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Influenza infection in COPD

The importance of exacerbations in chronic obstructive pulmonary disease (COPD) is well recognized. There is much interest in the role of different viruses and bacteria in exacerbations, and the development of strategies against these pathogens. In this issue of the *International Journal of COPD* we have 3 reviews focused on the role of one particular pathogen; the influenza virus (Plans-Rubió 2007; Mallia and Johnston 2007; Wesseling 2007). We are pleased to publish these state of the art reviews written by leading experts in the field. These articles provide up to date opinions on different aspects of this virus in COPD, including virology, epidemiology, vaccination strategies, and drug therapies. We have selected these reviews for publication based on clear synthesis of current data combined with expert opinion on the most important future issues.

The use of molecular diagnostic methods have enabled better quantification of the role of influenza in causing COPD exacerbations. Studies using polymerase chain reaction for pathogen detection are presented in these reviews, and confirm that influenza is one of the most common causes of viral exacerbations. Mallia and Johnston (2007) make the point that we do not fully understand the pathophysiological role of influenza in causing acute exacerbations, or the precise nature of virus–bacterial interactions during exacerbations. There is clearly a need for continued translational research that furthers our understanding of these basic pathophysiological mechanisms in humans.

The prevention and treatment of influenza in COPD is an important healthcare issue. While vaccination is generally recommended as a preventative measure, underutilization of this resource occurs in clinical practice. Plans-Rubió (2007) extensively reviews ways to increase vaccination uptake, providing an invaluable source of practical information regarding different implementation strategies. The role of amantadines and neuramidase drug therapies for COPD patients with influenza is reviewed in all 3 articles, with data presented that supports their use to decrease the severity of infections. However, the authors raise important issues including cost-effectiveness and patient selection, highlighting the need for studies to define the optimum strategies for the treatment of influenza infection in COPD patients.

We hope you find these articles interesting and informative. It is our intention to continue to publish high quality review articles from leaders in all aspects of COPD ranging from molecular biology to clinical aspects.

References

- Mallia P, Johnston SL. 2007. Influenza infection and COPD. *Int J COPD*, 2:55–64.
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Wesseling G. 2007. Occasional review: Influenza in COPD: pathogenesis, prevention and treatment. *Int J COPD*, 2:5–10.