NEUMONÍA ASOCIADA A LA VENTILACIÓN MECÁNICA
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Antibiotic treatment interruption of suspected lower respiratory tract infections based on a single procalcitonin measurement at hospital admission--a randomized trial.

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Recent studies have suggested that procalcitonin (PCT) is a safe marker for the discrimination between bacterial and viral infection, and that PCT-guided treatment may lead to substantial reductions in antibiotic use. The present objective was to evaluate the effect of a single PCT measurement on antibiotic use in suspected lower respiratory tract infections (LRTIs) in a Danish hospital setting. In a randomized, controlled intervention study, 223 adult patients admitted to the hospital because of suspicion of LRTI were included with 210 patients available for analysis. Patients were randomized to either PCT-guided treatment or standard treatment. Antibiotic treatment duration in the PCT group was based on the serum PCT value at admission. The cut-off point for recommending antibiotic treatment was PCT > or =0.25 microg/L. Physicians could overrule treatment guidelines. The mean duration of hospital stay was 5.9 days in the PCT group vs. 6.7 days in the control group (p 0.22). The mean duration of antibiotic treatment during hospitalization in the PCT group was 5.1 days on average, as compared to 6.8 days in the control group (p 0.007). In a subgroup analysis of chronic obstructive pulmonary disease patients, the mean length of stay was reduced from 7.1 days in the control group to 4.8 days in the PCT group (p 0.009). It was concluded that the determination of a single PCT value at admission in patients with suspected LRTIs can lead to a reduction in the duration of antibiotic treatment by 25% without compromising outcome. No effect on the length of hospital stay was found.

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Defining, treating and preventing hospital acquired pneumonia: European perspective.

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INTRODUCTION: Many controversies still remain in the management of hospital acquired pneumonia (HAP), and ventilation-acquired pneumonia (VAP), Three European Societies, European Respiratory Society (ERS), European Society of Clinical Microbiology and Infectious Diseases (ESCMID) and European Society of Intensive Care Medicine (ESICM), were interested in producing a document on HAP and VAP with European perspective. MATERIALS AND METHODS: The scientific committees from each Society designated one chairman; Antoni Torres (ERS), Harmut Lode (ESCMID) and Jean Carlet (ESICM). The chairmen of this Task Force suggested names from each Society to be a member of the panel. They also choose controversial topics on the field and others that were not covered by the last IDSA/ATS guidelines. Each topic was assigned to a pair of members to be reviewed and written. Finally, the panel defined 20 consensual points that were circulated several times among the members of the panel until total agreement was reached. A combination of evidences and clinical-based medicine was used to reach these consensus. CONCLUSION: This manuscript reviews in depth several controversial or new topics in HAP and VAP. In addition 20 consensual points are presented. This manuscript may be useful for the development of future guidelines and to stimulate clinical research by lying out what is currently accepted and what is unknown or controversial.

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Reduction of ventilator-associated pneumonia: active versus passive guideline implementation.

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PURPOSE: Ventilator-associated pneumonia (VAP) is associated with increased morbidity, mortality and costs. We describe an active, multifaceted implementation of a VAP prevention bundle designed to improve staff compliance with evidence-based actions and reduce the incidence of VAP. METHOD: A 'VAP prevention bundle' was designed then implemented, first passively, then actively, as defined by a multimodal programme incorporating staff education, process measurement and outcome measurement and feedback to staff and organisational change. RESULTS: Compliance with the VAP prevention bundle increased after active implementation. VAP incidence fell significantly from 19.2 to 7.5 per 1,000 ventilator days. Rate difference (99% CI) =

11.6 (2.3-21.0) per 1,000 ventilator days; rate ratio (99% CI) = 0.39 (0.16, 0.96). CONCLUSIONS: An active implementation programme increased staff compliance with evidence-based interventions and was associated with a significant reduction in VAP acquisition.