



Ministry of Health
Republic of Maldives

National Standard for Ambulance Services in the Maldives

Republic of Maldives



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1.0 INTRODUCTION

The Ministry of Health of Republic of Maldives has the responsibility of regulating ambulance service providers, practitioners, and vehicles functioning within the country. This includes both ground, sea and air ambulance services. This National standard for Ambulance services outlines minimum requirements for providing ambulance services in the country, with the aim of formulating minimum requirement for establishing specific requirements for different types of ambulance vehicles operating within the country. This standard will also outline required technical competencies for ambulance staff.

All emergency medical vehicles (ground, sea and air ambulances, emergency first responders and sprint vehicles) shall fulfill requirements stipulated in this standard to be licensed by Ministry of Health.

2.0 DEFINITIONS

For the purpose of this standard the following terminologies are used.

"Ambulance" means any authorized emergency vehicle, equipped with warning devices, designed and operated as a part of a regular course of conduct or business to transport a sick or injured individual or which is advertised or otherwise held out to the public as such. "Ambulance" shall not mean a hearse or other funeral home vehicle utilized for the transportation of the deceased.

"Sea ambulance" means a ship or boat which has a single hull of not less than seven meters in length and which is lawfully authorized to be used as an ambulance with emergency medical equipments.

"First responders" means who is among those responsible for going immediately to the scene of an accident or emergency to provide assistance. This could be Maldives Red Crescent (MRC) vehicles.

"Sprint vehicles" means any emergency vehicle with fully visual and audible warning signals operated by a certified ambulance service. These vehicles will attend to the scene before the ambulance arrives.

"Ambulance service" or "ambulance service provider" means any person, firm, association, or government entity owning, controlling, or operating any business or service which furnishes, operates, conducts,

maintains, advertises, engages in, proposes to engage in, or professes to engage in the business or service of transporting, in ambulances, individuals who may need medical attention during transport.

“In-charge medical practitioner” refers to a medical practitioner holding the qualifications and performing the roles and responsibilities of handling emergency patients.

“Attending physician” refers to the physician/doctor who is attending the patient on site and until being transferred to a health facility.

“Paramedic/nursing staff” refers to a trained and skilled professional who is educated to give emergency care in the prehospital stage

“Ambulance attendant” means the person assisting in the ambulance who has basic knowledge of first aid with moving and lifting of a patient.

“Driver” means a licensed driver employed for driving ambulance vehicles with basic first aid skills.

Note: For the purpose of this standard, the following terminologies are used.

“must” means that compliance with requirements is mandatory for compliance with this standard and the unit cannot omit or use part of those points;

“shall” means that compliance with a requirement or a test is mandatory for compliance with this standard;

“may” is used to describe a permissible way to achieve compliance with a requirement or test.

3.0 RESPONSIBILITIES

The government and private entities, and the teams of ambulance service provision shall adhere to the following responsibilities.

Name	Responsibility
Ambulance Service Provider	<ol style="list-style-type: none">1. Ensures all mandatory requirements stipulated in this standard are fulfilled.2. Ensure legal standards stipulated by Transport Authority of Maldives are fulfilled including vehicle registration, driver's license, and vehicle insurance, before any vehicle is being added to the fleet.3. Ambulances which do not meet requirements of Transport Authority of Maldives shall be removed from the fleet.4. Equip ambulances in accordance with classification/category of the ambulance.5. Shall adhere to the lifespan and roadworthiness requirements of ambulance prescribed by the Transport Authority of Maldives.6. Develop qualification and job descriptions for all category of staff of ambulance.7. Ensure all types of emergency kits are ready to use in an easily accessible area.8. Ensure all required medical/clinical staff are employed according to the classification/category of the ambulance.9. Allocate marked parking space with easy access to Emergency Room.10. Develop and enforce plan for preventive maintenance (PM) in accordance with manufacturer's instructions.11. Keep record of vehicle/ equipment non-conformities and remove them from service.

	<p>12.Ensure that the ambulances are duly equipped and carry the required supplies stipulated in this standard.</p> <p>13.Handling emergency calls and keep record of call logs received</p> <p>14.Develop road and vehicular safety standards to ensure that patients and the ambulance service staff are protected from unnecessary risks.</p> <p>15.Develop and enforce policies for:</p> <ul style="list-style-type: none"> i. Use of sirens and beacons in the event of emergencies. ii. Physical health and immunization requirements for all cadre of staff. iii. Preventive maintenance requirements iv. Infection prevention and control policies v. Response plan for hazardous situations <p>16.Set up a compatible communication system for ambulance drivers via VHF or a cell phone.</p>
<p>In-charge medical practitioner/Attending physician</p>	<ol style="list-style-type: none"> 1. Plan and organize ambulance services including allocation of staff to attend emergencies according to the severity of the case. 2. Attend and treat casualties onsite or enroute to a health facility. 3. Develop all required protocols and procedures, and review on regular basis. 4. Develop a system for performance monitoring, reporting and evaluation of ambulance staff.
<p>Paramedic and Nursing staff</p>	<ol style="list-style-type: none"> 1. Ensure availability and functionality of all emergency equipments/kits before attending to an emergency. 2. Provide clinical interventions on the scene and treat until transferred to a health facility. 3. Document treatments provided during transfer and communicate onsite and during transfer care provided with ER care team.

Ambulance attendant	<ol style="list-style-type: none"> 1. Escort with the driver to emergency scene. 2. Assess the patient and provide onsite first aid treatment until being transferred to a health facility.
Drivers	<ol style="list-style-type: none"> 1. Communicate and coordinate with relevant people/call centre to ensure ambulance reaches the right place and at the right time. 2. Conducts mandatory daily performance checks of the ambulance/vehicles stipulated in annex 1 of this standard. 3. Safe transportation of patients to health facilities. 4. Incident reporting.

4.0 CLASSIFICATION

All vehicles used for the purpose of attending to emergencies are classified into 2 main categories. They are Advanced Life Support (ALS) ambulance and Basic Life Support (BLS) ambulance.

4.1 Advanced Life Support Ambulance (ALS ambulance)

Advanced life support ambulances are dispatched for critically injured people or those who require specialized medical care during transport. Sometimes these ambulances are referred to as “mobile ICUs” due to the advanced medical equipment on board. ALS ambulances have crews with advanced medical training for treating patients with severe injuries or serious medical conditions. All ALS ambulances shall fulfill the following requirements:

- 4.1.1 Shall meet technical specification of ambulance vehicle stipulated in annex 2 of this standard
- 4.1.2 Shall have clinical and other staff members stipulated in section 5 of this standard.
- 4.1.3 Shall have all emergency kits, equipment, drugs and other consumables stipulated in annex 3 of this standard.

4.2 Basic Life Support Ambulance (BLS ambulance)

A BLS is utilized in situations where a patient is not suffering from a life-threatening condition or injury. Crews are trained to administer first aid and control minor bleeding while preparing the patient for transport to a hospital. They are also trained to assess the patient's condition and, if necessary, summon an advanced life support ambulance. BLS ambulance shall also meet technical specification requirements as ALS ambulance. However, the 2 subcategories of BLS ambulances does not require to fulfill technical specification stipulated in this standard.

Basic life support vehicles are further categorized into 3 sub categories.

4.2.1 First responders:

First response vehicle means any privately or publicly owned vehicle which is used solely for the transportation of patients from a scene of an accident to a health facility. The crew members are trained to give basic first aid.

First responder vehicles shall fulfill the following criteria:

5. Markings on the front and back to caution other vehicles on the road.
6. Each side of the patient compartment shall have logo of the facility or organization.
7. Retro reflective strips on the sides and back of the ambulance.
8. Have first aid and lifting and moving equipments
9. Driver and the assistant shall have basic first aid knowledge.
10. Shall use sirens and beacons to caution other vehicles on the road.

4.2.2 Buggy ambulance

The buggy ambulances operated in Maldives shall fulfill specifications stipulated in annex 4 of this standard and shall fulfill the following standards.

- i. Shall have vehicle registration from Transport Authority of Maldives.
- ii. Shall have provisions for the Stretcher, first aid and other emergency box, Uro bag holder, IV fluid holder, and secure cart for oxygen cylinder.

4.2.3 Sprint vehicles:

Means any emergency vehicle with fully visual and audible warning signals operated by a certified ambulance service, the primary purpose of which is to respond to the scene of a medical emergency to provide emergency medical stabilization or support, or command, control, and communications, but which is not an ambulance designed or intended for the transport of a patient regardless of its designation. Examples of this category of vehicles are Buggy used in resorts for patient transfer, and motor cycle used in greater male' area to attend to emergencies before the ambulance arrives, or used to access patients in narrow roads.

5.0 STAFF MEMBERS FOR AMBULANCE SERVICES

All ambulance service providers shall ensure the following staff members are available and the staff shall fulfill below mentioned criteria.

5.1 *Emergency physician/attending physician (not required for first responder and sprint vehicles)*

- i. Shall have registration and valid registration and practicing license from Maldives Medical and dental Council.
- ii. Category 1 and 2 vehicles

5.2 *Paramedic/nursing*

- i. Shall have valid registration and practicing license from their respective council of Ministry of Health.

- ii. Shall have certificate of BLS and ALS certification from a recognized certification body

5.3 Ambulance assistant

- i. Shall have valid registration and practicing license from their respective council of Ministry of Health.
- ii. Shall have basic first aid skills

5.4 Driver

- i. Shall have a valid driving license from Maldives Transport Authority
- ii. Shall have basic first aid skills and periodic refresher training
- iii. Shall not have any record of traffic infringement
- iv. Shall be subject to drug and alcohol tests as per guideline from the ambulance service provider and when required.

6.0 REFERENCES

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Annex 1: Daily performance checks, Safety equipments and preventive maintenance checks

Safety Equipments	Mandatory performance checks of ambulance
Flash light Operational 10L MFDA approved dry chemical fire extinguisher	Basic functioning of ambulance should be checked daily for things like lights, siren, tyre pressure, fuel etc. These checks must be documented.
For each crew member One hard hat One set of eye protection One safety vest and gloves	
Tire changing toolkits 3-m set of booster cables Fan belt Hand tools consisting of the following <ul style="list-style-type: none"> a. Combination screwdriver b. 25-cm crescent wrench c. 15-cm pair of pliers d. Hammer e. Hacksaw with 3 spare blades 	

Annex 2: Technical specification of ALS and BLS ambulance

Description	Specification
Type	4-wheel 4x2 Drive, RHD, High Roof Microbus Ambulance. Dual Air condition System, enough internal space for medical staff to be in upright position for treating patients.
Torque (Nm/rpm)	(min) 240 / 3800
No. of Passengers and set arrangements	Seating for minimum two in front (including 1 passenger and 1 driver), and minimum seating for 3 attendants at the rear.
Drive system	4x2 wheel drive
Fuel tank capacity	(min) 60 liters
Brakers	Front and Rear
Overall length	4600-5400 mm
Overall width	1600 – 2100 mm
Overall height	1900 - 2800 mm
Cargo area height	(min) 1300 mm
Windows	Sliding windows on each side with frosted glass (white)
Standard fitting for ambulance	<ul style="list-style-type: none"> • Beacon light bar (Red and blue) fitted on the roof. • One Main Roll in stretcher with safety belts/ patient restraining straps (min 190x50x90 cm) Min Weight (180 Kgs) High quality aluminum Shock absorbing feature Heavy duty wheel with lock feature • One folding type portable sub stretcher. • Siren with amplifier & speaker with continuous warbling sound • Wash basin with water container (min) 10 liters (1 Clean water tank/ 1 waste water tank)
Features of safety measures	<ol style="list-style-type: none"> 1. Fire extinguisher (1 KG) 2. Three-point seat belt for driver & front passenger

	<p>3. Seat belts and grab handles available for passengers at the back seat</p> <p>4. Secure and restraining strips for all heavy equipments (like oxygen cylinders) intravenous injection stand, first aid kit, trauma pads, etc.</p>
Electric system	12-volt accessories power output
Passenger door (side)	Sliding door
Back door	Lift up type
Rear view mirror	Manual/ automatic
Communication	Two-way radio communication (UHS, VHF)
Emblems and markings	<ul style="list-style-type: none"> • Emblems and markings shall be of the type, size and location as follows: • Front and back: The word "AMBULANCE", minimum of 10 cm in height, shall be in mirror image (reverse reading) for mirror identification by drivers ahead. • Side: Each side of the patient compartment shall have logo of the health facility. • Retro reflective strips on the sides and back of the ambulance.

Annex 3: Standard equipment list for Ambulance

			ALS	BLS
Airway & Breathing	Airway & Breathing			
	1	Oxygen light weight cylinde	1	1
	2	Nasal cannula	5	5
	3	Face mask	5	5
	4	Non-rebreather face mask	5	5
	5	Nebulizer mask	5	5
	6	Oropharyngeal airway (set of all sizes)	1	1
	7	Nasopharyngeal airway (set of all sizes)	1	1
	8	Bag valve mask device (adult)	2	2
	9	Bag valve mask device (paediatric)	1	1
	10	i-Gel (mac 1,2,3,4,5)	1	
	11	Portable suction device	1	1
12	Portable ventilator	1		
Circulation	Intravenous access			
	13	IV cannula (24G, 22G, 20G, 18G, 16G)	3	
	14	Sterile dressing for IV line	5	
	15	IV infusion set	3	
	16	Syringe (3ml,5ml,10ml)	3	
	Defibrillators & Cardiac monitors			
	17	Automated External Defibrillator (AED)		1
	18	AED pads		1
	19	Manual defibrillator (for ALS ambulance)	1	
	20	Defib pads	1	
	21	ECG leads	1	
	22	Cardiac transport monitors (for BLS ambulance)		1
23	End tidal CO2 sensor and adapter	1		
24	Automatic CPR device	1	1	

Diagnostics		Diagnostics		
	25	Blood glucometer	1	1
	26	Strips for glucometer	1	1
	27	Stethoscope	1	1
	28	Penlight with pupil gauge	1	1
	29	BP pressure unit (sphygmomanometer)	1	1
	30	Fingertip pulse oximeter	1	1
	31	Digital thermometer	1	1
	32	Filter for digital thermometer	10	10
		Resuscitative Drugs		
	33	Inj Adrenaline	20	
	34	Inj Atropine	5	
	35	Inj Phenergan	3	
	36	Inj Tranexamic acid	3	
	37	25% Dextrose	2	
		Nebulization drugs		
	38	Salbutamol respirator solution	2	
	39	Ipratropium respirator solution	2	
		Analgesia		
	40	Inj Diclofenac	10	
	41	Inj ketorolac	10	
		Fluids		
	42	IVF NS	10	
	43	IVF DNS	10	
		Others		
	44	Inj Emeset	10	
	45	Inj Pantaz	10	
46	Inj Rantac	10		

		First Aid		
	47	Bandages - various sizes	5	5
	48	Fingertip Bandages	5	5
	49	Knee/Elbow Bandages	5	5
	50	Gauze Pads - assorted sizes	5	5
	51	Gauze Rolls	5	5
	52	Adhesive Tape Roll	2	2
	53	Eye Bandage	3	3
	54	Medical Gloves box (sizes: S, M, L)	1	1
	55	Heavy duty Scissors	2	2
	56	Waterproof Tape	2	2
	57	Pressure Bandages	3	3
	58	Instant Cold Packs	2	2
	59	Safety Pins	10	10
	60	Triangle Bandages	3	3
	61	Emergency thermal blanket	5	5
	62	Dressing tray	1	1
	Immobilization	63	Povidone	1
64		Spirit	1	1
65		Dustbin for biohazard	1	1
		Immobilization and transportation devices		
66		Hard cervical collar (adult)	2	1
67		Hard cervical collar (paediatric)	2	1
68		Head and neck immobilizer	1	1
69		Backboard/ Spine board with straps	1	1
70		Vacuum splint	1	1
71	Stair chair	1	1	

	72	Kendrid extrication device	1	1
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Annex 4. Specification of buggy ambulance

The buggy ambulances operated in Maldives shall fulfill specifications stipulated in annex 4 of this standard and shall fulfill the following standards.

- i. Shall have vehicle registration from Transport Authority of Maldives.
- ii. Shall have provisions for the Stretcher, first aid and other emergency box, Uro bag holder, IV fluid holder, and secure cart for oxygen cylinder.
- iii. Shall fulfill below specifications.

Specification of buggy ambulance.

Engine	
Model	Any (nay model compatible with our environment)
If fully electrical system	Motor 33V/25A or \geq
If engine hybrid system	1 hour or \geq
Vehicle charging	6 hours or \geq
Fuel type	Petrol
Body configuration	
Front gear and wiper	Acrylic organic transparent glass or \geq
Body and roof	PP plastic front body and rear body. FRP roof
Waterproof cart (rain cover)	Should be foldable transparent materials and protected from all sides Covered with canvas and easily zipped when required.
Windshield	Organic plastic windshield, split
Frame	Welded steel framework, with anti-rust treatment of acid washing, phosphating and electro-coating
Seating capacity	2 seats with patient bed (stretcher). Rebom sponge, artificial leather + plastic armrest
Floor	Galvanized steel plate and anti-slip rubber floor mat
Body	Front cover, seat barrel & body cover are made of good material for automobile or \geq
Rear view and mirror	Left & Right-hand type external rearview mirror or \geq

Lights and warning signals	Front light. Turn signal. LED rear light, break light, 4 signal light and revising alarm, snail horn or LED 2 headlights, 2 front turn signals, 2 taillights (each combined 1 brake light with 1 turn signal), with 20A voltage reducer (converting from 72V to 12V), electric horn
Dashboard	Plastic forming instrument panel or ≥
Steering system	Two-way rack & pinion steering system, automatic clearance compensation function or ≥
Breaking system	Rear drum brake and compound pedal brake or ≥
Front rear suspension system	Spring cylinder hydraulic shock absorption or ≥
Tire dimeters	452mm, normal tire or ≥
Other features	
Standard fitting for buggy ambulance	<ul style="list-style-type: none"> • Beacon light bar (Red and blue) fitted on the roof. • One folding type portable stretcher with patient restraint straps. • Siren with amplifier & speaker with continuous warbling sound
Features of safety measures	<ul style="list-style-type: none"> • Fire extinguisher (1 KG) • Three-point seat belt for driver • Seat belts available for driver passenger at the back seat • Secure and restraining strips for all heavy equipments (like oxygen cylinders) intravenous injection stand, first aid kit, trauma kits etc.
Communication	Two-way radio communication (UHS, VHF) or cell phone
Emblems and markings	<p>Emblems and markings shall be of the type, size and location as follows:</p> <ul style="list-style-type: none"> • Front and back: The word "AMBULANCE", minimum of 10 cm in height, shall be in mirror image (reverse reading) for mirror identification by drivers ahead. • Retro reflective strips on the sides and back of the ambulance with (Ambulance) marking on it