

MEDICAL PROBLEMS ON BOARD



SPEAK ON “MEDICAL PROBLEMS ON BOARD”. FOLLOW THE CHECKLIST

- the most frequent health problems on board an aircraft
- effect of a medical problem on board on the flight
- pilots' requests and actions in case of a medical problem on board
- controller's actions in case of a medical problem on board
- information necessary for an effective assistance to a flight with a medical problem
- reasons for using air ambulances
- reasons for using helicopters for emergency medical transportation
- necessity of priority for special medical flights
- situation connected with a medical problem you have had / heard about

(from “Steps to Proficiency” Test Preparation)

KEY WORDS & PHRASES

- special medical flight, air ambulance, life guard
- doctors, paramedics, medical service
- sick, ill, disabled, unconscious, injured, wounded passenger (man, woman, person, patient)
- pilot incapacitation
- health, breathing, heart, cardiac problem
- severe, asthmatic, epileptic, diabetic, heart seizure (attack)
- in critical, serious, bad, stable/unstable condition
- provide first aid, medical care
- have a medical kit, defibrillator on board
- get advice from MedLink
- require intensive care, surgery, medical attention
- arrange ambulance, ambulift
- rescue (save) life, resuscitate and stabilize the man
- do (perform, give) CPR (cardiopulmonary resuscitation)
- transport (carry, take) the patient to hospital (clinic, medical center)

MEDICAL EMERGENCIES

A medical emergency is declared in case of a serious health problem that cannot be treated onboard. It can lead to an immediate diversion and unplanned landing. The most common medical emergencies are: heart attack, cardiac arrest, stroke, epileptic seizure, severe allergic reaction or anaphylactic shock, diabetic episode, asthmatic attack and poisoning. However, not every medical problem results in a medical emergency. Sometimes the cabin crew and passengers with medical education and experience can successfully resolve the situation in flight.

PILOT INCAPACITATION

The most serious medical emergency on board is a pilot incapacitation. It may present a serious threat to flight safety and result in tragic consequences. It can happen to pilots of all ages and in all phases of flight. If a pilot suddenly suffers from a heart attack or fainting, the other pilot must immediately take over the control but at the same time first aid must be given to the suffering pilot to save his life. Loss of control and separation may be expected in this situation due to high workload and stress in the cockpit.

CAUSES OF MEDICAL PROBLEMS

Air travel can contribute to health problems, especially in case of travelling of elderly people, people with chronic diseases and pregnant women. Stress, fear of flying, limited space, low air humidity, minimal movement for long periods of time, atmospheric pressure changes and lack of oxygen at higher levels may provoke fainting, stroke, heart or asthma attack, shortness of breath and epileptic seizure. Turbulence is the leading cause of injuries, fractures, burns and scalds from hot drinks while flying. Stomach ache or disorder, muscular or abdominal pain, vomiting, dehydration and fever often indicate an infectious disease which can lead to the spread of epidemic on board the aircraft.

CABIN CREW RESPONSE

Flight attendants are trained to deal with medical emergencies in flight. They can treat a sick passenger and assist doctors if there are any among passengers. The cabin crew can provide first medical assistance using the first aid kit which contains necessary drugs and medication. Many aircraft carry a defibrillator to restart the heart in case of a cardiac arrest. Today, medical advice is available to the crew by radio or telephone. The doctors in MedLink Centers are trained in airline procedures and medical equipment available on board. Medical consultants on the ground instruct the cabin crew on how to use a specific medication in the kit, and help the pilot decide whether or not to divert the plane for professional assistance.

PILOT ACTIONS & REQUESTS

In many cases after consulting doctors and cabin crew the pilot continues to the destination. But if the patient's condition is unstable, and medical attention is required, the pilot may request a diversion to the nearest available airport and paramedics to meet the plane. Sometimes an ambulift, wheel chair or stretcher might be needed to disembark and

transport a disabled person to an appropriate medical facility. Airlines try to avoid diversions because it's costly and inconvenient for passengers. But the final decision rests with the pilot.

ATC ACTIONS

In case of a medical diversion, the primary task of a controller is to clarify the flight crew's intentions, the exact nature of the medical problem, the number of sick passengers, the number of ambulances and kind of medical assistance required. It is important to determine if the passenger illness is recognized as infectious (e.g. Coronavirus). The controller should suggest the nearest airfields, ensure priority for the medical emergency aircraft, provide pilots with vectors, a shorter route and divertive aerodrome details. He should also inform the supervisor to expedite coordination with appropriate services. For example, to avoid and reduce the possibility of an infectious disease outbreak, quarantine measures with restricted access to the aircraft and aircraft parking at an isolated stand should be coordinated with the airport authorities.

AIR AMBULANCE

An air ambulance is intended for emergency medical assistance or transportation of sick or injured people from remote locations to hospitals or other medical facilities. Usually it is a light aircraft or helicopter, which can be used in case of an air crash, car incident, earthquake or flood. Some of the air ambulances are equipped with special facilities for life support and intensive care, and others are used only for transportation of patients.

<i>Health problems in flight</i>	<i>Contributing factors</i>	<i>Response to the problem</i>
<i>People can suffer (experience)</i> <ul style="list-style-type: none"> • heart attack (cardiac arrest) • blood pressure problems • stroke • asthmatic attack, breathing difficulties • epileptic attack (seizure, fit) • loss of consciousness (fainting) • abdominal pain, stomach disorder, diarrhea, nausea (vomiting) • severe allergic reaction, anaphylactic shock • food poisoning • dehydration • baby delivery • infectious (contagious) disease (e.g. Ebola, COVID-19) with symptoms such as coughing and 	<i>It can occur (happen) due to</i> <ul style="list-style-type: none"> • lack of oxygen at higher levels • atmospheric pressure changes • low cabin pressure • low air humidity • limited space • a lot of sitting and minimal movement for a long period of time • panic, in-flight stress and anxiety, fear of flying • violent and sudden jolts and bumps during severe turbulence, especially when seat belts are not fastened • falling baggage, items 	<i>The crew will</i> <ul style="list-style-type: none"> • provide first aid • give medication to ease symptoms • try to find out if there is a doctor on board • get advice from MedLink (medical consultants on the ground) on how to help the patient • make an immediate diversion if the passenger is in a critical condition • declare medical Mayday • require medical attention on arrival <i>The controller will</i> <ul style="list-style-type: none"> • follow ASSIST code (A – acknowledge, S – separate, S –

fever <ul style="list-style-type: none"> • injuries to head, neck, etc. • fractures (broken limbs, i.e. hands, arms, legs, feet) • burns, scalds from hot drinks • cuts • severe bleeding • bruises 	from overhead lockers <ul style="list-style-type: none"> • fight among passengers • decompression • laser blinding 	silence, I – inform, S – support, T- time) <ul style="list-style-type: none"> • obtain as much information as necessary (e.g. number of sick passengers; the exact nature of the medical problem, or symptoms; if they suspect a contagious disease on board; kind of assistance and equipment needed (medical staff, ambulance, wheel chair, stretcher, ambulift, etc); intentions of the crew, etc) • provide priority handling • coordinate appropriate services on arrival
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