Title:

Pulmonary Disorders and Air Travel

Description:

3.7 billion people travelled by commercial aircraft worldwide in 2016. Aircraft cabin environment is unique with changes in air pressure and humidity, relative immobility and close proximity of passengers. This may lead to exacerbation of chronic medical problems, increased risk of venous thromboembolism and potential transmission of communicable diseases. Respiratory symptoms accounted for 12% of in-air emergencies with an increased risk of hospitalization after air travel. Hence it is important to be aware of the physiological changes that occur in the aircraft cabin, be familiar with preflight assessment of patients to risk stratify and understand disease specific recommendations for air travel.

Primary Category: Pulmonary Physiology
Secondary Category: Obstructive Lung Diseases
Network/Committee Affiliation: Clinical Pulmonary Medicine NetWork

Learning Category: Learning Category I: Lecture-Based
Learning Sub-category: Other Lifelong Learning
Target Audience: Cardiologists; Cardio-Thoracic Surgeons; Critical Care Physicians; Physicians-in-training; General Medicine Physicians; Physician Assistant; Pulmonary Physicians; Registered Nurse; Respiratory Therapists; Sleep Physicians;

Practice Gap Analysis & Needs Assessment:

A substantial number of patients with pulmonary disorders travel by air and this number is expected to increase. The hypoxic and hypobaric aircraft cabin environment offers unique challenges akin to a "stress test" to patients with limited cardiopulmonary reserve. There is a knowledge gap among the clinicians regarding the physiological changes occurring during air travel and its impact on patients with various cardio pulmonary disorders. There are knowledge gaps in the...
preflight screening of these patients and disease specific recommendations with respect to air travel. There is a lack of readily available resources to guide clinicians in this matter. This session would address the knowledge gaps in these areas.

Needs Assessment Sources: (references)

Learning Objective 1:
*Identify the physiological changes that occur in the hypoxic and hypobaric aircraft cabin environment.*

Learning Objective 2:
*To understand the screening process for risk of hypoxemia preflight and practical considerations of oxygen therapy.*

Learning Objective 3:
*To understand the various pulmonary disease specific recommendations for air travel.*

Learning Objective 4:

Learning Objective 5:
Faculty(s)

Tony Stark, MD
Subtopic: Physiological changes during air travel.
Affiliation(s): Stark Enterprises
Address: 5432 4th Street
        New York, NY
Email: Ironman@starkent.com

Chair(s)

Peter Parker, MD, FCCP
Subtopic: Assessment of fitness for air travel
Affiliation(s): Horizon Lab
Address: 1234 Horizon
        New York, NY
Email: spidey@horizon.com

Faculty(s)

Charles Xavier, PhD
Subtopic: Disease specific recommendations for air travel
Affiliation(s): Xavier School for Gifted Youngsters
Address: 6789 Gifted Lane
        Richmond, VA
Email: profX@xmeninc.org

Alternate(s)

Nick Fury, MD
Subtopic: Physiological changes during air travel
Email: nfury@shield.gov

Average Score: 3.98