

Master Proposal Report
2018 Call for Topics
1/7/2018

ID: 10317
Status: Submitted for Review
Presentation Type: Plenary Presentation
Session Time: 60 Minutes
Session Time:

Equipment Requested:

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;

If other, please specify:

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
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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: (refernces)

*1 The World Bank. Air transport, passengers carried [accessed 26 Nov 2017]. Available from: <https://data.worldbank.org/indicator/IS.AIR.PSGR.2> Peterson DC, Martin-Gill C, Guyette FX, Tobias AZ, McCarthy CE, Harrington ST, Delbridge TR, Yealy DM. Outcomes of medical emergencies on commercial airline flights. *N Engl J Med* 2013;368: 2075-2083.3. Managing passengers with stable respiratory disease planning air travel: British Thoracic Society recommendations *Thorax* 2011;66:i1ei30. doi:10.1136/thoraxjnl-2011-200295*

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:

Submitted by: Peter Park, MD, FCCP

Faculty(s)

Tony Stark, MD

Subtopic: Physiological changes during air travel.
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Chair(s)

Peter Parker, MD, FCCP

Subtopic: Assessment of fitness for air travel
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Faculty(s)

Charles Xavier, PhD

Subtopic: Disease specific recommendations for air travel
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Alternate(s)

Nick Fury, MD

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Average Score: 3.98