ECONOMIC BURDEN IN DIRECT COSTS OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) IN RUSSIA

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OBJECTIVES:
COPD is one of the leading causes of morbidity and mortality worldwide and has a major burden on Russian’s health care system. It’s lead to frequent use of health care resources. The main aim of this study was to describe the direct costs for management of COPD patients with differing degrees of disease severity.

METHODS:
The methodology for cost of illness analysis was based on a previous Russian study (Avksenteva M.V. et al., 2010). One-year costs were identified by applying cost data to medical information obtained by medical statistical records from 2007. In this study were performed 2 variants of COPD costs (Figure 1). In 1st variant were used epidemiological data from 2007 and medical resources costs from 2014. In 2nd variant were used extrapolated epidemiological data and medical resources costs from 2014. Due to lack of actual data in this study was modeled situation – from 2007 to 2012 the overall incidence of adult increased by 12.5%. Medical resources included hospital stays, outpatient visits and ambulance service (Figure 2).

RESULTS:
The mean annual overall direct health care cost for 1st variant was estimated to be 54.6 billion rubles ($1.6 billion), for 2nd variant was estimated to be 61.6 billion rubles ($1.8 billion) (Table 1). The structure of direct costs in Russia was as follows – 77% for hospital stays, 21% for outpatient visits, 2% for ambulance service (Figure 3). COPD exacerbations contributed the major portion of cost and also correlated with disease severity.

CONCLUSIONS:
COPD associated with significant economic burden on Russian’s health care system. There is a striking direct relationship between the cost of care and severity of the disease with hospitalization leading to disease exacerbation being a major portion of cost.

REFERENCES:
Avksenteva M.V. et al. Socio-economic burden of asthma and chronic obstructive pulmonary disease in the Russian Federation. Study report, 2010