# An Update on the Diagnosis and Treatment of Interstitial Lung Diseases

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#### Introduction

The term "interstitial lung disease" refers to more than 100 distinct illnesses (ILD). A multidisciplinary team of specialists should examine a mix of clinical, radiological, and pathological criteria that are used to diagnose an ILD. The pathophysiology of these disorders has been linked to a number of variables, including genetic predisposition, infections, medications, radiation, and occupational and environmental exposures. Environmental toxins can be inhaled and can cause diseases including asbestosis and other pneumoconioses, hypersensitivity pneumonitis (HP), chronic beryllium disease, and smoking-related ILD. According to the most current Global Burden of Disease Study, ILD ranked 40<sup>th</sup> globally in terms of years of life lost in 2013, an increase of 86% from 1990.

The model fibrotic ILD is idiopathic pulmonary fibrosis (IPF). IPF has an incidence and prevalence of 14.6 per 100,000 person-years and 58.7 per 100,000 people, respectively, according to a recent study from the United States. According to these figures, there may be around 2 million IPF sufferers in densely populated nations like Brazil, Russia, India, and China (the BRIC region). South American research, however, discovered far lower rates (0.4-1.2 cases per 100,000 per year). The management of ILD in developing nations frequently faces difficulties due to limited access to high-resolution computed tomography, spirometry, or multidisciplinary teams for accurate diagnosis and effective treatment. A group of diffuse parenchymal lung disorders known as interstitial lung diseases are linked to high rates of morbidity and mortality [1].

### **Description**

The establishment of a new categorization of idiopathic interstitial pneumonias, which divides the condition into three categories-major, rare, and unclassified-is the consequence of knowledge gained in recent years. The new classification is unusual because it allows for the treatment of difficult-to-classify entities in accordance with the illness behaviour categorization. The most fatal interstitial lung disease, idiopathic pulmonary fibrosis exhibits a great degree of clinical variability [2]. In order to forecast the progression of the disease and group individuals with similar characteristics in clinical studies, a variety of biomarkers have been proposed. Other interstitial lung disorders likewise require early identification and disease classification. The term "interstitial lung diseases" refers to a collection of diverse lung conditions with varying clinical and radiologic manifestations. The pathophysiology of interstitial lung disorders is still largely understood, despite advances in knowledge.

Studies examining the role of gender and sex hormones in the pathogenesis and treatment of pulmonary fibrosis were sparked by experimental findings

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on the involvement of sex hormones in lung development and epidemiologic connections of gender differences with the prevalence of interstitial lung disorders. This experimental and clinical information about the effects of sex and gender hormones on interstitial lung disorders reveals potential directions for the future of the discipline. Progressive fibrotic interstitial lung diseases (PF-ILDs) are a diverse category of ILDs that are frequently difficult to diagnose, despite the fact that a proper diagnosis has a substantial impact on both treatment and prognosis. After receiving conventional therapy, a subgroup of these patients gradually loses lung function, physical capability, and quality of life. Older age, a poorer baseline pulmonary function, and a typical interstitial pneumonia pattern are risk factors for ILD progression. Pharmacologic and nonpharmacologic treatments are available for non-IPF P-ILD [3-5].

#### Conclusion

Antifibrotic medications, which were initially licenced for IPF, have shown promising outcomes in clinical trials when used in patients with different fibrotic ILD subtypes. Interstitial lung diseases (ILDs), notably those ILDs that are frequently linked to autoimmune illnesses, affect some patients in a way called a progressive fibrosing phenotype, which is marked by premature mortality, decreasing lung function, dyspnea, and other symptoms of poor quality of life. Other than idiopathic pulmonary fibrosis, no medications are approved for the treatment of ILDs (IPF). Immunomodulatory drugs are currently the cornerstone of care for ILDs without IPF. However, the data to support the idea that immunosuppression may help patients with these ILDs maintain lung function only comes from retrospective, observational, or uncontrolled research, with the exception of systemic sclerosis-associated ILD.

## **Conflict of Interest**

None declared.

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