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CE - LETTER TO THE EDITOR

In-flight cardiac arrest and in-flight cardiopulmonary resuscitation during commercial air travel: consensus statement and supplementary treatment guideline from the German Society of Aerospace Medicine—comment

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Dear Editor,

We have read with interest the paper of Hinkelbein et al. [1] published recently in Internal and Emergency Medicine. We are gratified to see the level of interest taken in the subject of in-flight cardiac arrest by the authors of this paper, and appreciate their efforts in carrying out the study. However, we wish to add some points for clarification and further consideration.

The Airlines Medical Directors Association is an international society of those doctors involved directly in providing medical advice to commercial airlines around the world, and includes the members of the Medical Advisory Group of the International Air Transport Association. We note that the authors of the paper represent a wide range of clinical hospital specialties, but our input is from the perspective of those involved directly in commercial airline operations including training, management, and review of in-flight medical events.

The authors note that most in-flight emergencies are mild and self-limited, and in-fight cardiac rest is rare (0.3%) amongst them. We welcome and support many of the recommendations in the paper, particularly those relating specifically to the practice of CPR; indeed, a number of these are already standard practice on most major airlines. However, we feel bound to spell out our concerns with some of the more operational recommendations, and question them.

Medical volunteers who assist with in-flight medical events do so in a difficult environment—there is limited space, little privacy, often poor lighting, and often background noise. It is an unfamiliar work environment for almost all of them, and amongst the possible obstacles may be language barriers, fatigue, and concerns about liability and about possible diversion decisions. Not infrequently the volunteer works in a specialty not directly relevant to the presenting medical problem, and on occasions the volunteer is fatigued or may have had some alcohol prior to the event; frequently they are unfamiliar with the critical equipment available to them [2]. Sometimes the best available medical volunteer is highly capable, prepared and in a position to offer excellent care; however, this is not necessarily so in every case.

It is for these reasons that a large proportion of leading airlines employ ground-based medical assistance companies to provide advice to the crew, and assistance to any in-flight medical volunteers, during such emergencies. The assistance companies are familiar with the contents of the emergency medical kits as well as the types of problems likely to be present, the considerations involved in diversion decisions, and the specific policies of each airline. We therefore agree strongly with recommendation number 4 supporting teleconsultation services on board.

The recommendations that the location of emergency medical equipment be included in the pre-flight safety briefing and the passenger safety card concern us greatly. One of the key messages in the safety brief (and card) is that passengers must follow the instructions of the crew at all times. We would oppose creating any impression that medically qualified passengers might find and retrieve emergency medical equipment; it is very important that the flight crew maintain overall control in any such emergency. They know the location of the equipment, the rules for its use and the relative priorities of on-board safety (including restraint, management of bystanders, etc.) versus the medical emergency. They can administer oxygen, and can communicate

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with the flight deck and any ground-based medical advice. Furthermore, there are security risks with advising passengers of the location of the emergency medical kits that contain sharps and powerful drugs.

Some of the authors' recommendations are impractical to implement: for example, standardization of medical incident forms has been attempted previously, but achieving worldwide consensus is impossible. The recommendation for ECG capability is challenging: many airlines have the capability for a single lead rhythm strip but 12-lead capability is rare, and requires expertise to administer [3].

We also question the recommendation that CPR be done by a medically qualified person; in a case where there is one medical professional it may well be much more desirable that this person stand back and maintain an overview of the situation leaving the CPR to the cabin crew who are trained regularly in cardiopulmonary resuscitation. Finally, we suggest that some recommendations such as those for capnometry, amiodarone, and intra-osseous Infusion may represent assigning to a public transport environment a standard that is more in keeping with a modern emergency department.

We would welcome further dialogue with the authors on this fascinating and unique situation that is of interest to any of us who have been, or may be, on board during a medical emergency. IATA has a free online medical manual that provides further guidance in this area.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

Statements on human and animal rights This article does not contain any studies with human participants or animals performed by any of the authors.

Informed consent None.

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