

Preface

## Occupational and environmental lung disease



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Occupational and environmental lung diseases remain among the most challenging illnesses confronting pulmonologists. The last issue of the *Clinics in Chest Medicine* that was devoted exclusively to the topic of occupational lung disease was published over 10 years ago; this issue covered traditional occupational lung diseases and environmental lung problems. Although certain occupational exposures—such as asbestos and “traditional” workplace dusts—have decreased, such exposures persist and a broader spectrum of adverse effects has been appreciated. During the past 10 years there has been an increase in understanding and awareness of many other occupational and environmental exposures and diseases, including beryllium disease, lower-level irritant exposures, air pollution, environmental tobacco smoke, and bioterrorist exposures.

The goal of this issue of the *Clinics in Chest Medicine* is to review recent advances in the science of occupational and environmental lung disease and to convey the art of managing patients with these complex and often time-consuming illnesses. Besides mastery of the diagnostic and therapeutic approaches to occupational and environmental lung diseases, pulmonologists and other clinicians are challenged to integrate the principles of exposure assessment, industrial hygiene, epidemiology, impairment, disability, and prevention. Drs. Storey and Bracker provide a practical approach to assist clinicians in the critical task of assessing occupational and environmental exposures that cause lung disease. Drs. Taiwo and

Cain address the often frustrating yet critical task of assessing pulmonary impairment and disability.

Our understanding and recognition of occupational airway disorders has advanced; these include occupational upper airway disorders, work-related asthma, and the effects of environmental tobacco smoke and chronic lower-level irritant exposures, all of which are well addressed in different articles in this issue. Dr. Cohen provides an update of the broad spectrum of lung diseases associated with the more conventional industrial exposures, silica and coal mine dust. The article by Dr. Maier reviews the substantial progress that has been made in our understanding of the immunopathogenesis of chronic beryllium disease, including the genetic and exposure risks for beryllium sensitization and development of disease. Recent studies have highlighted the hazardousness of agricultural work, as well as the complexity and variety of exposures and lung illnesses found in agricultural workers; these topics are well reviewed by Dr. Spurzem and colleagues. The September 11th World Trade Center terrorist attack and the events that followed have greatly heightened our awareness of chemical and biological weapons, as well as more common acute inhalational injuries. Drs. Bogucki and Weir provide clinicians with a thorough and timely review of the pulmonary manifestations of intentionally released chemical and biological agents. The article by Drs. Rabinowitz and Siegel reviews acute inhalational injuries, including proper diagnosis, management, and prevention.

The physician who recognizes that a lung disease is related to work or aggravated by environmental exposures must consider not only the affected patient but also those individuals sharing the same exposure environment as the patient and who may also be at risk for lung disease. This intersection of medicine and public health demands that physicians be both willing and able to tackle complex problems of causation and exposure identification. We hope that the articles contained in this issue of the *Clinics in Chest Medicine* will help arm physicians with the information they need to perform this task well.

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