 8 patients, b -14 patients, c - 26 patients, d - 21 patients.

Table 2 – Mortality in the different C-reactive protein kinetic groups.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **Risk of death within…** | | | | |
| **CRP Kinetic group** | N |  | **ICU**  n(%) | **Hospital**  n(%) | **28 days**  n(%) | **6 months**  n(%) | **1 year**  n(%) |
| **FR** | 12 |  | 1 (8.3) | 1 (8.3) | 1 (8.3) | 3 (25.0) | 3 (25.0) |
| **DFR** | 17 |  | 0 (0.0) | 2 (11.8) | 2 (11.8) | 6 (35.3) | 7 (41.2) |
| **DSR** | 31 |  | 4 (12.9) | 9 (29.0) | 5 (16.1) | 10 (32.3) | 11 (35.5) |
| p-value |  |  | 0.388\* | 0.262\* | 0.890\* | 0.873\* | 0.673\* |

CRP – C-reactive protein; CRP Kinetic groups: FR – Fast Response, DFR – Delayed but fast response and DSR – Delayed and slow response; ICU – Intensive Care Unit; N= number of participants. Variables were compared by the Fisher’s Exact Test. \*none of the p-value were statistically significant, p>0.05.

Table 3 – Antibiotic therapy appropriateness by C-reactive protein kinetic group.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  | |  | | **CRP kinetic group** | | | | |
| **Antibiotic therapy appropriateness** | | **N** | |  | | **FR**  **n(%)** | | **DFR**  **n(%)** | | **DSR**  **n(%)** | |
| AAT | 39 | |  | | 11 (28.2) | | 8 (20.5) | | 20 (51.3) | |
| IAT | 8 | |  | | 0 (0.0) | | 3 (37.5) | | 5 (62.5) | |
| p-value |  | |  | |  | |  | | 0.265\* | |

Figure 1: CRP median evolution in 7 days by three different groups: fast response, delayed response and delayed and slow response

Antibiotic therapy appropriateness: AAT - Appropriate antibiotic therapy, IAT - Inappropriate antibiotic therapy; CRP kinetic groups: FR – Fast Response, DFR – Delayed but fast response and DSR – Delayed and slow response. Variables were compared by the Fisher’s Exact Test.\* p-value no statistically significant, p-value>0.05.