Foreword

The 22nd Annual New Horizons Symposium: Clinical Respiratory Pharmacology

Respiratory therapists commonly administer inhaled pharmaceutical agents. Although the most common of these are bronchodilators, this armamentarium has expanded to include inhaled steroids, antibiotics, mucokinetics, and vasodilators. The newest drug to become available for inhalation is insulin. Not only is it important for respiratory therapists to know how to administer these medications, but an understanding of their clinical pharmacology is equally important, as increasingly respiratory therapists are expected to choose the appropriate agent (via protocol), monitor the patient’s response to therapy, and instruct the patient in the proper use of the drug (including, but not limited to, correct use of the aerosol generating equipment). The 22nd Annual New Horizons Symposium provides an overview of the clinical pharmacology of a variety of inhaled drugs. This symposium, Clinical Respiratory Pharmacology, was presented at the Las Vegas Convention Center on December 12, 2006, as part the 52nd International Respiratory Congress of the American Association for Respiratory Care. In this issue of Respiratory Care, we are pleased to publish the manuscripts prepared by each presenter.

Perhaps the most commonly used inhaled medications are the inhaled β agonists and anticholinergic bronchodilators. Use of inhaled β agonists is addressed by Tim Op’t Holt, who provides an overview of short-acting and long-acting agents and the controversy related to singe-isomer formulations. Clinical pharmacology related to the use of β agonists is covered as it relates to patients with chronic obstructive pulmonary disease (COPD), asthma, and other diseases. Use of short-acting and long-acting anticholinergics is covered by Ruben Restrepo, who covers the clinical pharmacology of these agents in patients with COPD and asthma, and the role of combinations of anticholinergics and β agonists. Inhaled corticosteroids are also important in the care of patients with asthma and COPD, and these agents are covered by Ghee-Chee Phua and Neil MacIntyre.

The clinical pharmacology of mucolytic and mucokinetic agents is presented by Bruce Rubin. The role of these drugs in cystic fibrosis and other diseases of mucus hypersecretion is discussed. Aerosolized antimicrobials in the treatment of ventilator-associated pneumonia is described by Rajiv Dhand. He covers the clinical pharmacology of aerosolized antimicrobials and their role in the treatment of ventilator-associated pneumonia. Particularly important to the respiratory therapist is a discussion of optimal technique for delivery of these agents via nebulizer in mechanically ventilated patients.

Increasingly the inhalation route is used to deliver drugs to the pulmonary circulation. Mark Siobal describes the role of pulmonary vasodilators that can be administered via inhalation. Rich Kallet discusses the evidence for inhaled drugs such as narcotics and furosemide that are administered for dyspnea relief. Vamsi Guntur and Rajiv Dhand describe the clinical pharmacology of inhaled insulin.

This issue of Respiratory Care presents the current state of the art for many of the classes of drugs currently available for inhalation. The clinical focus of these papers will make them invaluable to anyone who administers inhaled medications.

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