Policy Title: MOH Aeromedical Evacuation and Transport Policy.	
Policy Owner: MOH assistant undersecretary of foreign health services affairs / MOH Committee on Hospital Clinical Services and Policies.	**Policy Code**: A-ADM-014
Section location: General and specialized MOH and Non MOH Governmental health care facilities.	**Effective Date**:01/10/2025
Applies to: General and specialized MOH and Non MOH Governmental health care facilities plus MOH Affiliated International Health care Facilities.	**Revision Date:**30/09/2027
Approvals	**Signature**
Approved by: MOH assistant undersecretary of foreign health services affairs.	
Approved by: MOH Committee on Hospital Clinical Services and Policies.	
Approved by: MOH Technical Directorate.	
Approved by: MOH Assistant Undersecretary of Technical Affairs.	

1. Introduction:

1.1 The Ministry of Health of the State of Kuwait allocates an annual budget to ensure the continuation of medical care/services for citizens with medical conditions by referring them for treatment abroad when the necessary treatment/care/services are unavailable in health care facilities in the State of Kuwait. Such patients may vary in their medical and functional conditions/status, which may render the mode of transport and required support, en route to the destination, to differ accordingly. It is thus paramount that a policy be established to define and organize the transport of patients in need of supportive services en route to their designated boarded destinations, or back, to ensure efficient resource allocation and safe transport and transfer of patients.

2. Purpose:

The Purpose of this policy is to:

2.1 Provide the necessary guides and standards for the safe and efficient transfer of patients (stable, unstable and critical) approved for continuation of medical care abroad, with the most structured multidisciplinary approach to avoid critical incidents and/or complications en route. It also aims to avoid unnecessary transfer and offer alternatives.

2.2 Define the patient population to which this policy applies.

2.3 Define the criteria required that must be met for aeromedical transportation and transfer of patients by the Ministry of Health (MOH) from and to the State of Kuwait.

2.4 Define medical boarding, aeromedical evacuation, transport and medical transport team.

2.5 Define the guides, tools, and standards applied for the transport/transfer of patients, based on their conditions, required equipment and the accompanying health care providers (HCP).

2.6 Outline the pathway of organization aeromedical transport of patients from and to the State

of Kuwait.

2.7 Outline the duties and responsibilities of the involved administrative and clinical leadership.

**Note: It should be acknowledged that guidelines neither can be exhaustive nor be able to address all potential clinical circumstances. They are provided as a guide to assist in the interpretation of levels of care required. Clinical expertise and judgment are required in all circumstances to ensure the best care is provided in the most appropriate established setting en route from and to the State of Kuwait MOH health care facilities.

3. Definitions:

3.1 **MRP:** The designated **Most Responsible Physician**; Generally, it refers to the physician or other regulated health care professional who has overall responsibility for directing and coordinating the care and management of a patient at a specific point of time.

3.2 **MOH: Ministry Of Health**.

3.3 **HCP: Health Care Provider**; Generally, refers to any individual, including but not limited to physicians, nurses and technicians, who, in the course of their professional activities, may directly or indirectly recommend, administer and/or determine the medical and/or related services for the patient.

3.4 **HCF: Health Care Facility**.

3.5 **AMT: Aeromedical Transportation**; refers to the movement of patients, organs, blood, tissues, medical supplies or medical personnel by airplane or helicopter. AMT is typically undertaken when delays in treatment are considered unacceptable or when terrestrial methods of transportation are not feasible. Depending on its underlying purpose, AMT may serve as an emergency response to provide immediate medical care to prevent loss of life or to prevent the aggravation of physical or psychological illness or injury. Alternatively, AMT can serve as a routine ambulance transport when surface means of transportation are nonexistent, impractical or when faster transfer is desired.

3.6 **Air Ambulance:** On-demand, nonscheduled flight by an aircraft specifically designated for carriage of AMT payload (e.g., patient, medical personnel, etc.) with in-flight medical supervision.

3.7 **Medievac: Aeromedical Evacuation**; The timely and efficient movement and en route care provided by medical personnel to patients requiring evacuation or transport using medically equipped air ambulances.

3.8 **Clinical council:** A council of a clinical specialty composed of the chairs of that specialty from all MOH health care facilities. The council is chaired by one of the clinical specialty chairs, as per ministerial decree. The clinical council has administrative and professional oversight of the respective departments, resources and manpower of that specialty within the MOH, its health care facilities and the standards of care, practice and credentialing in health care facilities in the State of Kuwait.

3.9 **DTA: Directorate of Treatment Abroad**; A directorate under the MOH responsible for overseeing the international medical referral, transfer and transport of approved Kuwaiti patients from and to the State of Kuwait.

3.10 **Index Facility:** The current health care facility where the patient and service are located.

3.11 **Recipient Hospital:** The health care facility receiving the transferred patient.

3.12 **Repatriation:** The return of the patient to their respective health care facility or catchment area in the State of Kuwait.

3.13 **PHTC:** Patient Handover Transfer Checklist.

3.14 **TRAC:** Transport Risk Assessment Checklist.

3.15 **PATCS:** Patient Aeromedical Transport Care Sheet.

4. Procedures:

4.1 Eligibility Criteria:

4.1.1 The patient who is required to be treated abroad or repatriated must be a Kuwaiti citizen.

4.1.2 The required treatment for patients planned for treatment abroad must not be available in the State of Kuwait.

4.1.3 For patients planned for repatriation, the treatment must have been concluded, deemed futile, or the patient must be deemed fit for discharge by the respective health care facility abroad.

4.1.4 A patient approved for treatment abroad or repatriation is considered to require medical supportive services en route based on the approved tools and MOH transport assessment criteria.

4.1.5 The patient approved for treatment abroad or repatriation is deemed for transport as an inpatient from one health care facility to another.

4.2 Contraindications:

4.2.1 Weather conditions deemed by the forecast, aviation leadership and pilot.

4.2.2 Patient's weight and girth, with the weight of equipment as deemed by the pilot relative to the size of the aircraft and payload weight limit.

4.2.3 Uncontrolled violent behavior from the patient.

4.2.4 Contamination of patient or patient transport team with actively hazardous material (which could affect the pilot and, in turn, his/her ability to ensure safe flight).

4.2.5 Hemodynamically unstable patient or impending death or futility of the planned treatment abroad in the current status.

4.2.6 Untreated pneumothorax, hemothorax or hemodynamically compromising effusion.

4.2.7 Untreated cardiac tamponade.

4.2.8 Recent abdominal surgery and immediate postoperative patients.

4.2.9 Penetrated eye injury.

4.3 Outbound Patients: *(See figure:1)*

4.3.1 Transfers are intended to transfer patients from one health care facility (HCF) in the State of Kuwait to another, crossing international borders, for investigations, interventions or transfer of medical or rehabilitation care.

4.3.2 Once the patient is approved for treatment abroad, the respective approving committee (or designated MRP) must complete the medical information checklist regarding the patient's clinical status and necessary supportive services required en route to ensure safe transportation to the intended health care facility. The checklist TRAC should be completed prior to submission of the final report to the higher MOH committee on treatment abroad/DTA for review *(See Attachment 1).*

4.3.2.1 If approval for treatment abroad is granted and the appointment of transfer/admission to the recipient health care facility abroad is confirmed by the DTA, the respective clinical councils and professional directorates (approved and designated by the MOH leadership for support in aeromedical transportation) will be officially instructed to provide/nominate the necessary manpower and resources required for the safe transport of the patient accordingly (Refer to **4.5**). The nominated HCP transport team will, thereafter, be officially acknowledged and appointed by a ministerial administrative decree for the DTA to ensure the necessary travel and

financial arrangements for their transport and return.

4.3.2.2 The transferring service/HCF and the MOH body/leadership responsible for approval of transport (i.e., DTA) must ensure the receiving HCF abroad is aware of, accepting and expecting the transfer (with an expected date and time of accommodation).

4.3.2.3 The transferring service/department providing care for patient in the index hospital is responsible for informing and updating the receiving HCF abroad (via the DTA) about the patient's clinical status being transferred and the necessary requirements for their care at the recipient location.

4.3.2.4 The transferring service or department providing care for patient is responsible for informing and updating the receiving HCF (via DTA) about the mode of transportation and care/services during transport to ensure the necessary requirements for the patient's safe transport (from the port of entry of the recipient location to the recipient HCF) are provided.

4.3.3 The medical information checklist should be reviewed and approved by the MRP or a designated member of their team (of the rank of senior registrar and above) within 7-14 days and 48-72 hours of the intended day of aeromedical transportation.

4.3.4 Should any changes in the patient's condition deem the need to delay transportation or change the en route supportive services, it is the responsibility of the transferring service/department responsible for the patient's care in the index facility to follow the guides set forth in this policy to stratify the patients, according to their medical/clinical status and their medical supportive requirements, to ensure the safe transfer of their respective patients to the receiving HCF. The transferring service/department must also inform the head of their department, who will then relay the updates to the Directorate of Treatment Abroad, ensuring the necessary changes and delays are made accordingly.

4.3.4.1 Unstable/critical patients whose hemodynamic/physiological status renders the risk of transfer greater than the benefit of bedside care, yet still in need of the transfer, should be reviewed by the MOH body/leadership responsible for approval of transport, who is urged to reconsider pending the patient's stability.

4.3.4.2 Consent for risks, benefits and possible complications en route should be acquired by the patient or legal guardians for all patients being transported a broad with an AMT team, and in particular for those for whom the decision to transport despite instability is established, by the MOH body/leadership (responsible for approval of transport).

4.3.5 Equipment required in accordance with the approved checklist TRAC*(See Attachment 1)* for the safe transport of a patient is to be requested by the head of the department, the patient is being cared for and prepared and available in the index hospital in which the patient is treated prior to the transport day.

4.3.6 At times, the addition or replacement of certain approved equipment is left to the discretion of the transporting HCP (physician, Nurse, etc.) and to be informed to the supplying stores no later than 72-96 hours prior to departure.

4.3.7 It is the responsibility of the transferring service/AMT team to ensure the safe transfer of the patient to the recipient HCF. This includes regularly monitoring and documenting the patient's vitals and clinical status, providing the necessary care accordingly, and delivering a detailed documented sign over/handover along with the required medical records to the medical team at the recipient HCF (PHTC *See*

Attachment 2).

4.4 **Responsibility of clinical councils and respective directorates (e.g. nursing):**

4.4.1 To nominate and provide the necessary health care providers for safe patient transport, as requested by the boarding committee and DTA, in accordance with the transport checklist TRAC *(See Attachment 1).*

4.4.2 To nominate and designate standby transport HCP team members from their respective councils and directorates, ready for on-demand patient transport from and to the State of Kuwait MOH health care facilities.

4.4.3 To establish an on-call rota/list of standby transport HCP team members from their respective councils and directorates with the necessary updated valid credentials and visas available to cover aeromedical transportation to different locations worldwide of patients from and to the State of Kuwait MOH health care facilities throughout the year (Council Manpower list, *See Attachment 3).*

4.4.4 To ensure the nominated/designated transport HCP team members from their respective councils and directorates are trained, competent, credentialed, and licensed for the level of care required for the safe transport of the patient from and to the State of Kuwait/MOH health care facilities**.**

4.4.5 To ensure the nominated/designated transport HCP team members from their respective councils and directorates are provided, trained and competent with the equipment required and requested for the safe transport of the patient from and to Kuwait/MOH health care facilities.

4.4.6 To ensure the nominated/designated transport HCP team members from their respective councils and directorates are delegated with the responsibility of ensuring they acquire the necessary equipment required and requested for the safe transport of the patient from and to Kuwait/MOH health care facilities and the safe return of the equipment to the index MOH health care facilities.

4.4.7 To ensure establishing, reviewing, and updating standards, operational policies and tools for patient care categorization, necessary equipment, training and care.

4.5 **Requirements for Health Care Providers Designated for Aeromedical Transport:**

4.5.1 One or more health care providers designated for aeromedical transportation of patients in need of clinical support en route should fulfil the following requirements:

4.5.1.1 **For physicians:**

4.5.1.1.1 Possession of a valid ACLS certification (and PALS for pediatric, ALSO for OBGYN, ATLS for surgical and anesthesia/ICU certifications for physicians involved in those areas).

4.5.1.1.2 Competency in airway management and line insertion.

4.5.1.1.3 Competency and active practice or training in critical care, cardiac care, anesthesia, or emergency care (e.g., anesthesia, ER, ICU, CCU, and PICU physicians).

4.5.1.1.4 Specialized in the care and management of the patient's condition for which the transfer is planned abroad and for which complications might arise en route in need of the specialized care (e.g., pregnant patient in need of accompanying OBGYN and pediatric physicians, etc.).

4.5.1.1.5 Physician must hold the rank of registrar and above.

4.5.1.1.6 Physicians must be licensed in any of the above specialties **4.5.1.1.3** and **4.5.1.1.4.**

4.5.1.1.7 Physicians must possess a valid passport and visa to the recipient state they are assigned for transport.

4.5.1.2 **For Nurses:**

4.5.1.2.1 Possess a valid ACLS certification (and/or PALS for pediatric and/or ALSO for OBGYN, in accordance with MOH decrees 63/2024 & 71/2024).

4.5.1.2.2 Be actively practicing and designated, in an inpatient care setting (e.g., ward, ICU, PICU and CCU), with competency including but not limited to the following:

4.5.1.2.2.1 Insertion of intravenous lines and withdrawal of blood samples.

4.5.1.2.2.2 Handling of central venous catheters (including assistance in insertion, withdrawal of blood samples, and administration of fluid/medications/blood products).

4.5.1.2.2.3 Handling of nasogastric tubes and Foley's catheters.

4.5.1.2.2.4 Handling of intravenous infusion pumps and drips of different types of fluids, blood products and medications.

4.5.1.2.2.5 Manual measurement of blood pressure and heart rate.

4.5.1.2.2.6 Use of blood pressure and heart rate monitoring devices.

4.5.1.2.2.7 Performance of electrocardiography (ECG).

4.5.1.2.2.8 Charting of vitals, input/output, medications, and events with proper sign over/handover.

4.5.1.2.3 Possess a valid passport and visa to the recipient state to which the nurse is delegated for transport.

4.5.1.3 **Allied services (e.g., respiratory therapist, perfusionist etc.)**

4.5.1.3.1 Possess a valid passport and visa to the recipient state to which they are delegated for transport.

4.5.1.3.2 Be credentialed and licensed in their respective specialty.

4.5.1.3.3 Be actively practicing and designated in an inpatient care setting (e.g., ward, ICU, PICU and CCU) with competency including but not limited to the following:

4.5.1.3.3.1 Operate and troubleshoot the equipment and devices they are trained/licensed to operate (e.g., perfusionist operating ECMO, respiratory technician operating mechanical ventilator, etc.).

4.6 **Responsibilities of Health Care Providers Designated for Aeromedical Transport:**

4.6.1 The accompanying physician designated for the patient's care en route is considered the MRP.

4.6.2 It is the responsibility of the AMT team members (e.g., anesthesia/ICU physician or any physician with competencies outlined in this policy for the respective patient criteria), who is consulted or delegated to accompany a patient deemed -by the guides set forth in this policy to need en route care/support - to ensure that the required medical equipment and support are available at hand, functional, and ready

for the transfer.

4.6.3 The physician/nurse of the AMT team who is delegated to accompany a patient deemed low-risk (as per the guides set forth in this policy) is responsible for ensuring that the required medical equipment and support are available, functional, and ready for transfer. Additionally, they must ensure continuous observation and assessment of the patient en route to and/or from the destination.

4.6.4 In situations where a patient's condition clinically deteriorates and a Code Blue needs to be initiated while en route from the index HCF in the State of Kuwait to the port of exit, the transferring service/team should initiate basic life support (BLS) or advanced cardiac life support (ACLS) measures. They should also consider aborting the transport and returning to the index HCF's emergency department, where the Code Blue team will arrive and take over the care and intervention.

4.6.5 The transferring AMT team should ensure proper documentation of the patient's clinical status prior to transport, during transport, and upon arrival at the recipient HCF. This includes a proper documented sign-over/handover of the transferred patient to the recipient HCF team (PATCS, *See Attachment 4*).

4.6.6 The transferring AMT team (physicians and nurses) should return all equipment to their index facility or MOH central stores as deemed by the respective MOH leadership.

4.6.7 The transferring AMT team (physicians and nurses) should return and/or discard and dispense medications issued for transport of the patient is in accordance with the MOH rules, regulations, and decrees upon return to the State of Kuwait.

4.7 **Documentation**:

4.7.1 Documentation must be clear and comprehensive at all transfer stages, as it serves as the only legal document proving the patient's transfer, receipt, and condition during and upon receipt (PHTC *See Attachment 2).*

4.7.2 The documentation must include the following:

4.7.2.1 Patient's condition at the time of transfer.

4.7.2.2 Reason for transfer.

4.7.2.3 Names and designation of referring and receiving clinicians.

4.7.2.4 Details and status of vital signs before the transfer, en route, and until handover is complete. This should include any clinical events that occurred during the transfer and the treatments provided. (PATCS and PHTC, *See Attachment 2,4).*

4.7.2.5 A formal handover must take place at the receiving facility between the transferring team (physicians, nurses, allied health services) and the receiving team (PHTC *See Attachment 4).*

4.7.2.6 Copies of any relevant clinical investigation and diagnostic reports should be handed over to the receiving team.

4.8 **Inbound/Repatriation:** *(See figure:2)*

4.8.1 The MOH hospitals provide the access and means for repatriation of all Kuwaiti patients approved for treatment abroad and residing in approved HCF outside of the state of Kuwait.

4.8.2 When the treating team of the respective health care facility abroad (or the patient or their legal guardians) determines that the patient has completed treatment and is deemed fit for transport back to the State of Kuwait, or if it is determined that the

patient would be best served and cared for in an HCF in the State of Kuwait, a formal repatriation request should be submitted. This request must include a medical report, discharge summary, and repatriation request to the Kuwait Health Office at the recipient state's respective the State of Kuwait consulate/embassy. The health care facility abroad is also responsible for providing recommendations regarding the mode of transport and the necessary resources for repatriation. The health office will communicate the discharge plan and recommendations to the DTA in the State of Kuwait. The DTA will review the recommendations regarding transportation mode and resource allocation and respond to the health office. The process for nominating the Aeromedical Transport (AMT) team and resource allocation will follow the same pathway outlined for outbound patients.

4.8.3 The DTA and nominated AMT teams must use the suggested scores, tools, and standards set forth in this policy to guide resource allocation for the repatriation of Kuwaiti inpatients in HCF abroad.

4.8.4 The patient is to be transported back to the HCF in the State of Kuwait, which corresponds to their catchment area.

4.8.4.1 If the catchment area MOH hospital is unable to accept the patient's transfer due to a lack of resources and/or beds, the treating team of the respective catchment MOH health care facility should contact the next closest MOH hospital. The team should request the patient's redirection based on the respective care/specialty from which he/she was boarded. The DTA should be informed via the director of the HCF about the agreed redirection of the patient. *(See Attachment 5).*

4.8.4.2 If the on-call specialty/unit/department in a MOH hospital accepts the transfer/repatriation of a patient who is ***NOT*** from its catchment area under its care from a facility. (Due to lack of resources and/or beds in the catchment area MOH hospital), the decision to repatriate the patient to their original catchment area at MOH hospital is at the discretion of the receiving team in the first hospital. The repatriation will take place once the patient is deemed stable and the necessary resources/beds are available at the catchment area MOH hospital.

4.9 Aeromedical Transport Resources Allocation, Tools and Checklists:

4.9.1 Patients planned for treatment abroad who require en route care or supervision, should be stratified according to their clinical status, level of care being provided at the index hospital, and anticipated events during transport. This stratification should occur prior to the allocation of the mode of aeromedical transport and the necessary resources for en route care.

4.9.2 The care required by each patient during transfer depends on the level of the patient's critical care dependency and setting and accordingly are divided into the following categories:

4.9.2.1 **Level '0' care:** Patients at this level are hemodynamically stable with stable organ function and require **no** specialized or frequent monitoring. They are suitable for regular care in a general ward and typically do not need specialized personnel. **Examples:** (Pneumonia with acceptable saturation and hemodynamic stability-post-elective surgery care-Post-DKA with normal pH).

4.9.2.2 **Level '1' care:** Patients at this level have an acuity of illness that requires

targeted monitoring in a designated resourced ward. These patients are at risk of deterioration during transport and should be accompanied by a competent physician and a trained nurse. **Examples:** (COPD exacerbation or pulmonary edema with hemodynamic stability, in need of non-invasive ventilation (NIV) - Patients in an NIV ward, respiratory service, Coronary Care Unit (CCU), or other Acute Care Unit, as determined by clinical context and expert judgment-Institutionalized patients with tracheostomies requiring therapies delivered via tracheostomy).

4.9.2.3 **Level '2' care:** Patients at this level require more frequent monitoring or experience single-organ failure. To ensure proper care, they should be accompanied by trained and competent personnel. **Examples:** (High Dependency Unit (HDU)-Post Anaesthesia Care Unit (PACU)).

4.9.2.4 **Level '3' care:** Patients at this level have an acuity of illness requiring the management of two or more organ failures, with invasive monitoring, support, and/or mechanical ventilatory treatment. These patients require advanced respiratory and hemodynamic care during transport, supported by at least two failing organ systems. They must be accompanied by a competent physician, along with one or more assisting health care providers (e.g., nurse, perfusionist, etc.).

4.9.2.5 **Level '4' care:** Patients at this level have an acuity of illness requiring the management of two or more organ failures, with invasive monitoring, invasive specialized support, and management provided by a national or regional specialty service. This may include services such as Extracorporeal Life Support (ECMO/ECLS), Neuro Critical Care, Cardiothoracic ICU, or Burn Unit ICU. These patients must be accompanied by a competent physician, along with one or more assisting health care providers (e.g., nurse, perfusionist, etc.).

4.9.3 In reference to the above categories of care, the allocation of aeromedical transport modes and resources will be determined using guiding scores, checklists, and tools *(See Attachment 6, 7, 8, 9, 10).*

4.9.4 It should be acknowledged that these guidelines cannot be exhaustive and may not address all potential clinical circumstances. They are intended as a reference to assist in interpreting the levels of care required. Clinical expertise and judgment are essential in all situations to ensure the best care is provided in the most appropriate setting en route from and to Kuwait/MOH health care facilities. It is generally recommended that at least two competent personnel accompany the patient during the transfer.

"At times, patients with a low-risk NEWS level, who are residing in a level 0 care setting, may actually be classified as moderate risk due to the high potential for deterioration en route. These patients may require physicians with critical care and airway competency, as well as the necessary equipment. Examples of such patients include those with congestive heart failure, end-stage lung diseases, or potential airway or hemodynamic compromise. The final classification and necessary arrangements for such cases are left to the discretion of the committee or the accompanying physician".

4.10 **Criteria for Aeromedical Evacuation (Medievac):**

4.10.1 Medievac refers to the timely and efficient movement and en route care (out or inbound) medical personnel provide to patients requiring evacuation or transport using medically equipped dedicated air ambulances. The Kuwait MOH-designated Medievac aircraft accommodates five passengers, excluding the patient, pilot, co-pilot, and one cabin crew member. The criteria for allocating Medievac transport for the transport of a patient include, but are not limited to, the following:

- 4.10.1.1 Priority 1&2 cases (out or inbound).
- 4.10.1.2 Cases requiring transport to or from Kuwait within 48-96 hours.
- 4.10.1.3 Unstable Patients in need of expedited transfer to/or from Kuwait or from one HCF in one country to another abroad.
- 4.10.1.4 Returning priority 3 & 4 cases to Kuwait (post en route drop-off).
- 4.10.1.5 Commercial flights designated for aeromedical transportation that are not cleared or approved for arrival at the destination port.
- 4.10.1.6 The destination of the HCF is not an approved/agreed route for flight or landing of the commercial flights designated for aeromedical transportation.
- 4.10.1.7 The Discretion of the DTA.
- 4.10.1.8 Ministerial Decree.

4.10.2 In cases of brain death, where a death certificate is issued in accordance with the regulations of the country where the patient was treated, the patient will be transferred via (Medievac), following the necessary protocols and procedures for such transfers.

5. Monitoring procedure:

5.1 Adherence to the policy set is mandatory.
5.2 Any instances of non-compliance or organizational issues should be documented and maintained by the respective leadership.
5.3 Incidents should be reported via email to: incident@moh.gov.kw

6. References:

6.1 West Yorkshire Adult Critical Care Transfer Guidelines, 2017.
6.2 Views-Towards a national early warning score for detecting adult inpatient deterioration.
6.3 Prytherch DR, et al. Resuscitation. 2010.
6.4 Royal College of Physicians. National Early Warning Score (NEWS) 2: Standardising the assessment of acute-illness severity in the NHS. Updated report of a working party. London: RCP, 2017.

7. Attachments and Figures:

7.1 Attachment 1 - TRAC.
7.2 Attachment 2 - PHTC.
7.3 Attachment 3 - Council Man- Power List.
7.4 Attachment 4 - PATCS.
7.5 Attachment 5 - MOH-designated back up hospital scheme.
7.6 Attachment 6 - NEWS Scoring System.
7.7 Attachment 7 - Transfer Risk Assessment.
7.8 Attachment 8 - Preparing for Transport (ESCORT).

7.9 Attachment 9 - Suggested Equipment and medications.
7.10 Attachment 10 - Example Drugs Formulary.
7.11 Attachment 11 - Ambulance Priorities for Patient Repatriation/Interhospital Transfer.
7.12 Figure 1 - Aeromedical Transport Flow Chart.
7.13 Figure 2 - Inbound-Repatriation Flow Chart.

Attachment *1 – TRAC*

Transport Risk Assessment Checklist- TRAC

section:1

TABLE 1: LEVEL OF CARE EVALUATION

LEVEL	DESCRIPTION-REQUIRED MONITORING	EXAMPLES	CHECH BOX
Level 0	**Stable patient**, no specialized monitoring needed.	Pneumonia with acceptable saturation and stability - Post-elective surgery care - Post-DKA with normal pH	☐
Level 1	**Requires monitoring**, at risk during transport, needs physician and nurse	- COPD exacerbation or pulmonary edema, NIV needed - Patients in CCU, NIV ward, or acute care unit	☐
Level 2	**Requires frequent monitoring**, single organ failure.	- High Dependency Unit (HDU) - Post Anesthesia Care Unit (PACU)	☐
Level 3	**Multiple organ failures**, advanced care needed, supported by mechanical ventilation	- Organ failure, needs respiratory and hemodynamic support	☐
Level 4	**Highly specialized care**, national/regional support needed (e.g., ECMO).	- ECMO/ECLS - Neuro Critical Care - Cardiothoracic ICU	☐

section:2

TABLE 2: NEWS Score Risk Assessment

ARISK LEVEL	SCORE RANGE	KEY REQUIREMENTS	Competency Required Expertise	EXAMPLES	CHECH BOX
Low Risk	1 to 4	Maintaining Airway FiO2 < 0.4/Base deficit <-4 mmol/l Not requiring inotrope/vasopressor GCS ≥ 14 Normothermic	Nurse/Practitioner with appropriate competencies (e.g., MD with ACLS)	Post-surgery - Mild illnesses (e.g., common cold, minor	☐
Medium Risk	5 to 6	Maintaining airway FiO2<0.4-0.6/Base deficit-4 to-8 mmol/l low dose inotrope/vasopressor support <0.2ug/kg/min GCS 9-13 (Consider elective intubation) Hypo/Hyperthermic	Doctor with Nurse/Practitioner. If deterioration risk, doctor should have critical care competencies	Moderate infection (e.g., sepsis) Respiratory or circulatory support required	☐
High Risk	7+	Intubated/Ventilated FiO2 > 0.6 Base deficit>-8mmol CVS unstable and/or requiring inotrope/vasopressor Hypo/Hyperthermia	Doctor with critical care and advanced airway competencies, accompanied by Nurse/Practitioner	Severe trauma (e.g., major head injury) - Respiratory failure requiring mechanical ventilation or	☐

section:3

TABLE 3:NEWS Score Risk Assessment

Physiological Parameters	score						
	3	2	1	0	1	2	3
Respiration Rate(per minute)	≤8		9-11	12-20		21-24	≥25
SpO_2 Scale 1(%)	≤91	92-93	94-95	≥96			
SpO_2 Scale 2(%)	≤83	84-85	86-87	88-92 ≥93 on air	93-94 on oxygen	95-96 on oxygen	≥97 on oxygen
Air or Oxygen ?		Oxygen		Air			
Systolic Blood Pressure(mmHg)	≤90	91-100	101-110	111-219			≥220
Pulse (per minute)	≤40		41-50	51-90	91-110	111-130	≥131
Consciousness				Alert			CVPU
Temperature(*C)	≤35.0		35.1-36.0	36.1-38.0	38.1-39.0	≥39.1	

section:4 This checklist is intended as a guide and is not restrictive. It should be adapted as needed based on the patient's condition and clinical judgment."

Attachment 2 - *PHTC*

PATIENT HANDOVER TRANSFER CHECKLIST - PHTC

SECTION:1 — HANDOVER PROTOCOL

•Ensure All Information is Accurate •Clear Communication •Documentation •Confirm Receipt of Information

•All spaces must be completed.
•Any incomplete fields or missing information will result in delays in patient transfer.

SECTION:2 — PATIENT IDENTIFICATIONS

NAME (FULL):	PASSPORT NO:	DATE OF BIRTH:	AGE:
SEX: M ☐ F ☐	STATUS:	MEDICAL RECORD NUMBER: ☐☐☐☐☐☐☐	PRIMARY AND SECONDARY ALLERGIES (MEDICATIONS, FOOD, ENVIRONMENTAL):
BLOOD TYPE:	HIGHT(CM):	WEIGHT(KG):	
PHONE NO:	ALTERNATE PHONE NO:	RELATION TO CANTACT:	

SECTION:3 — FLIGHT INFORMATIONS

FLIGHT NO:Aircraft Type	DEPARTURE COUNTRY:	LANDING COUNTRY:	DEPARTURE TIME: LANDING TIME:	DURATION:

SECTION:4 — CLINICAL INFORMATIONS

PRIMARY DIAGNOSIS:
PRIMARY DIAGNOSIS:
SECONDARY DIAGNOSIS:

DIABETIC: YES ☐ NO ☐
HYPERTENSION: YES ☐ NO ☐
CARDIAC CONDITION: YES ☐ NO ☐
ASTHMATIC/RESPIRATORY CONDITION: YES ☐ NO ☐

VITAL SIGNS - on Departure

B/P	PULS RATE	RESP	BS	PAIN LEVEL	LAST PAIN MED	O2/LPM	ROUTE	TEMP©	BASELINE O2 SAT:
				/10					LAST BOWL MOVEMENT:

VITAL SIGNS - on Landing

B/P	PULS RATE	RESP	BS	PAIN LEVEL	LAST PAIN MED	O2/LPM	ROUTE	TEMP©	NOTES:
				/10					

CURRENT MEDICAL STATUS: STABLE ☐ CRITICAL ☐ DETERIORATING ☐

MENTAL STATUS: CONSCIOUS ☐ CONFUSED ☐ SEDATED ☐ UNRESPONSIVE/COMATOSE ☐

INFECTION CONTROL PERCAUTION: ☐ Isolation Required ☐ Standard Precautions ☐ Droplet Precautions ☐ Airborne Precautions

AIRWAY STATUS: PATENT ☐ INTUBATED ☐ TRACHE ☐ OTHER ☐

AIRWAY & RESPIRATORY SUPPORT

- Non-invasive Positive Pressure Ventilation (NIPPV) ☐
- Mechanical Ventilation ☐
- CPAP/BiPAP ☐
- Supplemental Oxygen via Mask/Cannula ☐
- Other (please specify) ☐
- Suctioning Needs: ☐ Yes ☐ No
- NOTES:

	YES	NO		YES	NO
HEARING IMPAIRED	☐	☐	DIZZINESS	☐	☐
COMMUNICATION BARRIERS	☐	☐	VOIDING DIFFICULTY	☐	☐
VISION IMPARID	☐	☐	TAKES LONG-TERM MED	☐	☐
CARDIAC Hx	☐	☐	WELL SELF- MEDICATE	☐	☐
MOTION SICKNESS	☐	☐	HAS ADEQUATE SUPPLY OF MED	☐	☐
EAR/SINUS PROBLEMS	☐	☐	KNOWS HOW TO TAKE MEDS	☐	☐
RESPIROTORY DIFFICULTY	☐	☐	MEDICATION LISTED ON PHICIANS ORDERS	☐	☐

DIET INFORMATION

- NOP ☐
- SOFT ☐
- FULL LIQ ☐
- CI LIQ ☐
- Reg ☐
- RENAL ☐
- Gm PROTEIN: ----------
- Gm Na: ----------
- Meq K: ----------
- Mag SULFATE: ----------
- TUBE FEEDING : ----------
- CC/HR: ----------

Required Equipment

VENTILATOR	☐	NG TUBE	☐
CARDIAC MONOTOR	☐	FOLEY	☐
IV PUMP	☐	SUCTION	☐
OXYGEN SUPPLY	☐	INCUBATOR	☐
SUCTION DEVICES	☐		☐
DEFIBRILLATOR	☐		☐
TRACH	☐		☐
CHEST TUBE	☐		☐
RESTRAINS	☐		☐
ORTHPEDIC DEVICES	☐		☐
TRACTION	☐		☐

Medications and Treatments

- Current Medications:
- Medication Name
- Dosage:
- Route of Administration: (oral, IV, etc.):
- Frequency:
- Last Dose Administered:
- IV Fluids/Infusions:
- Type of Fluid:
- Rate of Administration:
- Known Reactions or Complications:
- Other Treatments: (e.g., dialysis, chemotherapy, wound care):

SECTION:5 — CLINICAL HISTORY (TRANSFET SUMMARY)

SECTION:6 — Accompanying Family Member

- Number of Family Members Accompanying Patient:
- Family Member Name:
- Relationship to Patient:
- Family Member Contact Number:

Patient Transition Details

- Transfer Method: ☐ Wheelchair ☐ Stretcher ☐ SittingPosition ☐ Other
- Transfer Location: ☐ Ambulance ☐ Hospital ☐ Aircraft ☐ Other
- Transfer from (Location):
- Transfer to (Location):

SECTION:7 — TEAM RESPONSIBLE FOR HANDOVER

- Team Responsible for Handover: ☐ Medical Team ☐ Nursing Team ☐ Transport Team
- Team Leader Name:
- Team Member Name:
- Team Contact Number:
- Signature of Handing Over Team:
- Date:

Receiving TEAM

- Team Responsible for Receiving: ☐ Medical Team ☐ Nursing Team ☐ Transport Team
- Team Leader Name:
- Team Member Name:
- Team Contact Number:
- Signature of Receiving Team:
- Date:

SECTION:7 — Final Verification:

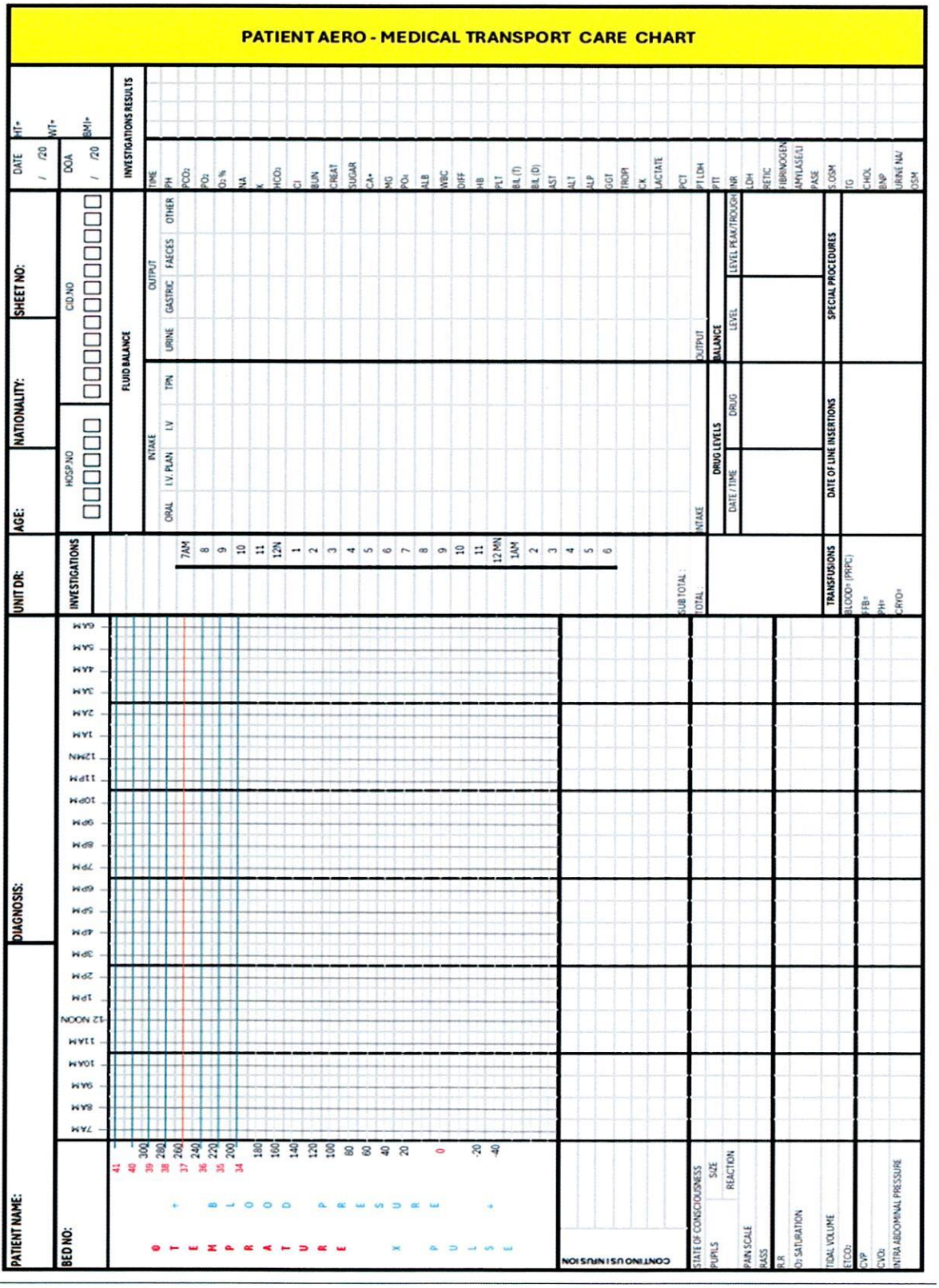
	Yes	No
Has the patient's condition been verified by both teams?	☐	☐
Has the appropriate handover checklist been completed?	☐	☐
Has the transfer team signed off on the checklist?	☐	☐
Has the receiving team confirmed receipt of the patient?	☐	☐
Complete Patient Medical Transport Care Sheet?	☐	☐
Confirmation of Patient Transfer Completed?	☐	☐

- Has the family member agreed to the transfer? ☐ Yes ☐ No
- Signature of Family Member:
- Signature:
- Date:
- Signatures for Final Confirmation:
- Handing Over Team Signature:
- Receiving Team Signature:

Attachment 3 - Council Man - Power List

NO.	COUNCIL	MD NAME	RANK	CID	VISA/VALIDITY EXPIRY DATE	TYPE OF VISA	CONTACT	COMMENTS

Attachment 4 - PATCH



PATIENT AERO - MEDICAL TRANSPORT CARE CHART

DOCTORS INDTRUCTIONS	
TIME	
SEEN BY	
DOCTORS INSTRUCTIONS	
TIME	
SEEN BY	

FLUID BALANCE

DAY	INTAKE	OUTPUT	BALANCE	NET BALANCE
DOA				
1				
2				
3				
4				
5				
6				
7				
8				

Attachment *5 - MOH - designated back up hospital scheme*

HOSPITAL	FIRST BACK-UP	SECOND BACK-UP
FARWANIYA	SABAH	JAHRA
JAHRA	FARWANIYA	SABAH
ADAN	MUBARAK	FARWANIYA
AMIRI	MUBARAK	ALSABAH
MUBARAK	AMIRI	ADAN
SABAH	AMIRI	FARWANIYA
JABER	MUBARAK	FARWANIYA
SABAH ALAHMAD CENTER	ADAN	MUBARAK

Attachment *6* - NEWS *Scoring System*

Physiological Parameters	Score						
	3	2	1	0	1	2	3
Respiration Rate (Per minute)	≤8		9-11	12-20		21-24	≥25
SpO_2 Scale 1(%)	≤91	92-93	94-95	≥96			
SpO_2 Scale 2(%)	≤83	84-85	86-87	88-92 ≥93 on air	93-94 on oxygen	95-96 on oxygen	≥97 on oxygen
Air or Oxygen?		Oxygen		Air			
Systolic Blood Pressure (mmHg)	≤90	91-100	101-110	111-219			≥220
Pulse (per minute)	≤40		41-50	51-90	91-110	111-130	≥131
Consciousness				Alert			CVPU
Temperature(*C)	≤35.0		35.1-36.0	36.1-38.0	38.1-39.0	≥39.1	

Attachment 7 - *Transfer Risk Assessment*

NEWS Score		Key Requirements	Competency Requirements/ Required Expertise	Examples
Low Risk	1-4	Maintaining airway FiO2 < 0.4/Base deficit <-4 mmol/l Not requiring inotrope/vasopressor support GCS ≥ 14 Normothermic	Nurse/Practitioner with appropriate competencies only. (e.g., MD with ACLS certification)	Stable level 0 and 1 care post-surgery - Mild illnesses (e.g., common cold, minor infections)
Medium Risk	5-6	Maintaining airway FiO2<0.4-0.6/Base deficit-4 to-8 mmol/l low dose inotrope/vasopressor support <0.2ug/kg/min GCS 9-13 (Consider elective intubation) Hypo/Hyperthermic	Doctor accompanied by Nurse/Practitioner with appropriate competencies If potential to deteriorate then doctor should have critical care and advanced airway competencies	Level 2 or 3 care Moderate-infection (e.g., sepsis) - Respiratory or circulatory support required
High Risk	7 or more	Intubated/Ventilated FiO2 > 0.6 Base deficit>-8mmol CVS unstable and/or requiring inotrope/vasopressor Hypo/Hyperthermia	Doctor with critical care and advanced airway competencies accompanied by Nurse/Practitioner with appropriate competencies	level 3 &4 care Severe trauma (e.g., major head injury) - Respiratory failure requiring mechanical ventilation or ECMO

Attachment *8 - Preparing for Transport (ESCORT)*

E	**Equipment**	[_] Establish Transfer ventilator & secure patient on trolly [_] Full monitoring [_] Emergency drugs, oxygen & fluids available [_] Transfer bag checked (including battery backup) [_] spinal immobilization if necessary [_] specialist equipment (e.g., balloon pump, warming blankets)
S	**Systematic**	[_] Full ABCDE assessment [_] Confirm airway secure [_] 2 working & accessible IV access points [_] Confirm patient stable and suitable for transport
C	**Communication**	[_] Inform patient and/or family [_] Confirm transfer, requirements and ETA with receiving unit [_] Mobile telephone available
O	**Observation**	[_] Commence inter-hospital transfer charting [_] Full set of observation recorded [_] Confirm patient stable and suitable for transport
R	**Recent Investigation**	[_] Handover documentation completed [_] Recent investigation results (e.g., ABG, radiological images etc.)
T	**Team**	[_] Skill mixes of transfer team appropriate for patient level of care [_] protective clothing, and precautions available & appropriate for team [_] Is the unit safe to leave

Attachment 9 - *Suggested Equipment and medications*

Suggested contents list for Transfer bags[7]:

Advanced Airway Equipment	**Breathing Equipment**	**Circulation Equipment**
1. 1x ET Tube 6	1. 1 x I-gel size 3	1. 2 x IV cannula size 14G
2. 1 x ET Tube 7	2. 1 x I-gel size 4	2. 2 x IV cannula size 16G
3. 1 x ET Tube 8	3. 1 x I-gel size 5	3. 2 x IV cannula size 18G
4.1 x ET Tube 9	4. 1 x Airway HME Filter	4. 2 x IV cannula size 20G
5. 2 x laryngoscope Handles , Bulbs Batteries	5. 1 x Catheter Mount	5. 2 x IV cannula size 22G
6. 1 x Laryngoscope Blades 3	6. 1 x Sterile scissors	6. 10 x Pairs of non sterile gloves
7. 1 x Laryngoscope Blades 4	7. 1 x Anaesthetic mask size 4 Green	7. 5 x Luer lock syringes 20ml
8. 2 x Endotracheal ties	8. 1 x Anaesthetic mask size 5 Orange	8. 4 x Luer lock syringes 50ml
9. 1 x Magill Forceps	9. 1x Stethoscope	9. 3 x Chloraprep skin wipes
10. 1 x Tape for securing ET	10. 1 x Wave form capnograph	10. 10 x Alcohol wipes
11. 3 x Lubricant gels		11. 2 x Blood./Colloid fluid giving sets (Gravity)
12. 1 x Stylet		12. 5 x Infusion device giving sets
13. 1 x Gum Elastic Bougie	**Suction Equipment**	13. 5 x infusion device extension sets
14. 1 x Tracheal dilator	1. 2 x Yankauer suckes	14. 4 x 3-way taps (or equivalent)
15. 1 x Scalpel size 22	2. 2 x Suction catheters (10F)	15. 10 x Obturators (Red and/or white bungs)
16. 1 x 10ml syringe	3. 2 x Suction catheters (12F)	16. 1 x Micropore tape
17. 1 x Torch	4. 2 x Suction catheters (14F)	17. 4 x Gauze
18. 2 x face masks	5. 2 x Suction tubing	18. 5 x Cannula dressings
19. 1 x ETC02 indicator		19. 12 x ECG Electrodes
20. 1 x Waters circuit		20. 1 x Trauma shear scissors
	External Equipment	21. 10 x Labels
	1. 1 x self-inflating bag and mask with oxygen reservoir and tubing (BVM)	22. 10 x Sodium Chloride ampoules (flush)

Self-ventilating Equipment	**Interventional circulation Equipment**
1. 1 x Gudel airways size 2	1. 1 x EZ-IO Intraosseous Device
2. 1 x Gudel airways size 3	2. 3 x EZ-IO Needles
3. 1 x Gudel airways size 4	3. 5 x Needles Green
4. 1 x Nasopharyngeal airways 6	4. 5 x Needles Blue
5. 1 x Nasopharyngeal airways 7	5. 5 x Needles White
6. 1 x Oxygen Mask-non rebreathe size 4	6. 5 x Drawing up needles
7. 1 x Oxygen Mask-non rebreathe size 5	7. 2 x Tourniquets
8. 2 x Oxygen tubing	

Inside pounch on side of bag
1. 2 x Clinical waste bags
2. 1 x Sharps box (to be sourced locally)
3. 1 x Hand-held portable suction
4. 3 x IV Fluids (crystalloid) 500ml
5. 1 x Pressure bag

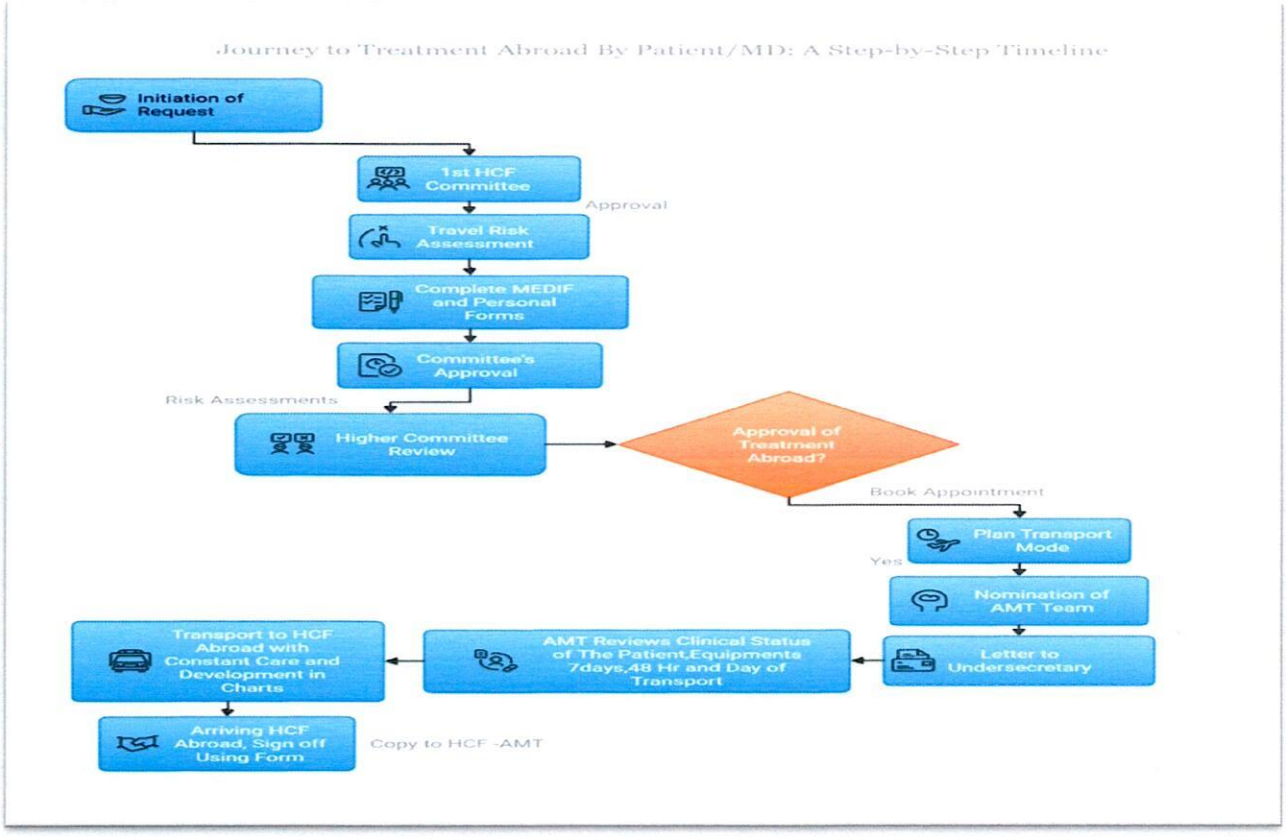
Attachment *10 - Example Drugs Formulary*

Drug	Presentation	Number In Bag
Cardiac		
Adenosine	6mg in 2ml	4
Adrenaline	1:1,000 5mg in 5ml	4
Adrenaline	1:10,000 1mg in 10ml	4
Adrenaline	1:10,000 1mg in 10ml PFS	4
Amiodarone	150mg in 5ml	2
Amiodarone	300mg in 10ml PFS	1
Labetalol	200mg in 40ml	2
Metaraminol	10mg in 1ml	4
Noradrenaline	4mg in 4ml	4
Sedation, paralysis and analgesia		
Atracurium	50mg in 5ml	4
Fentanyl	500mcg in 10ml	2
Ketamine	200mg in 20ml	2
Midazolam	5mg in 5ml	2
Paracetamol	1g in 100ml	1
Propofol	2% 1g in 50ml	2
Rocuronium	50mg in 5ml	4
Electrolytes		
Calcium chloride	10% 1g in 10ml	2
Magnesium sulphate	50% 5g in 10ml	2
Others		
Carbetocin	100mcg in 1ml	1
Chlorphenamine	10mg in 1ml	1
Cyclizine	50mg in 1ml	1
Flumazenil	0.5mg in 5ml	1
Glucagon	1mg	2
Glucose	50% 25g in 50ml	1
Hydrocortisone	100mg	2
Insulin human	(Actrapid) 100units in 1ml	1
Ipratropium bromide	250mcg in 1ml	2
Levetiracetam	500mg	4
Naloxone	400mcg in 1ml	2
Nimodipine	60mg tablet	2
Ondansetron	4mg in 2ml	2
Salbutamol Inh	5ml in 1mnl	4
Salbutamol IV	5mg in 5ml	1
Tranexamic acid	500mg in 5ml	2
Fluids		
5% dextrose	500ml	1
0.9% sodium chloride	10ml	5
0.9% sodium chloride	500ml	2
5% sodium chloride or Mannitol	500ml	2
Plasmalyte or Hartmanns	1000ml	2
Water for injection	10ml	5

Attachment *11 - Ambulance Priorities for Patient Repatriation/Interhospital Transfer*

Priority	Description
Priority-1	**Need to transport for emergency intervention Within 24-48 hours (e.g., Unstable patient on VA ECMO called for heart transplant, ICU patient called for liver transplant)**
Priority-2	**Need to transfer for urgent intervention within 72-96 hours (up to 5 days) (e.g., stable patient planned for urgent EVAR,)**
Priority-3	**Within 5 to 7 days (e.g., stable patient planned for intervention, or repatriation from tertiary center)**
Priority-4	**Within 7 to 10 days. (e.g., repatriation of stable or institution dependent patient)**

Figure *1* - *Aeromedical Transport Flow Chart*



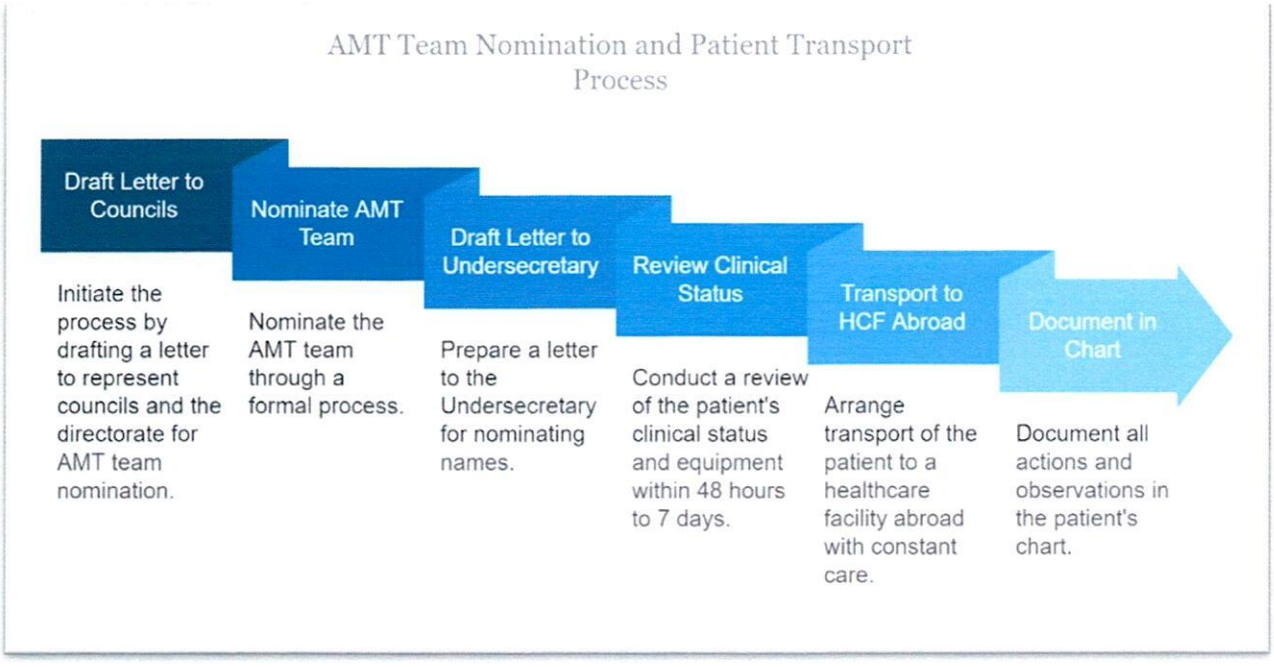


Figure 2 - *Inbound - Repatriation Flow Chart*