Title: Influenza and pneumonia in Ukraine: An epidemiological survey

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Body: A great impact of influenza on community-acquired pneumonia (CAP) morbidity is widely recognized. 
However, a statistical data, reflecting the interrelation between these infections in Ukraine have never been 
presented before. The aim of the study was to reveal possible relationship between CAP and influenza 
morbidity rates for 2009-2011 epidemic seasons in Ukraine. Materials and methods. The official 
epidemiological data, published annually by Ministry of health of Ukraine Medical Statistics Center, 
Influenza Control Center and National institute of Phthisiology and Pulmonology, were analyzed. As a results 
the linear regression models of CAP morbidity were built for 4 regions of Ukraine (Kyiv, Vinnytsia, 
Ivano-Frankivsk and Dnipropetrivsk oblast). The correlation between the results of modeling and intensive 
influenza morbidity indices was evaluated using the Pearson’s correlation coefficient. Results. The highest 
pneumonia morbidity rate in Ukraine was in 2009-2010, exceeding corresponding value for 2008 by 24,2 % 
and 2011 – by 5 %. A significant correlation between intensive influenza morbidity, taken for each 
geographical region, and pneumonia regression model inclination was established (r=0,91). Conclusion. An 
existence of strong association between influenza outbreaks and high level of CAP incidence in different 
regions of Ukraine suggests the necessity of more closer epidemic monitoring and more intensive use of 
influenza preventive strategies in order to reduce the burden of low respiratory tract infections.