275. Antimicrobial treatment and resistance in lower respiratory tract infections

P2551

Late-breaking abstract: When is pleural fluid microbiology useful?

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Introduction: It is routine clinical practice, and recommended by the British Thoracic Society, that fluid is sent for culture following diagnostic thoracocentesis. Few studies have evaluated the yield from sending all pleural fluid specimens for culture in day to day practice. Culture yield has, however, been studied in cohorts of patients where pleural infection is suspected - with a sensitivity of 54%.
We wished to ascertain what our yield is from pleural fluid culture when used as part of a routine workup for an undiagnosed pleural effusion and whether positive cultures were associated with raised inflammatory markers (WCC and CRP).
Methods: We retrospectively analysed all pleural fluid samples sent for culture over the previous 12 months. All specimens were cultured for aerobic and anaerobic bacteria, fungi and mycobacterium. Pleural fluid protein, LDH content, serum CRP and WCC were also recorded.
Results: 485 samples were sent for culture over the 12 month period. There were 42 (8.7%) positive cultures, of which 4 were excluded as contaminants.
20 different organisms were isolated. *Streptococcus anginosus* and *Mycobacterium tuberculosis* were the most common. 47% of these positive samples were exudates, none were transudates. The remainder of these specimens (53%) had no pleural fluid biochemistry performed.
We found a positive yield of 7.8% out of the 485 pleural fluid samples studied. A clear association was found between yield and a raised CRP and WCC with a raised CRP found in 97% of positive cultures and an increased WCC in 75%.
Conclusions: Routine culture of pleural fluid is neither cost-effective nor clinically useful and should only be requested when pleural infection is suspected, both clinically and biochemically.

P2552

Late-breaking abstract: Inhaled calcium based dry powder inhibits rhinovirus-induced inflammation and exacerbation in a mouse model of allergic airway inflammation

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Acute exacerbations (AE) in asthma are associated with rhinovirus (Rv) infection. AEs drive disease progression and cause loss of lung function, yet no current therapies target this infectious component. Calcium (Ca) based dry powder (DP) formulations were developed as host-targeted therapies that broadly reduce viral infection *in vitro*, including Rv. Here, a lead Ca-based DP (PUR118) was tested for efficacy against Rv in a mouse model of infection and AE using Rv1B infection in naïve and ovalbumin (OVA)-challenged mice (Bartlett NW et al Nat Med 2008). Mice (Balb/c) were treated with PUR118 or control DP by whole body exposure, twice daily (BID) 2d prior to Rv infection (5×10^6 TCID50) and BID on day of infection. Bronchoalveolar lavage (BAL) inflammation was evaluated 24h post-infection. Additional indices of infection and exacerbation included: viral titers, and expression of relevant cytokines and chemokines. Rv infection caused significant neutrophilic inflammation in naïve mice (7.5×10^5 BAL neutrophils/ml) and exacerbated inflammation in OVA challenged mice (44% increase over control) with increased neutrophils, cytokines and chemokines. In naïve mice, PUR118 treatment reduced neutrophilic inflammation by 38%, which correlated with reduced cytokine and chemokine expression. Similar results were observed in OVA mice where PUR118 treatment reduced neutrophilic inflammation by 40%. The data show Ca-based DP significantly inhibits Rv-induced airway inflammation and Rv-driven exacerbation responses in an asthma-like mouse model. These data support the development of inhaled Ca-based DP to treat infectious causes of AEs in respiratory disease.

P2553

Late-breaking abstract: Prevalence of influenza A H1N1 virus infection in patients with asthmatic crisis of the National Institute of Respiratory Diseases (in Mexico City)

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Introduction: Among the key precipitating factors of these crises are respiratory infections, mainly viral. In April of 2009, Mexico experienced a new influenza A H1N1 epidemic.
Objective: Determine the prevalence of influenza A H1N1 infection in patients with secondary asthmatic crisis.
Research methods. A transversal research on 5-75 year-old patients was developed between September 1, 2009 and May 17, 2010. Research subjects were admitted to the emergency room with a probable diagnosis of influenza A H1N1 infection and asthmatic crisis. Real-time polymerase chain reaction technique was used to confirm influenza A H1N1.
Findings: We found a global prevalence of 3.6% (19/526) of influenza A H1N1 among the patients that were admitted to the emergency room due to asthmatic crisis. From reviewing medical files we found 124 cases of asthmatic crisis among those patients with a clinical suspicion of influenza A H1N1. The prevalence of the A H1N1 virus among patients with asthmatic crisis was 13.7%. The average age of patients in the study was 35.8 years (mean 14.0 years). 71.8% of the patients were women. The average stay in the hospital was 6.9 days, 91% (104/124) of the crises ranged from acute to almost fatal.
Conclusion: Prevalence is relatively high. They can expect an aggravation of the crisis and a longer stay in the hospital.

P2554

Macrolide therapy is associated with lower 30-day mortality in patients with non-pneumonia and pneumonia severe sepsis

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Background: Recent studies suggest that macrolides may have beneficial effects for patients at risk for certain infections. However, the evidence is limited to events associated with pneumonia.
Aim: We examined the effect of macrolide therapy on 30-day mortality for patients with severe sepsis caused by pneumonia compared to non-pneumonia severe sepsis.
Methods: A retrospective administrative data of hospitalized inpatients aged >/=65 years with a discharge diagnosis of sepsis (by ICD-9 codes 0.38 and 0.20) in fiscal years 2002-2007, and at least 1 year of Department of Veterans Affairs outpatient care before the index admission were included. Severe sepsis was defined as sepsis with at least one organ failure. Stratification was done according to the source in severe sepsis secondary to community acquired pneumonia (SSCAP) vs. non-pneumonia severe sepsis NCAP-SS). Primary outcome was 30-day mortality.
Results: Severe sepsis was present in 15,308 subjects, out of whom 1,817 (12%) received macrolides. SSCAP occurred in 24% of the patients vs. 76% in NCAP-SS. Mortality was 46% at 30 days for the severe sepsis group. The use of macrolide therapy was associated with decreased mortality at 30 days in the SSCAP group (31% vs. 51%, p<.001) and in the NCAP-SS group (36% vs. 47%, p<.001) when compared to non-macrolide therapy.
Conclusion: Macrolide use was associated with decreased 30-day mortality in patients with severe sepsis due to pneumonia and non-pneumonia, respectively. Confirmatory randomized control trials are needed to determine whether macrolide therapy may be protective for patients with sepsis and the mechanism of this association.

P2555

Antimicrobial resistance genotype trends and association with host clinical characteristics in respiratory isolates of *haemophilus influenzae*

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Objectives: We aimed to analyze eight-year trend of β-lactam resistance genotype in respiratory isolates of *Haemophilus influenzae*, and to clarify whether resistance genotypes were correlated with pathogenicity, virulence, and host clinical background.
Methods: Respiratory isolates of *H. influenzae* from 2002 to 2009 in our hospital were classified into gBLNAS: β-lactamase TEM-1 negative (BLN) ampicillin susceptible with no resistant genes, gBLNAR: BLN ampicillin resistant with two PBP3 mutations, and other three genotypes using PCR. 144 strains isolated from different patients in 2008-09 were particularly analyzed for the association between genotypes and host clinical data.
Results: Eight-year trend analysis showed the constant decrease of gBLNAS (43% to 30%) along with the steady increase of gBLNAR (15% to 53%). Among genotypes the possibility of being causative pathogen was the same in gBLNAR 51% and in gBLNAS 49%. There was no significant difference in the level of C-reactive protein and the white blood cell count in infectious diseases induced by gBLNAR and gBLNAS. Host clinical characteristics including age and gender were not different in gBLNAR and in gBLNAS except for underlying respiratory diseases. gBLNAR was found at the highest rate 92% in isolates from patients with non-tuberculous mycobacteriosis (n=11), followed by 61% from bronchiectasis and 55% from chronic bronchitis. In contrast, as low as 33% of isolates from COPD (n=18) were gBLNAR.
Conclusions: There was no difference in pathogenicity and virulence between gBLNAR and gBLNAS in respiratory isolates. Underlying respiratory diseases impacted on the resistance genotype.

P2556

Prior outpatient antibiotic use in patients with community acquired pneumonia (CAP) admitted in hospital

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Aim: To compare clinical, microbiological, severity and outcomes in patients with CAP admitted to hospital who had received or not previous antibiotic treatment.
Method: A 12 months prospective multicenter study was performed in Valenciana Community, in Spain (mediterranean area). Factors related comorbidity, etiology, severity, outcomes and mortality, were analyzed. Patients were divided in Group A: antibiotic treatment before admission and Group B: no previous antibiotic treatment.
Results: 1313 CAP, 850 men (65%), 295 in group A (22.4%) with previous antibiotics during 4.3±2.8 days. Patients in group A were younger (59±20 vs 65±18, p <0.001), and more patients treated like outpatients (13.2% vs 8.8%, p<0.05) without differences in residence. When risk factors and comorbidity were analyzed, in group A there were lower proportion of alcohol abuse, heart failure (p<0.05) and CAP evolution days (7±4 vs 5±5, p<0.001), without differences in other factors. In clinical presentation, group A had more fever and cough (p<0.001), lesser dyspnea, and altered mental status (p<0.05), with higher PaO2/FiO2 (293±255 vs 281±69, p<0.05). No differences in radiology pattern between groups or in etiological confirmation were found. Patients in group A had a lower PSI (81±36 vs 92±35, p<0.001), lower rate of complications (p=0,005) as renal failure, shock, mechanical ventilation and ICU admission (p<0.05), without differences in intrahospital mortality. The length of stay was shorter in group A (9±5 vs 11±10 days, p<0.001).
Conclusions: Patients with CAP who received antibiotic treatment before admission were younger, required less hospitalization and the CAP had less severity and complications.

P2557

Clinical outcomes of tigecycline in the treatment of critically ill patients with multidrug-resistant Acinetobactor baumannii infection

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Background: Acinetobacter baumannii (A. baumannii) has emerged as a major cause of nosocomial pneumonia and sepsis in seriously ill patients. Multidrug-resistant A. baumannii (MRAB) is increasing in frequency, and the management of A. baumannii infections is consequently difficult. Therefore, tigecycline is considered the drug of choice for MRAB treatment. The aim of our study was to evaluate the microbiological eradication and clinical effectiveness of tigecycline against MRAB in seriously ill patients, including patients with ventilator-associated pneumonia (VAP).
Methods: We conducted a retrospective study including patients with A. baumannii infections that were treated with tigecycline between April 1, 2009 and March 31, 2010. We treated 27 patients with tigecycline for MRAB infections.
Results: The mean age of the patients was 66.2 years (44-83 years) and 20 (74.1%) patients were male. The median length of stay was 74.6 days (11-135 days). MRAB was eradicated from the site of infection in 23 cases (85.2%), however only 17 cases (63.0%) showed positive clinical responses. Overall, an inhospital mortality rate of 51.9% was observed and 4 cases of death were attributable to sepsis. The combination therapy group showed better clinical and microbial success rates than the monotherapy group.
Conclusions: We observed successful microbial eradication rates, but clinical success rates were lower than previous studies.

P2558

Randomised controlled trial of sequential intravenous and oral azithromycin compared with intravenous ceftriaxone followed by cefixime both in combination with clarithromycin in hospitalized patients with community-acquired pneumonia

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The objective of the study was to compare the efficacy, safety, and tolerability of Azithromycin (500 mg) intravenously (i.v.) once daily followed by 250 mg orally twice daily for 14 days with Ceftriaxone (2 g) by i.v. infusion twice daily followed by Cefixime (400 mg) twice daily, both in combination with oral clarithromycin (500 mg) twice daily for the same duration in 63 adult patients initialy hospitalized with community-acquired pneumonia. All patients assessed both clinically and bacteriologically one month after the end of treatment. The results showed statistically significant higher clinical (93.4% vs. 85.4%) and bacteriological success rates (93.7% vs. 81.7%) for patients treated with Azithromycin, irrespective of the severity of the pneumonia. The time to resolution of fever was also faster (median time: 2 vs. 3 days) and hospitalization period was approximately 1 day less for patients who received Azithromycin. The treatment was converted to oral therapy immediately after the initial mandatory 3-day period of i.v.administration for a larger proportion of patients in the Azithromycin group than patients in the control group (50.2% vs. 17.8%). There were fewer deaths (3.0% vs. 5.3%) and fewer serious adverse events (12.6% vs. 16.5%) in the Azithromycin group than in the control group. The rates of drug-related adverse events were comparable in both groups. Thus, monotherapy with Azithromycin is superior to combination regimen of ceftriaxone plus clarithromycin, in the treatment of community-acquired pneumonia.

P2559

Effectiveness of once daily meropenem for the treatment of aspiration pneumonia of elderly patients in long-term care facilities

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Objective and background: Aspiration pneumonia is a major health problem in residents of long-term care facilities. Antibiotics with broad coverage aginst gram negative and anaerobic bacteria, such as carbapenems, are cornerstone of treatment. However, once daily administration of meropenem for ambulatory patients is not routine yet.
Methods: A retrospective study of 31 elderly patients with aspiration pneumonia (17 males, 14 females; mean age 85 years) was conducted. In addition, the efficacy and safety of once daily intravenous meropenem (3g) for the treatment of this condition were evaluated.
Results: The overall detection rate of bacteria was 87% (32% monomicrobial, 55% polymicrobial). gram-negative enteric bacilli and anaerobic bacteria were isolated with the same frequency (20%) The overall clinical efficacy rate of meropenem therapy was 61%. The mortality rate was 10%.
Conclusion: The use of antibiotics effective against anaerobic bacteria may be necessary for patients with potentially fatal aspiration pneumonia. Once daily therapy with Meropenem (3g) for aspiration pneumonia is clinically effective and tolerable in elderly patients.

P2560

Potential protective role of prior to diagnosis antibiotic treatment in community-acquired pneumonia: Clinical presentation and outcomes

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Aims: To evaluate the role of prior to diagnosis antibiotic therapy in the clinical presentation of community-acquired pneumonia (CAP) and its influence in the outcomes.
Methods: CAP's (excluding HCAP) receiving antibiotic treatment before hospital admission were analyzed. We assessed demographic factors, comorbidities, and outcomes. Logistic regression analysis was performed to establish causal relationships.
Results: We analyzed 1,197 cases of hospitalized CAP in which 22.6% had a history of prior antibiotic treatment, with a mean duration of 3.9 (2.2) days. Beta-lactams were the most frequently used (52.7%) followed by macrolides (29.2%), and quinolones (18.1%). Multivariate analysis showed that patients who received prior antibiotic treatment showed less pneumonia severity on admission (PSI I-III 64.7% vs. 50.9%, OR 1.81 95% CI 1.64-2.45) and pneumococcal etiological diagnosis was less frequent (13.3% vs. 21.7%, OR 0.61 95% CI 0.41 to 0.92). In patients receiving prior to diagnosis treatment, a shorter hospital stay [8.3 (5.1) vs. 10.6 (9.7), P = 0.001], lower frequency of respiratory failure (21.2% vs. 28.8%, p = 0.023), septic shock (1.5% vs. 4.2%, p = 0.034) and ICU admission (3.3% vs. 6.8%, p = 0.035) were found. No significant differences in mortality were observed.
Conclusions: 1. Prior to diagnosis antibiotic treatment of CAP has a role in modifying the severity of CAP and an impact on pneumococcal etiologic diagnosis. 2. The use of antibiotics before the diagnosis of pneumonia is associated with a shorter hospital stay and less development of complications in our series.

P2561

Antibiotic prescription patterns in hospitalized patients with community-acquired pneumonia in local hospital: 10 year follow-up

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Background: In Tatarstan Republic (Russia) regularly update the guidelines of an

community-acquired pneumonia (CAP) and spend work on updating of knowledge of doctors: lectures, seminars, publications.
Objective: We sought to examine patterns of antibiotic prescription during last 10 years in a local hospital. We have estimated prescription of antibiotics at a pneumonia in 2000 (174 cases), 2005 (321) and 2010 (282 cases) years.
Intervention: Chart reviews of 777 individual admissions with the diagnosis of pneumonia between January 2000 and December 2010.
Results: Compliance with national guidelines for the treatment of CAP increased within 10 years that the table reflects.

Most often applied antibiotics at a community-acquired pneumonia

Drug/Year	2000	2005	2010
Penicillins	73%	16,2%	3,5%
Aminopenicillins	14,4%	19,0%	13,1%
Cephalosporin I generation	15,5%	3,4%	0%
Cephalosporin III generation	4%	58,6%	87,6%
Macrolides	27%	36,4%	32,0%
Fluoroquinolones II generation	11,5%	4,7%	4,3%
Fluoroquinolones III–IV generation	0%	0,3%	16,7%
Tetracyclines	4,0%	0,6%	16,7%
Sulfanilamides	6,9%	0,3%	1,1%
Metronidazole	0,6%	1,2%	1,1%

Frequency of application III generation cephalosporins has increased about 4% to 87,6%, respiratory fluoroquinolones - about 0% to 16,7%.
Conclusion: Research has shown that prescription of antibiotics changed within 10 years. Appointments in 87,6% of cases corresponded to the recommendations accepted in Russia in 2010.

P2562
Clinical efficacy of bolus versus continuous-infusion of piperacillin-tazobactam in VAP treatment
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Introduction: VAP is the most frequent intensive care unit (ICU) acquired infection. In an effort to improve the clinical outcome, great attention must be given to early and accurate diagnosis, optimal doses of effective antibiotic and best routes of administration.
Aims and objectives: The aim of this study was to evaluate the clinical outcome of piperacillin/tazobactam via continuous infusion by serial measurments of Clinical Pulmonary Infection Score (CPIS), compared to intermittent bolus
Methods: This study was designed as a prospective clinical trial of continuous infusion or intermittent bolus of a fixed combination of piperacillin/tazobactam and was conducted at the semi-closed intensive care unit of a university hospital. 70 patients were eligible to enter the study. Patients were randomly divided in to two groups and received 3.375 g (piperacillin 3g/tazobactam0.375g) either by intermittent bolus injection every 6 hour in 3-5 min [Intermittent Bolus (IB) group; n=31] or continuous infusion by constant rate of infusion pump every 6 hour in 20-30 min [Continuous Infusion (CI) group; n=30].
Results: There were no significant differences in characteristics between the two groups. The mean ±SD age of the patients was 53.8±21.7 years.The APACHE II score was 20.4±6.1 in the CI group and 18.8±5.9 in the IB group (p=0.319). There was a worsening on day 3 compared with the CPIS on day 1, 8.70±2.13 vs 7.04±1.55, and then CPIS showed improvement from day3. In the CI group more tendency for improvement was observed.
Conclusion: This study suggests that the real value of our findings will achieve by determining the concentration-time profiles of piperacillin/tazobactam.

P2563
Difference of patient background with pneumonia between monotherapy and combination
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Background: The current guidelines recommend combination therapy of antibiotics empirically for pneumonia patients with risks of PDR pathogens. However, this recommendation remains controversial. [Aims and objectives] To elucidate factors which may lead physicians to select combination therapy of antibiotics for pneumonia.
Materials: Pneumonia patients who were admitted to National Center for Geriatrics and Gerontology Hospital from April 2008 to December 2009, and treated with carbapenem (A group, n=70) or combination of carbapenem+aminoglycosides (B group, n=68).
Methods: Information on age, gender, weight, risk factors of PDR pathogens, pneumonia type (CAP/HCAP/HAP), Barthel index, clinical response, duration of therapy and 30-day mortality were obtained from chart review. We compared the aforementioned factors between two groups using multiple logistic regression analysis.
Results: There were significant differences about the aforementioned factors except age between A and B group in univariate analysis. However, in multivariate logistic regression analysis, only Barthel index was significantly different between both groups (81.8±29.2 in A group vs. 59.1±40.3 in B group, $P<0.01$, respectively). The clinical efficacy rates were 79% in A and 63% in B groups, respectively. The 30-day mortalities were 13% in A and 38% in B groups, respectively ($P=0.067$). Duration of antibiotics therapy was significantly shorter in A group compared with B group (7.3±4.7 vs. 19.3±8.2 days, respectively, $P<0.01$).
Conclusion: Barthel index was the independent factor which affected physicians to select combination therapy of antibiotics.

P2564
Auditing patterns of azithromycin use in respiratory disease
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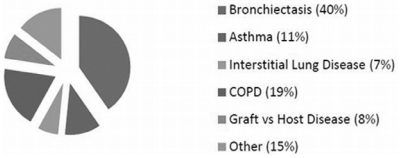
Introduction: In response to increasing use of Azithromycin in respiratory disease we set out to audit local prescribing and clinical outcome.
Methods: Data on all Azithromycin prescriptions from a Respiratory Consultant in a large UK teaching hospital between 1st September 2009 and 31st March 2010 were collected. There were 192 prescriptions corresponding to 123 patients. After excluding patients with cystic fibrosis (CF) and Pseudomonas aeruginosa colonisation, 62 sets of notes were reviewed. The subjective clinical benefit of Azithromycin and objective improvement in terms of exacerbations or lung function was assessed.
Results: Despite the large variation in phenotypic disease (Figure 1), there was an overall reduction of 0.36 exacerbations per month (P<0.0001, 95% CI 0.27–0.46). On further analysis we found that those with evidence of bronchiectasis were significantly more likely to improve after Azithromycin therapy than those without; 88% and 39% respectively (P<0.0001).

Figure 1: Variety of Diseases with Azithromycin Prescriptions



Conclusions: Azithromycin is used in a variety of respiratory conditions and we found variable recording of its benefit. A more formal assessment of benefit is required, especially in light of its side effect risk and potential for microbial resistance. Additional randomised controlled trials to further guide treatment are recommended.

P2565
PcrV antibody prophylaxis in combination with antibiotic therapy reduces lung injury and improves survival in Pseudomonas aeruginosa infected mice
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The type III secretion system (TTSS) of Pseudomonas aeruginosa facilitates direct injection of cytotoxins into host cell cytoplasm. PcrV, located at the tip of the needle-like injectosome, is an essential component of this virulence system. Mab166, a murine monoclonal antibody against PcrV has demonstrated efficacy against P. aeruginosa infection resulting in increased survival and reduced lung injury in a variety of mouse models of infection. We hypothesized that administration of Mab166 prophylactically in combination with conventional antibiotics (administered subsequent to infection) could further improve survival of P. aeruginosa infected mice. Three antibiotics (ciprofloxacin, tobramycin and ceftazidime), commonly prescribed for P. aeruginosa infections were used for this study. Consistently, compared to other treatment groups, the combination of Mab166 administered with an antibiotic significantly improved survival of mice infected with three times the lethal dose (LD90) of the highly cytotoxic ExoU-secreting strain, PA103. The underlying mechanism of the anti-PcrV-tobramycin combination appears to involve a synergistic protection against lung injury and bactericidal effect in the airways, ultimately preventing bacterial dissemination to other organs.
We conclude that a combination of prophylactic Mab166 with subsequent antibi-

otic administration provides a new strategy against P. aeruginosa airway infection, even heavy burden of highly virulent strains are present and may represent a viable prophylactic approach for patients at high risk for P. aeruginosa infection.

P2566

Are multi-drug resistant (MDR) pathogens related to higher mortality in pneumonia?

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Pneumonia caused by MDR pathogens is becoming a worldwide problem difficult to manage.The aim was to investigate whether in pneumonia MDR infection is associated with acute respiratory failure (ARF) development or with a higher mortality.

We retrospectively investigated patients with CAP or HCAP who had been admitted to Fondazione IRCCS Ca' Granda Policlinico of Milan from January 2008 to April 2010. We considered as MDR the following ones: MRSA,ESBL bacteria,multiresistant Pseudomonas,Vancomycin-resistant-Enterococcus and Acynetobacter baumanii.

935 patients with pneumonia (504 males) with a mean age of 76±14, were included in the study. One or more pathogens were isolated in 183 cases (20%)and MDR was found in 28 (3%). Factors that most likely were associated to a MDR infection were a previous hospitalization (odds ratio 5; CI95% 2.1-11.8) and antibiotic treatment (OR 2.48; CI95% 1.008-6.1)within 90 days. MDR infection was associated with a higher mortality (p 0.0001, OR 5; CI95% 2.11-11.8) but not with ARF development (p 0.093).Clinical features on admission are listed in table 1.

Table 1. Clinical features on admission

	Not MDR	MDR	p
Age	73±15	84±7	0.0001
PSI	119±40	144±40	0.004
COPD	39(25)	12(42)	0.052
Immunodepression	59(37)	11 (39)	0.883
PaO2/FiO2	265±76	228±52	0.030

A multivariable regression logistic analysis adjusted for immune system status and empiric antibiotic coverage of aetiologic pathogen,showed that MDR infection was an independent risk factor for mortality (OR 7.5; CI95%1.75-32).

These results suggest that,despite a correct initial antibiotic treatment,a MDR infection seem related to a poor outcome so this subgroup of patients should be closely monitored and treated with aggresive support measures.

P2567

Implementation of severity guided antibiotic treatment according to Dutch guidelines in hospitalized patients with community-acquired pneumonia (CAP) included in a clinical trial

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The aim of this study was to evaluate the use of antibiotics according to the Dutch guideline in patients with CAP included in a clinical trial with respect to clinical outcome at day 30. Antibiotic therapy was based on severity scoring of CAP next to clinical judgment.

A total of 213 patients were evaluated. Amoxicillin (122 patients, 57.3%) was most often prescribed (CURB-65 0-2: 82.8%; CURB-65 3-5: 17.2%), followed by moxifloxacin (80 patients, 37.6%) (CURB-65 0-2: 61.3%; CURB-65 3-5: 38.8%) and amoxicillin/clavulanic acid (9 patients, 4.2%) (CURB-65 0-2: 77.8%; CURB-65 3-5: 22.2%). 30 day mortality was 12 (5.6%) patients, 4 patients on initial amoxillin and 8 patients on initial moxifloxacin.

Patients on amoxicillin had a clinical success rate at day 30 of 80.0%, while patients on moxifloxacin had a clinical success rate of 61.3%.

In 20 (9.4%) patients antibiotic treatment was narrowed, whereas 7 (3.3%) patients were treated with broader spectrum antibiotics; 186 (87.3%) patients remained on their initial antibiotics.

In a multivariate analysis only severe CAP (CURB-65 score >2) was associated with clinical failure at day 30 (OR 6.0, 95% CI 2.1-17.5), while type of antibiotics, antibiotic change (narrowing of broadening) and aetiology were not associated with treatment failure.

Conclusion: Patients with non-severe CAP can safely be treated with amoxicillin. The use of Dutch guideline concordant antibiotics resulted in a low rate of broadening antibiotic treatment. Antibiotic therapy was not associated in multivariate analysis with clinical outcome at day 30.

P2568

Effect of benzylpenicillin-ciprofloxacin vs. ceftriaxon-ciprofloxacin in treatment of massive pneumonia (CAP-community acquired pneumonia)

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In the past few years a high level of massive pneumonia has been noticed. The aim of study was to compare the effect of benzylpenicilln-ciprofloxacin versus ceftriaxon-ciprofloxacin in treatment of massive pneumonia.

Material and methods: There were 60 patients (male-34;female-26;22-68 years old) who were divided in two groups according to the therapeutical treatment. All patients had radiological image of lobar massive CAP with biochemistry verification, and port score between 70-90. The first group with thirty patients was treated with a combination of benzylpenicillin (1.6 million i.m. per day)-ciprofloxacin (500mgx2 p.o. per day) for seven days. The second group with also thirty patients was treated with a combination of ceftriaxon (2g per day)-ciprofloxacin (500mgx2) also for seven days. After the treatment we compared radiological image according to RECIST criteria.

Results: In the first group were 14 with complete, 10 with partial, 2 with stable response and 4 with progression of disease. In the second group there were 16 with complete, 7 with partial, 4 with stable response and 3 with progression of disease. There were no deaths and no complications during the treatment. There was no statistical significance between the two groups of patients in treatment of massive pneumonia (CAP-Community acquired pneumonia) p>0.05.

Conclusion: According to our result we can conclude that the combination of benzilpenicilin-ciprofloxacin has given good results in treatment of massive lobar pneumonia (CAP) with good safety and tolerance. Costs benefit recommends benzylpenicillin-ciprofloxacin for therapy of choice.