

## Special considerations in lung disease and PH

Providence, R.I. 2017 PHA *on the Road*



### Session description:

The purpose of this session will be to discuss how lung diseases—such as chronic obstructive pulmonary disease (COPD), interstitial lung disease, and sleep-disordered breathing—are associated with pulmonary hypertension (PH). Attendees will gain insight into how various forms of lung disease cause PH and how they should be evaluated and treated. We will also cover the various treatments used in treating PH related to lung disease, including supplemental oxygen and continuous positive airway (CPAP) when sleeping.

### Learning Objectives

Attendees will be able to:

- **Define PH and describe the difference between pulmonary arterial hypertension (PAH) and PH related (“secondary”) to lung disease**
  - PH is defined as a mean (average) pulmonary artery pressure  $\geq 25$  mmHg.
  - PAH is defined as a mean pulmonary artery pressure  $\geq 25$  mmHg with a pulmonary capillary wedge pressure  $\leq 15$  mmHg in the absence of underlying left heart disease and lung disease.
- **List the lung diseases commonly associated with PH and how they can cause PH**
  - Lung diseases commonly associated with PH include:
    - COPD (chronic obstructive lung disease)
    - ILD (Interstitial lung disease)
    - OSA (Obstructive sleep apnea)
  - Lung diseases typically cause PH through a combination of damage to the lung tissue and low oxygen levels.
    - Lung tissue damage can affect the surrounding blood vessels leading to narrowing of these vessels and PH.
    - Low oxygen levels also cause the pulmonary vessels to constrict. This leads to increased pressure in the lungs and worsens PH.
- **Describe the proper evaluation of patients with lung disease who may have PH**
  - Patients with suspected PH should undergo specific tests to evaluate for underlying lung diseases. These tests include:
    - Full pulmonary function tests
    - High resolution computed tomography (CT) of the chest
    - Ventilation-perfusion scan of the lungs
    - Overnight oximetry or sleep study where indicated
- **Explain treatment options for PH related to lung disease**
  - Except for chronic thromboembolic disease related PH, there are no FDA approved therapies for PH related to lung disease
  - Use of supplemental oxygen may improve pulmonary pressures and PH
  - Optimal Treatment of underlying lung diseases may improve overall symptoms and PH, especially for OSA

### Additional Resources

- [www.PHAssociation.org/Classroom/Recording/PHPlus/PHInCOPD](http://www.PHAssociation.org/Classroom/Recording/PHPlus/PHInCOPD)
- [www.PHAssociation.org/SleepApnea](http://www.PHAssociation.org/SleepApnea)