the documented in 9 hospitals. In 2005, 322 patients (cohort
PRS4
THE COST-EFFECTIVENESS OF DRUG THERAPY IN COMMUNITY-ACQUIRED PNEUMONIA AND THE IMPACT OF ANTIMICROBIAL RESISTANCE IN GERMANY
Martin M1, Quilici S2, Evers T1, Kubin M1
1 Innoventus, Uxbridge, Middlesex, UK, 2 Bayer Healthcare AG, Wuppertal, Germany
OBJECTIVE: The incidence of community-acquired pneumonia (CAP) caused by drug resistance has increased dramatically in recent years. The aim of this analysis was to analyse the impact of antimicrobial resistance on the cost-effectiveness of different antibiotic classes (beta-lactams, macrolides, fluoroquinolones) in patients with CAP in Germany. METHODS: A decision analytic model was developed for mild-to-moderate CAP outpatient treatment. Treatment algorithms incorporated follow-up after treatment failure due to resistance or other reasons. First-line treatment included moxifloxacin (MXF), beta-lactams (AMX), or macrolides (ROX); second-line treatment used a different antimicrobial class. In contrast to existing cost-effectiveness models in CAP class-specific resistance profiles were included in the model. This allows for the analysis of the impact of antimicrobial resistance on the cost-effectiveness in addition to standard outcomes like clinical failure, hospitalisation rates and total costs. Input data were derived from surveillance studies, from literature and expert opinion. Total costs were estimated using standard sources and a third-party payer perspective in Germany. RESULTS: Total cost were €240.60 (MXF), €250.59 (ROX), and €268.91 (AMX). First-line clinical failure, second-line treatment, and hospitalisation rates were lower for MXF as compared to the other treatment options. First-line MXF treatment dominated all other treatments. Antimicrobial resistance accounted for 53% (AMX), 72% (ROX) and 2% (MXF) of all clinical failures and 37% (AMX), 56% (ROX) and 1% (MXF) of all hospitalisations. CONCLUSIONS: Antimicrobial resistance has a significant impact on the cost-effectiveness of empirical treatment of CAP. The first-line use of moxifloxacin in CAP is a dominant strategy even in a country with a low level of resistance like Germany.

COSTS OF COPD EXACERBATIONS IN POLAND (RESULTS OF THE PILOT STUDY)
Jahry-Rozyk KM, Targowski T, From S
Military Institute of the Health Service, Warsaw, Poland
OBJECTIVES: Exacerbations are the key drivers of the costs of chronic obstructive pulmonary disease (COPD). This was the pilot study of patients with COPD aimed at evaluating direct and indirect cost of exacerbations under usual clinical practice in primary and secondary care form societal perspective. METHOD: It was observational, multicenter study with participation of 73 subjects with moderate or severe COPD, defined according to the current GOLD criteria. Patients presenting at the selected health care centres were included into the study in the sequential manner, if they fulfilled the inclusion criteria. Exacerbations were divided into three different severity types according to Anthonisen N.R. classification. The management of exacerbations followed the usual clinical practice. RESULTS: The average monthly cost of maintenance therapy of COPD was PLN 180. The average direct health care cost per exacerbation was PLN 4002 (95% CI = 3537; 4503) and PLN 438 (95% CI = 326; 570) in secondary and primary care respectively. In secondary care, the drug acquisition and oxygen therapy cost represented 18.3% of total direct costs, diagnostic tests costs accounted for 14.5%, the other hospital care and post-discharge follow-up visit costs 67%. Costs varied considerably with the severity of the exacerbation as well as the duration of COPD. In primary care the cost structure was as follows: diagnostic tests and medical devices 47.5%, drug acquisition costs 41% and doctors visits 11.4%. The average indirect costs per exacerbation were PLN 232 and PLN 141, in secondary and primary respectively. (EUR 1 = PLN 3.85; year 2006). The average reported number of COPD exacerbations in previous year was 3. CONCLUSION: Exacerbations of COPD are costly. Cost of exacerbation managed in secondary care is 9-fold higher than in primary care. Prevention of moderate-to-severe exacerbations, requiring hospitalization could be very cost-effective strategy.