



MEDICAL MANUAL

INTERNATIONAL AIR TRANSPORT ASSOCIATION

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IATA MEDICAL MANUAL
RECORD OF AMENDMENTS

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FOREWORD

This Revised IATA Medical Manual has been prepared by the Medical Advisory Committee of IATA

It is visualised that this Manual will be a valuable guide and wide source of information to Member Airline medical officers or, where no full department exists, the airline's consultant, or a new medical officer should a company be establishing a new department. It is also hoped that this Manual will be of value to other medical practitioners having an interest in aviation medicine

The Manual is not intended for lay use without medical counsel

The reader's attention is drawn to other publications which should serve as supplementary material to this Manual. These are the "Manual of Civil Aviation Medicine" published by the International Civil Aviation Organization and the "Guide to Hygiene and Sanitation in Aviation" produced by the World Health Organization

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1. INTRODUCTION

Over the past twenty years, an ever increasing number of temporarily or permanently incapacitated, invalid, handicapped, and ill persons have been using air transport for business, vacation, repatriation, or when seeking specialised medical treatment. Indeed, air transport is often ideal for such persons, given the speed, convenience and substantial degree of flexibility it affords.

With the introduction of pressurized jets and more recently of wide-bodied aircraft, changes have occurred in the criteria for meeting the special needs of such passengers. Frequently, disabled persons contemplating travel by air, either alone or accompanied, seek advice from their physician. In many cases, the airline requires a medical clearance or "ok" to travel by air. This booklet contains general guidance to assist in the provision of such advice and medical clearance.

For many years, IATA Member airlines individually, as well as many of their non-IATA interline partners, have done everything in their power to aid incapacitated, invalid, handicapped, and ill persons, as well as expectant mothers and elderly passengers, desiring to travel by air.

However, the individual approach by each airline has resulted in a maze of regulations and procedures which differed from airline to airline, thus making interline transportation and interline transactions (such as reservations, sales, ticketing, traffic handling, etc. on the services of another airline) extremely slow and difficult.

Recognizing the importance of this rapidly growing type of traffic, and responding to public pressure to harmonize the individual airline rules, IATA Member airlines have recently standardized their respective forms and procedures on a worldwide basis. These forms and procedures were developed by a group of experts from many different airline departments, with a view to making air travel for handicapped and incapacitated persons easy and comfortable.

The improved uniformity between airlines deals not only with the problems of medical clearance of these passengers, but also with all aspects of traffic handling systems and procedures. These aspects are of direct interest to airlines' sales, ticket and reservations offices, travel agents, customer services, and airport handling staff dealing with passengers and baggage, cabin crews, etc., and also involve the activities of third parties in their capacity as airline handling agents.

Airlines not applying these standard forms and procedures, or applying them only in part, or limiting acceptance of incapacitated passengers to on-line transportation or only on certain routes or aircraft, have been asked to publish their exceptions and regulations in their Rules Tariffs and in the commercial airline guides such as the ABC World Airways Guide and the Official Airline Guide (OAG). The airline guides also publish individual airline charges for special services such as escort fares, stretcher surcharges, special baggage rates, oxygen equipment, etc.

2. WHO IS "INCAPACITATED"?

Passengers are defined as "incapacitated", "handicapped" or "disabled" when their physical condition or medical disorder (including mental illness) requires airlines to give them individual attention (on enplaning and deplaning, during flight, in an emergency evacuation, during ground handling at airports) which is not normally extended to other passengers.

This definition covers not only those medically ill or temporarily disabled persons (ambulatory or non-ambulatory), whose condition is considered as variable and who therefore require medical clearance prior to each air journey, but also the more common cases of permanently handicapped persons whose condition (physical or mental) is stable and who, therefore, either can obtain a permanent or semi-permanent medical clearance or can be totally exempt from such clearance, and only require special handling

3. THE NEW APPROACH TO MEDICAL CLEARANCE

For many years, the doctors or physicians of incapacitated passengers were asked to provide a "Medical Certificate" to permit their patient to travel by air, which specified travel conditions, and authorised the airlines to carry the passenger

However, practical experience demonstrated that a physician not particularly specialised in air transportation, often may not be fully conversant with all of the particular medical aspects involved. Also, very few non-airline physicians can reasonably be expected to know what kind of special assistance the airlines might be able or willing to give for each specific trip.

Many airlines realised the shortcomings of the system. They started to consider these medical "certificates" solely as "advice given by the passenger's physician". This advice is taken into account by each carrying airline's own medical department/advisor before deciding whether or not — and under what conditions — the incapacitated person might be acceptable for carriage, and which type of special assistance could be offered by the airline.

The more realistic and practical approach covered by the new procedures will permit IATA Member airlines to base their worldwide standardization and procedural improvements on the following principles:

- (a) Clearer and more restricted definition of persons to be totally excluded from air transportation on scheduled airline services;
- (b) Clearer and much wider definition of categories which may be carried, either without any prior medical clearance, or on the basis of a "permanent" or "semi-permanent" medical clearance,
- (c) Whenever medical clearance is necessary, the passenger's physician will be required to supply only certain medical data and advice for the air journey and to take direct action only in respect of non-air transportation aspects;
- (d) Consideration of each case, medical clearance and determination of any special handling requirements, is the responsibility of each carrying airline's medical department/advisor,
- (e) Finalisation and transmission of special handling instructions and the provision of special arrangements is the responsibility of each airline's own reservations, ground handling, and operations departments.

4. INFORMATION FLOW

When an incapacitated passenger desires to travel by air, the following steps will normally take place:

Collection of Information

- (a) Passenger contacts an airline ticketing/booking office or a travel agent. This is called the office in contact with the passenger.
- (b) The office in contact with the passenger determines what information is required, and takes action:
 - by specifying special handling arrangements required, by use of Part 1 of the Standard Medical Information Form (MEDIF), and
 - by obtaining medical information, when required, by use of Part 2 of the (MEDIF) or the Frequent Travellers Medical Card (FREMEC).
- (c) If only special handling arrangements are required (MEDIF, Part 1), or if the passenger holds a FREMEC, the office in contact with the passenger provides details to the controlling reservations office.
- (d) If MEDIF Parts 1 & 2 are required, the form (with Part 1 completed) is given to the passenger's physician, and the medical information is given either to the office in contact with the passenger or directly to the controlling reservations office.
- (e) The office in contact with the passenger will give all the information on the MEDIF or FREMEC to the controlling reservations office as follows.

Distribution of Information

- (a) The controlling reservations office transmits the information to the appropriate reservations offices of its own airline and any other carrying airline's reservations offices.
- (b) If necessary, medical clearance is requested from each carrying airline's medical department/advisor.
- (c) The carrying airline(s)' acceptance advice and any conditions are relayed back to controlling reservations office and the office in contact with the passenger, for final acceptance.

Reservations & Ticketing

- (a) The passenger is advised and confirms acceptance of special arrangements and conditions.
- (b) Final requests for reservations and special arrangements are confirmed to the carrying airline(s) via the controlling reservations office.
- (c) The affected stations of each carrying airline are notified by the carrying airlines' reservations offices.

- (d) Complete details of special handling arrangements made at affected stations are included in the passenger name record (PNR).
- (e) Tickets are issued

IMPORTANT

Arrangements for hospitals, ambulances, etc. should be made by the passenger or his physician and only after all air travel arrangements have been finalised

5. PASSENGER ACCEPTANCE

One of the effects of the new IATA standard rules and procedures is that IATA Member airlines will adhere to the principle that incapacitated persons will be carried on their scheduled flights, provided that:

- (a) Carriage does not pose (on the basis of established facts, medical information or other evidence, etc.) a threat to the safety of other passengers and their property, or to the aircraft or the crew,
- (b) Passenger(s) are able and willing to comply with the specific conditions and requirements which may be applicable to their transportation, as specified by the carrying airline(s)' regulations and tariff rules

In the following circumstances, IATA Member airlines may refuse to participate in the interline carriage of incapacitated persons.

- (a) If the passengers' carriage — even with special precautions — might cause unusual hazard or risk to themselves or to other passengers and property.
- (b) If the passengers' conduct, physical or medical condition (including nervous or mental condition) renders them incapable of caring for themselves during the journey without special assistance, and they wish to travel without a suitable and capable escort
- (c) If the passenger may be a source of infection or discomfort to other passengers
- (d) If the passenger cannot use the standard aircraft seat in a sitting or reclining position — or cannot observe the worldwide safety rule of placing the back of the seat in the upright position during takeoff and landing — and no acceptable alternative solution for his accommodation can be found.
- (e) If there is a danger that the passengers may be left stranded during the journey because they are determined to travel on a connecting flight which does not permit confirmed reservations ("standby" or "space-available" fares or tickets).

Certain airlines cannot, for purely technical, operational or safety reasons, completely apply these principles and must limit the total number of incapacitated passengers (or of particular categories) that can be carried on an aircraft. Those airlines usually publish their rules in their tariffs and may also publish them in the airline guides.

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6. MEDICAL CLEARANCE

When is medical clearance required by the medical departments/advisors of carrying airlines?

When the office in contact with the passenger has received reliable evidence that the passenger:

- (a) suffers from any disease which is believed to be actively contagious and communicable;
- (b) because of their physical or behavioural condition, are likely to cause a hazard or discomfort to other passengers;
- (c) is considered to be a potential hazard to the safety or punctuality of the flight (including the possibility of diversion of the flight or an unscheduled landing);
- (d) is incapable of caring for himself without special assistance which is not normally extended to other passengers during the flight;
- (e) might have his medical condition aggravated during or because of the flight.

Additionally, when there is any reasonable doubt about the passenger's incapacitation, or when requested by any carrying airline(s), medical clearance will be required.

Passengers not falling into the above categories normally do not need medical clearance. However, if there is any doubt, obtain medical advice.

There may be exceptions to these general rules because of local conditions or company policy. If in doubt, check with the airline's medical department/advisor or controlling reservations office, or obtain outside medical advice.

7. HANDLING OF STANDARD MEDICAL INFORMATION FORM — MEDIF

IATA Resolution 700 and Recommended Practice 1700 have introduced, on a worldwide basis, a new standard form called the "Standard Medical Information Form — MEDIF". The MEDIF will replace most "medical certificate" type forms previously used by IATA Member airlines and many Non-IATA airlines.

The MEDIF does not in itself constitute the medical clearance, as it is only the basic means of collecting information to obtain medical clearance. All medical information shown on the MEDIF is strictly confidential. Except as may be necessary in the passengers' own interest to obtain special assistance, the information may not be disclosed by the airlines or their agents to any non-airline party (not even to the passengers themselves), without written authority from the physician completing Part 2 of the MEDIF. Even within the airline, the information will be made available only to those persons or departments which are directly concerned with the journey.

The medical clearance given as a result of the data provided on the MEDIF relates only to the person named and to the specific itinerary and dates shown. Any significant changes to the itinerary or dates is likely to require re-clearance.

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8. IN WHICH CASES MUST A MEDIF BE ISSUED?

Whenever medical clearance is necessary. This can be either because it is required under the provisions of Resolution 700/Recommended Practice 1700 or because of a specific request from one of the carrying airlines.

If no medical clearance is required, and only special handling assistance is necessary, or the passenger holds a Frequent Travellers Medical Card (FREMEC), only Part 1 of the MEDIF is completed.

9. WHAT IS THE COMPOSITION OF THE MEDIF?

PART 1 — Contains details of the air itinerary the passenger intends to book and describes the special arrangements or assistance envisaged by the passenger and by the booking/ticketing office or travel agent. The facts given in Part 1 will determine whether medical clearance will be required by the airline(s)

PART 2 — If so, Part 2 will be presented to the passenger's physician to provide the airline(s) with the specific medical data on the passenger and special arrangements recommended by the physician

10. WHO MUST ISSUE THE MEDIF?

Part 1 of the MEDIF must be completed — at the earliest possible stage — by the booking/ticketing office or travel agent

Part 2 must be completed by the attending physician. It provides the airline medical department/advisor with the necessary professional information on which medical clearance and the need for specific handling arrangements can be based. It is of utmost importance that the attending physician gives precise and factual information and not merely a diagnosis, together with a statement that in his opinion the patient is fit to travel. When, for instance, a diagnosis of cancer of the lung is given, the airline medical department/advisor should also be advised about a marked loss of pulmonary function, whether the patient has metastases causing neurological, or other symptoms which hamper normal functioning. Every detail, even those not caused by the underlying diagnosis, can be important. Moreover it is vital for the airline medical department/advisor to know exactly what nursing care is required during a flight. The medical information provided by the physician will remain in the realm of professional secrecy. Part 2 should be completed only when medical clearance is required prior to acceptance by the airline. A facsimile of the MEDIF Form is shown in Appendix A. When the passenger is accepted by the originating airline, he or she will normally be accepted by all other airlines participating in the itinerary.

Any revisions to the booked itinerary (as shown in Part 1) due to physician's opinion must also be notified to the office in contact with the passenger, for any necessary changes to bookings or special arrangements already made.

11. FREQUENT TRAVELLERS MEDICAL CARD — FREMEC

What is it?

A card that can be issued to an incapacitated passenger who travels regularly and in the opinion of an airline's medical department, has a stable medical condition. It avoids the necessity to obtain medical clearance for each journey, and describes the passenger's handicap and special handling requirements. A facsimile is shown in Appendix "B".

Who issues it?

Incapacitated passengers who travel regularly can apply to the medical department of an airline for a FREMEC. The decision on whether or not to issue the card will be based on information available about the passenger's handicap.

12. THE IN-FLIGHT ENVIRONMENT

Although modern jet aircraft are pressurized, cabin pressure will not always be maintained at sea-level equivalent. At maximum cruising altitude, the pressure will hardly ever fall below a level equal to the pressure at about 2,400m (7,900ft.), but cabin altitude will be considerably lower on most flights — 1,200-1,800m (4,000-6,000ft.). At maximum cabin altitude, the barometric pressure will drop from 760mm Hg to 565mm Hg, a drop of approximately 25% or, in case these gasses are incarcerated, in a pressure increase of 25%.

All cavities in the human body not filled with fluids are normally filled with gas (bowels, middle ear, nasal sinuses, etc.). Excess gas will dissipate normally. Trapped intestinal gas may cause abdominal pain, the eardrum will be distended (resulting in severe ear-ache) and, when the eustachian tube is blocked for any reason, frontal headache and pains in the maxillary region will be the result of blockage of the accesses to the frontal and maxillary sinuses.

Gas introduced into parts of the human body by surgery or unnatural causes will also increase in volume or pressure by approximately 25%. A tooth not properly filled might cause severe toothache, a pneumothorax can cause displacement of the mediastinum towards the unaffected side, gasses recently introduced into the skull for diagnostic purposes might damage the brain, gas introduced into the eye by perforating eye-wounds or operations might cause prolaps of the iris. Non-compressible substances (fluids, tumour-tissues, etc.) are not affected by barometric pressure changes.

A 25% drop in barometric pressure in the aircraft cabin at maximum cruising altitude also causes a drop of 25% partial oxygen pressure and a drop of 32% in the partial alveolar oxygen pressure. Normal healthy passengers will hardly be affected, the arterial oxygen saturation decreasing only from 96% to 88%. This is of no serious consequence. Only persons who have recently suffered a substantial blood loss or who have an abnormal or low haemoglobin content might suffer from problems related to insufficient oxygenation of the tissues. The same applies to patients with pulmonary disease. They too might suffer from this drop in partial alveolar oxygen pressure and develop oxygenation problems of the tissues during a flight. Both categories of patients might need intermittent or even continuous oxygen administration during flight. Also, patients with general circulatory problems or compromised coronary circulation may suffer from the drop in oxygen pressure and could need extra oxygen during flight.

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Seat space allotted to each passenger is limited, and aisles are generally narrow and cannot be allowed to be used by passengers sitting in the aisle seats to extend lower limbs which cannot be accommodated under the seat in front. Exercising by walking in the aisles during a flight is hardly practicable. On some types of aircraft, a few seats may offer somewhat more leg-space, but most of these seats are situated near an emergency exit door and sometimes cannot be allocated to incapacitated passengers for reasons of flight safety and evacuation procedures.

Whenever applicable safety regulations, or the airline's or medical conditions require that incapacitated passengers be located in a particular cabin section, or in certain seats, such regulations/conditions will take priority over the personal wishes of the passenger or his/her physician.

Toilets are small and entrances are narrow. They are practically inaccessible to certain types of incapacitated passengers who must be carried.

Humidity in aircraft cabins at high cruising levels is very low, sometimes less than 10%. Although this in itself may cause discomfort to the passengers, it will not by itself aggravate any known handicap.

13. FACILITIES PROVIDED BY AIRLINES

Special facilities required by an incapacitated passenger may be provided by the airlines if given sufficient advance notice. Some of these special facilities may be available free of charge, while for others there will be a charge. Stretcher passengers will always be subject to a charge in excess of the normal tariff, and some airlines do not accept stretcher passengers at all, or cannot accept them on certain aircraft types. All special facilities or services required should be requested well in advance and any costs should be clearly established. The following is a list of some of the special services available:

- (a) Special meals (diabetic, low salt, low calorie, low cholesterol, etc.),
- (b) Wheelchairs for use inside airport buildings;
- (c) Carry-on and carry-off arrangements for those passengers unable to walk;
- (d) Leg-rests for support during prolonged flights;
- (e) Curtains to provide privacy, (for example, mothers breast-feeding babies, waste disposal procedures by incapacitated passengers unable to use the toilet);
- (f) Aviation approved oxygen equipment to assist passengers in need of standby or continuous oxygen during a flight;
- (g) To board/disembark immobile incapacitated passengers not travelling on stretchers, most airlines have available invalid carrying chairs (narrow wheelchair-type devices, without armrests, that can be moved about in the passenger cabin). At some large airports, special invalid passenger loading vehicles are available on advance request to the airline concerned. Airlines will normally try to provide staff to carry the passenger on and off the aircraft.

However, some passengers with a very fragile condition will require professional attendants or bearers, which must be arranged by the passenger or his/her physician. At some airports, the fire brigade can be called on to assist in carrying the passenger on and off the aircraft

- (h) Most airlines provide special aerostretchers and associated equipment (e.g. blankets, pillows, sheets, and privacy curtains) for incapacitated passengers who cannot use the standard airline seat. The charges for aerostretchers, which vary from airline to airline, are published in the airline guides and in the airlines' tariffs

The rules concerning the exact number of seats and the locations required for the installation of stretchers or similar devices (couches, divanettes, etc.) on board, vary between airlines and aircraft types and some aircraft cannot accommodate stretchers. Therefore, in requesting such arrangements, only the number of aerostretchers required and not the number of seats, should be mentioned. Escorts are always required for stretcher passengers and should be seated next to the passenger they are escorting, and occupy a seat next to the aisle

Most aerostretchers are not interchangeable between airlines. Thus, if the passenger is connecting between airlines, it will normally be necessary to transfer the passenger from one aerostretcher to another. Also, hospital and ambulance stretchers cannot be used in aircraft, and the passenger must be moved onto and off of the aerostretcher at the departure and arrival airports

- (i) Carriage of medical equipment that has to accompany the incapacitated passenger (wheelchair, dialysis-apparatus, oxygen-apparatus (provided the oxygen bottles are emptied) Wheelchairs with spillable batteries are "Restricted Articles" and are permitted on passenger aircraft only under certain conditions, which can be obtained from the airline(s). In addition certain countries may impose specific restrictions. The airline must be consulted ahead of time on the necessary precautions for carriage of the battery.

Equipment

When any of the following equipment or services are provided by airlines or their handling agents, they will only be provided in accordance with the providing or carrying airline's policies, applicable government regulations, and applicable rates and charges provided for in the airline's tariffs/regulations:

- (a) Wheelchairs
- (b) Oxygen
- (c) Stretcher
- (d) Lifting services
- (e) Devices for Supporting Limbs etc
- (f) Any other specialised equipment to support incapacitated passengers

14. FACILITIES NOT PROVIDED BY THE AIRLINES

Certain facilities and services cannot be provided by the airlines. Examples are.

- (a) Nursing care to passenger known in advance to need such care. This includes the administering of injections.
- (b) Medicines which incapacitated passengers have to use during the flight. These medicines must always be prescribed by the attending physician and carried by the passenger in his or her cabin luggage.
- (c) Electronic and other medical equipment (e.g. ECG-apparatus, defibrillator, suction pump, infusion sets, incubators, intubation sets) needed for the surveillance and monitoring of the incapacitated passenger.

NOTE: All electronic apparatus to be used during a flight has to be tested for negative interference with navigational aids on board the aircraft. The airline must be consulted ahead of time regarding the use of such apparatus.

- (d) Medical escorts, doctors or nurses, to accompany those incapacitated passengers for whom such escorts are required by the airline(s) due to the type of incapacitation involved. However, some airlines can arrange for these escorts, for which the passenger will be charged.

15. CATEGORIES OF INCAPACITATION

Incapacitated passengers may be grouped into the following general categories

Incapacitated passengers not subject to medical clearance.

- (a) Incapacitated passengers who are unable to walk in airports and are in need of a wheelchair are identified by the airlines using the following codes:

WCHR-R for Ramp — Passenger can ascend/descend steps and make own way to/from cabin seat but requires wheelchair for distance to/from aircraft, i.e. across ramp, fingerdock or to mobile lounge as applicable.

WCHS-S for Steps — Passenger cannot ascend/descend steps, but is able to make own way to/from cabin seat; requires wheelchair for distance to/from aircraft or mobile lounge and must be carried up/down steps.

- (b) Incapacitated passengers in need of specific diets.
- (c) Blind or deaf passengers.
- (d) Incapacitated passengers with other minor handicaps for whom special seating arrangements or leg-rests are required.
- (e) Persons holding a Frequent Traveller's Medical Card (FREMEC) issued by an airline.

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FOR THE ABOVE CATEGORY OF PASSENGERS NOT REQUIRING MEDICAL CLEARANCE, AIRLINES SHOULD BE NOTIFIED WELL IN ADVANCE OR AT THE EARLIEST POSSIBLE TIME ABOUT THE TYPE OF SPECIAL ASSISTANCE REQUIRED.

Incapacitated passengers subject to medical clearance.

- (a) Incapacitated passengers unable to walk or to move about at all:

WCHC-C for Cabin Seat — Passenger completely immobile; requires wheelchair to/from aircraft/mobile lounge and must be carried up/down steps and to/from cabin seat.

EXCEPTION: Persons holding a FREMEC card

An escort will not be required, provided assistance by airline personnel is not needed during a flight (for toilet visit, eating, drinking, etc.) Cabin crew, as foodhandlers, should not normally be required to assist in toileting, for hygienic reasons.

- (b) Incapacitated passengers considered unable to behave like normal passengers (e.g. mental disorders, alcoholism, drug addiction).
- (c) Incapacitated passengers in need of nursing care during a flight, such as the administering of injections.
- (d) Passengers in need of possible medical intervention or assistance during a flight.
- (e) Passengers in the recovery stage from major illness or surgery.
- (f) Incapacitated passengers not able to use a regular passenger seat in the upright position, for example, a person on a stretcher
- (g) Advanced pregnancy when birth is expected in less than four weeks, or if complications have been present.

Most of these categories may be accepted by the airlines' medical department or advisor. However, such acceptance may be dependent on certain conditions being fulfilled by the passenger or sponsor such as:

- (a) Escort (family member or other) for incapacitated passengers who do not need professional assistance during a flight.
- (b) Escort by a registered nurse whenever nursing care is needed during a flight involving administering of injections, the supervising of intravenous drips or other specialised nursing care;
- (c) Escort by a qualified and, if possible, specially trained physician whenever professional medical assistance might be needed or foreseen during a flight
- (d) The use of a stretcher whenever the incapacitated passenger cannot make use of the regular passenger seat. **Stretcher passengers, in principle, require an escort.**
- (e) Any other special arrangements required by the airline(s) to protect the health and welfare of all other passengers and crew, and the safety of the flight.

Whenever medical clearance is required prior to acceptance for air transport, it is of the utmost importance that the medical department/advisor of the originating airline is contacted at the earliest possible date. The medical department/advisor of the originating airline should be provided with all available information pertaining to the incapacitated passenger to ensure optimum arrangements for the passenger's trip. **Last minute arrangements should be avoided.**

Unacceptable Incapacitations.

Air transport on scheduled airlines may be denied to incapacitated passengers whose medical or mental condition appears to be such as to influence.

- (i) The adherence to flight schedules (e.g. predictable deterioration of health condition, adverse reaction to flight environment, possible onset of labour in pregnancy, etc.);
- (ii) The comfort and safety of other passengers on board (contagious diseases, incontinence, uncontrollable behavioural conditions, etc.);

16. EXPECTANT MOTHERS AND NEWBORN BABIES

Expectant mothers are not normally regarded as Incapacitated Passengers. If the expectant mother is in normal health and with no pregnancy complications, she shall normally be accepted **without** medical clearance.

However, medical clearance will be required, if:

- confinement may be expected in less than 4 weeks; or
- there is uncertainty of progress of pregnancy or time of confinement, that there were previous multiple births, or complications in delivery may be expected

Such clearance should be issued within 7 days prior to commencement of travel.

Air travel is not recommended for:

- Expectant mothers within the last month prior to confinement and within the first seven days after delivery
- New-born babies within the first 7 days after birth.

Premature babies will be considered as medical cases and medical clearance for air transport must be obtained.

17. GENERAL GUIDELINES

All stretcher passengers and also all travellers with psychiatric disorders must be accompanied by suitable escorts. The latter must have a qualified escort at all times and preferably two escorts on flights of long duration.

Stretchers in aircraft cabins have restricted dimensions and in most cases are not more than 190 cms (75 inches) long and 60 cms (24 inches) wide. Sophisticated nursing or medical assistance may therefore be difficult. Accommodation on a stretcher of a person whose size has been artificially "enlarged" by plaster casts or splints may prove to be impossible, or at least very uncomfortable, and these exceptional circumstances should be made known to the airline medical department/advisor.

Oxygen apparatus needed during the flight must be provided by the airline. The use of the patient's own apparatus or one provided by a hospital is strictly prohibited.

Electric current can seldom be provided. All electronic equipment to be used during a flight should be self-supporting by sealed non-spillable batteries. Such equipment must be cleared by the avionics department of the airline. Some electronic equipment could interfere with the radio-navigational devices of the aircraft. Cardiac pacemakers are exempt from these clearance requirements.

The need to continue intravenous drips during air transportation to safeguard the well-being of a patient should be considered very carefully. Any unpredictable failure in the pressure equalizing system during flight could be the cause of very erratic or even dangerous flow rates. Suspension of the bottles or bags has to be improvised, creating unstable conditions especially during take-off and landing and in the event of turbulence. An intravenous drip should be discontinued for the duration of the flight unless continuation is considered a lifesaving procedure. All patients transported with intravenous drips should be escorted by medically trained personnel.

The general rule that any person able to walk 100 meters and able to climb a flight of 15 steps, is fit to fly, normally holds true. However, passengers with marginal cardiac or respiratory reserve should be advised:

- (a) to arrive early at the airport of departure,
- (b) to ask for wheelchair service whenever long distances have to be covered in the airports,
- (c) not to carry more than one piece of lightweight personal cabin luggage;
- (d) never to hurry or run.

Motion sickness is only rarely present in modern air transport. Those known to be susceptible should be given appropriate medication, to be taken shortly before departure.

Prolonged immobilization on long flights has a noticeable effect on the circulation, especially in the lower limbs. Some elderly passengers might develop oedema and other symptoms of circulatory insufficiency. During a flight the opportunity for physical exercise is very limited. The aisles will be blocked most of the time by cabin personnel serving passengers. During intermediate stops, passengers should take every opportunity to exercise.

During flight, passengers should be encouraged to move their feet frequently and exercise the muscles of the legs. Long distance flights may on occasion be stressful for elderly, slightly arteriosclerotic, but otherwise normally healthy passengers. Some thought should be given to the influence of lack of sleep combined with minimal hypoxia, the time changes, immobility and boredom. The discomfort is increased when the passenger is not a seasoned traveller. These factors can, in extreme cases, cause a complete physical breakdown, requiring hospitalization en-route. If such passengers are escorted by any person familiar to them, the chances of breakdowns are minimised.

There is no easy solution to offset the effects of the disturbance of cyclic rhythms in the human body when subjected to displacement over one or more time zones. It is certain, however, that excessive intake of food, alcoholic beverages, as well as heavy smoking will increase personal discomfort.

Blockage of the eustachian tubes or the sinus-canals, either present before a flight or developed during a flight, may lead to uncomfortable sensations or even severe pains in the ears, the forehead or the maxillary region. Nasal decongestants will often relieve or prevent the symptoms. Symptoms will always decrease within a few days after a flight and will seldom result in irreversible damage to the affected organs.

Patients who recently suffered from coronary occlusion will generally be accepted three weeks after onset, provided the progress is uncomplicated and the patient is fully mobilized and allowed to walk and climb steps. To cover long distances in airline terminals the use of the wheelchair service is strongly recommended.

Hypertension without cardiac pathology is compatible with air transport and does not need any additional medication.

Diabetics can travel by air without difficulty. However, advance notice should be given to the airline regarding specific dietary needs. **Diabetics must carry the necessary medication in their personal cabin luggage**, and should, when prolonged flights are involved, remain on the time of the country of departure during the flight. Upon arrival at their destination they should slowly adapt to the time difference.

All other medications which passengers should take during or shortly after a flight must be carried in their personal cabin luggage and never in the checked baggage. Checked baggage might not be available for a considerable time and prescribed medicines, obtained in the home country, might not always be available abroad.

Fractures

A plaster cast should have been applied at least 48 hours before a passenger flies. Any circulatory problems associated with the application of the cast will have become evident by this time.

Wired Jaws

There is a possibility that a passenger who has his jaw wired together because of a fracture may vomit during flight. If this happens, vomit could be inhaled. It is essential therefore that such passengers be escorted, and that the escort is equipped with and capable of using wire cutters.

Artificial Limbs

Some artificial limbs are operated by small cylinders of carbon dioxide. The carriage of these, when worn by the passenger, is exempt from the IATA Restricted Articles Regulations, provided the airline agrees. The net weight should not exceed 230 grams (8.11 oz.). Spare cylinders of the same size and make may be carried if required to ensure an adequate supply for the duration of the trip. If in doubt, consult the airline's restricted articles advisor.

Contagious Diseases

Passengers who have contagious and transmittable diseases, including the more serious types e.g. smallpox, typhus, cholera, yellow fever and the less serious types e.g. diphtheria, scarlet fever, tuberculosis, and measles cannot be accepted for air travel until the risk to other passengers has ceased to exist.

Heart and Lung Conditions

Air travel can have an adverse effect on people with congestive heart failure or angina, or those with severe emphysema. Such passengers require a medical clearance before travelling.

International Inoculation Requirements

It should be remembered that admission to many countries is still subject to yellow fever and cholera vaccinations, while at the time of publishing this booklet, a very few countries still require smallpox vaccination (although this disease was officially declared eradicated by the World Health Organization in October 1979). Upon entry of these countries, passengers should be in possession of valid certificates of vaccination against one or more of the diseases named above as specified by the International Sanitary Regulations of the WHO. Over and above these required vaccinations, it would be advisable to protect the passenger against other diseases and supply him/her with anti-malaria prophylactic drugs for certain destinations. Most airlines and public health offices will be able to advise the passenger and the physician as to the need for specific vaccinations for the countries to be visited. Due to the fact that these requirements are subject to ad hoc as well as periodic (seasonal) changes, no specific details can be listed in this booklet.

Pregnancy and certain acute and chronic diseases may make certain vaccinations undesirable. In such cases, you could give the person a certificate of exemption. However, not all health authorities will accept such an exemption certificate.

DO NOT FORGET THAT ADVANCE NOTICE AND/OR CONSULTATION WITH THE AIRLINE CONCERNED IS ESSENTIAL IN CASES WHERE THERE ARE MEDICAL PROBLEMS OR WHERE SPECIAL EQUIPMENT, SEATING ARRANGEMENTS, HANDLING PROCEDURES OR DIETS ARE REQUIRED.

INCAPACITATED PASSENGERS PHYSICIANS GUIDE

CHAPTER XII

PART 1 To be completed by SALES OFFICE/AGENT	M E D I F STANDARD MEDICAL INFORMATION FORM FOR AIR TRAVEL Answer ALL questions. Put a cross (X) in YES or NO boxes. Use BLOCK LETTERS or TYPEWRITER when completing this form.				
A NAME INITIALS TITLE					
B PROPOSED ITINERARY (airline(s), flight number(s), class(es), date(s), segment(s), reservation status of continuous air journey)			Transfer from one flight to another often requires LONGER connecting time		
C NATURE OF INCAPACITATION			MEDICAL CLEARANCE REQUIRED? No <input type="checkbox"/> Yes <input type="checkbox"/>		
D IS STRETCHER NEEDED ON BOARD? (all stretcher cases MUST be escorted)	No <input type="checkbox"/>	Yes <input type="checkbox"/>	Request rate if unknown		
E INTENDED ESCORT (Name, sex, age, professional qualification, segments if different from passenger, if untrained, state TRAVEL COMPANION)			For blind and/or deaf, state if escorted by trained dog		
F WHEELCHAIR NEEDED? No <input type="checkbox"/> Yes <input type="checkbox"/> Categories are: WCHR, WCHS, WCHC Wheelchair Category: _____	OWN wheelchair No <input type="checkbox"/> Yes <input type="checkbox"/>	Collapsible No <input type="checkbox"/> Yes <input type="checkbox"/>	Power driven? No <input type="checkbox"/> Yes <input type="checkbox"/>	Battery Type (spillable?) No <input type="checkbox"/> Yes <input type="checkbox"/>	Wheelchairs with spillable batteries are restricted articles and are permitted on passenger aircraft only under certain conditions, which can be obtained from the airline(s). In addition, certain countries may impose specific restrictions.
G AMBULANCE NEEDED? No <input type="checkbox"/> Yes <input type="checkbox"/>	To be arranged by AIRLINE No <input type="checkbox"/> Specify Airline, Company, contact Yes <input type="checkbox"/> Specify destination, address		Request rates if unknown		
H OTHER GROUND ARRANGEMENTS NEEDED? No <input type="checkbox"/> Yes <input type="checkbox"/>	If YES, SPECIFY below and indicate for each item, (a) the ARRANGING airline or other organization, (b) at whose EXPENSE, and (c) CONTACT addresses, phone, where appropriate, or whenever specific persons are designated to meet, assist the passenger.				
1 Arrangements for delivery at air port of DEPARTURE	No <input type="checkbox"/> Yes <input type="checkbox"/>	Specify: _____			
2 Arrangements for assistance at CONNECTING POINTS	No <input type="checkbox"/> Yes <input type="checkbox"/>	Specify: _____			
3 Arrangements for meeting at air port of ARRIVAL	No <input type="checkbox"/> Yes <input type="checkbox"/>	Specify: _____			
4 Other requirements or relevant information	No <input type="checkbox"/> Yes <input type="checkbox"/>	Specify: _____			
K SPECIAL IN FLIGHT ARRANGEMENTS NEEDED (such as special meals, special seating, leg rest, extra seats, special equipment, etc.) (See Note 1 at the end of PART 2, if needed)	No <input type="checkbox"/> Yes <input type="checkbox"/>	If YES, DESCRIBE and indicate for each item, (a) SEGMENT(s) on which required, (b) airline ARRANGING or arranging third party, and (c) at whose expense. Provision of SPECIAL EQUIPMENT, such as oxygen, etc., always requires completion of PART 2, if needed.			
L DOES PASSENGER HOLD A FREQUENT TRAVELLER'S MEDICAL CARD (VALID FOR THIS TRIP)? (FHEMUC)	No <input type="checkbox"/> Yes <input type="checkbox"/>	If YES, add below FHEMUC data to your reservation requests. If in case of additional data required by a carrying airline, have physician or attendance complete PART 2, if needed.			
(FHEMUC Number) _____ Issued by _____ Valid until _____ Class _____ Segment _____					
(Signature) _____ (Date) _____					
PASSENGER'S DECLARATION I HEREBY AUTHORIZE _____ (Name of nominated physician) to provide the airlines with the information required by those airlines' medical departments for the purpose of determining my fitness for carriage by air and in consideration thereof I hereby believe that physician of his/her professional duty of confidentiality in respect of such information, and agree to meet such physician's fees in connection therewith. I take note that if accepted for carriage, my journey will be subject to the general conditions of carriage/tariffs of the carrier concerned and that the carrier does not assume any special liability exceeding those conditions/tariffs. I am prepared at my own risk to bear any consequences which carriage by air may have for my state of health and I release the carrier, its employees, servants and agents from any liability for such consequences. I agree to reimburse the carrier upon demand for any special expenditures or costs in connection with my carriage. (Where needed to be read by/to the passenger, dated and signed by him/her or on his/her behalf)					
Place	Date	Passenger's Signature			

Issued: October / 1981

(Text may be modified by the airline issuing the MEDIF, to comply with local law)

PART 2	MEDIF MEDICAL INFORMATION SHEET		(for official use only)
To be completed by ATTENDING PHYSICIAN	This form is intended to provide CONFIDENTIAL information to enable the airlines MEDICAL Departments to assess the fitness of the passenger to travel as indicated in PART 1 hereof. If the passenger is acceptable, this information will permit the issuance of the necessary directives designed to provide for the passenger's welfare and comfort. The PHYSICIAN ATTENDING the incapacitated passenger is requested to ANSWER ALL QUESTIONS . (Enter a cross (X) in the appropriate "yes" or "no" boxes and give precise concise answers). COMPLETING OF THE FORM IN BLOCK LETTERS OR BY TYPEWRITER WILL BE APPRECIATED.		The form must be returned to: <div style="border: 1px solid black; height: 30px; width: 100%;"></div> (Carrier's Designated Office)
Airline Ref. Code MEDA01	PATIENT'S NAME (INITIALS) SEX AGE		
MEDA02	ATTENDING PHYSICIAN Name & Address		
	Telephone Contact	Business	Home
MEDA03	MEDICAL DATA DIAGNOSIS in details (including vital signs)		
	Day month year of first symptoms	Date of diagnosis	
MEDA04	PROGNOSIS for the trip		
MEDA05	Contagious AND communicable disease? No <input type="checkbox"/> Yes <input type="checkbox"/> Specify _____		
MEDA06	Is patient in any way OFFENSIVE to other passengers? (Smell, appearance, conduct) No <input type="checkbox"/> Yes <input type="checkbox"/> Specify _____		
MEDA07	Can patient use normal aircraft seat with seatback placed in the UPRIGHT position when so required? Yes <input type="checkbox"/> No <input type="checkbox"/>		
MEDA08	Can patient take care of his own needs on board UNASSISTED* (including meals, seat to toilet, etc.)? Yes <input type="checkbox"/> No <input type="checkbox"/> If not, type of help needed: _____		
MEDA09	If to be ESCORTED, is the arrangement proposed in PART 1 & hereof satisfactory for you? Yes <input type="checkbox"/> No <input type="checkbox"/> If not, type of escort proposed by YOU: _____		
MEDA10	Does patient need OXYGEN** equipment in flight? If yes, state rate of flow: No <input type="checkbox"/> Yes <input type="checkbox"/> Litres per Minute _____ Continuous? Yes <input type="checkbox"/> No <input type="checkbox"/>		
MEDA11	Does patient need any MEDICATION* other than self administered and/or the use of special apparatus such as respirator, incubator, etc.*** (a) on the GROUND while at the airports? No <input type="checkbox"/> Yes <input type="checkbox"/> Specify _____		
MEDA12	(b) on board of the AIRCRAFT? No <input type="checkbox"/> Yes <input type="checkbox"/> Specify _____		
MEDA13	Does patient need RESPIRATOR*? If yes, indicate arrangements made or if none were made, indicate: (a) during long layover or night stop at CONNECTING POINTS en route: No <input type="checkbox"/> Yes <input type="checkbox"/> Action: _____		
MEDA14	(b) upon arrival at DESTINATION: No <input type="checkbox"/> Yes <input type="checkbox"/> Action: _____		
MEDA15	Other remarks or information in the interest of complete patient's smooth and comfortable transportation: None <input type="checkbox"/> Specify if any** _____		
MEDA16	Other arrangements made by the attending physician: _____		
NOTE: (*) Cabin attendants are NOT authorized to give special assistance to particular passengers, to the detriment of other persons on other passengers. Additionally, they are trained only in FIRST AID and are NOT PERMITTED to administer any injection or to give medication.			
IMPORTANT FEES: IF ANY RELEVANT TO THE PROVISION OF THE ABOVE INFORMATION AND FOR CARRIER PROVIDED SPECIAL EQUIPMENT (**) ARE TO BE PAID BY THE PASSENGER CONCERNED.			
Date	Place	Attending Physician's Signature	

INCAPACITATED PASSENGERS PHYSICIANS GUIDE

CHAPTER XII

SIZE

Minimum 85 x 125 mm (3.35 x 4.92 inches)
 Maximum 95 x 145 mm (3.75 x 5.91 inches)

F R E Q U E N T T R A V E L L E R S M E D I C A L C A R D (F R E M E C)

Honouring instructions: The data contained in the shaded fields **MUST** always be transmitted with any reservation request. Journeys requested but not authorised by this Card, require completion of the Standard Medical Information Form (MEDIF)

FREMEC Number Issued by Valid until
(Airline's Code Number) (Serial Number) (Airline's Medical Dept's Telex Code) (day month year)

The holder of this Card
(Surname) (Init.) (Title) (Sex) (Age)

(Permanent Address) (Phone)

has the following permanent/chronic incapacitation

(Code, if any example BLND DEAF WCHC etc.)

The holder is authorized by the Medical Department issuing this Card, to travel by air within the validity of this Card, subject to: (a) the Conditions stated on the reverse, (b) no worsening of the Holder's present health conditions, and (c) full observance of all carrier rules, regulations and instructions, and with the following **LIMITATIONS**:

(Insert limitations, including any permanent dietary requirements)

(2)

FORMAT

plasticised card - front and back - foldable (optional) or in multilingual booklet form (optional)

C O N D I T I O N S O F I S S U E

1. Cardholders are responsible to **REPORT ALL CHANGES** in their present handicap or incapacitation, and/or the deterioration in their physical or medical condition to the airline representative or agent with whom they are in contact.
2. Subject to all terms and conditions stated on this Card, the authorisation for air travel is valid only up to the date stated on the front
3. This Card is not transferable and must be produced, together with proof of the cardholder's identity on every occasion whenever airline reservations are made for the cardholder, at time of ticket issuance, and when so requested by the airlines or their agents or representatives
4. Cardholders are reminded that arrangements for travel should be made as much in advance as possible. They should also allow sufficient time for check-in formalities.

Date and Place of Issue

Passenger's Signature

(Legal guardian or Passenger's witness may sign if passenger is physically unable to do so)