

Managing an inflight medical emergency

By Patricia M. Campbell RN, MSN, CCRN, ANP, CS

Gastrointestinal distress. Vasovagal (fainting) episodes. Deep vein thrombosis. Sudden cardiac arrest. Onboard pregnancy. Diabetic shock.

Inflight medical emergencies are on the rise. According to medical data collected from MedAire's 24/7 MedLink Global Response Center, the number of incidents has continually increased since 2002. For the 30% of airline passengers served worldwide by MedLink, inflight emergencies rose from 15,550 in 2005 to more than 17,300 in 2006.



Unfortunately, in many cases, the sophistication and level of flight crew training has not kept pace. Although most cabin and flight crew members receive some training on the management of medical emergencies, this training is often limited or forgotten – and is rarely consistent across airlines and continents.

Crew training

Although essential to the management of inflight medical emergencies, crew training varies greatly from programme to programme. The preferred model is one that includes in-depth initial crew training followed by regular recurrent training sessions. This format ensures that crew remain confident, current and ready to use their skills.

Additionally, programmes should include training on the use of all emergency equipment and an action plan that defines specific roles and responsibilities for each crew member. A simple plan, similar to the example that follows below, provides

the structure necessary to ensure a competent response.

Crew member (1):

- Assess the scene and casualty.
- Ensure scene safety.
- Check the casualty for response.
- Call for necessary help and/or medical equipment.
- Care for the casualty.
- Check responsiveness, airway, breathing; begin cardiopulmonary resuscitation (CPR) if appropriate.
- If casualty is responsive, begin an assessment to determine the problem.

Crew member (2):

- Obtain medical equipment.
- Assist crew member (1) with applying the equipment, such as an automated external defibrillator (AED) or oxygen mask.

Crew member (3):

- Take responsibility for communication, including:
 - updating the flight deck/flight crew on the situation;
 - relaying information to the telemedicine centre;
 - keeping family and travelling companions informed, and;
 - maintaining order in the cabin, including directing and reassuring passengers.

The importance of equipment

Another important component in the quest for effective medical response is the availability of aviation emergency medical kits, oxygen and the AED. Crews should be familiar and comfortable with the equipment and be aware of the importance of equipment maintenance. Medical kit contents should be reviewed regularly to ensure current dates and proper working order, while AEDs should be checked for battery life and supplies. Oxygen tanks, masks, tubing and connectors should also be assessed to ensure correct connections, adequate tank capacity and functionality.

The role of the telemedicine centre

The telemedicine centre is the third component in the expert management of an inflight medical emergency. A comprehensive, 24/7 centre with on-duty emergency physicians who communicate directly with crew is paramount. This model provides immediate guidance and advice to crew during the actual medical crisis.

The telemedicine responder should possess enough remote medical emergency knowledge to consult on the appropriateness of inflight treatment versus diversion. Arranging for ground support upon landing, such as emergency medical services transport to meet the aircraft and take the passenger to the hospital, is vital. The telemedicine provider should also have a comprehensive, worldwide database of medical resources. This database will help crew determine the best location for treatment options and will provide information regarding landing requirements and required support services.

Responding to a medical emergency can be stressful for crew members who are unprepared. But, with appropriate training, proper equipment, an action plan and access to a state-of-the-art telemedicine centre, crew can confidently and effectively manage any inflight medical situation. ■

Patricia M. Campbell is an active figure in the aviation and emergency response industries as an emergency nurse practitioner, flight nurse, author and consultant. The co-author of MedAire's 'Manual of Inflight Medical Care', Campbell has helped prepare flight crews with a training manual for managing medical emergencies.

The **Regional** International Medical Advisory is provided courtesy of ERA member MedAire Ltd.