Background:

Approximately 3 billion people worldwide traveled by commercial air transport in 2016. A calculation based on the number of passengers transported shows that between 1 out of 14,000 to 1 out of 50,000 passengers will experience acute medical problems during a flight. Cardiac arrest accounts for 0.3% of all in-flight medical emergencies, yet it is responsible for 86% of in-flight events resulting in death. So far, no guideline for in-flight cardiac arrest (IFCA) does exist providing specific treatment recommendations.

A task force was created to develop a guideline for the treatment of in-flight cardiac arrest based on clinical and investigational expertise in this area. By using a systematic literature search including GRADE, RAND, and DELPHI methods, specific recommendations for the treatment of IFCA have been created (table 1).

Material and methods:

Results:

Several main recommendations have been developed (table 2): emergency equipment location as well as content should be mentioned in the pre-flight safety announcement; ECG should be available for patients with cardiac arrest; it is very important to request help by an on-board announcement after identification of a patient with cardiac arrest; two-person CPR is considered optimum and should be performed if possible; the crew should be trained regularly in basic life support – ideally with a focus on CPR in aircraft; a diversion should immediately be performed if the patient has a return of spontaneous circulation.

Conclusions:

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