

HARM I

Air Travel and Venous Thromboembolism

Objectives:

To learn how to apply to clinical practice the results of papers that assesses issues of harm.

This includes:

1. Determining whether the results of the study are valid.
2. Understanding the magnitude and precision of the effect.
3. Deciding on how to apply the results to your clinical practice.

Assignment:

1. Read the attached scenario.
2. Read the attached guidelines for reading articles concerning harm.
3. Critically appraise the attached article using the accompanying worksheet.
4. Describe how you would address the question raised in the scenario taking into account your review of the article.

Clinical Scenario:

A 64-year-old female presents to a community Emergency Department complaining of pleuritic chest pain for 1 day. She had been in her usual state of good health until her return from Spain 3 weeks ago when she noted mild lower extremity pain. The flight had taken 8 hours. Her leg discomfort was transient. However, she developed her chest pain yesterday without dyspnea or other complaints and decided to get „checked out.“She denies previous medical or surgical history, is a non-smoker, non-drinker, and denies drug use. Her vital signs, EKG and physical examination are normal, as is her oxygen saturation.

You contact her physician who states that she is extremely anxious and, while having no medical history, frequents his office with "a lot of nonsense." Given this impression, you wonder whether recent travel is enough of a risk factor for the development of venous thromboembolism to justify pursuit of this diagnosis for this patient. You decide to perform a search of the medical literature in an attempt to find the best evidence. A narrow search of PubMed Clinical Queries under the “etiology” question type and using the terms “Travel AND Thromboembolism” locates 42 citations including several individual studies and relevant reviews. After looking quickly at one review you choose a particularly pertinent study restricted to flights of long duration which also came up independently on the search.

Attachments:

1. Guyatt G, Meade MO, Cook DJ, Rennie D, Editors, The Users' Guides to the Medical Literature, A Manual for Evidence-Based Clinical Practice. 3rd Edition. McGraw-Hill 2015, Chapter 14, pp 301-314.
2. Schwarz T, Stegert G, Oettler W, Halbritter K et al. Venous thrombosis after long-haul flights. Arch Intern Med. 2003;163:2759-2764.
3. Worksheet for evaluating an article on harm.