Causes of non-adherence to therapeutic guidelines in severe community-acquired pneumonia

Causas de la falta de adherencia a las guías terapéuticas para la neumonía grave

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Case 1 - Community-acquired pneumonia

A previously healthy male 55-year-old patient was admitted to the intensive care unit from the emergency room, with a diagnosis of community-acquired pneumonia. When admitted to the ER, he described the development of a progressively worsening cough over the past two days, thoracic mechanical pain and dyspnea. In the emergency room, he remained in shock despite initial resuscitation conducted with 3,000mL of physiological saline. After presenting with a progressively worse clinical state including worsening dyspnea despite non-invasive mechanical ventilation, the decision was made to institute oral-tracheal intubation and invasive mechanical ventilation. Throughout intubation, noradrenaline perfusion was initiated due to arterial hypotension. A thoracic radiography documented extensive condensation predominating in the right superior and inferior lobes and in the left superior lobe.

Case 2 - Nosocomial pneumonia

A male 76-year-old patient with a medical history of multiple medical conditions was admitted to the intensive care unit with a diagnosis of nosocomial pneumonia after an elective superior abdominal surgery. The medical history included mild Parkinson's, type II diabetes mellitus, high blood pressure and previous bypass surgery, with mild depression of left systolic function and normal renal function. He was admitted to the hospital eight days prior for a laparoscopic cholecystectomy. The procedure was complicated by hemorrhages, requiring a conversion to open surgery. He had slow but adequate postoperative recuperation until two days ago, when dyspnea, delirium and fever initiated. Thoracic radiography indicated the presence of extensive irregular bilateral consolidation. Clinical development was characterized by hypoxemia and hypercapnia, with oral-tracheal intubation being necessary before transfer to the intensive care unit.

Table S1 - Antibiotic recommendations and doses in the two clinical cases

Community-acquired pneumonia* Case 1	Cefotaxime (6g) Ceftriaxone (2g) Ampicillin-sulbactam (8g)	+	Azithromycin (0.5g)	or	Levofloxacin (0.75g) Moxifloxacin (0.4g)
Nosocomial pneumonia** Case 2	Cefepime (3/6g) Ceftazidime (6g) Imipenem (2/3g) Meropenem (3g) Piperacillin-tazobactam (13.5g)	+	Gentamicin (0.5g) Tobramycin (0.5g) Amikacin (1.5g)	or	Ciprofloxacin (1.2g) Levofloxacin (0.75g)

Doses expressed as grams/day. * Dose according to Gilbert DN, Moellering RC Jr, Eliopoulos GM, Chambers HF, Saag MS. The Sanford Guide to Antimicrobial Therapy. 43th ed. Sperriville (VA): Antimicrobial Therapy; ©2013.; ** dose according to the American Society of Infectious Diseases/American Thoracic Society recommendations.