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Abstract (poster session)

**Health-care-acquired pneumonia in internal medicine departments: frequency and risk factors for difficult-to-treat micro-organisms**

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**Objective:** To assess frequency and risk factors for difficult-to-treat (DTT) microorganisms in patients with HCAP treated in IMDs. **Methods:** Seventy-two internal medicine departments (IMDs) reported all patients with pneumonia attended in their department during 1 week in January 2010 and 1 week in June 2010. We analyzed those who fulfilled Health-care-acquired pneumonia (HCAP) criteria (prior hospitalization  $\geq 2$  days or surgery in the past 180 days; residence in a nursing home; chemotherapy, intravenous therapy, wound care or specialized nursing care at home in the past 30 days; attending hospital or hemodialysis clinic). DTT microorganisms were *P. aeruginosa*, Enterobacteriaceae and methicillin-resistant *S. aureus* (MRSA). **Results:** The 1,002 patient records examined revealed 307 (30.6%) cases of HCAP. Prior hospitalization (56%), residence in a nursing home (55%), and attending hospital regularly due to a chronic comorbid condition (55%) were the most common HCAP criteria. An etiological diagnosis was achieved in 65 patients (21.2%): *S. pneumoniae* (38.5%), *P. aeruginosa* (17%), Enterobacteriaceae (12.3%), MRSA (12.3%), *H. influenzae* (5%) and others (11%). Overall, 41.5% of patients with an etiological diagnosis had a DTT microorganism. Differences between patients with difficult-to-treat (DTT) microorganism and those with an easy-to-treat microorganism were chronic obstructive pulmonary disease (70% vs 43%,  $p=0.04$ ) and attending the hospital regularly due to a chronic comorbid condition (73.3% vs 40%,  $p=0.01$ ). Multivariate analysis adjusted for age, Charlson index, functional status (Barthel index), residence in a nursing home, prior hospitalization, and severity of pneumonia (ATS/IDSA) showed that attending the hospital regularly due to a chronic comorbid condition was the only independent risk factor for difficult-to-treat (DTT) microorganism (OR 4.12, 95% CI 1.43-11.84;  $p=0.008$ ). **Conclusions:** HCAP accounts for one third of cases of pneumonia treated in IMDs; up to 40% of those with identified etiology are caused by difficult-to-treat (DTT) microorganisms. Broad-spectrum antibiotics should be considered in this setting especially in patients attending the hospital regularly due to a chronic comorbid condition.