Commentary

# In-flight medical emergencies: time for a registry?

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See related research by Sand *et al*., http://ccforum.com/content/13/1/R3

## Abstract

When a passenger becomes sick while flying on board a commercial airline flight, the cabin crew commonly solicit the assistance of a volunteer physician. Although in-flight medical emergencies take place every day, little is known about the epidemiology of these events. A new study by Sand and colleagues sheds light on the incidence of specific illnesses that occurred on board commercial flights.

Airline travel is safe and reasonably comfortable, but many factors, including psychological stress, jet lag, and pre-existing disease, can cause a small number of passengers to become ill. There is no central registry of in-flight medical emergencies. Each airline tracks its own events, making it difficult to determine the true incidence of specific illnesses that occur during flight. In a recent article published in *Critical Care*, Sand and colleagues [1] studied the epidemiology of in-flight medical emergencies by collecting data from two European airlines over 5 years. This study provides valuable information that is of interest to specialists in aerospace medicine and to every physician who travels by air and may be called upon to help a fellow passenger. Epidemiologic studies such as this one make it possible to conduct meaningful research and can be used to identify trends in in-flight medical emergencies. The ultimate benefit is improved clinical management of passengers who become patients.

Understanding which illnesses are most likely to occur will improve the care of passengers who need emergency medical assistance while traveling on board commercial flights. Most airlines rely upon the presence of a volunteer with medical training to treat a sick passenger until the airplane lands and the passenger can be taken to an emergency room [2]. Ideally, physicians can learn about the physiological changes that occur during flight and tailor their care accordingly. The Yale Aerospace Medicine Group has previously recommended, for example, that patients or physicians using pulse oximeters on board commercial aircraft should understand that all passengers are mildly hypoxic and should have a plan of care that takes this fact into account [3]. Knowing in advance which patients are most likely to become ill will help the aerospace medicine community to develop training materials for physicians who might be asked to volunteer. Epidemiologic studies will also be of assistance to physicians who evaluate patients for fitness to fly for long distances.

The Air Transport Medicine Committee of the Aerospace Medical Association (ASMA) has developed a series of recommendations for the contents of an emergency medical kit. ASMA periodically updates these recommendations, but the latest recommendation specifically cites the lack of industry-wide data as a problem and encourages the collection of this important information [4]. Epidemiologic studies can help ASMA and the airlines to tailor emergency medical kits for the conditions that are most likely to occur. Although US airlines are required to carry a comprehensive medical kit on all flights, regulations outside the US vary, and emergency medical equipment may be sparse, especially on 'no-frills' airlines [5]. The ability to predict the likelihood of a specific illness, combined with a program that tracks which components of the medical kit are used can help airlines and regulatory authorities to create policies that serve the flying public while eliminating unnecessary equipment.

The lack of a central registry makes it difficult to conduct research as to the true incidence of many in-flight events. Sand and colleagues have identified the lack of standardization in both reporting requirements and terminology to be a major roadblock in their study. Although the authors do not make this recommendation, they present a cogent argument in favor of a centralized registry of in-flight medical emergencies. The information gained from epidemiologic studies of in-flight medical emergencies is of benefit to the airlines,

ASMA = Aerospace Medical Association.

aerospace medical researchers, and the traveling public. Sand and colleagues' study should serve as a template for future research in this important area.

## Competing interests

The author declares that they have no competing interests.

## References

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