



Medical emergencies occur during one in 400 Australian flights, says new study

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One in 400 Australian domestic and international flights will have a medical emergency according to new research presented at a meeting of anaesthetists in Sydney.

Critical care doctor Catherine Epstein analysed 13 months of in-flight emergency medical data for nearly 132,000 domestic and international flights on a leading Australian airline between 2015 and 2016 to determine the likelihood of a medical emergency occurring.

Dr Epstein, a senior resident medical officer at Sydney's Westmead Hospital found an average of 284 medical events a month (3696 a year) making the in-flight probability of a "medical event" about one in 400.

The most common severe in-flight medical emergencies were loss of consciousness (36 per cent) and cardio vascular events (12 per cent). The incidents are categorised from grade 1 to the most severe, grade 3.

Most incidents (74 per cent) were grade 1 or grade 2 events and were managed by cabin crew or passengers with medical qualifications. In the most extreme cases and after consultation with on ground medical teams, pilots divert flights for patients requiring urgent medical treatment. The study found that of all medical incidents, only 24 led to flight diversions with 54 per cent of these diversions attributed to cardiac problems. Neurological causes such as seizure or suspected stroke caused 17 per cent of diversions.

Dr Epstein's study is being presented at the annual scientific meeting of the Australia and New Zealand College of Anaesthetists (ANZCA) in Sydney this week.

Dr Epstein said the study was significant as the data was specific to Australian flights and could provide useful information for Australian doctors. The in-flight medical emergencies were analysed using accounts of medical incidents by cabin crew and inflight doctors' medical notes. An international airline study in 2013 published in the New England Journal of Medicine found the likelihood of inflight medical emergencies was about one in 600. There is currently no common categorisation system for inflight medical emergencies across airlines.

"The majority of in-flight medical incidents are not life-threatening and may be managed with simple measures," Dr Epstein explained.

Dr Epstein said it was likely that the number of incidents would increase in the future given larger aircraft capacity, increased passenger loads and the ageing population.

Changes in barometric pressure inside the cabin may exacerbate pre-existing conditions for susceptible passengers. Anxiety, fear of flying, claustrophobia, turbulence and take-off or landing may also increase medical risks.

"All of these combined with the general stressors of travel – sleep deprivation, jet lag, gastrointestinal upset, missing usual medication doses – can potentially lead to a medical emergency during the flight," Dr Epstein said.

Dr Epstein said while there was no legally binding obligation for a doctor to assist in an emergency situation "medical assistance during mid-air incidents is highly valued by airlines and passengers and on occasion can be lifesaving."

More than 2500 local and international anaesthetists, pain specialists and other medical practitioners have gathered for the scientific meeting at the International Convention Centre in Sydney from May 7-11.