

## The reality of inflight deaths

By Paulo Magalhães Alves MD

**There is no doubt that inflight deaths are among the most overwhelmingly emotional situations possible in the aircraft environment, particularly for the relatives of the victim and those crew members handling the event.**

Fortunately, inflight deaths are rare.

Providing inflight medical advice to nearly 90 airlines in the past eight years, MedAire estimates that an average of one inflight death will occur out of every 5.7m passengers, or at a rate of 0.08 deaths per billion revenue passenger kilometres (RPKs). These figures may vary by airline but will typically be lower for regional, short-haul carriers.

### Contributing factors

At cruising altitude, the vast majority of passengers who are in a healthy condition can tolerate a cabin pressure of 6,000 to 8,000 feet. However, cabin pressure could be a problem for people suffering from cardiac (heart) or pulmonary (lung) conditions, particularly passengers with a borderline health state.

Events leading to an inflight death may begin well before the flight. A great number of air travellers have to walk longer distances and carry more weight throughout the airport than they are accustomed to doing in their ordinary lives. Passengers may also be in a hurry, adding stress to the equation.

The bottom line: passengers could easily cross their safety limits if they already have, knowingly or not, a subjacent health condition.

Necropsy studies (post-mortem examinations) of onboard deaths show different causes of expiration bearing no relation to the flight at all. An example is the terminally ill patient who chooses to fly as he seeks medical treatment or simply because he wishes to return home to die. Some of these passengers, understandably, will not disclose, and may even try to disguise,



Whether in the air or on the ground, automated external defibrillators help to save lives following incidents of cardiac arrest.

their condition, afraid of being denied boarding.

As preventing ill passengers from boarding is not easy, many flight attendants are trained to perform life-saving procedures such as cardiopulmonary resuscitation (CPR). The advent of automated external defibrillators (AEDs) and enhanced medical kits has changed the way airlines cope with an unexpected inflight cardiac arrest. Many lives can be saved by CPR and the use of an AED if the underlying condition is the result of ventricular fibrillation.

### The challenges involved

There are no universal standards to deal with onboard deaths. From the medicolegal point of view, every unexpected death could be seen as a suspect death. Different regulatory requirements could complicate the matter even further. Airlines should, however, certainly consider the following points:

- Only a doctor can verify death. Therefore, a victim will only be presumed dead until the actual medical verification occurs by paramedics at the gate.
- 'Do Not Resuscitate' (DNR) orders in terminal passengers can prove difficult because DNRs are not to be followed by crew members but only by healthcare workers.

- Respect for the deceased and their relatives or travel partners, which is extremely important and should be genuine, should be balanced against the safety issues of having a corpse obstructing cabin exits, considering the limited space available in the aircraft cabin.

- Crew who assist with an inflight death will experience mixed consequent feelings. Debriefing sessions are integral to helping crew cope.

Regional carriers that provide life-saving medical training, equipment and medical support can help save lives. Furthermore, written policies regarding onboard deaths – how to handle DNRs, how to report an inflight death, how to counsel crew after an event – can help those staff in the front line make well-supported decisions. Having the best resources will reassure all the people involved that everything possible was done to save a life. ■

As the corporate medical director with MedAire, Dr Paulo Magalhães Alves assists with medical case reviews, staff training, medical industry presentations and client support. He is a cardiologist and the former medical director for Varig in Brazil.

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