P2453
Comparison of treatment outcomes in community-acquired pneumonia patients treated with beta lactam-macrolide combination versus fluoroquinolone monotherapy

Oguz Kilinc, Ozgur Soykal, Aykut Cilli, Aydin Sakar, Sezai Tasbakan, Hulya Elibolokan, Burcu Celenk, Cemile Cinikaya, Cenan Gunduz, Abdullah Savye, Chest Diseases, Dokuz Eylul University Faculty of Medicine, Izmir, Turkey; 5Chest Diseases, Celal Bayar University Faculty of Medicine, Manisa, Turkey; 6Chest Diseases, Ege University Faculty of Medicine, Izmir, Turkey; 7Biosistics, Dokuz Eylul University Faculty of Medicine, Izmir, Turkey

The clinical outcomes of patients with community-acquired pneumonia treated in accordance with the recommendations of Turkish Thoracic Society (TTS) guidelines and who had received beta lactam-macrolide combination or fluoroquinolone (FQ) monotherapy were evaluated using the data from four contributing sites to the TURCAP database of TTS Assembly of Respiratory Infections. A total of 343 patients was included. Of these patients, 63.6% had received combination treatment and 36.4% had received FQ monotherapy. There was no difference between the two groups regarding age, gender and comorbidities. However, the mean Pneumonia Severity Index (PSI) scores were 101.8±35.8 and 91.0±28.9 (p=0.006) and CURB-65 scores were 2.3±1.0 and 2.0±0.8 (p=0.002), respectively. The length of hospital stay was 9.5±6.1 days in the combination and 8.5±4.4 days in the FQ groups (p=0.24). The rates for cure, partial improvement and mortality were 59.1%, 28.2%, 12.8% for the combination group versus 72.6%, 24.2%, 3.2% for the FQ group, respectively. There was no significant difference between the improvement rates; on the other hand, the mortality was higher in the combination group (p=0.03). Logistic regression analysis showed that mortality was associated with PSI score and not with the choice of antibiotic treatment. In this retrospective analysis of TURCAP database, the clinical success rates were similar in patients who received a combination of beta lactam and macrolide and fluoroquinolone monotherapy. The lower mortality observed in the latter group was found to be associated with less severe disease at presentation.

P2454
Pharmacokinetics and pharmacodynamics of newer fluoroquinolones in patients with lower respiratory tract infections

Paschalinà Kontoù, Kalliopi Chatzià, Katerina Maniķa, Georgia Pinisù, Maria Stioudou, Ioannis Kiosisù, ICU, G. Papanikolaou Hospital, Thessaloniki, Greece; 2Pharmacokinetics Laboratory, Pulmonary Department, Aristotle University, Thessaloniki, Greece; 3Pulmonary Department, Aristotle University, Thessaloniki, Greece

Introduction: Levofloxacin (LVF) and moxifloxacin (MXF), have been recommended as first line therapy for patients with acute exacerbations of chronic bronchitis and community-acquired pneumonia. Aim: The aim of this study is to evaluate the pharmacokinetic (PK) and pharmacodynamic (PD) parameters of LVF and MXF for lower respiratory tract infections (LRTI). Methods: Eighteen patients (2 groups of 9, aged 69.6±8.7 and 74±8.8) with LTRI received 500 mg LVF IV q12h or 400 mg MXF IV q24h. Serial blood samples were obtained at steady state condition (3rd day of therapy). Plasma concentrations were determined by a validated HPLC method. The PD target was evaluated for both antibiotics based on our hospital’s MIC90 of the most common respiratory pathogens. Results: The PK data are presented in Table 1. Table 2: PD data

Table 1. PK data

<table>
<thead>
<tr>
<th>Cmax (μg/ml)</th>
<th>AUC(24 h) μg/ml</th>
<th>CL (L/hr)</th>
<th>T1/2 (h)</th>
<th>Vss (L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LVF 6.2±1.02</td>
<td>53.9±18.97</td>
<td>20.5±7.9</td>
<td>9.4±1.4</td>
<td>20.8±6.77</td>
</tr>
<tr>
<td>MXF 4.86±1.11</td>
<td>38.02±5.57</td>
<td>10.7±1.3</td>
<td>14.52±6.95</td>
<td>17.9±6.86</td>
</tr>
</tbody>
</table>

Both antibiotics exhibited large volumes of distribution (Vss). They achieved the PD target in all patients against the majority of strains of the commonest respiratory pathogens in our hospital, as shown in table 2.

Table 2. PD data

<table>
<thead>
<tr>
<th>AU/C/MIC (S. pneumoniae)</th>
<th>AU/C/MIC (H. influenzae)</th>
<th>AU/C/MIC (M. catarrhalis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LVF 107.9±7.57</td>
<td>1799.47±632.25</td>
<td>899.74±316.13</td>
</tr>
<tr>
<td>MXF 152.08±22.27</td>
<td>633.68±92.78</td>
<td>633.68±92.78</td>
</tr>
</tbody>
</table>

Conclusions: LVF and MXF exhibit a favorable PK profile in patients with LRTI. There is adequate PD exposure against most strains of S. pneumoniae, H. influenzae and M. catarrhalis with low MICs.

P2455
Combination therapy (beta-lactam-macrolide) vs fluoroquinolone monotherapy for the treatment of CAP

Charalampous Trantallidou, Vassilios Kapardelis, Elissavet Christina Philippidou, George Paparits, Maria Apostolidou, Ioannis Nikolopoulos, Dora Orfanidou, Angelos Pefanis, 1ICU, G. Papanikolaou Hospital, Thessaloniki, Greece; 2Pharmacokinetics Laboratory, Pulmonary Department, Aristotle University, Thessaloniki, Greece; 3Pulmonary Department, Aristotle University, Thessaloniki, Greece

Background: According to the 2007 IDSA/ATS guidelines for the treatment of CAP monotherapy with fluoroquinolones is the first choice and combination therapy remains an alternative treatment option. Combination therapy was the first recommended treatment option by the 2003 IDSA update of practice guidelines for the treatment of CAP. Aim of study: The aim of this study was to assess whether any of the two proposed alternative treatment options for CAP is statistically superior and related with advanced clinical course. Material and methods: A prospective observational study which incorporated 300 immunocompetent adults, who referred to the ER of “Sotira” General Hospital for Thoracic Diseases, Athens, Attica, Greece; 2Centre for Respiratory Failure and Intensive Care Unit, “Sotira” General Hospital for Thoracic Diseases, Athens, Attica, Greece; 31st Department of Respiratory Medicine, Kavala General Hospital, Kavala, Greece

Results: 250 patients (83.33%) received combination therapy and 50 patients received fluoroquinolone monotherapy.
Background: The British Thoracic Society (BTS) guidelines suggest that blood cultures be performed in patient's with moderately severe community-acquired pneumonia. The aim was to identify whether the appropriate microbiological investigations are being performed on patients admitted with community acquired pneumonia.

Introduction: The British Thoracic Society (BTS) guidelines suggest that blood and sputum culture be performed in patients with moderately severe community-acquired pneumonia (CAP). Atypical testing and viral PCR are recommended in severe CAP. The aim was to identify whether the appropriate microbiological investigations are being performed on patients with CAP.

Method: This was a retrospective audit. CAP was defined as a clinical diagnosis of pneumonia in a patient with a new radiographic infiltrate. Microbiology investigations performed in CAP patients were compared against the same data collected in 54 CAP patients in 2008. The 2009 BTS guidelines served as the audit standard.

Results: 210 patients were included. 55% had blood cultures taken, with bacteremia confirmed in 15 patients. This compared with 70% having blood cultures in 2008, p=0.02. 16% (34) had sputum culture compared with 25% (24) in 2008, p=0.06.
P2460
Evaluating flutter device and the active cycle of breathing technique in non-cystic bronchiectasis: The prospective randomized study

Gundemir Alizaj, 1 Bilge Uzmecinci, 1 Necdet Sun, 2 Hakkan Tuna, 3 Osman Nuri Hatioglu, 4 1 Respiratory Medicine, Trakya University Hospital, Edirne, Turkey;
2 Respiratory Medicine, Social Security Hospital, Edirne, Turkey;
3Department of Bistatistics, Trakya University Medical Faculty, Edirne, Turkey;
4Departments of Physical Medicine and Rehabilitation, Trakya University Hospital, Edirne, Turkey

Background: Chest physiotherapy is an important part of the routine treatment of patients with bronchiectasis. The aim of present study was investigate the efficacy of two frequently used physiotherapies in bronchiectasis: active cycle of breathing (ACTB) techniques and the Flutter device.

Methods: A prospective randomized study was performed in 36 stable patients with non-cystic bronchiectasis at home, in which 4 weeks of daily ACTB (n=17) were compared with the Flutter device (n=19). We compared symptoms, pulmonary function tests, dyspnea scores and Health-Related Quality of Life with two different physiotherapy techniques.

Results: Mortality and length of stay was reduced (respectively p<0.000, p=0.004), sputum expectoration was increased (p=0.002), dyspnea score was reduced (for Medical Research Council p=0.001, for Borg Dyspnea Scale p=0.002, and Short Form-36 `Physical Health` component summaries score was improved partly (p=0.001) with physiotherapy. No significant changes were noted for FVC, FEV1 or symptoms between the two techniques. We found only significantly higher general health (p=0.048) and pain feeling (p=0.011) scores in SF-36 with the Flutter.

Conclusions: Chest physiotherapy is a useful method increasing sputum expectoration, reducing symptoms and dyspnea score and party improvement Health-Related Quality of Life. ACTB and Flutter techniques are suitable usage as a home-based treatment.

P2461
RCT of chest physiotherapy versus chest physiotherapy and pulmonary rehabilitation in non cystic fibrosis bronchiectasis

Pallavi Mandal1, Manjit Sial2, Luan Kope3, Wendy Pollock 1

Lorna Stevenson1, Shelley MacQuarrie1, Kim Turnbull2, Joanna Pentland3,
Adam Hill 1,2, Centre for Inflammation Research, QMRI, Edinburgh, United Kingdom; 1Respiratory Medicine, Royal Infirmary of Edinburgh, United Kingdom; 2Department of Physiotherapy, Royal Infirmary of Edinburgh, United Kingdom

Aim: To assess the efficacy of pulmonary rehabilitation(PR) in addition to regular chest physiotherapy in non-cystic fibrosis bronchiectasis.

Methods: Patients with bronchiectasis were invited to participate if their exercise tolerance was limited, due to bronchiectasis, from Edinburgh Bronchiectasis clinic, in a prospective study.15 received chest physiotherapy and 15 received PR-chest physiotherapy. Review was at baseline/4 weeks/8weeks/end of intervention and 20 weeks/ (completion of study). Outcome measures were improvement in incremental shuttle walking test(ISWT), endurance walk test(EWT), health related quality of life(HRQoL),St.Georges Questionnaire(SGRQ) and Leicester Cough Questionnaire(LCQ).

Results: Results are presented as mean(standard error). The minimum clinically important difference was 5.35 units for LCQ and 12.5 units for ISWT.

Conclusions: Comparison of changes between the two groups was calculated using unpaired t-tests. Inhaled colistin in elderly patients with bronchiectasis and chronic bronchial pseudomonas infection

Ekaterina Kutsia, 1 Palma Atanasio, 2 Bilge Uzmecinci, 1, Nuri Hatioglu2

1Pneumology, Hospital Santa Marina, Bilbao, Spain; 2Department of Respiratory Medicine, Kanagawa Cardiovascular and Respiratory Center, Yokohama, Japan

Methods: The clinical records of all 18 patients with active pulmonary MAC infection was calculated based on the number of all active pulmonary MAC patients in our institute during the same period.

Results: The patients were eight males and ten females with a mean age of 75 years (range 50-89). Thirteen patients were with M. avium, one with M. intracellulare, four with unidentified MAC, and none with HIV infection. Pneumothorax occurred on the right lung in twelve patients and on the left in six. All but one patient had MAC disease in both lungs, and twelve patients had widespread lesions with total area more than one lung field. Seven of 18 patients (39%) were forced to undergo surgical operation following unsuccessful thoracic drainage. Five patients experienced the recurrence during the period and other two eventually stayed with chronic pneumothorax. The complication rate of pneumothorax in active pulmonary MAC infection was as high as 2.4% (18 out of 746 all MAC patients), 2.1% in female and 3.0% in male patients.

Conclusions: The incidence of pneumothorax in patients with pulmonary MAC infection is unexpectedly high, especially in elderly, male, and progressed MAC disease. It is often difficult to treat and easy to recur.

P2463
Effects of nebulizer therapy by hypertonic saline, gender and breastfeeding on evolution of acute bronchiolitis

Ekaterina Kutsia, Tina Ghonghadze, Tamaz Zhoro nihiliani. PICU, M. Ashvili Children’s Central Clinic, Tbilisi, Georgia Infant’s Department, G. Zhvania Pediatric Clinic, Tbilisi, Georgia

Acute bronchiolitis is most common viral infection of lower respiratory tract in infants. In 90% is caused by respiratory syncytial virus.

One of the main protective factors from infants morbidity is breast milk. In literature is data about infants gender factor in risks of acute respiratory infections. Revealing influence of breastfeeding (BF) on evolution of infant’s acute bronchiolitis is a gender aspect, assuming results of nebulized therapy by hypertonic saline (HS).

A retrospective study of medical records in Pediatric Clinic (2010-2011) was carried out. The data was statistically analyzed in the program packet SPSS 16.0. The data of 86 ±12 month old infants were analyzed, 55 girls (29%), 61-boy (71%). We compared clinical improvement days among BF and formula fed boys and girls. In BF infants with acute bronchiolitis the clinical improvement occurred more rapidly (2-3 days) than the formula fed infants (3-4days) (p<0.01).

There was no statistically evident association between gender and feeding type in improvement day (p=0.05).

We compared clinical improvement days among BF and formula fed boys and girls. In BF infants with acute bronchiolitis the clinical improvement occurred more rapidly (2-3 days) than the formula fed infants (3-4days) (p<0.01). There was no statistically evident association between gender and feeding type in improvement day (p=0.05). The effectiveness of nebulized HS in acute bronchiolitis is statistically significant, it improves patients clinical condition and makes a rapid recovery (p=0.01)

Study revealed higher incidence of morbidity in boys. Was evident tendency of improvement in boys. BF improves clinical condition from 2h-3h day (p<0.01). The Duration needed for clinical improvement in the group treated by 3% HS was shorter (p<0.001).

P2464
Inhaled colistin in elderly patients with bronchiectasis and chronic bronchial pseudomonas infection with pneumonia

Eva Taberner1, Ramon Alkiza1, Pilar Gil1, Javier Garros2, 1Pneumology, Hospital Santa Marina, Bilbao, Spain; 2Respiratory Medicine, Hospital Galdakao, Galdakao, Spain

Bronchiectasis is the end result of several different illnesses and a frequent cause of admission in hospitals for elderly people and chronic diseases. Although many guidelines recommend treatment with inhaled antibiotics in non cystic fibrosis (CF) bronchiectasis in chronic bronchial infection with pseudomonas aeruginosa, there is limited evidence for elderly patients.

Aims: To assess the effectiveness of inhaled colistin in elderly patients with non CF bronchiectasis and chronic bronchial pseudomonas infection

Methods: Prospective, controlled, randomized and open. We included patients with HRCT diagnosed bronchiectasis, at an acute exacerbation admission and appropriate antimicrobial therapy. We collected data on demographics, clinical and functional characteristics, admissions and sputum microbiology. We followed the patients for one year, evaluating microbiological results, functional tests, readmissions and exabs.
Results: We included 25 patients, 13 treated with inhaled colistin and 12 in control group. Four patients stopped the treatment because of adverse effects. Main results are shown in the table.

<table>
<thead>
<tr>
<th></th>
<th>Control (n=12)</th>
<th>Colistin (n=13)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charlson</td>
<td>76.2</td>
<td>75.6</td>
</tr>
<tr>
<td>FEV1%</td>
<td>2.7</td>
<td>2.6</td>
</tr>
<tr>
<td>Persistence of pseudomonas</td>
<td>41.1%</td>
<td>41.6%</td>
</tr>
<tr>
<td>Change in FEV1</td>
<td>-1.2%</td>
<td>+5.6%</td>
</tr>
<tr>
<td>Hospital stay</td>
<td>16</td>
<td>28</td>
</tr>
<tr>
<td>Exitus 1 year</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

*Statistically significant.

Conclusions: Significant more patients in the treatment group achieved Pseudomonas eradication; but we could not demonstrate clinical or functional benefits in our elderly patients. These results may be due to small sample size. Side effects were frequent.

P2465 Changes in the lower airway bacterial community of from adult non-CF bronchiectasis population are significantly associated with exacerbations and the presence of Haemophilus influenzae

Paul Parcell1, Stephen Cummings1, Hannah Jury1, Anthony De Soyza1, John Percy1. 1School of Life Sciences, University of Northumbria, Newcastle upon Tyne, Tyne & Wear, United Kingdom; 2Department of Microbiology, Freeman Hospital, Newcastle upon Tyne, Tyne & Wear, United Kingdom; 3Transplantation and broncho-identifying Group, Institute of Cellular Medicine, Newcastle University and the Freeman Hospital, Newcastle upon Tyne, Tyne & Wear, United Kingdom

Background: The aim was to investigate the polymicrobial communities in sputum samples derived from an adult non cystic fibrosis bronchiectasis (nCFBr) population using culture independent methods. The cohort consisted of 70 individuals with HRTC proven nCFBr. Twenty patients presented at the clinic for sputum culture with symptoms consistent with exacerbations, the remainder were clinically stable.

Methods: DNA was extracted from sputum samples of all patients (n=70). Universal primers were used to amplify the 16S and 28S rDNA, the resulting fragments were analysed by denaturing gradient gel electrophoresis. Demographic and culture data were used in constrained ordination analyses to identify any significant associations between these data and changes in the sputum microbiota.

Results: Haemophilus influenzae was significantly correlated with a reduced lung function. Bacterial profiles indicated a significantly different community was present in exacerbating patients compared to those that were clinically stable (P = 0.002). H. influenzae carriage also produced significant changes (P = 0.004) in community structure. Moreover, H. influenzae was never found in samples that harboured P aeruginosa. Bacterial communities appeared to be randomly assembled. Fungal taxa were scarce.

Conclusions: Bacterial communities from adult non-CF bronchiectasis patients have distinct differences between exacerbating and clinically stable episodes. Persistent colonisation by H. influenzae is independently associated with exacerbations, the remainder were clinically stable.

P2466 Rapid detection of Mycoplasma pneumoniae IgM antibodies using Immunocard Mycoplasma kit compared with complement fixation (CF) test and clinical application

Ryuta Ueda, Juri Okamura, Yasushi Inoue, Taichi Mochizuki, Tetsuo Sato. Respiratory Medicine, JUH Mitia Hospital, Tokyo, Japan

Purpose: Mycoplasma pneumoniae is a leading cause of community-acquired pneumonia. For a rapid diagnosis of M. pneumoniae infection, we often use Immunocard Mycoplasma kit (IC), a 10-min-card-based enzyme-linked immunosor- bent assay (ELISA) of IgM antibodies to M. pneumoniae. However, widespread clinical application of this test is hampered by an inability to identify pathogen directly with adequate sensitivity and specificity. Therefore, we examined the clinical usefulness of IC test retrospectively.

Method: We evaluated 316 samples which are measured by IC from October,2008 to March,2009. We also compared IC with the complement fixation (CF) test, and estimated false positive and negative rate based on the clinical course and other laboratory findings.

Results: Among 316 samples, 69 (21.8%) were positive of IC and 247 (78.2%) were negative. Sixteen cases were also measured by CF test with the paired serum, and in 5 (31.3%) cases of these, there was a discrepancy between the result of IC and that of CF test. On the basis of a clinical diagnosis, IC gave the false positive rate of 80.9%, false negative rate of 31.3%.

Conclusion: IC has so far been attributed to the rapid diagnosis of M. pneumoniae infection because it is unnecessary to use paired serum and possible to judge the infection rapidly. But a positive result of IC does not always indicate acute infection because the result of IC were not always concordant with that of CF test. According to our results, it seems that the interpretation of the result of IC is very difficult in order to use it clinically.

P2467 Legionella pneumonia in patients hospitalized with community-acquired pneumonia (CAP) in Norway

Wenche Roydal1, Øystein Simonsen2, Andrew Jenkins3,4, Marjut Sarjomaa5, Yngvar Øvretveit6,7, Martin Veil Svensden1, Anna Kanestrom1, Hjalfred Waage1, Jemund Ringstad1, 1Department of Occupational and Environmental Medicine, Telemark Hospital, Skiens, Norway; 2Department of Medical Microbiology, Unilsals Telehel AS, Skien, Norway; 3Faculty of Art and Sciences, Telemark University College, Bd Tele in Telemark, Norway; 4Clinical of Internal Medicine, Telemark Hospital, Skien, Norway; 5Department of Medical Biochemistry, Telemark Hospital, Skien, Norway; 6Department of Clinical Microbiology, Østfold Hospital, Fredrikstad, Norway; 7Department of Research and Development, Telemark Hospital, Skien, Norway

Introduction: European studies have reported that Legionella pneumonia accounts for 0.10% of the cases of CAP in hospitalized patients. In Norway, data on the etiology of CAP in hospitalized patients is limited, and Legionella pneumonia has been considered a rare disease.

Aim: To investigate the frequency of Legionella pneumonia among hospitalized CAP-patients in Norway.

Methods: Adult patients with radiologically confirmed CAP were prospectively included at the main acute care hospitals of two counties in Norway (Telemark and Østfold) during a 20-month study period in 2007-2008. Microbiological analyses included culture of blood and sputum, urinary antigen testing for Streptococ- cus pneumoniae and Legionella pneumonia serogroup 1, real time polymerase chain reaction (PCR) of a throat swab for atypical agents, and serology for L. pneumophila serogroup 1-6.

Results: A total of 374 patients were included in the study. Legionella pneumonia was confirmed in 8 patients. Eight cases were identified due to urinary antigen testing, and 13 cases were identified later by serology, of whom four were classified as probable cases (single high convalescent titre). Three of the patients were part of a small outbreak of Legionella, and another two patients probably were infected from the same hot tub. The cases might have been travel-associated. Otherwise, S. pneumoniae was the most common etiological agent detected (20%), followed by Haemophilus influenzae (6%).

Conclusion: Legionella pneumonia seems to be more prevalent than previously recognized in Norway, and testing for Legionella should be considered more frequently than currently practiced.

P2468 Bronchiectasis in Auckland, New Zealand: Ethnic differences in severity

Maria Carrabba, John Perry2. 1School of Life Sciences, University of Northumbria, Newcastle upon Tyne, Tyne & Wear, United Kingdom; 2Department of Medical Microbiology, Østfold Hospital, Fredrikstad, Norway; 3Faculty of Art and Sciences, Telemark University College, Bd Tele in Telemark, Norway; 4Clinical of Internal Medicine, Telemark Hospital, Skien, Norway; 5Department of Medical Biochemistry, Telemark Hospital, Skien, Norway; 6Department of Clinical Microbiology, Østfold Hospital, Fredrikstad, Norway; 7Department of Research and Development, Telemark Hospital, Skien, Norway

Bronchiectasis is more prevalent in Maori and Pacific Islanders (PI) than Europeans. The aim of this study was to evaluate differences in severity and microbiology between ethnicities.

Methods: Records of 250 patients (66% female, mean age 62yrs, FEV1% predicted 64.6%) attending the bronchiectasis clinic at Auckland District Health Board were retrospectively reviewed. Demographic and clinical variables were recorded. Ethnicity was compared to NZ Department Statistics 2006 census data for central Auckland.

Results: PI (23%) and Maori (12%) are over-represented in this cohort; European (44%) and Asian (16%) under-represented. Mean FEV1%predicted was higher in Europeans (70.7%) than Maori (63%) and PI (54%), p <0.001 and remained so when corrected for smoking status p<0.001. Similar statistically significant differences were seen in FVC %predicted. Maori patients were younger (mean age 60yrs) than PI (66yrs) and Europeans (66yrs), p<0.02. There was a trend to later diagnosis in Maori and PI compared to Europeans. 124 patients had at least one sputum sample that year with Haemophilus 29%, Pseudomonas 13.7%, Aspergillus 4.8%, Pneumococcus 2.4% and non tuberculosis mycobacteria 2.4%.

There was no significant difference in sputum microbiology by ethnicity.

Conclusions: Maori and PI are over-represented in the bronchiectasis clinic and tend to be younger with more severe disease than other ethnicities. Disease severity is independent of smoking status, microbiology and gender suggesting other factors such as genetic susceptibility or socioeconomic status influence outcome.

P2469 Pneumonia and Clostridium difficile infection: Hospital acquired infection in a non-ICU department

Maggiore Policlinico, Milano, Italy; 2UO Qualità, rischio, accreditamento, management, Polyclinico, Milano, Italy

Introduction: CDI is an emerging cause of hospital morbidity, mortality and costs. Of all hospital acquired infections, of Clostridium difficile infection (CDI). Among all hospital acquired infections, CDI is an emerging cause of hospital morbidity, mortality and costs.

We investigated the prevalence of CDI acquisition rates in patients hospitalized with pneumonia and compared all causes of inhospital mortality among patients
It is well-known that antibiotic therapy for pneumonia, mainly based on newer fluoroquinolones, b-lactams and macrolides, combined with high-dose or long-term use of proton pump inhibitor drugs increase the risk of CDI. Our data suggest that CDI could be a very common etiology of hospital acquired infection also in non-ICU and non-outbreak setting with low endemic rate.

Methods: Among 4549 patients evaluated for CAP/HCAP, we analyzed 1470 patients which presented an etiologic diagnosis. We excluded patients with immunosuppression, neoplasm and active tuberculosis.

Results: Pneumonia due to PES was identified in 136 (9%) patients (n=646 P. aeruginosa n=44 Enterobacteriaceae n=35 S. aureus). These patients were older, had more frequently received previous antibiotics and presented a reduced autonomy with higher rate of aspiration episodes (p<0.001) but not a higher number of nursing-home (p=0.125). PES pathogens were more commonly identified in patients with many comorbidities (especially neurologic and chronic respiratory disease, p<0.001). PES group had more severe pneumonia by PSI score (p<0.001), longer hospital length-of-stay and 30-days mortality (p<0.001).

Conclusions: PES pathogens are responsible for CAP with high mortality. The attending physician should be worried to empirically cover PES pathogens in patients with lower autonomy, many comorbidities and previous antibiotic treatment.

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P2470
Clonal typing of {Pseudomonas aeruginosa} strains in non-CF bronchiectasis
Mauri Drain1, Lan Wei1, Deirdre Gilpin1, Michael Tunney1, Dervla Kennan1, Stuart Elborn1.

Introduction: {Pseudomonas aeruginosa} is the most clinically significant infecting organism in non-CF bronchiectasis.

Aims and objectives: To determine the whether there are clonal strains within the non-CF bronchiectasis population in Northern Ireland.

Methods: In total 50 {Pseudomonas aeruginosa} isolates from 26 patients were analyzed by pulse field gel electrophoresis (PFGE).

Results: There were 10 individual strains identified by PFGE band pattern after DNA macrorestriction. 5/50 isolates were unique novel strains from 5 separate individuals. There were two dominant strains in this cohort. BELFCITPA-1 in 14/50 isolates in 5 patients. 12/50 isolates in 7 patients were identified as BELFCITPA-5. Stable patients were found to have one strain per sample whereas there was greater diversity within the samples collected from patients with an exacerbation, 1.25 strains on average.

Conclusion: There are a number of common strains of {Pseudomonas aeruginosa} found in the sputum of non-CF bronchiectasis patients. Although there are at least 2 clonal strains identified in this small cohort, it is unclear whether this is because they are common environmental strains in the region or because of cross-infection between individuals.

P2471
PES in CAP: An acronym to identify "problematic pathogens" in community-acquired pneumonia
Elena Prina1, Miquell Ferrer1, Eva Polverino1, Catia Cilloniz1,3, Antoni Torres1,3.

Methods: Among 4549 patients evaluated for CAP/HCAP, we analyzed 1470 patients which presented an etiologic diagnosis. We excluded patients with immunosuppression, neoplasm and active tuberculosis.

Results: Pneumonia due to PES was identified in 136 (9%) patients (n=646 P. aeruginosa n=44 Enterobacteriaceae n=35 S. aureus). These patients were older, had more frequently received previous antibiotics and presented a reduced autonomy with higher rate of aspiration episodes (p<0.001) but not a higher number of nursing-home (p=0.125). PES pathogens were more commonly identified in patients with many comorbidities (especially neurologic and chronic respiratory disease, p<0.001). PES group had more severe pneumonia by PSI score (p<0.001), longer hospital length-of-stay and 30-days mortality (p<0.001).

Conclusions: PES pathogens are responsible for CAP with high mortality. The attending physician should be worried to empirically cover PES pathogens in patients with lower autonomy, many comorbidities and previous antibiotic treatment.

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P2472
C-reactive protein in community acquired pneumonia – Correlation with main clinical indices
Pavlina Nikolova1, Yavor Ivanov1, Nikolay Yanev1, Plamen Pavlov1, Nikolay Kychukhov1, Tsanya Popova1, 2.

Background: C-reactive protein (CRP) has a significant role as a factor, correlating with main clinical indices of the community acquired pneumonia (CAP).

Aim: To evaluate the relationship between CRP levels and main clinical signs of CAP – severity, length of stay, complications, outcome.

Methods: Prospective study for 1 year period. 50 patients with CAP severity CURB65 score 2-5, treated in Pulmonary Clinic were enrolled. 17 of them were women and 33 (60%) – men, average age 54.4±14.6 y. Serum levels of CRP were tested at 1-st and 7-th day of hospital stay. Clinical indices such as concomitant diseases, length of stay, complications, antibiotic prescriptions, outcome have been settled.

Results: At admission the levels of CRP were increased up to 434 mg/dl, mean value 83.41 mg/dl (normal range 0-5mg/dl). Most of the patients (54%) had score ≥3 concerning CURB65, followed by 2 – 24% and 4 – 20%. 62% of them have had concomitant diseases, mainly cardiovascular – in 44% of the cases. The most frequent used antibiotic was ceftriaxone – in 92% of cases. 72% of the patients were treated with two antibiotics, 12% - with three. The duration of antibiotic treatment was average 7.2±1.69 d (from 5 to 12 days). The length of stay was 8.4 d (from 7 to 12 days). Significant relationship was established between CRP and: severity of CAP (CORB65) p<0.05, r=0.38; the duration of intravenous antibiotic treatment p<0.05, r=-0.32; antibiotic prescription at leaving hospital day p<0.05; r=0.39; complications; length of stay p<0.05; r=0.30; outcome p<0.05; r=0.50.

Conclusion: CRP is a sensitive and reliable factor, correlating with the severity of CAP, length of stay and outcome.