

# Updates in Pulmonary Medicine 2021

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GUEST EDITOR

In the setting of the COVID-19 pandemic, pulmonary medicine has been brought to the forefront in the minds of many medical professionals over the past year. However, COVID-19 is only a small part of the vast array of pulmonary diseases that have affected and continue to impact Rhode Islanders. In this issue of the *Rhode Island Medical Journal*, pulmonologists from Rhode Island will review a variety of important and dynamic issues in pulmonary and sleep medicine, including common disease states with complicated management strategies and rare diseases that many readers are exposed to while practicing in Rhode Island and elsewhere. Our hope is this issue will improve both the specialist's and the general practitioner's ability and confidence in identifying, diagnosing, managing, and appropriately referring patients affected by these topics, so that we may all improve the lives of thousands of Ocean State patients.

## Obstructive Sleep Apnea Syndrome

Obstructive Sleep Apnea Syndrome (OSAS) is a common and underdiagnosed disorder leading to significant morbidity for a variety of patients worldwide. Our knowledge of the risks of OSAS and benefits of therapy have continued to evolve, and **ALICE BONITATI, MD**, the Associate Director of the Lifespan Sleep Disorders Center in Rhode Island, and **PARVATI SINGH, MD**, provide a succinct but comprehensive up-to-date guide to the diagnosis and initial management of this disorder.

## The Clinical Utility of Cardiopulmonary Exercise Testing

Cardiopulmonary exercise testing (CPET) is a functional and dynamic way to assess cardiopulmonary function at a patient's personal maximal exercise capacity. In many cases, the plethora of data generated can help differentiate complicated and unclear causes of dyspnea and exercise intolerance when used by experienced clinicians. **EVAN SMITH, MD**, along with **ERIC GARTMAN, MD**, Director of the Cardiopulmonary Exercise Training Laboratory at the Providence Veteran Affairs Medical Center, describe the components of CPET, as well as its varied indications to aid in evidence-based diagnosis, prognosis, and management of cardiopulmonary disease, including, for example, congestive heart failure, preoperative evaluation, and evaluation for organ transplant.

## Updates on Cystic Fibrosis Treatments

Although cystic fibrosis (CF) is a rare disease, it still affects more than 70,000 people worldwide and leads to significant morbidity and mortality of multiple organ systems in many patients. As the therapies to manage CF have advanced and patients' life expectancies have increased, it has become a more chronic but complicated medical problem that can often be managed over decades with the appropriate multidisciplinary care. **DEBASREE BANERJEE, MD**, and **MICHAEL BLUNDIN, MD**, provide such care for many of the cystic fibrosis patients in Rhode Island, and, along with **CHELSEA BOYD, MD**, and **ROGER AUTH, MD**, they offer a review of the exciting recent changes to the management of cystic fibrosis in the age of personalized medicine, including a review of novel therapeutics that modulate the cystic fibrosis transmembrane regulator protein and changes to antibiotic management.

## Diagnosis and Management of Idiopathic Pulmonary Fibrosis

Idiopathic pulmonary fibrosis (IPF) is the most common of the idiopathic interstitial pneumonias. Definitive diagnosis requires the exclusion of known causes of pulmonary fibrosis, aided by the multidisciplinary discussion involving pulmonologists, radiologists, and pathologists with expertise in the diagnosis of IPF and other forms of interstitial lung disease. **JULIA MUNCHEL, MD**, and **BARRY SHEA, MD**, provide an excellent review of the current recommendations for the diagnosis, prognostication, and management of patients with IPF, which focuses on anti-fibrotic therapy and early referral to lung transplant centers for those who are candidates.

## Diagnosis of Pulmonary Hypertension

Pulmonary hypertension (PH) is a chronic disease of elevated pulmonary artery pressure that can result from pulmonary vascular diseases or complicate left heart and lung disease, while pulmonary arterial hypertension (PAH) is a rare pulmonary artery vasculopathy that leads to progressive right heart failure and death. Timely and accurate diagnosis of PH is paramount given the increased morbidity and mortality, but can be challenging given the nonspecific nature of the presenting symptoms and the many potential causative or contributing conditions. Although right heart catheterization is required for diagnosis and early referral to a PH expert

center, such as the Rhode Island Hospital Pulmonary Hypertension Center, is strongly recommended, it is an important and increasingly common problem for all RI healthcare providers to consider and care for. To that end, **NAVNEET SINGH, MD**, and **CHRISTOPHER MULLIN, MD**, a pulmonary hypertension specialist practicing in RI, provide a review of the complicated workup of PH, based on the current medical knowledge and significant local experience.

### **The Evolving Continuum of Diagnosis in the Modern Age of Non-Small Cell Lung Cancer**

Although lung cancer is the leading cause of cancer-related death in the United States, there has been significant advancement in the diagnosis and treatment of non-small cell lung cancer (NSCLC) over the past couple of decades. Improvements in diagnostic evaluation and biopsy techniques coupled with advances in targeted therapies with newer drug targets are giving patients and their families

more hope in the face of this challenging disease, but this, in turn, leads to new challenges navigating increasingly complex decision-making for the healthcare providers. **DANIEL DUSTIN, DO**, and **DOUG MARTIN, MD**, provide a concise overview of the current best practices for workup and management of NSCLC from the pulmonary viewpoint, while also noting emergent complications based on recent data and their personal experiences caring for patients with lung cancer in RI.

In conclusion, we hope this compilation will enhance your knowledge of and interest in some of the many important pulmonary diseases seen in Rhode Island patients and the world at large.

### **Guest Editor**

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