# Life Threatening Pulmonary Emergencies

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Pulmonary emergencies are commonly seen in Chinese patients. Rapid diagnosis and treatment by physicians are often life-saving.

Airway obstruction, either from benign or malignant etiologies requires rapid recognition and stabilization. Patients can present with dyspnea, stridor, hoarseness, brassy cough or cyanosis. A careful focused history and physical should be done, paying special attention to the possibility of foreign body aspiration and history of lung cancer. Chest radiographs should be obtained and if necessary CT of the chest. Medical stabilization of airway involves use of bronchodilators, steroids, racemic epinephrine, and Heliox. If definitive control of airway is indicated, endotracheal intubation is performed. When endotracheal intubation is difficult or not possible, surgical airway should be established by cricothyroidotomy or tracheostomy. Benign airway obstruction such as tracheal stenosis can be treated by YAG laser ablation or tracheal stenting. If a patient is a good surgical candidate, tracheal resection offers a more durable result. Non-small cell lung cancer is the leading cause of malignant airway obstruction. Treatment option includes laser ablation, tracheobronchial stenting, photodynamic therapy and radiotherapy. Even though the overall survival for these patients is dismal, treatment goal is the restoration of patient's quality of life and reduction of the need for mechanical ventilation.

Massive hemoptysis carries a significant associated mortality of 7-30%. Bronchial artery is the most frequent origin of bleeding. Common medical causes are acute bronchitis, bronchiectasis, neoplasm and infection. Conservative treatments involve cessation of anticoagulation, correction of coagulopathy, and antitussive therapy. CT of the chest and bronchoscopy are useful in localization of bleeding. During massive hemoptysis, airway can be protected by placement of a bronchial blocker or a double lumen endotracheal tube. Percutaneous embolization should be attempted first, with pulmonary resection as the last resort.

Symptomatic pneumothoraces and pleural effusions require prompt pleural drainage by chest tube. Thoracoscopic bleb/bulla resection and pleurodesis is performed for complicated and recurrent pneumothoraces. Due to decreased pain and morbidity, thoracoscopic approach is the preferred treatment. Thoracoscopic biopsy can help in identifying the etiology of pleural effusion when thoracentesis is not diagnostic. Pleurodesis can be done during the same setting to decrease the risk of recurrent pleural effusion.

In summary, pulmonary emergencies are common. Prompt control of airway and pleu=---ral drainage of pneumothoraces or pleural effusions can be life-saving. When necessary, appropriate pulmonary and thoracic surgical consultation should be obtained.