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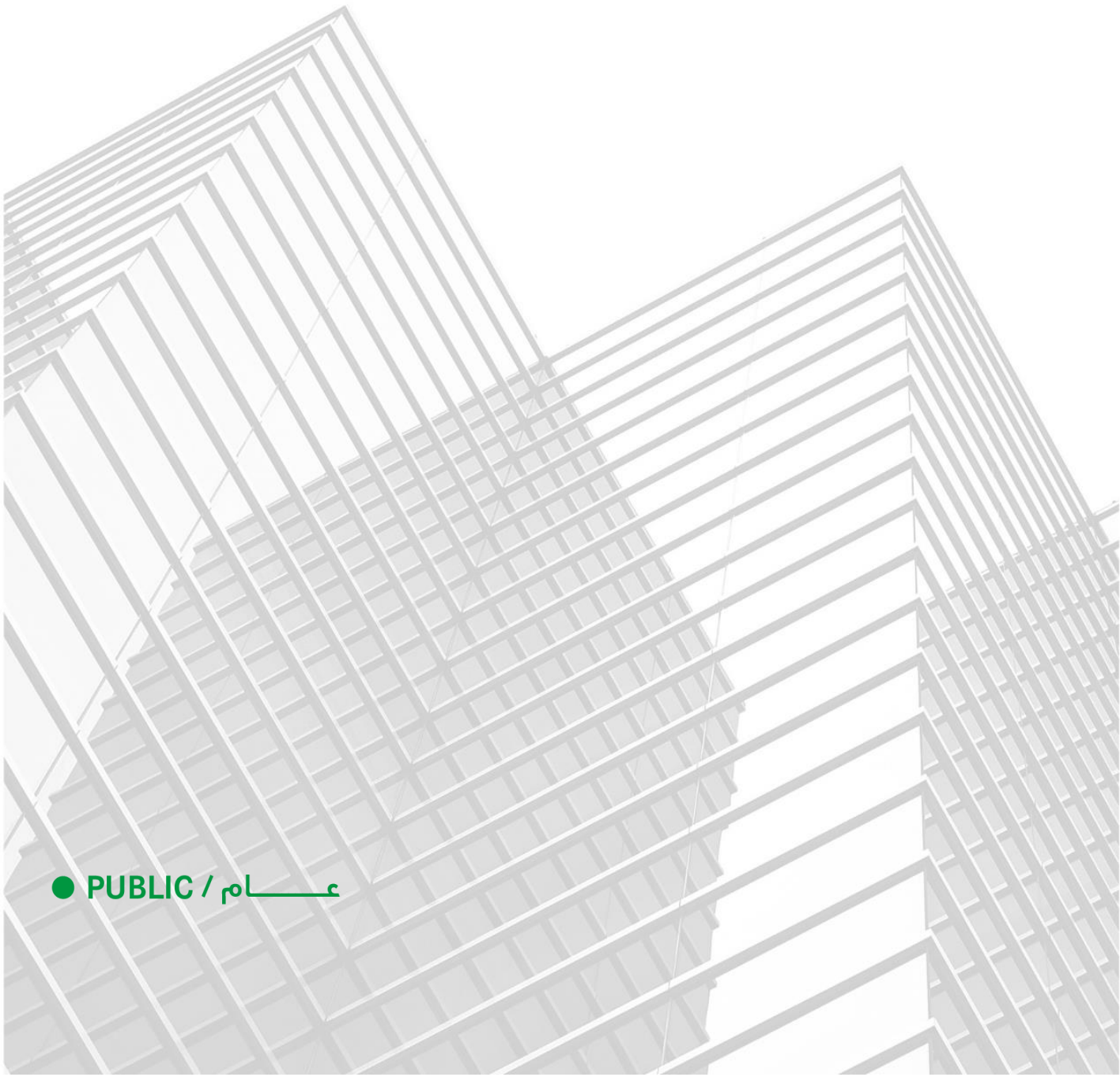
DEPARTMENT OF HEALTH

Abu Dhabi Ambulance and EMS Standards



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1. Standard Scope

1.1. This standard applies to all DOH licensed **EMS / ambulance service providers** as per DOH Facility Licensing definitions.

1.2. All DOH licensed **healthcare facilities** involved with the purpose of providing EMS/ambulance services/Patient transfer activities.

1.3. All DOH licensed **healthcare professionals** involved with the purpose of providing EMS/ambulance services/ Patient transfer activities.

1.4. This Standard does not include the requirements for the transfer of patients exposed to Chemical, Biological, Radiological and Nuclear Explosives (**CBRNE**).

2. Definitions and Abbreviations

No.	Term / Abbreviation	Definition
2.1	Abu Dhabi Civil Defense Authority (ADCDA)	• A government entity in the Emirate of Abu Dhabi that provides emergency services including (Rescue, Firefighting, Public Ambulance services and other supporting specialties such as search and rescue and CBRN). • ADCDA is responsible for operational EMS response in the Emirate of Abu Dhabi. ADCDA works with DOH to set Ambulance services licenses and operation requirements and standards.
2.2	Advanced Life Support (ALS)	A higher level of pre-hospital medical care, including basic life support functions plus administration of additional medications, advanced patient assessment, use of specific adjunctive medical devices, and other techniques and procedures as authorized by the Medical Director and within Clinical Practice Guidelines /Protocols
2.3	Ambulance	Any mode of transport (ground, Air, Marine) operated by a licensed/authorized pre-hospital care service (PHCS) or agency utilized and equipped for clinical treatment and/or transport of a person requiring medical monitoring, assessment, or treatment outside of a hospital setting.
2.4	Ambulance Service	The practice of transporting and/or providing emergency and non-emergency medical care to the sick or injured by ambulance. Ambulance service is inclusive of emergency response, interfacility transfer, and standby.
2.5	Ambulance Service Provider	A healthcare provider engaged in the practice of transporting and/or providing emergency and non-emergency medical care to injured or sick by ambulance, including but not limited to transport to or from healthcare facilities, from non-health institutions to healthcare facilities, from home or roadside, or as a standby service.
2.6	Basic Life Support (BLS)	Noninvasive pre-hospital medical care requiring basic medical assessment and treatment as authorized by the Medical Director and within Clinical Practice Guidelines /Protocols.
2.7	CAAS Standard	The Commission on Accreditation of Ambulance Services standards.
2.8	CEPAR (Center of Emergency Preparedness and Response)	CEPAR maintains independent authority over healthcare emergencies, and shares authority with the appropriate DOH sectors including Healthcare Facilities, Workforce, Payers, and Legal. It is the combination of all of these authorities that delineate the medical direction system. The regulatory authorities reside with CEPAR and each of the sectors and shall be enforced through them.
2.9	Emergency Medical Dispatch (EMD) System	The use of emergency medical dispatchers within an emergency dispatch system, tasked with gathering essential information, triaging emergency calls, dispatching of appropriate medical resources, providing caller instructions, updating responding units, and ensuring accurate recording of data.

2.10	Emergency response	An activation to mitigate the impact of an incident on the public and the environment that would otherwise threaten public safety, health, and welfare of an individual or a group of people.
2.11	EMS	Emergency Medical Services
2.12	EMT	Emergency Medical Technician is a qualified and licensed pre-hospital health care professional whose primary role is to provide basic and intermediate care for patients outside of a hospital setting. The license of EMT is defined by the Abu Dhabi PQR for healthcare professionals.
2.13	EN 1789	The European Union Standard for ambulance vehicles and medical transportation vehicles.
2.14	Healthcare Entity	All healthcare facilities, providers, and professionals that provide medical care, both in and out of the hospital or clinics.
2.15	HLO's (Health Liaison Officers)	Health liaison officers (HLO) are persons selected to ensure information flows between the emergency operations centers or coordination center at a local, district or state level, on Health agency operational capabilities and issues as they arise.
2.16	Interfacility Transfer	Any emergency or non-emergency transfer including use of a retrieval service for patients, after initial assessment and stabilization, from one healthcare facility to another.
2.17	KKK-A-1822	The American Standard for ambulance vehicles.
2.18	MDS (Medical Direction System)	A system of physician-directed leadership, quality assurance, administrative and medical oversight that provides professional and public accountability for medical care provided in the pre-hospital setting.
2.19	Medical Direction	A system of physician-led medical oversight, practice, quality assurance and improvement that oversees appropriate provision of medical care.
2.20	Medical Directors Office	CEPAR-based clinical oversight or supervision of all Abu Dhabi-based healthcare organizations, services, groups, or individuals providing medical care to people, commonly in a hospital or a pre-hospital setting. Led by a medical director with appropriate qualifications in emergency medicine and EMS (pre-hospital emergency medicine).
2.21	Medical Operations Command DOH	A medical operations command center whose mission is to monitor, assist with, and coordinate emergency medical care and preparedness in the Abu Dhabi Emirate.
2.22	Medical Oversight	● Includes active day-to-day role in the function and management of the service as it relates to patient care needs. It is a broad inclusive process led by a medical director. Medical oversight may be prospective (planning), indirect and offline (i.e. not directly engaged during the emergency process) such as developing policies and procedures and protocols for emergency and ambulance response, transfer and transport; concurrent, direct and online such as giving verbal orders in person or via radio (i.e. directly involved in the transfer and transport on site); retrospective, indirect and offline such as quality management (i.e. after the event of transfer conducting evaluation of the transfer system) and clinical audit. ● Medical oversight shall include having in place a protocol for issuance of drugs (including narcotic and controlled substances) and training of them. Use by authorized staff only. ● This must be undertaken by a qualified DOH-licensed physician with internationally/ nationally recognized qualifications and experience in Emergency Services. ● Assigning a responsible manager (authorized for decision making) to oversee, monitor, and report service performance.

		● Ensuring appropriate and effective mechanisms to facilitate consultation with treating physicians and specialty care physicians (specialists/consultants). ● Ensuring availability of appropriate mix of multidisciplinary team, its members possessing the requisite levels of knowledge and skills in accordance with the service needs. ● Tracking, monitoring, case review and quality management of a quality management System.
2.23	Off-line (Prospective and Retrospective) Medical Direction	Direction including the administrative promulgation and enforcement of accepted standards for out-of-hospital care accomplished through both prospective (e.g., training, testing and certification of providers, protocol development, operational policy and procedures development, and legislative activities), and retrospective methods (e.g., medical audit and review of care/ process improvement, direction of remedial education, and limitation of patient care functions)
2.24	On-line (Concurrent) Medical Direction	Direction provided directly to out-of-hospital providers by the medical director or designee, generally in an emergency, either on-scene or by direct voice communication by radio, telephone, or other means as technology develops, and including person-to-person communication of patient status, and orders to be carried out
2.25	Paramedic	A qualified and licensed pre-hospital health care professional whose primary role is to provide basic and/or advanced medical care for patients outside of a hospital setting. The license of paramedic is defined by the Abu Dhabi PQR for healthcare professionals.
2.26	Patient Preference	Individual's expression of desirability or value of one course of action, outcome, or selection in contrast to others.
2.27	PHCS (Pre-Hospital Care Service)	A licensed and integrated medical care delivery organization provides emergency and non-emergency medical care in a pre-hospital setting. Interchangeable with Emergency Medical Service (EMS)
2.28	Professional Qualification Requirement (PQR)	This defines the training, experience, and/ or certification requirements for specific healthcare positions and disciplines.
2.29	Pre-Hospital Care Service	A licensed and integrated medical care delivery organization provides emergency and non-emergency medical care in a pre-hospital setting. Inclusive of EMS and other ambulance services.
2.30	Public Safety Answering Point	Principal link between the public caller requesting emergency medical assistance and the emergency medical service (EMS) resource delivery system.
2.31	Receiving facility	A DOH licensed healthcare facility accepting the request for transfer and admitting the patient referred by and/or transferred from another DOH licensed facility or facilities in other Emirates.
2.32	Referring facility	A DOH licensed healthcare facility referring and/or requesting the transfer of patient care to another DOH licensed facility or facilities in other Emirates.
2.33	SOP	Scope of Practice, identifies the limits under which healthcare professionals provide care for which they are privileged and credentialed.
2.34	SPP (Special Program Pathways)	The Special Program Pathways are defined by the potential clinical path patients take as part of their healthcare, the criteria that establish requirements for meeting minimum standards for treatment, and ongoing review processes to ensure further development and improvement of the specific Pathway System and hospital Pathway Programs. Each potential step along the way is captured separately with specific criteria, actions, and tasks that should occur.
2.35	Time Critical Healthcare Emergency	Any emergency determined by the DOH to be time critical so that patient transfer to healthcare facility must occur within defined timeframes for optimal patient outcomes. These are defined in the Special Program Pathways and including but not limited to stroke, ST-elevation myocardial infarction, burn, and trauma.

2.36	Transfer agreement	A written agreement between a DOH licensed healthcare facility and an inter facility transport service that has been licensed by DOH with specified scope of service.
2.37	Transfer Coordinator Receiving (TCRC)	A designated individual from a DOH licensed receiving healthcare facility who has been given the responsibility to coordinate the reception of a patient from another DOH licensed healthcare facility (transferring) and ensure all documentation requirements are completed as per the requirements set out in this Standard. This may include a hospital liaison officer in a centralized DOH medical operations command center.
2.38	Transfer Coordinator Referring (TCRF)	A designated individual from a DOH licensed healthcare facility who has been given the responsibility to coordinate the transfer of a patient to another DOH licensed receiving facility and who is responsible to ensure all documentation requirements are completed as per the requirements set out in this Standard. This may include a hospital liaison officer in a centralized DOH medical operations command center.

3. Standard Requirements and Specifications

3.1. Minimum Requirements for Ambulance Services: Resources, equipment, medications, and professional requirements:

3.1.1. DOH licensed Ambulance service providers shall as a minimum adhere to the minimum requirements as listed appendices for the provision of ambulance services.

3.1.2. Ambulance Service Providers should adhere to minimum requirements noted in Appendices for provision of ambulance services, emergency, covering the events, tasks and site's contract activities. They shall adhere to the following:

3.1.2.1. A list and description of all medications and their review date.

3.1.2.2. Appropriate adult and pediatric dosing references (drug product leaflet).

3.1.2.3. Expiry dates of the medications.

3.1.2.4. List of staff that fulfill basic or advanced emergency response, as required in contract or service agreement.

3.1.3. Ambulance Service Providers are responsible to ensure adequate quantities of equipment and drugs are in place to satisfy patient acuity, level of service provided, transport period and transport distance.

3.1.4. Other than the oxygen, all emergency medications, equipment, and supplies must be safely and securely stored together in a storage unit and/or portable kit.

3.1.5. The contents of the emergency storage unit and/or portable kit may only be serviced with medication and equipment by appropriately licensed and privileged healthcare professionals based on the specific scope of service provided at the facility and the expectation of patient needs.

3.1.6. The medications must be readily accessible, in a visible location, and where a storage unit is utilized, be in a container secured with a break-away lock or as a medication kit that is secure.

3.1.7. The contents of the storage unit and/or portable kit must be:

3.1.7.1. Inspected and/or tested before each shift or duty and after each use by a licensed healthcare professional with relevant qualifications and training.

3.1.7.2. An inspection log must be attached to the storage unit and/or portable kit with clear dates of inspections, replacements, and name of the individual undertaking the inspection, or electronic inspection log.

3.1.7.3. Replenished, maintained, and serviced according to medications expiry and equipment service requirements as per the manufacturer's recommendations.

3.1.8. Transfer of patients must be in accordance with DOH licensure, scope of practice, the privileges granted by the healthcare facility, compliance with this Standard and compliance with UAE Laws.

3.1.9. The DOH licensed Ambulance Service or facility must ensure:

3.1.9.1. All healthcare professionals are licensed by DOH.

3.1.9.2. Interventions are provided by a DOH licensed healthcare professionals with the appropriate skills and training requirements, in accordance with all relevant DOH regulations.

3.1.10. Ambulance Service Providers should provide their services in Emirates of Abu Dhabi only if they are licensed by responsible Authorities in Abu Dhabi and carry the appropriate license scope.

3.1.11. Ambulance Service Providers who transfer patients from a sending facility outside Emirate of Abu Dhabi to another receiving facility inside Emirate of Abu Dhabi are exempted from this requirement but must comply with all other regulations regarding patient care.

3.1.12. The ambulance service provider must maintain records of training and provide evidence of the delivery of such training when requested by DOH.

3.1.13. Ambulance service providers and healthcare facilities (if providing transport) must ensure that they have the appropriate number of basic and advanced ambulances with staff to meet the patient case mix and operational requirements of the clinical services provided by that facility. Where a healthcare facility sources ambulance services from a third party, it is the healthcare facility's responsibility to ensure that the appropriate level of ambulance service is provided to meet the patients' needs.

3.1.14. An Ambulance Service provider shall be committed to a policy to participate and collaborate with other partners and stakeholders in case of crises and disasters within the country.

3.1.15. An Ambulance Service provider shall be committed to a policy to execute and participate in public drills and provide integrated training programs with other healthcare facilities.

3.1.16. An Ambulance Service provider shall be committed to a policy to support other partner's capability and work closely with government stakeholders.

3.1.17. A Healthcare Facility in time critical healthcare emergency cases may utilize the ADCDA emergency services where for example:

3.1.17.1. Ambulance services are otherwise occupied with another case or patient transport.

3.1.17.2. Patient acuity does not permit the required professional and skill mix to transfer the patient.

3.1.17.3. Patient weight exceeds the healthcare facility's licensed ambulance stretcher limits/capacity to safely transport.

3.1.17.4. Instances of inability to transfer patients within the requirements of DOH regulation shall be reported to the DOH and other relevant authorities as soon as the service becomes aware of the event, and a report issued by the service medical or operational director to the DOH describing the event and proposed mitigation for future occurrences.

3.2. Ambulance Service Requirements:

3.2.1. Ambulance service providers will be licensed by DOH to provide either basic and/or advanced emergency service as set out in Appendixes.

3.2.2. Response to patients must be in accordance with DOH licensure, scope of practice, the privileges granted by the healthcare facility or service medical director, compliance with this Standard and compliance with UAE Laws.

3.2.3. Ambulance Services Providers should adhere to all the requirements addressed in this standard before providing any of the above-mentioned services, even if they receive Facility licensing as per of Standard for Healthcare Facility Licensure.

3.2.4. Ambulance Service Providers must align meeting the standard requirements to be authorized for operating BLS, ALS, or critical care ambulances.

3.2.5. Approval for providing emergency response for covering the events and sites contracts activities, including medical standby.

3.2.6. Ambulance Service Providers should utilize their own licensed healthcare professionals only while they are providing any of their services, additional healthcare providers from other facilities could be utilized after fulfilling the DOH secondment approvals based on its requirements.

3.2.7. All DOH licensed Ambulance Service Providers must:

3.2.7.1. Ensure all ambulance vehicles have passed the regulatory vehicle registration requirements of respective Abu Dhabi Government Authorities, and ensure drivers have the appropriate registration and license for the use of ambulances.

3.2.7.2. Ensure that ambulance vehicle drivers have the appropriate license to drive ambulances and that they have completed training in road safety rules and regulations as specified by the respective Abu Dhabi Competent Authority.

3.2.7.3. Ensure all ambulance vehicles comply with best safety standards, meet UAE regulations, DOH requirements for licensing and certification and have relevant and up to date documentation/certificate and registration/license to ensure vehicle and driver safety, and align with fleet standards as delineated in this standard.

3.2.8. Ambulance Service Providers must ensure the following requirements are in place:

3.2.8.1. Governance: necessary formal arrangements to govern (including medical oversight) and ensure quality improvement, assurance and safety and performance of Ambulance service provision is suitable for the range and type of services provided by the healthcare facility.

3.2.8.2. Staffing: All healthcare professionals must adhere to their approved privileges in accordance with the DOH Clinical Privileging framework, their respective professional scope of practice and scope of service.

3.2.8.2.1. All healthcare professionals involved in the provision of advanced transfer shall have the knowledge and skills and meet the minimum requirements (as per DOH Scope of Practice). All professionals must be licensed as pre-hospital providers and align with the relevant PQR and SOP.

3.2.8.2.2. Ambulance Service Provider shall ensure they have in place and make use of information management systems including but not limited to: telecommunications, Emirates Medical Radio Communication Systems (Tetra), Electronic Patient Care Reporting (EPCR) system and have the technological ability to communicate at different frequencies as required and approved by ADCDA.

3.2.8.2.3. Ambulance Service Providers and EMS must have in place an Emergency Medical Dispatch (EMD) system that is functioning with sufficient Telecommunication equipment for communication and a means for receiving calls for the service.

3.2.8.2.4. They are equipped with a Mobile Tracking Device (MTD) system for emergency management and tracking, coordinating with DOH and ADCDA and ensuring the devices integrate with the DOH Medical Operations Center.

3.2.8.3. Response: Healthcare facilities must utilize their own ambulances when requested and where necessary ensure they respond to major incidents as part of a system wide response as directed by responsible authorities.

3.2.8.4. Monitoring: Ambulance service providers must ensure they are able to assess and monitor the patient's condition, for example if ALS is being used an integrated monitoring system capable of four lead ECG, SpO2, PetCO2 and NIBP with 12 lead ECG capability.

3.2.8.5. Clinical Supplies and Staffing: It is the responsibility of the Healthcare Provider to ensure adequate staffing, equipment, and medical supplies are functional for all medical emergency response.

3.2.8.5.1. Restocking of the Ambulance: Ambulance Service Providers must ensure they dispose of all used disposable and contaminated items and replace them to a minimal level once the call has been completed. All other items including emergency medicines should.be replaced or refurbished as per best practice and UAE regulations. This includes updating medication stock and medication management and administration of controlled/narcotic medications as per DOH requirements the Ambulance Service Provider must:

3.2.8.5.1.1. Ensure disposable medical waste is managed in accordance with DOH Policies and Standards governing medical products and medical waste disposal and Abu Dhabi Environment, Health, and Safety Management System.

3.2.8.5.1.2. Ensure that all medical equipment where possible shall be disposable or single patient use in accordance with international best practice for infection control.

3.2.8.6. Adhere to the latest DOH Clinical Practice Protocols.

3.2.9. Ambulance Service Providers should use licensed ambulance vehicles capable of emergency response in covering the events and sites contracts including but not limited to: Airports, Companies, Construction Sites, offshores, and factories.

3.2.9.1. Ambulance Services Providers should adhere to the requirement addressed in Appendixes before providing any of the above-mentioned activities even though they could otherwise provide care based on Facility licensing as per of Standard for Healthcare Facility Licensure.

3.2.9.2. The DOH will maintain a list of licensed healthcare facilities and will delineate responsibilities for response in major incidents.

3.2.9.3. Ambulance Service Providers should restrict their emergency response to only the area of the event or the contracted site except if requested by ADCDA through approved arrangement.

3.2.9.4. Choose a patient transport destination based on the patient's condition and geographic proximity, directions from the DOH medical operations center, and DOH pathway policies.

3.2.9.4.1. Ambulance Service Providers must ensure proper training of their staff to recognize medical emergencies and appropriately activate pre-alert notification prior to destination arrival especially in DOH approved pathways, and when required follow notification requirements for the DOH medical operations center.

3.2.10. Ambulance Service Providers should obtain approval from Responsible Authorities before providing services at any event in Emirates of Abu Dhabi.

3.2.11. Ambulance Service Providers should use an Electronic Patient Record System in documenting activities and incidents.

3.3. Ambulance Service Performance:

3.3.1. DOH requires ambulance service providers to maintain a record of Key Performance Indicators (KPIs) as noted in the appendixes and as further delineated by the DOH.

3.3.2. Ambulance service facilities & Healthcare Facilities must monitor and analyze the performance of services and ensure actions are taken to improve performance, quality, patient safety and patient outcomes, and share the analysis when requested by the DOH. This will include real time system monitoring by the medical operations center.

3.3.3. Ambulance service facilities must maintain documentation and report to DOH upon request of all Ambulances, their licensure level, and when requested their staffing. This shall include staffing for events and standby services.

3.3.4. Ambulance service facilities & Healthcare Facilities must maintain electronic documentation and report to DOH upon request of all patient care records.

3.3.5. Healthcare facilities must maintain documentation and report to DOH upon request of all inter facility patient transfers.

3.3.6. JAWDA performance metrics available on DOH website must be submitted, and other operational and medical metrics, including quality assurance and quality improvement efforts shall be made available on request.

3.4. Medical Oversight:

3.4.1. All ambulance service providers will have a system of medical oversight by a DOH licensed physician, in accordance with the DOH requirements for medical direction.

3.4.2. The medical oversight shall include:

3.4.2.1. The identification of clinical practice guidelines for issuance of medications (including narcotic and controlled substances), training of their use by authorized staff, and ensuring staff utilize medications according to best medical practice and applicable clinical guidelines. These guidelines must be in alignment with the DOH requirements for Clinical Practice Protocols.

3.4.2.2. This must be undertaken by an experienced, qualified, and licensed physician (in accordance with the Abu Dhabi Medical Direction System Standard), functioning as and licensed as the medical director for said agency, and in accordance with the Standards, SOPs, and guidelines of the DOH. This physician must functionally act as the Chief Medical Officer for the relevant EMS agency or Ambulance Service, though they may also retain the services of other physicians as assistant or associate medical directors.

3.4.2.3. Assigning a responsible manager (authorized for decision making) to oversee, monitor and report service performance, quality, and safety to the medical director and agency leadership. This manager shall also fulfill a liaison function with the DOH to ensure regulatory visibility.

3.4.2.4. Ensuring appropriate and effective mechanisms to facilitate consultation with DOH licensed treating physicians, healthcare facilities, and specialty care physicians;

3.4.2.5. Ensuring availability of appropriate mix of multidisciplinary teams, its members possessing the requisite license and skills to practice according to their scope and setting. Ensuring the service provided meets the needs of the patient and the requesting facility (BLS, ALS, critical care);

3.4.2.6. Tracking, monitoring, case review and quality management of a quality management system. This system will be proactive and include quality assurance, improvement, event reporting to the agency, and agency reporting to the regulator. It will be iterative in improving and allow for a systems approach to error reporting and prevention as well as an anonymous reporting mechanism. The systems will coordinate with the health regulator to review routine care and deviations;

3.4.2.7. Interfacility Transfer: Any transfer including use of a retrieval service for patients, after initial assessment and stabilization, from one healthcare facility to another for reasons including but not limited to the following:

3.4.2.7.1. The need for specialized treatment and care not available at the referring facility; for example, (professionals, equipment and requisite treatment);

3.4.2.7.2. Lack of bed capacity for the patient at the referring facility;

3.4.2.7.3. Patient eligibility of care and treatment in the referring facility in accordance with their health insurance product except for emergency cases. Patients must not be denied emergency care and management on the basis of their health insurance product as this breach Federal and Abu Dhabi Laws (Appendix 1);

3.4.2.7.4. Providers must ensure adequate level of care is maintained during interfacility patient transfer, in accordance with instructions from the facility most responsible physician (attending physician of record) or agency medical director. For example, a critical care transfer patient must not be transferred by a BLS service or by non-pre-hospital care professionals.

3.4.2.7.4.1. Transferring facility's most responsible physician must determine urgency of transfer and level of care, and when made necessary consult with the receiving hospital physician to assist in this determination. For example, a burn patient requiring transport may require a consultation between sending and receiving physicians to determine the appropriate transfer urgency.

3.5. Minimal Requirements for Interfacility Patient Transfer Service:

3.5.1. Healthcare providers shall develop, implement, monitor, and review their system for patients requiring inter facility transfer. The system must be designed to provide high quality and safe standards of care before, during and after transfer suited to the level of patient need. The system must comprise of medical oversight to ensure favorable patient outcomes as minimum, written policies and standard operating procedures/protocols must cover the following elements:

3.5.1.1. Patient assessment, classification and need for transfer and care management.

3.5.1.2. Identification and selection of a receiving facility that is appropriate to the patient's needs, considering the scope of service, including need for specialized services, capacity, and capability of the receiving facility.

3.5.1.3. Use of DOH licensed ground ambulance and assignment of a transfer coordinator to manage the coordination of interfacility patient transfers, or coordination through the DOH medical operations center.

3.5.1.4. It is the responsibility of the Healthcare Provider to determine the category of healthcare professional to be assigned the role of the transfer coordinator.

3.5.1.5. The transfer or retrieval teams are to be composed only of DOH Licensed healthcare professionals licensed to perform EMS/Pre-hospital care. Healthcare providers only licensed for in-hospital care must be separately licensed as an EMS/ Pre-hospital provider, and their scope of practice outside of hospitals shall be in accordance with their pre-hospital license.

3.5.1.6. To ensure accurate and efficient communication processes between healthcare facilities and DOH Medical Operations Centre, Healthcare facilities shall:

3.5.1.6.1. Assign and manage an emergency number to facilitate direct communication between hospital transfer coordinators, or coordination via the DOH medical operations center.

3.5.1.6.2. Assign a dedicated email for the allocated transfer coordinator to facilitate direct communication between hospital transfer coordinators and with DOH.

3.5.2. All healthcare professionals involved in the provision of care during inter facility patient transfer must have transport knowledge and skills comprising of:

3.5.2.1. Radio and communication technology.

3.5.2.2. Safety operations.

3.5.2.3. Transport equipment.

3.5.2.4. Documentation including patient care records (Electronic as primary/ manual as backup).

3.5.2.5. Transport logistics.

3.5.2.6. Abu Dhabi EMS Clinical practice protocols (CPP`s) and/or facility's standard operating procedures/protocols.

3.5.2.7. Physician orders, patient positioning during transport for safety and accessibility, or protocols and guidelines from their medical director. When receiving physician orders from a sending facility it is the requirement of the transporting providers to ensure those orders do not conflict with Clinical Practice Protocols or directives of their agency medical director and when necessary communicate with their medical director and sending physician to ensure the patient can receive the level of care needed.

3.5.2.8. DOH license as an EMS / prehospital provider is a requirement for all personnel caring for patients in pre-hospital, transfer, or emergency standby settings.

3.5.3. The referring healthcare facility management will be responsible for any delay in transporting the patient to the receiving healthcare facility once the approval from the receiving facility is obtained.

3.5.4. After each patient transfer by ambulance it is the responsibility of the ambulance service provider to dispose of all used disposable and contaminated items and replace them with new items. All other items including emergency medicines should be replaced or refurbished accordingly and in compliance with regulation.

3.5.5. Documentation related to transfers must be recorded in an electronic Patient Care Report (ePCR) including expected time frames between referring and receiving facility in addition to the following:

3.5.5.1. Transfer requests from the requesting provider.

3.5.5.2. Acceptance from receiving providers (at least specialist level physician) prior to patient transfer.

3.5.5.3. Discussion with patient and/or relatives and consent for transfer where a patient and/or their family reject the transfer, a form including Left against Medical Advice (LAMA) section must be signed by the patient or his/her legally authorized guardian/family member.

3.5.5.4. Discussion with and instructions given to the transporting healthcare professionals.

3.5.5.5. Evidence of agreement between hospitals regarding the transferring of the patient back to the referring hospital upon fulfilling the transfer purpose.

3.5.5.6. Post transfer feedback form to be sent back to the referring facility within one week of patient discharge as per appendixes.

3.5.5.7. Details of any electronic records or documentation sent to the receiving facility and acknowledgements of their receipt.

3.5.5.8. Documentation related to the transferred patient that is not available at the time of transfer but is to be sent within five (5) working days (e.g., laboratory results).

3.5.5.9. Management and safe and secure storage of all patients related documentation and forms, including referring facility reporting form, receiving facility reporting form, record of transfer, post transfer feedback form and any other related forms such as consents forms, left against medical advice form.

3.5.5.10. The full address regarding the location of referring Healthcare facility, demographic data, and condition of patient must be properly communicated to the emergency service staff.

3.6. Healthcare facilities shall:

3.6.1. Cooperate and assist with coordination and identification of bed availability prior to patient transfer for necessary duties to receive the patient, once bed availability is confirmed and transfer is accepted, and provide appropriate, safe, and high-quality care.

3.6.2. Ensure that when a patient is identified as requiring transfer to another facility, that the responsible treating physician supported by a multidisciplinary team assesses the patient's needs to:

3.6.2.1. Determine whether the admitting facility can provide the required level and type of service and care needed; or identify a facility that can offer the requisite scope of services and care needed, has the mix of specialized staff, resources and equipment that are appropriate to meet patient needs.

3.6.3. A medical oversight mechanism shall be in place to oversee, manage and monitor the effectiveness of the emergency transfer system and to affect corrective actions and continuous improvements where necessary.

3.6.4. Where the responsible healthcare provider decides to transfer the patient as determined by the patient's case assessment, they must ensure that all triaging and initial assessment of findings are documented at the time of referral and an appropriate ambulance with appropriate staff are made available as per the patient needs.

3.6.5. In cases where a patient receives specialized treatment at a receiving facility and is to be transferred back to the referring facility, the referring and receiving facilities must continue to coordinate to ensure this takes place in a seamless manner to meet the patients' needs.

3.6.6. Provide emergency services and care in accordance with the requirements of this Standard and all other DOH standards related to care of patients in pre-hospital or interfacility settings.

3.6.7. Comply with DOH requirements on adverse events management and reporting, managing patient medical records, including effective electronic recording systems, maintaining patient records including consent, protecting the confidentiality, privacy, and security of patient information, educating patients, fulfilling the requirements of patients' rights and responsibilities charter, and comply with DOH requests to inspect and audit records and cooperate with DOH authorized auditors.

3.7. Principles of Patient Transfer:

3.7.1. The decision to transfer a patient must be based on the patient's condition, consent, capability and capacity of the referring hospital and/or receiving hospital to provide the necessary care for the patient.

3.7.2. All healthcare professionals will ensure that transfer is undertaken in a timely manner and that the patient is cared for in such a way to maintain patient safety, the necessary treatment of care, contact with appropriate staff, patient dignity, respect for individual needs (cultural, ethnic and religious), patient confidentiality, and the wellbeing of the patient before, during, and after transfer.

3.7.3. All health professionals involved will act in a professional, collaborative and coordinated manner.

3.7.4. The DOH medical operations center (MOC) will be the focal point for visibility of patient transfer services in the Emirate of Abu Dhabi. All information necessary to secure full visibility of the patient transfer process shall be provided to the MOC.

3.7.5. The decision to transfer a patient is the responsibility of the attending clinician or designated person at the referring hospital. The referring hospital is responsible for ensuring the necessary measures are taken to effect safe transfer, according to the acuity of the patient and the level of care required (BLS, ALS, Critical Care). Critical care transports mandate qualified personnel and additional protocols and guidelines to be approved by the DOH. If it contracts to a third party to do so the responsibility will be shared with the contracted party.

3.7.6. The attending clinician or designated person at the receiving hospital must agree to accept the patient prior to transfer, and should ensure a bed will be available before relaying acceptance to the sending facility.

3.7.7. The receiving hospital will not refuse the patient transfer if it is medically indicated (necessary) and the receiving hospital has the capability, capacity or responsibility to provide care for the patient.

3.7.8. The patient, next of kin or the Substitute Decision Maker (SDM) will provide informed consent for the transfer and for the sharing of information.

3.7.9. Clinical handover will occur before the transfer, to ensure all relevant information is exchanged between designated persons at the transferring and receiving hospitals and the transport provider.

3.7.10. The attending clinician or designated person at the referring hospital will ensure that copies of all appropriate and pertinent records are transferred with the patient.

3.7.11. The attending clinician or designated person at the receiving hospital will ensure that copies of all appropriate and pertinent records have been transferred with the patient. All necessary documentation must be provided in written or electronic form upon transfer and any information not immediately available must be transmitted as soon as possible and in accordance with DOH regulations.

3.7.12. All emergency transfers must be reported to the MOC, and pertinent details regarding emergency transfer made available to the MOC and the DOH upon request.

3.7.12.1. Transferring hospitals will coordinate and provide information to the DOH MOC related to all patient transfers, utilizing information systems and sharing as requested by the DOH to ensure safe and effective functioning of the transfer system.

3.7.13. The receiving hospital will, where appropriate and when agreed, ensure the patient is transferred back to the referring hospital in a timely, orderly and safe fashion, with accurate and complete clinical handover.

3.7.14. Hospital and/or ambulance agency clinical governance, medical director, and leadership will implement, audit and enhance transfer processes to ensure a culture of safety and continuity of care. This process will be done in coordination with the DOH, and all information necessary to do so will be made available upon request.

3.8. Ambulance Licensing & Fleet Management Requirements:

3.8.1. All ground ambulances vehicles will be EN1789, KKK-A-1822 or CAAS compliant. Certification depends on the type of conversion (Van v Box body).

3.8.1.1. The DOH will provide regulations for non-ground ambulances separately, and all requirements related to clinical patient care will apply to ground, air, and marine ambulances.

3.8.2. All new ground ambulances will comply with the latest version of EN1789, KKK-A-1822 or CAAS standards at the time of first registration with DOH. Responsibility for the up-to-date EN1789, KKK-A-1822 or CAAS conversion standard version remains with the applicant.

3.8.3. The appropriate conversion certification must be presented to DOH Fleet Licensing as part of the vehicle license process.

3.8.4. Off-road vehicles are exempted from EN1789, CAAS, and KKK-A-1822.

3.8.5. In cases of off-road responses, patients must be transferred onto an EN1789, CAAS or KKK-A-1822 compliant ambulance vehicle where the off-road journey ends and the road journey begins.

3.9. Ambulance Category:

3.9.1. Ground Ambulance Types:

3.9.1.1. Type A Road Ambulance:

3.9.1.1.1. Patient Transport ambulance: Vehicles designed and equipped for transporting patients who are not expected to become emergency patients. Two types of patient transport ambulances exist:

3.9.1.1.1.1. Type A1: suitable for the transport of a single patient.

3.9.1.1.1.2. Type A2: suitable for transport of one or more patient(s) (on stretcher(s) and seat(s)

3.9.1.2. Type B Road Ambulance

3.9.1.2.1. Emergency ambulance: Vehicle designed and equipped for the transport, basic and advanced emergency treatment and monitoring of patients.

3.9.1.3. Type C Road Ambulance

3.9.1.3.1. Mobile intensive care unit: Vehicle designed and equipped for the transport, critical care treatment and monitoring of critical patients. (NICU, PICU, CCT, ECMO)

3.9.1.4. Type D Road Ambulance

3.9.1.4.1. First Response Vehicle (on-road response)

3.9.1.4.2. Solo response or first response role with no transport capability

3.10. Ambulance License Process:

3.10.1. Ground Ambulance License Requirements

3.10.1.1. All ambulances within the Emirate of Abu Dhabi require a DOH license to operate.

3.10.1.2. The following list of documents need to be provided by the healthcare facility to confirm compliance for ground ambulances with EN1789 or KKK-A-1822:

3.10.1.2.1. Trade license of ambulance manufacturer/ provider/ converter company (UAE).

3.10.1.2.2. Crash test (EN1789 Certificate or equivalent) stamped and signed (Certificate should include fixed equipment that was included in the crash test); and Certificate authorizing company to issue EN1789, CAAS, or KKK-A-1822.

3.10.1.3. All applications must include the following key items.

3.10.1.3.1. EN1789, KKK-A, CAAS conversion certification

3.10.1.3.2. Vehicle registration.

3.10.1.3.3. Clinical Staff License.

3.10.1.3.4. Medical Consumables and equipment.

3.10.1.3.5. Communication System (Mobile and radio-based)

3.10.1.3.6. Fleet telematic System.

3.10.1.3.7. DOH physical inspection.

3.10.1.4. Failure to submit all requirements and pass the DOH physical inspection will result in the rejection of the application.

3.10.1.5. All Pre-Hospital Care Service Ambulances will not exceed 5 years of service from the registration date or 250,000 Km for van conversions.

3.10.1.6. All Pre-Hospital Care Service Ambulances will not exceed 7 years of service from the registration date or 300,000 Km for chassis cab box conversions.

3.11. Ambulance Operating Requirements:

3.11.1. Ground Ambulance Operating Requirements

3.11.1.1. All ambulances within the Emirate of Abu Dhabi require a valid DOH license to operate.

3.11.1.2. All ground ambulances will be equipped with the minimum medical equipment, consumables, and medications as per annex and appendices of this standard.

3.11.1.3. All ground ambulances will be equipped with a cardiac monitor capable of transmission of data and integration of monitor data with DOH MOC.

3.11.1.4. Ambulances must be operated by a staff member who has completed an approved Emergency Response Ambulance Driving or Emergency Vehicle Operations Course (EVOC). All staff with ambulance driving duties must complete an approved EVOC refresher course if needed depending on staff driving performance.

3.11.1.5. All Pre-Hospital Care Service Providers' Medical Directors or Education Managers will submit the organization's intended EVOC syllabus to DOH for review and input. All EVOC courses must include a physical "Blue Light – Emergency Driving module."

3.11.1.6. Ambulance audio and visual warning systems must only be activated for emergency response and transport of emergency priority cases as per the approved criteria.

3.11.1.7. All ambulances must utilize audio and visual warning lights and sirens when on active emergency response. Driver's discretion should be utilized for night-time response and operate in line with EVOC training and the Pre-Hospital Care Service providers driving SOPs.

3.11.1.8. All ground ambulances must be fitted with active fleet telematics systems. ADCDA may maintain an ability to turn off fleet telematic systems for specific events (e.g. national security events). This must be prospectively determined, and information given to DOH. Telematic systems must be capable of the following:

3.11.1.8.1. Live time integration with DOH, CEPAR, Medical Operations Center

3.11.1.8.2. Capable of providing accurate Live Time GPS Location: every 30 seconds or less

3.11.1.8.3. Vehicle Status Update & Monitoring:

3.11.1.8.4. Available, Responding, At Location/Scene, Clear from Scene,

3.11.1.8.5. Transporting to hospital, At hospital, Clear from the hospital, and Out of Service

3.11.1.8.6. Driver Behavior Monitoring

3.11.1.8.7. G-Force Meter, Acceleration & Deceleration Meter

3.11.1.8.8. Alerts and Notifications

3.11.1.8.9. Mapping and Geofencing

3.11.1.8.10. Historical Data and Reporting

3.11.1.8.11. Anti-Tamper protection with internal fallback power supply battery and tamper alert/telematic system offline notifications.

3.12. Ambulance Maintenance Requirements:

3.12.1. Ground Ambulance Maintenance Requirements

3.12.1.1. All medical equipment will be maintained per the manufacturer's recommended maintenance schedule.

3.12.1.2. All ground ambulances will follow the manufactures "harsh condition" scheduling recommendation for maintenance schedule.

3.12.1.3. All ground ambulance cabins, and patient compartments will be maintained as per the original ambulance converters, EN1789, KKK or CAAS standards recommend.

3.12.1.4. All Pre-Hospital Care Service providers will ensure their fleet and logistics department follow the recommended maintenance schedules within their organizations.

3.13. Ambulance Critical Incident Reporting Requirements:

3.13.1. Ground Ambulance Critical Incident Reporting.

3.13.1.1. All Pre-Hospital Care Service Medical Directors or his/her delegate will notify DOH of all ambulance-involved vehicle accidents or incidents within 24 hours of the incident.

3.13.1.2. An initial notification report will be submitted outlining the following.

3.13.1.2.1. Type of incident

3.13.1.2.1.1. Ambulance-involved collision or crash.

3.13.1.2.1.2. Ambulance breakdown during response or patient transport.

3.13.1.2.1.3. Ambulance equipment failure during patient treatment.

3.13.1.2.2. Outline the circumstances of the incident.

3.13.1.2.3. The staff involved in the incident (Their roles at the time of the incident).

3.13.1.2.4. If any patient is involved or on board during the incident.

3.13.1.2.5. If any other road users or members of the public were involved.

3.13.1.2.6. Detail any injuries or fatalities incurred during the incident.

3.13.1.2.7. Detail if any negative impact was incurred by the patient due to the incident.

3.13.1.2.8. Submit all data system reports (Dispatch data, GPS tracking, telematics, clinical reports, equipment failure report etc.).

3.13.1.3. The Pre-Hospital Care Service Medical Director or his/her delegate will oversee a root cause analysis for the incident and provide corrective action plans to the DOH within 7 working days of the incident.

3.13.1.4. In the case where the DOH requires further investigation, a critical incident investigation committee will be formed. All Pre-Hospital Care Service providers will cooperate fully with any such investigation.

3.13.1.5. DOH can suspend any ground ambulance license post critical incident until they are satisfied the ground ambulance is safe for return to public facing operations.

3.13.1.6. Any ground ambulance involved in a collision must be assessed for roadworthiness and safety to resume active duty as per EN1789, KKK or CAAS standards.

3.13.1.7. The official certificate of roadworthiness, crash repair report and standard compliance, mechanical report, and conversion agents report must be submitted to the DOH, for review before the ambulance can be placed back into frontline operations.

3.13.1.8. Continuation and cancellation of licensure shall be in concordance with existing DOH licensure regulations.

3.14. Ambulance End of Life & Retirement:

3.14.1. Ground Ambulance End-of-Life Criteria

3.14.1.1. All Pre-Hospital Care Service Ambulances will be considered for retirement at 5 years old or 250,000 Km for van conversions.

3.14.1.2. All Pre-Hospital Care Service Ambulances will be considered for retirement within 7 years or 300,000 Km for chassis cab box conversions.

3.14.1.3. Any ground ambulance with severe damage or deemed unsafe for operations beyond repair must be retired from service and notified to DOH.

3.14.1.4. Any ground ambulance being sold, transferred to a different organization, or removed from service must have a notification sent to DOH who will suspend the ambulance license.

4. Key stakeholder Roles and Responsibilities

4.1. Duties for Ambulance Service Providers:

4.1.1. DOH licensed Ambulance Service providers are required to manage patient transport in the emergency and/or non-emergent setting.

4.1.2. Ambulance Service providers and Professionals shall comply with the following:

4.1.2.1. Have policies and procedures in place and the appropriate level of resources (professionals, medical needs and supplies and access to ambulance services) to provide high quality safe management and care of patients in accordance with the requirements set out in this Standard.

4.1.2.2. Comply with all DOH policies and standards for medical storage requirements.

4.1.2.3. Comply with all DOH policies and standards for medication management, supply and control of their use and ensure:

4.1.2.3.1. Sufficient stocks of required medications and medical equipment are available as per the healthcare providers License and scope of services and minimum requirements set out in this and other DOH standards.

4.1.2.3.1. All Medications and Medical devices are compliant with current Ministry of Health, UAE, Administrative Circulars; update if needed.

4.1.2.3.2. Ensure Medical devices are maintained, and quality tested according to manufacturer's specifications.

4.1.2.3.3. Ensure the secure management of narcotics, controlled and semi-controlled medications.

4.1.2.3.4. Cooperate with DOH authorized auditors, as and when requested for inspections and audits by DOH.

4.1.2.3.5. Comply with DOH requirements for managing patient medical records, maintaining confidentiality, privacy and security of patient information and educating patients and fulfilling the requirements of patient consent and patient's rights and responsibilities charter.

4.1.2.4. Undertake and document the outcomes of assessment of the patient's condition to ensure:

4.1.2.4.1. That patients are stabilized to the ability of the providers and within their scope of practice prior to transport.

4.1.2.4.2. That potential risks of deterioration during transfer are evaluated against the potential benefits.

4.1.2.4.3. The most suitable receiving healthcare facility has been identified for the management of the patient's needs (specialized expertise and equipment shall also be considered) and condition (urgency for definitive management).

4.1.2.5. Develop, implement, and monitor an emergency response system for patients and include the following:

4.1.2.5.1. Set out in writing the details of the system in a policy and standard operating procedures for emergency response and the staffing requirements and documentation for emergency response, audit and training, monitoring the outcome of patient emergency response, identifying issues, and risks associated with response and process for rectifying identified issues, managing risk.

4.1.2.5.2. A medical oversight mechanism shall be in place to oversee, manage and monitor the effectiveness of the Emergency system and to affect corrective actions and Continuous improvements where necessary. For agencies effectuating transport of patients this shall include medical direction in alignment with DOH requirements for the Abu Dhabi medical direction system.

4.1.2.6. Provide emergency services and care in accordance with the requirements of this Standard and with relevant DOH Clinical Practice Protocols, as applicable, and ensure their practices are consistent with internationally recognized evidence based clinical care practices.

4.2. Duties for Health Care Providers:

4.2.1. Healthcare facilities are responsible for ensuring that ambulance services (Be it through facility owned and/or contracted services), deliver safe, effective, and high-quality services as per DOH Requirements, including utilization of Clinical Practice Protocols and medical direction.

4.2.2. If a healthcare facility chooses to provide their own facility-based ambulance service, they must meet all the requirements of an ambulance service provider. This includes having a medical oversight system by a DOH-licensed physician.

4.2.3. DOH Licensed Healthcare Facilities may obtain ambulance services through third party ambulance service providers under contractual or partnership arrangements that stipulate the type of practice, privilege, and patient acuity to be transferred. Medical direction for said services must be clearly delineated as either the responsibility of the facility or the contracted provider and must align to the Abu Dhabi medical direction system.

4.2.4. The Healthcare Provider must have in place a written Contract/agreement with a third-party service provider to manage Emergency transfer where it does not have ambulance services; this contract/agreement must be presented during facility licensure.

4.3. Role of DOH:

4.3.1. To set and define the required Standards, including but not limited to: preparedness, emergency service requirements, professional requirements, medical direction, coordination, and communication and reporting requirements.

4.3.2. Audit and inspect providers and monitor compliance with the requirements of this Standard and other relevant DOH Policies and Standards including medical oversight requirements.

4.3.3. Request improvement actions from healthcare providers in cases where non-compliance with this Standard is identified.

4.3.4. Where risks to patient safety and quality are identified impose sanctions for breaches to DOH regulations.

4.3.5. Analyze data reported on all pre-hospital cases and their management, identify trends and improvement needs, disseminate, and publish reports; and request, at its discretion, service information such as information on bed availability, patient acuity before & during transfer, staff, and vehicle capacity to facilitate the safe and effective care of patients. This includes data related to patient transport as well as facilities and emergency departments.

5. Monitoring and Evaluation

5.1. DOH may impose sanctions in relation to any breach of requirements under this Standard in accordance with the healthcare sector disciplinary regulation.

6. Enforcement and Sanctions

6.1. DOH licensed Ambulance service providers, DOH Licensed Healthcare facility, and licensed healthcare providers must comply with the requirements of this and all other relevant DOH standards (e.g. Data standards, Business Continuity, Narcotics and Psychotropic Substances, etc.).

6.2. DOH may impose sanctions in relation to any breach of requirements under this standard in accordance with the healthcare sector disciplinary regulations.

7. Relevant Reference Documents

S. No.	Reference Date	Reference Name	Relation Explanation / Coding / Publication Links
1	Nov 17	Healthcare Regulator Manual	haad-regulator-manual-final-file_30dec12 (1).pdf
2	Aug 2007	U.S. Federal Specification KKK-A-1822F Ambulance Vehicle Standard	Federal Specification for the Star-of-Life ... / federal-specification-for-the-star-of-life.pdf / PDF4PRO
3	2019	National Fire Protection Association 1917 Ambulance Standard for Automotive Ambulances	https://www.nfpa.org/codes-and-standards/1/9/1/1917?l=262
4	Sep 2020	European Standard (EN1789)	NEN-EN 1789:2020 en
5	Mar 2021	Commission Accreditation of Ambulance Standards v4.0	CAAS Standards – Commission on Accreditation of Ambulance Services (CAAS)

8. Appendices

8.1. Appendix 1 – Federal and Abu Dhabi Laws concerning the care of Emergency patients:

8.1.1. Federal Law Decree Law No. 4 of 2016 on Medical Liability.

8.1.2. Health Insurance Law 23, 2005 & its bylaw, Article 9 no.1 'Authorized Healthcare Service Providers shall undertake to provide healthcare services to every Insured or Uninsured in medical emergencies and may subsequently recover the cost of healthcare services from the Authorized Health Insurance Company, in accordance with the Health Insurance Policy, if the injured is insured'.

8.1.3. Federal Law 7 of 1975 - Practice of Human Medicine.

8.2. Appendix 2 - Minimum Mandatory Emergency Equipment and Supplies for Inpatient Setting – Adapted from Alabama medical services:

8.2.1. Guidance Notes:

8.2.1.1. If Pediatric patients are treated, then Pediatric equipment must be available. Pediatric size AED pads are recommended in facilities that treat children between 1 and 12 years.

8.2.1.2. Quantities of equipment should be adjusted according to the size of the facility and the expected frequency and type of medical emergencies and case mix.

8.2.1.3. Drug solutions manufactured in pre-filled syringes are preferred.

8.2.1.4. Medications that can be administered through subcutaneous, intramuscular, inhalational, sublingual, buccal or intranasal routes are preferred and IV for the management of acute cardio-pulmonary emergencies.

8.2.1.5. Any additional requirements to the minimum list provided will be the responsibility of the HAAD licensed Healthcare Facility.

S. No	Items
1	Portable oxygen delivery system capable of delivering a flow of 10 litres per minute for 30 minutes, two cylinders, each with a pressure reduction valve and flow meter (Entonox, portable cylinder).
2	Oxygen face mask with tubing (non-rebreathing mask preferred to maximize oxygen delivery) and a spacer device with mask for inhaled bronchodilators.
3	A set of oropharyngeal airways (one each of sizes 1, 2, 3 and 4).
4	Pocket mask with oxygen port, viral and bacterial barrier, low resistance one way valve and pre inflated cuff.
5	Self-inflating bag and mask apparatus with oxygen reservoir and tubing (Bag VALVE Mask Device - BVM) — Pediatric bag is required in facilities that treat children.
6	A variety of face masks that can be attached to a self-inflating bag – child size masks is required in facilities that treat children.
7	Portable mechanical vacuum suction pump with appropriate suction catheters (9FR, 10FR & 14FR), tubing, portable suction check plug in and check unplugged and feeding tube
9	Single use sterile syringes (luer lock), Alcohol wipes, needles and gloves
9	Stethoscope (suitable for adults and children)
10	Automated blood glucose measurement device
11	Automated External Defibrillator (AED) with self-adhesive pads (Adult & Pediatric) and connecting cables.
12	Sterile burn pack and cold packs
13	Electrode ECG (Adult and Pediatric)
14	Multi-function Pads (Adult and Pediatric)
15	Blankets, pillows, towels and disposable biohazard bags
16	Rigid Splints Capable of Splinting All Extremities
17	Sterile triangular and roller crepe bandages, dressing, gauze rolls and transparent tape
19	Folding Stretcher and Cot Stretcher (on wheels)
19	Head Immobilizer and back board
20	Cervical Collars (small, medium and large sizes)
21	Spacer device with mask for inhaled bronchodilators
22	Sphygmomanometer (infant and adult, regular and large)
23	Disposable bed pan
24	Flashlights with extra batteries, clip board, pen, CPR report sheets and Reflective safety wear
25	Thermometer and micro dropper set
26	Cord clamp, maternity pads, bulb suction, umbilical scissors (for organizations with Maternity Departments)
27	Cellular phone with charger to be kept in the kit

29	IV Pole and IV Catheter (14G, 19G, 20G and 24G)
29	Extension set (2 Smart site)
30	TUBE SALEM SUMP 14FR (Naso-gastric tube)
31	Butterfly (vacutainer Safety lock) and holder
32	Pediatric lavender top tube
33	Adult lavender, gold and blue top tube
34	Laryngeal Mask Airway (LMA) Size 3,4 and 5

Checked by: _____(Pharmacist)
_____(Nurse)
_____(Physician)

*Once expiry date has initially been written on the form, medications will be checked individually by Pharmacy and Nursing together at least once a month.

**All equipment, including batteries, must be checked if in good working condition.

First expiry date: _____ Date checked: _____

8.3. Appendix 3 - Minimum Mandatory Emergency Medications for Inpatient Setting – adapted from Alabama medical services

8.3.1. Guidance Notes:

8.3.1.1 If Pediatric patients are treated, then Pediatric equipment must be available. Pediatric sizeAED pads are recommended in facilities that treat children between 1 and 12 years.

8.3.1.2 Quantities of equipment should be adjusted according to the size of the facility and theexpected frequency and type of medical emergencies and case mix.

8.3.1.3 Drug solutions manufactured in pre-filled syringes are preferred.

8.3.1.4 Medications that can be administered through subcutaneous, intramuscular, inhalational, sublingual, buccal or intranasal routes are preferred and IV for the management of acute cardio-pulmonary emergencies.

8.3.1.5 Any additional requirements to the minimum list provided will be the responsibility of the HAADlicensed Healthcare Facility

S. No.	Drug	Indication
1.	Nitro-glycerine (sublingual tablet or aerosol spray)	Acute coronary syndrome
2.	Amiodarone (150mg injectable)	Cardiopulmonary emergency,ventricular arrhythmia
3.	Atropine Sulphate 1mg injectable	Symptomatic bradycardia
4.	Aspirin (300mg tablets) chewable or 100mg x 3	Acute coronary syndrome
5.	Glucose (50% solution 50ml injectable, tablet, gel or powder)	Hypoglycemia in cardiopulmonary emergency
6.	Alteplase (injectable)	Ischemic Stroke
7.	Sodium Bicarbonate 9.4% (injectable)	Metabolic acidosis associatedwith cardiac arrest
9.	Oral glucose (solution, tablet, gel or powder)	Hypoglycemia
9.	Salbutamol (5mg/2.5ml), Albuterol or other bronchodilatorsolution for inhalation	Asthma
10.	Midazolam or Lorazepam (injectable)	Seizures
11.	Rectal Diazepam (5mg tubes)	Seizures
12.	Epinephrine 1:1000 (injectable)	Anaphylaxis
13.	Epinephrine 1:10,000 (IV)	Cardiopulmonary emergency
14.	Hydrocortisone (injectable) 100mg/2ml	Anaphylaxis and Allergic reactions
15.	Diphenhydramine, chlorpheniramine or other antihistamine (injectable)	Anaphylaxis and Allergic reactions
16.	Sterile normal saline 1,000 cc	For irrigation
17.	Sterile water 1,000 cc	For irrigation
19.	Oxygen with positive-pressure administration capability	Almost any emergency
19.	Povidone - Iodine	Antiseptic
20.	Lidocaine (gel spray or solution)	Local anaesthesia

21.	Lidocaine (injectable)	Local anaesthesia
22.	Lubricant Gel (142gram)	Lubrication of probe
23.	Dextrose Intravenous fluids 1,000 cc	Intravenous therapy
24.	Compound Sodium Lactate fluids 1,000 cc	Intravenous therapy
25.	Intravenous fluids 1,000 cc e.g. glucose, ringers solution	Intravenous therapy
26.	Tourniquet	Control venous and arterialcirculation
27.	Heparin (injectable)	Intravenous therapy
29.	Adenosine 6mg/2ml	Stable Supraventricular tachycardia
29	Glyceryl Trinitrate (50mg/50ml)	Vasodilator
30.	Magnesium Sulphate 50% (1g/2ml) vial – High Alert	Torsade de pointes

Checked by: _____(Pharmacist)
_____(Nurse)
_____(Physician)

*Once expiry date has initially been written on the form, medications will be checked individually by Pharmacy and Nursing together at least once a month.

**All equipment, including batteries, must be checked if in good working condition.

First expiry date: _____ Date checked: _____

8.4 Appendix 4 - Minimum Mandatory Emergency Medications and Equipment for Outpatient Care Settings – Adapted from Imperial College London Diabetes Centre/Abu Dhabi.

8.4.1 Guidance Notes:

8.4.1.1 If pediatric patients are treated, then pediatric equipment must be available. Pediatric size AED pads are recommended in facilities that treat children between 1 and 12 years.

8.4.1.2 Quantities of equipment should be adjusted according to the size of the facility and the expected frequency and type of medical emergencies and case mix.

8.4.1.3 Drug solutions manufactured in pre-filled syringes are preferred.

8.4.1.4 Medications that can be administered through subcutaneous, intramuscular, inhalational, sublingual, buccal or intranasal routes are preferred and IV for the management of acute cardio-pulmonary emergencies.

8.4.1.5 Any additional requirements to the minimum list provided will be the responsibility of the HAAD licensed Healthcare Facility.

S. No.	Equipment Top Shelf	Stock level	Expiry date	Checked
1	Pocket Mask (Laerdal) O2 version	1		
2	ECG Electrodes 91920031	1		
3	Pacing Defib Electrode Adult	2		
4	Pacing Defib Electrode Ped	2		
5	Nebulization Mask Adult	1		
6	Nebulization Mask Ped	1		
7	Nasal Oxygen Cannula Adult	1		
9	Nasal Oxygen Cannula Ped	1		
9	3 Sizes Disposable Gloves (Latex-free)	1		
10	IV Stand	1		
11	Sharp Container	1		
12	Flashlight	1		
13	Stethoscope	1		
14	Blood Sugar Machine	1		
15	Pulse Oximeter	1		
16	Lifepack 20E	1		
17	Portable suction machine	1		

19	Nebulizer	1		
19	Nebulizer Medication Kit	1		
20	O2 Cylinder # (full/half full/needs refilling)	1		
21	O2 Key	1		
22	AED Lifepack ECG Paper	1		
23	Pocket Mask (Laerdal) O2 version	1		
24	ECG Electrodes	1 pack		
25	Pacing Defib Electrode-Medtronic Quick Combo (Adult)	1		

S. No.	Equipment	Stock Level	Expiry Date	Checked
1st Drawer (Airway)				
1	Magill forceps – (In Emergency bag)	1		
2	Guide wire for ETT	1		
3	Endotracheal Tubes with Cuff size 6	1		
4	Endotracheal Tubes with Cuff size 7	1		
5	Endotracheal Tubes with Cuff size 7.5	1		
6	Endotracheal Tubes with Cuff size 9	1		
7	Oropharyngeal Airway size 2 – Green	1		
9	Oropharyngeal Airway size 3 – Orange	1		
9	Oropharyngeal Airway size 4 – Red	1		
10	Yankauer Suction Tube	1		
11	Laryngoscope Set (Adult & Pediatric)	1		
12	KY Jelly Sachets or Tube	2		
13	Laryngeal Mask Airway (LMA) size 3, 4 and 5	1		
14	Suction catheter size 9 with connector	1		
15	Suction catheter size 10 with connector	1		
16	Suction catheter size 12 with connector	1		
17	Suction catheter size 14 with connector	1		
19	Nasopharyngeal Airway size 6 Portex	1		
19	Nasopharyngeal Airway size 7 Portex	1		
20	I-Gel size 3, 4 and 5-Orange (90+kg)	1		
21	O2 mask # 5 Blue Ambu Bag (Marshall Products Ltd)	1		
22	Rebreathing O2 Mask	1		

S. No.	Medications / Consumables	Stock Level	Expiry Date	Checked
2nd Drawer (Drugs and Pre-filled Medications)				
1	Adrenaline (epinephrine) 1:10,000 prefilled syringe IV (5 if not used with vasopressin)	2		
2	Magill Forcep – (In Emergency bag) Prefilled Syringe Adrenaline 1mg (1:10,000) IV for Arrest or Adrenaline 1 mg/ml ampoule	5		
3	Vasopressin arginine/Argipressin 20 units (2 amps)	2		
4	Prefilled Syringe Atropine 1mg or Atropine 600 mcg/ml	4		
5	Prefilled Syringe Lidocaine 100mg or Lidocaine vial 2% 20mg/ml	1		
6	Prefilled Syringe Calcium Chloride 100mg/ml or Calcium Chloride 100mg/ml Ampoules	1		
7	Glucagon Hypokit	1		
9	Glucose 50%	1		

9	Glucose Gel 75g tubes	1		
10	Hydrocortisone 100mg /2ml	2		
11	Syringes 3ml	5		
12	Needle	5		
13	Alcohol swabs	10		
14	Spot Bandage	10		
15	Water for injection	5		
16	Normal Saline 10ml	1		
IV Medications				
17	Adenosine 6mg/2ml	5		
19	Amiodarone 150mg/3ml	3		
19	Glyceryl Trinitrate (50mg/50ml)	2		
20	Magnesium Sulphate 50% (1g/2ml) vial – High Alert	3		
Other Medications				
21	Acetylsalicylic acid 75mg (give 4 tablets = 300mg or 3 tablets of 100mg)	1 pack		
22	Glyceryl Trinitrate Spray	1		
23	Glyceryl Trinitrate Tabs (100)	1		

S. No.	Medications / Consumables	Stock Level	Expiry Date	Checked
3rd Drawer (IV Fluids, Cannulas, IV Sets)				
Anaphylaxis Kit contains				
1	IO (intraosseous) needles 15.5 Gauge (14-16 Guage)	1		
2	Dextrose Saline 500ml/1000ml	1		
3	Dextrose Water 5% 500ml/1000ml	1		
4	Dextrose Water 10% 500ml/1000ml	1		
5	Ringer Lactate 500ml/1000ml	1		
6	Ringer Solution 500ml/1000ml	1		
7	Normal Saline 500ml/1000ml	1		
9	Buretrol IV Admin (Soluset)	2		
9	Water for injection	5		
10	Adrenaline 1mg (1:1.000) IM	2		
11	Chlorpheneramine 10mg	1		
12	Syringes 3ml	5		
13	Alcohol Swabs	10		
14	Spot bandage	10		
15	Ringer Lactate 500ml/1000ml	1		
16	Ringer Solution 500ml/1000ml	1		
17	Normal Saline 500ml/1000ml	1		
19	IV Set Adult – 20 drops/ml (Bromed)	2		
19	Blood Transfusion Set	2		
20	Cannula size 19 – green	3		
21	Cannula size 20 – pink	3		
22	Cannula size 22 – blue	3		
23	Cannula size 24 – yellow	3		
24	Cannula fixing dressing – opsite IV 3000	2		
25	Tape – Transpore 25mm	1		
26	Tape – Tranpore 49mm	1		
27	Tourniquet	1		
29	Syringes 1 ml	4		

29	Syringes 3 ml	4		
30	Syringes 5 ml	4		
31	Syringes 10 ml	4		
32	Syringes 20 ml	4		
33	Scissors	1		
34	3 Ways connector	3		
35	Vacutainer set	5		
36	Specimen bag	5		
37	Urine bottle	3		
39	Specimen tube – purple	5		
39	Specimen tube – yellow	5		
40	Specimen tube – green	5		

S. No.	Medications / Consumables	Stock Level	Expiry Date	Checked
4th Drawer (Pediatric Drawer)				
1	O2 Mask with Ambu Bag – Ped1iatric	1		
2	Endotracheal Tubes with Cuff size 3	1		
3	Endotracheal Tubes with Cuff size 4	1		
4	Endotracheal Tubes with Cuff size 4.5	1		
5	Nasopharyngeal Airway (size 6) (Portex)	1		
6	Laryngoscope Set Pediatric	1		
7	I-Gel size 4 – Green (50-90kg)	1		
9	Buretrol IV Admin (Soluset)	2		
9	Suction Catheter size 9 with connector	1		
10	Suction Catheter size 10 with connector	1		
11	O2 Mask with Ambu Bag - Pediatric	1		
12	Non-rebreathing O2 Mask and Bag	1		
13	Pacing Defib Electrode-Medtronic Quick Combo (Ped) – Top	1		
S. No.	**Medications / Consumables**	**Stock Level**	**Expiry Date**	**Checked**
5th Drawer				
1	Goggles	1		
2	Aprons (Disposable)	5		
3	Face mask	10		
4	Tongue Depressors	1 pack		
5	Shaving Blade (Razor)	2		
6	Sterile Gauze	1 pack		
7	Spare Batteries / Bulbs for Laryngeal Set (for Adult)	2 each		
9	Digital Blood Pressure Machine	1		
9	Thermometer	1		
10	Sterile Gloves	2		
11	Suction Catheter size 12 with connector	1		
12	Suction Catheter size 14 with connector	1		
13	ECG Electrodes 91920031	1 pack		
14	Electrode Gel	1		
15	O2 Mask Blue Ambu Bag (Marshall Products Ltd.	1		
16	Digital Blood Glucose Monitor	1		

2nd & 3rd Drawer:*
Checked by: _____(Pharmacist)

_____(Nurse)

_____(Physician)

First expiry date: _____ Date checked:_____

1st, 3rd, 4th and 5th Drawer:**

Checked by: _____(Pharmacist)
_____(Nurse)
_____(Physician)

*Once expiry date has initially been written on the form, medications will be checked individually by Pharmacy and Nursing together at least once a month.

**All equipment, including batteries, must be checked if in good working condition.

First expiry date: _____ Date checked: _____

8.5 Appendix 5 - Ambulance Services Specifications and Requirements:

Ambulance Type	Basic Life Support (BLS)	Advanced Life Support (ALS)
PQR license category	Primary-EMT (current title) = EMT (New title)	Advanced EMT or Advanced Care Paramedic (current titles) = Paramedic or Higher (New title) AND Primary-EMT (current title) = EMT (New title) or Higher
Patient's condition	Stable	Stable/Unstable
Minimum Staffing	Minimum two from the same title or higher, to be maintained at all shifts/ duties (all time).	Minimum one from the advanced level title and one from the basic level or higher, to be maintained at all shifts/ duties (all time).
If the ambulance is used for patient interfacility transfer only, critical care nurses (specialists) could be part of the ambulance staffing if the facility sends nurses with the patient.		

8.6 Appendix 6 - Minimum requirements for Basic Life Support (BLS), Advanced Life Support (ALS), Retrieval Drugs and Equipment and Controlled medication - adapted from Abu Dhabi Civil Defence Authority Ambulance Services:

8.6.1 BLS Ambulance Cabinet Inventory:

BLS Response PACK	PAR	BLS Ambulance	Cabinet PAR
		Airway	
Surgical Mask	2	OPA 50mm or (Size 0)	2
N95 Mask or equivalent type	2	OPA 60mm or (Size 1)	2
NPA 3mm	1	OPA 70mm or (Size 2)	2
NPA 4mm	1	OPA 90mm or (Size 3)	2
NPA 6mm	1	OPA 90mm or (Size 4)	2
NPA 7mm	1	OPA 100mm or (Size 5)	2
NPA 9mm	1	NPA 3mm	1
OPA 50mm or (Size 0)	1	NPA 4mm	1
OPA 60mm or (Size 1)	1	NPA 6mm	1
OPA 70mm or (Size 2)	1	NPA 7mm	1
OPA 90mm or (Size 3)	1	NPA 9mm	1
OPA 90mm or (Size 4)	1	Supraglottic Airway size 1	1
OPA 100mm or (Size 5)	1	Supraglottic Airway size 1.5	1
Supraglottic Airway size 1	1	Supraglottic Airway size 2	1
Supraglottic Airway size 1.5	1	Supraglottic Airway size 2.5	1
Supraglottic Airway size 2	1	Supraglottic Airway size 3	1
Supraglottic Airway size 2.5	1	Supraglottic Airway size 4	1

Supraglottic Airway size 3	1	Supraglottic Airway size 5	1
Supraglottic Airway size 4	1	BVM Adult	1
Supraglottic Airway size 5	1	BVM Child	1
Lubrication Gel	1	BVM Infant	1
BVM Adult	1	O2 Non Rebreather Mask Adult	4
BVM Child	1	O2 Non Rebreather Mask Ped	2
BVM Infant	1	O2 Simple Face Mask Adult	2
O2 Nasal Cannula Adult	1	O2 Simple Face Mask Ped	2
O2 Nasal Cannula Ped	1	O2 Nebulizer Mask Adult	2
O2 Nebulizer Mask Adult	1	O2 Nebulizer Mask Ped	2
O2 Nebulizer Mask Ped	1	O2 Nasal Cannula Adult	2
O2 Non Rebreather Mask Adult	1	O2 Nasal Cannula Ped	2
O2 Non Rebreather Mask Ped	1	Oxygen Tree Seal Cap	1
Oxygen Cylinder M9 or D with regulator	1	Oxygen Cylinder M9 or D	1
Cervical Collar Adjustable Adult	1	Oxygen Cylinder D with regulator and holder	1
Cervical Collar Adjustable Ped	1		
Hemorrhage Control Tourniquet	2	**Circulation**	
Hemostatic Agent Gauze	1	Sterile Gauze 2 different sizes	20
Burn Gel Size: 3 different sizes	1 each	Sterile Gauze 45cm x 45cm	2
Emesis Bag	1	Crepe Bandage 3 different sizes	5 each
Chest Seal	1	IV Cannula (Size: 14G)	2
Sharps Box	1	IV Cannula (Size: 16G)	2
Biohazard Bag	1	IV Cannula (Size: 19G)	2
Adhesive Tape 3 different sizes	1 each	IV Cannula (Size: 20G)	2
Sterile Gauze 3 different sizes	3 each	IV Cannula (Size: 22G)	2
Crepe Bandage 3 different sizes	2 each	IV Cannula (Size: 24G)	2
Eye Shield Right / left	1 each	Adhesive Tape 3 different sizes	1each
Flexible Splint	1	Alcohol Swabs (Qty Box)	1
Pelvic Splint	1	Band Aid (Adult) (Qty Box)	1
Band Aid (Adult)	10	Band Aid (Pedia) (Qty Box)	1
Band Aid (Pedia)	10	Hemostatic Agent Gauze (Qty Pcs)	2
Thermal sheet	1	Sterile Non-woven Adhesive Wound 3 different sizes	2 each
Triangular Bandage	1	Amputation Kit (Size: Arm)	1
Sterile Non-woven Adhesive Wound 3 different sizes	1 each	Amputation Kit (Size: Hand)	1
Pulse Oximeter	1	Amputation Kit (Size: Leg)	1
BP Device Or Defibrillator Monitor with cuffs	1	Artificial Ice Pack	2
Thermometer or Thermometer with ear probe	1	Instant Cold Pack	4
Glucometer	1	Triangular Bandage	3
Lancet	10	Syringe 2 different sizes	2each
Blood Glucose Test Strips	10	Eye Shield Right / left	1 each
Alcohol Swabs	10		
Syringe 2 different sizes	1 each		
Ring Cutter	1		

BLS Ambulance Immobilization	Cabinet PAR	Resuscitation
Cervical Collar Adjustable Adult	3	Suction Unit Machine with Connector Tube
Cervical Collar Adjustable Ped	2	Hard/Non-disposable Canister / Jar
Head Immobilizer Set	1	Suction Canisters Disposable
Immobilization Board adult/ Ped	1each	Yankauer Suction /Rigid Catheter
Immobilization Board Straps	1	Soft Suction Catheter 4 different sizes
Restrain Straps / Stretcher Straps	3	
Lower Extremity Traction Device	1	**Internal Ambulance Equipment**
Vacuum Splints Set or Foam Splint Set	1	Main Stretcher
Splint Disposable Shapeable / Flexi Splint	4	Hygrometer

Pelvic Splint	1	Main O2 Cylinder with Regulator with Pressure O2 Flowmeter
Scoop stretcher or equivalent	1	Fire Extinguisher
Extrication Device Adult / Ped	1	Helmets
Escape Chair with Chair Straps	1	
Infection Control		**Automated External Defibrillator**
N95 Mask or equivalent type	1 box	Automated External Defibrillator (AED) Or Defibrillator Monitor in ALS setup
Surgical Mask	1 box	Defibrillator Patches (Adult) Or Patches in ALS setup
Face Shield (Qty Pcs)	2	Defibrillator Patches (Ped) Or Patches in ALS setup
Eye Wear Protective (Goggles)	2	
Disposable Gown	2	
Gloves Examination 3 different sizes (Box)	1each	
Full PPE Kit 3 different sizes	1 each	
Bio-Hazard Bag Yellow	5	
Hand Gel Disinfectant	1	
Dispenser	1	
Surface Disinfectant Spray or Wipes	1	
Spill Kit (Urine) / (Blood)	1 each	
Disposable Mattress Cover / Bed Sheet	5	
Emesis Bag	3	
Miscellancous		
Obstetric Kit	1	
Patient Care report Book / Electronic patient care report	1 each	
Triage Tags / Smart Triage Tags	25	
Body Bag	2	
Burn Sheet	1	
Emergency Blanket / Thermal Sheet	1	
BLS Drug Bag		
Aspirin 300mg or Aspirin 100 mg	10	
Activated Charcoal - 25g / 50g in 250ml oral suspension	5/3	
Adrenaline / Epinephrine - Pre-Filled Mini Jet / 1mg in 10ml	6	
Adrenaline / Epinephrine - Epinephrine Auto –Injector 300mcg/0.3ml	2	
Adrenaline / Epinephrine - Epinephrine Auto –Injector 150mcg/0.15ml	2	
Dextrose 5% in Water - D5W 100 ml (Or other ml volume)	2	
Dextrose 25% Solution IV - 25g glucose in 100ml (Or other ml volume)	1	
Glucagon Hypokit 1mg = 1 IU/ 1ml	1	
Glucose Oral Gel - Plastic tube 25g glucose (Or other dose volume)	2	
Ibuprofen 400mg - 400mg Tablet	5	
Methoxyflurane (Penthrox) - Inhaler device / vapor 3ml	2	
Naloxone HCL - Ampoule / 400mcg in 1ml	4	
Normal NaCl 10ml Flush - Ampoule / 10ml	5	
Paracetamol IV - Bottle (100ml) / 10mg in 1ml	1	
Paracetamol oral - Tablet 500mg/ Oral suspension	10/1	
Salbutamol Sulphate - Nebule/ 2.5mg in 2.5ml Or 5mg in 5ml	4	

Tranexamic Acid - Ampoule 500mg/5ml	2

8.6.2 ALS Ambulance Cabinet Inventory (Basic equipment and drugs in addition to the following):

I/O KIT	PAR	ALS Response Kit	PAR
Alcohol Swabs (Qty Pcs)	10	Alcohol Swabs	10
IO Power Driver Placeholder / IO Drill	1	Tourniquet Disposable	1
IO Needle 3 Different Sizes	1 each	IV Cannula (Size: 14G)	2
Sharp Container / Sharp Box	1	IV Cannula (Size: 16G)	2
Stopcock 3 Way	2	IV Cannula (Size: 19G)	2
Syringe 10 ml or higher	1	IV Cannula (Size: 20G)	2
IV Pressure infuser	1	IV Cannula (Size: 22G)	2
		IV Cannula (Size: 24G)	2
ALS Drugs	**PAR**	IV transparent Dressing	5
Adenosine - Ampoule / 6mg in 2ml / 3mg in 1ml	5/2	3 WAY Stopcock	2
Adrenaline / Epinephrine - Ampoule / 1mg in 1ml	6	Solo IV Cap	2
Amiodarone - Ampoule / 150mg in 3ml	3	IV Infusion Set (20gtts)	2
Atropine Sulphate - Ampoule 1mg/ml	3	IV Infusion Set (60gtts)	1
Calcium Chloride CaCl 10%	1	Normal Saline 0.9% Bottle	1
Chlorpheniramine - Ampoule 10mg/1ml	1	Ringer Lactate Bottle	1
Dexamethazone - 2mg tablet / 2mg in 5ml solution	9/9	Dextrose 10% Bottle	1
Diclofenac Soduim - Ampoule 75mg in 3ml	1	Syringe 3 different sizes	1 each
Flumazenil -Ampoule / 500mcg in 5ml	1	Adhesive Tape	1
GlycerylTrinitrate (GTN) - Spray 0.4mg GTN per dose/ Sublingual Tablet 500microgram	1/3	Broselow Tape	1
Hydrocortisone - Dry Substance / 250mg	2		
Ipratropium Bromide - Nebule / 250mcg in 2ml	2		
Lidocaine HCL 2% - Ampoule / 100mg in 5ml	1		
Magnesium Sulphate - Ampoule / 2g in 10ml (or5g/10ml)	1		
Metoclopramide - Ampoule / 10mg in 2ml	2		
Ondansetron - Ampoule 4mg in 2ml saline solution	2		
Promethazine - Ampoule 25mg/1ml	1		

ALS Response Kit	PAR	Defibrillator/Monitor/Pacer	PAR
Laryngoscope Handle Adult/ Ped	1 each	Defibrillator with 12 lead ECG & Pacer capability	1
Blade Mac Disposable 1	1	BP Cuff 3 different sizes	1 each
Blade Mac Disposable 2	1	Defibrillator Patch (Adult)	2
Blade Mac Disposable 3	1	Defibrillator Patch (Pedia)	1
Blade Mac Disposable 4	1	Razor Disposable/ Shaver	2
Blade Miller Disposable 0	1	Electrodes ECG	30
Blade Miller Disposable 1	1	ECG Paper	1

Blade Miller Disposable 2	1	12 Lead Cable	1
Blade Miller Disposable 3	1	ETCO2 Nasal sampling line Non-Intubated Adult/ Ped	1 each
Blade Miller Disposable 4	1	Filter Line ETCO2 (Intubated)	1
Endotracheal Tube (Size: 2)	1	Pulse Oximetry Probe	1
Endotracheal Tube (Size: 3)	1		
Endotracheal Tube (Size: 4)	1		
Endotracheal Tube (Size: 5)	1		
Endotracheal Tube (Size: 6)	1		
Endotracheal Tube (Size: 6.5)	1		
Endotracheal Tube (Size: 7)	1		
Endotracheal Tube (Size: 7.5)	1		
Endotracheal Tube (Size: 9)	1		
Syringe 10ml or Higher	1		
Endotracheal Tube Holder	1		
Endotracheal Tube HEPA Filter	1		
Disposable Magill Forceps Adult / Pedia	1 each		
End Tidal CO2 Detector Adult / Pedia	1 each		
Lubrication Gel	1		
Catheter Mount	1		
Stylets Adult / Pedia	1 each		

Controlled Drugs for Authorized Staff Based of Scope Of Practice	PAR
Ketamine 10mg/ml	1
Midazolam 5mg/ml or Diazepam 10mg/ 2ml	2
Morphine 10mg/ml or Fentanyl 50mcg/ml	2

Note1: The DOH licensed Healthcare Facility is responsible to ensure any additional requirements are provided to meet patient needs.

Note2: Alternative medications and items may be used where there is evidence to show it is not available.

Note3: Healthcare providers are responsible to validate dosage and concentration of medications and ensure their appropriateness prior to patient (ped/adult) administration.

8.7 Appendix 7 – Summary of responsibilities for Interfacility Patient Transfer:

1. Define which hospital to refer to based on patient's clinical condition & bed availability.
2. Communicate with TC-RC to get approval for accepting patient.
3. Define transportation.
4. Allocate escorting staff according to condition.
5. Complete relevant part of record of transfer form
6. Receive completed record of patient transfer on same day, completed by escorting staff & receiving facility
7. Receive & complete post transfer feedback form upon discharge of patient (clinical outcome, investigations, procedures, outcome), etc.
8. Notifying DOH with monthly cases being transferred.
9. Present during any DOH audit on patient referrals.

1. Coordinate with nurse for bed availability & medical practitioner for medical care availability.
2. Confirm or reject patient transfer & why.
3. Communicate with TC-RF to confirm handover & patient's condition upon arrival.
4. Complete relevant part of patient transfer record on same day & keep a copy in the patent's medical record.
5. Complete post transfer feedback form of patient upon discharge (clinical outcome, investigations, procedures, outcome) upon discharge of patient & send it to TC-RF.
6. Notifying DOH with monthly cases being transferred.
7. Present during any DOH audit on patient referrals.

8.8. Appendix 9 – The Key Principles of Patient Transfer:

8.8.1 The decision to transfer a patient must be based on the patient's condition, consent, capability, and capacity of the referring hospital and receiving hospital to provide the necessary care for the patient.

8.8.2 All healthcare professionals will ensure that transfer is undertaken in a timely manner and that the patient is cared for in such a way to maintain patient safety, the necessary treatment of care, contact with appropriate staff, patient dignity, respect forindividual needs (cultural, ethnic and religious), patient confidentiality, well-being, and safety.

8.8.3 All health professionals involved will act in accordance with their accountability and ina collaborative and coordinated manner.

8.8.4 The decision to transfer a patient is the responsibility of the attending clinician ordesignated person at the referring hospital.

8.8.5 The attending clinician or designated person at the receiving hospital must agree toaccept the patient prior to transfer.

8.8.6 The receiving hospital will not refuse the patient transfer if it is medically indicated (necessary) and the receiving hospital has the capability, capacity or responsibility toprovide care for the patient.

8.8.7 The patient, next of kin or the Substitute Decision Maker (SDM) will provide informedconsent for the transfer and for the sharing of information.

8.8.8 Clinical handover will occur before the transfer, to ensure all relevant information isexchanged between designated persons at the transferring and receiving hospitals and the transport provider.

8.8.9 The attending clinician or designated person at the referring hospital will ensure thatcopies of all appropriate and pertinent records are transferred with the patient.

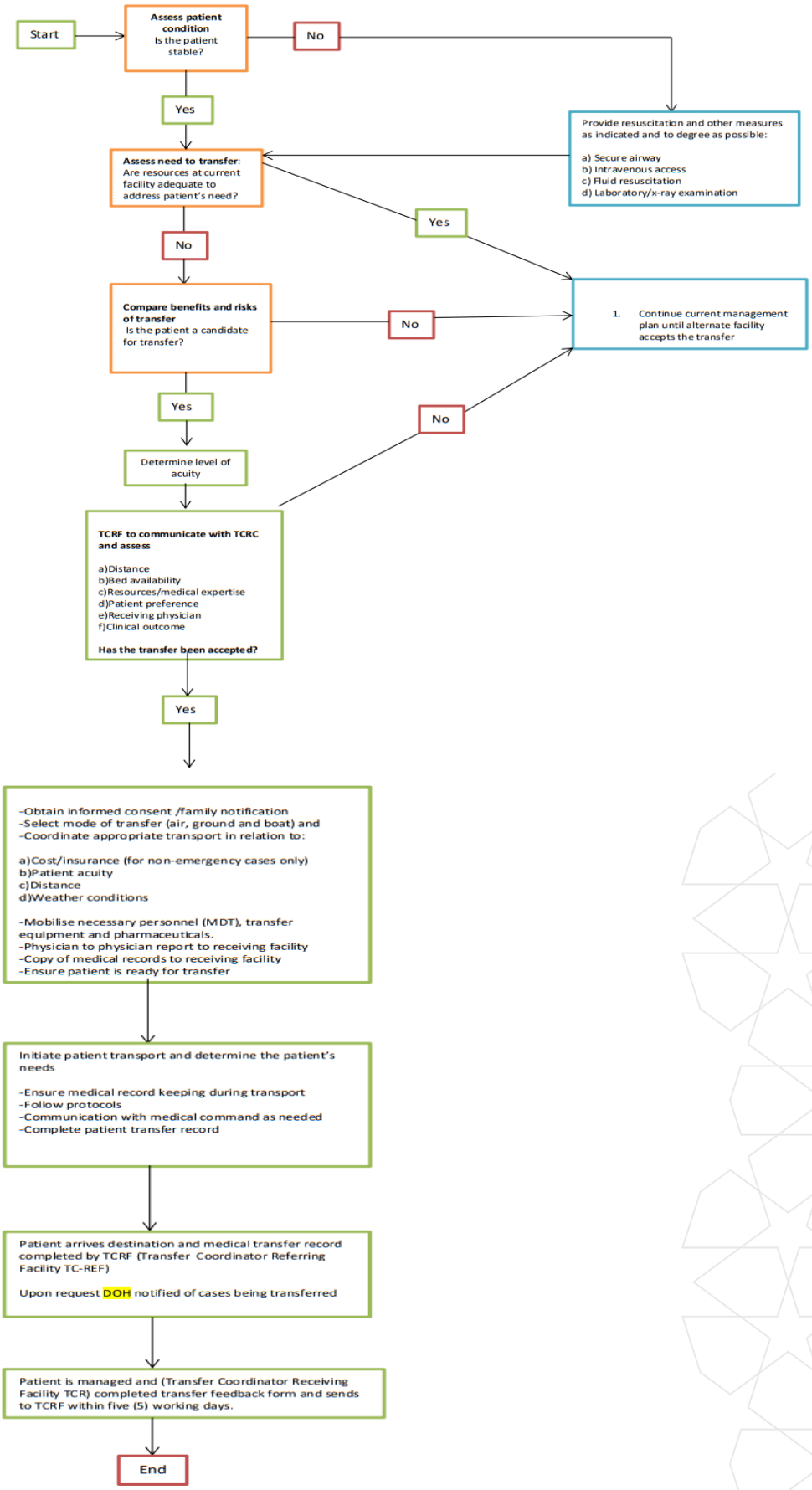
8.8.10 The attending clinician or designated person at the receiving hospital will ensure that copies of all appropriate and pertinent records have been transferred with the patient.

8.8.11 Reporting to DOH on emergency cases.

8.8.12 The receiving hospital will, where appropriate and when agreed, ensure the patient istransferred back to the referring hospital in a timely, orderly, and safe fashion, with accurate and complete clinical handover.

8.8.13 Hospital clinical governance and leadership will implement, audit and enhancetransfer processes to ensure a culture of safety and continuity of care.

8.9 Appendix 9 – Interfacility Patient Transfer Algorithm:



8.10 Appendix 10 - Record for Emergency Patient Transfers (Referring Facility):

Hospital Name:
License Number:
Contact Name:
Contact Number:
Contact Email ID:

S. No.	Patient Name	Patient Medical Record No.	Patient DOB dd/mm/yyyy	Patient's Nationality	Patient's Mobile No.	Patient's Primary Diagnosis	Patient was triaged Y/N	Name of receiving Hospital	Patient Consent obtained Y/N	Referral form completed & sent Y/N	Reason for Transfer (justification)				
											need for specialized care /Procedure Y/N	Non Availability of beds Y/N	personal preference Y/N	Ineligible for treatment (e.g. Insurance) Y/N	Other
1															
2															
3															

Timeframes								Patient condition was stable			Patient transferred by Ambulance Y/N	Accompanied by medical staff Y/N	Patient was transferred back Y/N	Transfer Feedback form received Y/N	Comments
Date transfer requested dd/mm/yy	Time transfer requested 00:00	Date transfer accepted dd/mm/yy	Time transfer accepted 00:00	Date transfer initiated dd/mm/yy	Time transfer initiated 00:00	Date handover dd/mm/yy	Time handover dd/mm/yy	At time of discharge Y/N	During the transfer Y/N	Upon handover Y/N					

8.11 Appendix 11 - Patient Referral and Transfer Record:

Escorting Doctor

1. Who?

Patient Medical File Number	Address
Patient Name	
Date of Birth	Next of Kin/Guardian
Age	
Male ☐	Phone
Female ☐	
Patient Consented to Transfer	Yes ☐ No ☐
	If No, please state reason why?

5. Background

Allergies None known ☐

Medication (include antibiotics) tetanus toxoid ☐

Past medical history

COAD ☐ Asthma ☐ Stroke ☐ High ☐ Diabet ☐
Dialysis ☐ Cancer ☐ Dementia ☐ MI ☐ Pacer

Other

Last oral intake

Events Traum ☐

7. Observations

Facilities to use their own forms. The following information must be included as a minimum

8. Pre-Transfer Checklist

Airway:

Airway secure ETT is ok on CXR? ☐
C Spine clear/immobile ☐

Breathing:

Ok on transport vent ☐ ABGs & CXR ok ☐
Drain unclamped ☐

Circulation:

Vital signs stable ☐ Well filled ☐
No bleeding ☐ IVI through dead space ☐

Disability:

Sedation/relaxants ok ☐ Pupils ok (check GCS) ☐

Exposure:

IV access x2 ok ☐ Fractures stable (if any) ☐
Patient secured on trolley ☐ Fluids/Renal: Catheterised ☐
Gut: NGT/OGT checked ☐

Haematology:

Blood products ☐

Infection: Antibiotics given ☐

Pupils ok (check GCS) ☐

Just in case: Emergency Drugs ☐

Kit Check:

Ventilator ☐ Transfer bag ☐ Batteries ok, Leads ☐
Suction ☐ Inverter & adapter ☐

Lab results:

Hb > 7 ☐ Blood glucose >[illegible] ☐
K 3.5 to 5.5 ☐ PH > 7.2 and BE +/-5 ☐

Monitoring ☐

Notes and scans ☐

Oxygen sufficient for journey x2 + 1hr ☐

Phone:

Mobile phone ☐
Contact destination ☐

Destination

2. Where?

Referring	Receiving
Hospital	Hospital
From	To
Ward ☐	XRay ☐
Theatre ☐	Theatre ☐
ICU ☐	ICU ☐
HDU ☐	HDU ☐
A&E ☐	A&E ☐
Other	Other
Consultant	Consultant
Staff arranging transfer	Staff accepting transfer
Name	Name
Specialty	Specialty
Grade	Grade
Phone	Phone

6. Status and Support

Airway
Facemask ☐ Nasal Mask ☐ ET ☐ Tracheostom[illegible]
Indications for Intubation
Cardiac arrest ☐ Resp arrest ☐ Low GCS ☐
Ventilatory failure ☐ Hypoxia ☐ Burns ☐ Surgery ☐
Tube in situ ☐ For transfer ☐

Other
Preintubation HR BP RR SpO2
Induction ☐ IV ☐ Gas ☐ Cricoid ☐
Ventilatory Mask Ventilation ☐ Easy ☐ Difficult ☐
Impossible ☐ Complications ☐ Low BP ☐
Low SpO2 ☐ CPR ☐

Grade 1 ☐ [illegible] ☐ [illegible] ☐ 4

Tube size Tube length

Breathing Ventilator

O2 ☐ CPAP ☐ NO ☐ Aml ☐ Wat[illegible]s ☐ PV

CVS

Inotropes ☐ IABP ☐ ECMO ☐ Pacing wire ☐ VA ☐

Disability ☐ G[illegible] ☐

Pupils (mm) R L GCS/15

Plantars R L Verbal/5

Best Motor/6 R L Eyes/4

Infection status

MRABC ☐ MRSA ☐ V[illegible] ☐ C Diff

Cultures

Blood ☐ Sputum ☐ Urine ☐ CSF ☐

Positive Micro

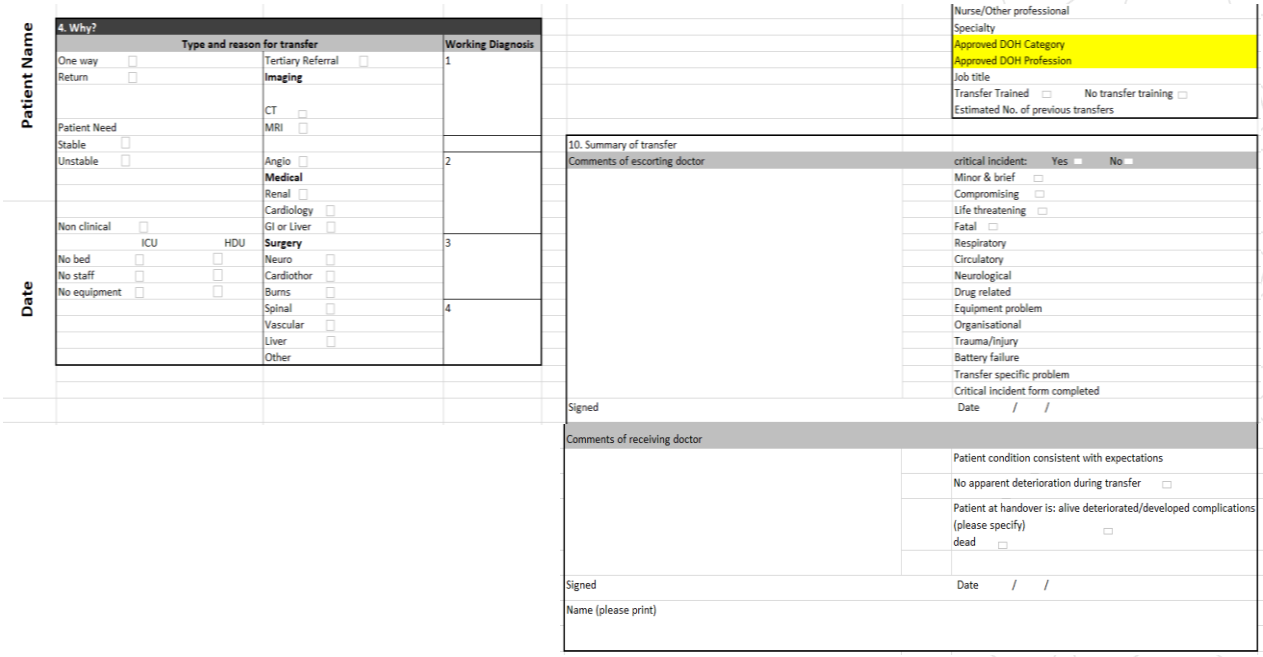
Hospital Name/Licence No.

3. When? Date & Time

		Outbound	Return
Incident	/ / :		
Arrival In Hospital	/ / :	Ambulance Contacted	:
Intubation	/ / :	Ambulance Reference	
Decision to transfer	/ / :	Ambulance ETA :	:
Recipient contacted	/ / :	Ambulance arrival :	:
Transfer agreed	/ / :	Depart referring :	:
Patient Name		Arrival at destination	:

9. Escort Personnel

Doctor
Specialty
Approved DOH Category
Approved DOH Profession
Job title
Transfer Trained ☐ No transfer training ☐
Estimated No. of previous transfers



8.12 Appendix 12 - Record for Emergency Patient Transfers (Receiving Facility):

Hospital Name:
License Number:
Contact Name:
Contact Number:
Contact Email ID:

S. No	Patient Name	Patient Medical Record No.	Patient DOB dd/mm/yyyy	Patient's Nationality	Patient's Mobile No.	Diagnosis		Name of referring Hospital	Referral form received Y/N	Transfer record form received Y/N	Reason for Transfer (justification)				
						Referring hospital	Receiving hospital				Patient's need for specialized care/procedure Y/N	Non Availability of beds in referring hospital Y/N	ineligible for treatment in referring hospital (e.g. Insurance) Y/N	personal preference Y/N	Others
1															
2															
3															

Patient transferred by Ambulance Y/N	Timeframes						Patient condition was stable		Feedback form sent to referring facility Y/N	Comments
	Date of transfer requested dd/mm/yy	Time of transfer requested 00:00	Date of transfer accepetd dd/mm/yy	Time of transfer accepetd 00:00	Date of takeover dd/mm/yy	Time of takeover 00:00	At time of take over Y/N	Upon discharge Y/N		

8.13 Appendix 13 – Post Transfer Feedback Report:

Completed by (Name of licensed professional)				
Receiving Facility Name and Location				
Referring Facility Name and Location				
Designation of professional	☐ ER	☐ Critical care	☐ Ward	☐ Other

Please rate the following according to your experience with the Referring Facility and Staff:

Indicator	Rating				
	Very poor	Poor	Fair	Good	Excellent
Service from referring facility - Overall	☐	☐	☐	☐	☐
Timeliness					
In Correspondence	☐	☐	☐	☐	☐
In action Taken	☐	☐	☐	☐	☐
Staff of referring facility					
Cooperation	☐	☐	☐	☐	☐
Knowledge	☐	☐	☐	☐	☐
Attitude	☐	☐	☐	☐	☐
Clarity in communication	☐	☐	☐	☐	☐
Professionalism	☐	☐	☐	☐	☐

Please give your overall opinion of the referring facility:

☐ Very helpful

☐ Neutral

☐ Minor Variation from standards and procedures

☐ Major Variation from standards and procedures

If any variation to the required policies & procedure, give further information:

_____

_____

_____

Recommendations for development and continuous improvement:

_____

_____

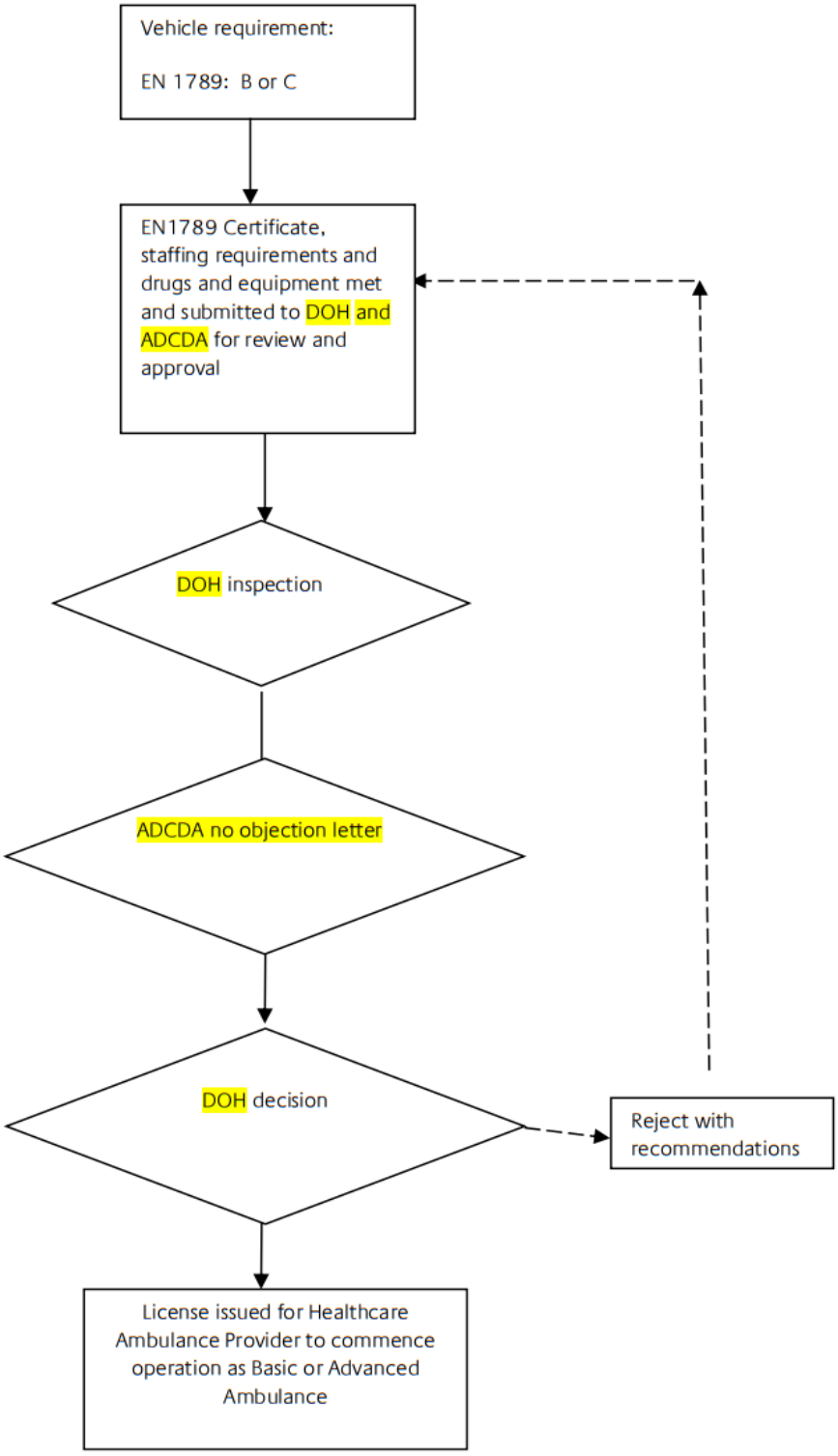
_____

Signature: _____

Date: _____

Contact Telephone No: _____

8.14 Appendix 14 - Ambulance Services Licensing Flow Chart:



8.15 Appendix 15 - Ambulance Services Key Performance Indicators (KPI's):

Key Performance Indicators	
Dispatch Log and Reporting Requirements	A dispatch log for all ambulance requests will be maintained detailing as aminimum, the following information: 1. Date of call; 2. Call time; 3. Call location; 4. Call back number; 5. Reporting Party; 6. Call Type or Chief Complaint; 7. Unit level sent (ALS or BLS) and identification of ambulance sent; 8. Patient differential diagnosis and acuity 9. Enroute to Scene Time (time the assigned ambulance beginsresponse to the call location); 10. Response Upgrade or Downgrade Time: The time a responding ambulance response priority is upgraded or downgraded; 11. Arrived at Scene Time: The time the assigned ambulance arrives atthe requested call location or the scene; 12. Start of Transport Time: The time the ambulance begins patientTransport; 13. Transport Destination: The destination of the ambulance; 14. Transport Mode: Response mode used in transport to destination; 15. Destination Arrival Time: The time the ambulance arrives at theDestination; 16. Available for Response Time: The time the ambulance is available forservice or subject to dispatch for a subsequent call; 17. Relevant Dispatch and Response Details: The ambulance provider shall have the ability to keep information on all call cancellationsprior to or during response; 18. Patients not transported: Patients not transported; delayed duringresponse; and back up ambulance response information will be provided; and 19. Report on patient satisfaction of the Ambulance Service.