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Americas

Emergency Medical Teams
Medical Surge

COVID-19

Technical recommendations for the configuration of a specialized Emergency Medical Team for the treatment of Severe Acute Respiratory Infection (SARI)



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ABBREVIATIONS

ASTM: American Society of Testing Materials

CGA: Compressed Gas Association

ECMO: Extracorporeal membrane oxygenation equipment

EMT: Emergency Medical Team

PPE: Personal Protective Equipment.

HEPA: High Efficiency Particle Arresting

SARI: Severe Acute Respiratory Infection

PVC: Thermoplastic material obtained from polyvinyl chloride.

Specialized EMT for SARI

DESCRIPTOR:

Provide specialized clinical care for the treatment of critical patients with severe acute respiratory infections (SARI), referred primarily from medical centers where the capacity of intensive care units has been overwhelmed by the high volume of patients.

The flexible structure of EMT-SARI also allows for the configuration of beds to treat severely ill patients requiring oxygen therapy.

KEY CHARACTERISTICS

EMT-SARIs employ portable structures ranging from tents to containers. They can be also deployed within alternative enclosed structures using prefabricated modules.

EMT-SARIs can provide up to 30 beds for critical or severely ill patients (10 beds for critical cases with suspected COVID-19, 10 beds for critical cases with confirmed COVID-19, and 10 beds for severe cases).

EMT-SARIs have a command center for coordinating day-to-day operations.

This is a modular system that can be expanded as needed by 10-bed units, amplifying its response as existing needs and resources dictate.

Configuration considerations

EMT-SARIs can be tailored to a country's needs and context and may be deployed with different configurations and treatment capacity:

Configuration 01 (20 critical + 10 severe): Treatment area for patients in severe condition (10 beds), Treatment area for critical patients with suspected COVID-19 (10 beds), and Treatment area for critical patients with confirmed COVID-19 (10 beds).

Configuration 02 (30 critical): Treatment area for critical patients with suspected COVID-19 (10 beds) and Treatment area for critical patients with confirmed COVID-19 (20 beds) or vice versa

Configuration 03 (30 severe): Treatment area for patients in severe condition (30 beds)

INDICATORS

Hospitalization capacity of 30 critical and/or severely ill patients per day.

Hours of operation: 24 hours a day, 7 days a week

STRUCTURE

FACILITIES:

Tents or containers for patient medical care, deployed to expand the physical capacity of an existing facility or appended to other EMTs with varying capacity or different levels of complexity. Prefabricated units can also be installed in facilities at alternative sites.

SPECIFICATIONS:

Tents or containers for clinical use.

Floor: Smooth, without grooves, ideally of a single piece. In isolation areas, it should be possible to install flash coving.

Walls: Smooth and seamless with the least amount of Velcro possible. If tents are used, the walls should be made of PVC or non-porous plastic that allows for better cleaning and disinfection.

Doors: Climate-controlled areas should have a fixed door with a window to enable staff to look inside, an isolation seal to control the air conditioning, and internal folding doors to separate adjacent areas.

The use of fire-retardant materials and high-traffic flooring is recommended. Facilities should be waterproof, lightweight, easy-to-clean, and able to withstand the use of hospital disinfectants.

ZONES AND APROXIMATE AREAS:

A “zone” is the grouping of areas that perform similar functions. For example, the staff living zone consists of dormitories for staff, toilets, showers, and a dining area. It contains all the related spaces for the use of facility staff.

A zone can have several modules. These functionally related areas need to be close together to properly carry out the activities. For example, the medical care zone includes the treatment module for patients in severe condition, (with a nursing station, hospitalization area, stabilization room, and instrument cleaning room) because caring for hospitalized patients requires services to be located nearby.

EMT areas: An area is any space in the facility with a designated activity, for example: hospitalization area, pharmacy area, or logistics area.

The following zones should be established, with their respective modules and areas:

1. Patient reception zone:
 - Admission and triage area
 - Patient transfer area
2. Staff entry and exit zone:
 - PPE donning area
 - PPE doffing, decontamination, and shower area
3. Medical care zone:
 - Module for patients in severe condition
 - o Stabilization and minor surgical procedure area
 - o Area for the hospitalization of patients in severe condition
 - o Nursing station

- Instrument cleaning room
- Critical patient module
 - Stabilization, minor surgical procedure, and radiology area
 - Area for the hospitalization of critical patients with suspected COVID-19
 - Area for the hospitalization of critical patients with confirmed COVID-19
 - Nursing station
 - Instrument cleaning room
- 4. Support services zone
 - Sterilization area
 - Laboratory area
 - Pharmacy area
- 5. Sanitation zone
 - Waste storage area
 - Ambulance decontamination area
- 6. Administrative zone
 - Command Post area
 - Logistics and storage area
- 7. Staff living zone
 - Dormitory area
 - Toilet and shower area
 - Dining module
 - Food preparation area
 - Dining area
- 8. Morgue zone.

This type of EMT-SARI is estimated to require a facility roughly 5,500 m² in size.

Approximate areas and their proximity to each zone can be observed in Annex No. 01

SYSTEM

INTERNAL FLOWS:

Staff and patients: Specific staff and patient flows should be established; EMTs should guarantee this to ensure the safety of both groups.

Specific flows should also be established for ambulances and staff in support services.

The recommended flow charts can be found in Annex No. 02

Sterile and contaminated or soiled material: there should be separate flows for sterile and waste material to ensure that they are not intermingled at any time. Specific collection schedules should be established. The respective diagram can be found in Annex No. 03

Water and sanitation circuits

Drinking water and gray water: The availability of drinking water will be assured, using specific equipment for quality control. Gray water will be collected in containers and repurposed after treatment with chlorine.

This water will be distributed to sinks and showers throughout the EMT.

All tents will have a sink, and in very specific cases, such as the sterilization area, the room for prewashing instruments, and the laboratory, they will have two sinks, one of them exclusively for washing materials, instruments, or sample tubes.

EMT-SARIs should have the necessary equipment for water purification and quality control.

Waste management: A specific area will be provided for storing and treating waste, employing incineration or sterilization equipment, with proper disposal in accordance with country regulations. Containers for ordinary and infectious waste will be kept in all tents in the compound.

Pharmacy waste will be treated and disposed of pursuant to current country regulations and the PAHO/WHO guidelines issued for this purpose, using the encapsulation in the absence of a specific provision.

Sanitization

Disinfection and Cleaning: A disinfection and cleaning guide should be used that follows national specifications or international guidelines.

To clean and disinfect work areas, use chlorine solutions with a concentration of 1,000 ppm, applying international standards for hospital cleaning. Hospital cleaning staff should have adequate PPE for their duties.

Several models of latrine can be used, from self-contained latrines to those with sewerage pipes; the complexity of these installations should be tailored to the configuration to be deployed. Latrine cleaning procedures will be based on national and international recommendations.

All waste in the hospitalization zone, whether from a confirmed or suspected case, shall be considered infectious and handled accordingly.

Washing of bedclothes: EMT-SARIs should ensure that they have appropriate mechanisms for washing and changing clothes for patient use or else sufficient disposable consumables.

Patient bedclothes can be discarded or washed using hot water at temperatures ranging from 65° C to 71° C for at least three minutes. If the EMT does not have an outside laundry service (hospital or private), it should have a laundry area that meets infection prevention and control requirements.

Cleaning equipment cannot be shared by the different areas.

SUPPLIES AND EQUIPMENT

CLINICAL SELF-SUFFICIENCY

Equipment

EMT-SARIs will have the medical equipment necessary to support critical patients, based on the type and number of beds allocated to each of the established zones.

Drugs and supplies

They should likewise have the drugs, consumables, and supplies needed to maintain facility operations and treat patients for at least 14 consecutive days.

Cold chain

EMT-SARIs should ensure maintenance of an adequate cold chain for specific drugs from their removal from storage to field operations, using the requisite tracking forms.

A table with suggested equipment by area can be found in Annex No. 04.

OPERATIONAL SELF-SUFFICIENCY

Water supply

Consumption is calculated at approximately 12,000 liters per day. It is advisable to maintain storage capacity of at least 50% of the water required per day.

Consumption

EMT-SARIs should ensure that they have teams with the necessary capabilities to operate the compound.

Electricity consumption in an EMT depends greatly on the use of climate control systems and/or mechanical ventilation in the tents. For a SARI like the one proposed in this document, this consumption can range from 25-30 KVA for facilities without climate control to up to 100 KVA for facilities with climate control systems in the tents for admitted patients. The EMT logistician must base estimates of electricity consumption on the configuration and final outfitting of the facility.

Proportionately, diesel fuel consumption can range from 1,000 to 8,000 liters every 14 days; thus, logistical preparations must be made for fuel supply, storage, and distribution.

CLIMATE CONTROL AND MEDICAL GASES:

Climate control and ventilation

EMT-SARIs will follow the recommendations of the WHO “Natural Ventilation for Infection Control in Health-Care Settings” manual to ensure that, insofar as possible, air circulation of 160 l/s/patient can be maintained in the rooms of patients admitted with severe acute respiratory infections, ensuring at least a minimum of 80 l/s/patient.

This ventilation can be provided naturally, creating air currents that permit circulation. Natural ventilation can be provided simply by taking advantage of wind direction in two ways: opening the windows of the facility, creating cross currents, or opening the two doors of the facility, creating a unidirectional flow parallel to the facility's corridor. In the absence of wind, convection currents can be used if the facility has an air vent in the ceiling, opening the side windows and allowing the warming air to rise and escape through the tent chimney and/or air vent.

In any case, it is important to prevent staff and patients from accessing the tent exit area, keeping them at least two meters away, since that is where microdroplets accumulate in the currents that are generated. When natural ventilation is provided, the current's exit points will be marked to keep people from passing through this area.

If they have the capacity, EMT SARIs can install forced ventilation systems using electric exhaust fans although they are difficult to use in tents. This type of ventilation facilitates that the airflow can exit directly to the exterior but it is important to know that unless the exhaust fans are equipped with HEPA filters the system requires a sealed off safe zone (a minimum distance of two meters from the air exit point).

EMT-SARIs will attempt to guarantee climate control in patient isolation and treatment areas and must guarantee it in the critical areas of operation that they deem pertinent. Insofar as possible, air conditioners with HEPA filters should be used.

Annex No. 05 contains a table with recommendations on ventilation and climate control and suggested types of equipment.

If the EMT-SARI is set up within an existing enclosed space, it will have to ensure that the space has sufficient natural or forced ventilation systems for this type of center.

Medical Gases

EMT-SARIs should guarantee oxygen and medical air supply under the proper conditions and the monitoring of each patient throughout the mission.

Oxygen: From 30% to 100% in flowmeters and ventilators in the case of critical patients.

EMT-SARIs should guarantee that they have the equipment and controls required for the administration of gases.

Simultaneity factor: 75%. Airflow through the ventilator of 3.5 standard cubic feet per minute. Consider 1,000 cubic feet per month per bed. Regulator valve: the size of the valve is obtained by dividing the amount of oxygen per month by four.

The network should consist of a valve or head that runs from the source to the patient.

In mobile units (tents), properly secured oxygen tanks should be placed beside the patient. When access to the oxygen supply is limited, the EMT should have enough oxygen concentrators to meet oxygen therapy needs.

In the case of containers or prefabricated units: The tubing network should consist of seamless cold-drawn tubes compliant with ASTM standard B 819, Standard Specification for Copper Tube for Medical Gas Systems; this should be type L copper. This tubing should bear the factory name with any of the following legends: "OXY," "MED," "OXY/MED," "OXY/ACR," or "ACR/MED" in blue (Type L). The tubes, valves, accessories, outlets, and other tubing components in the medical gas systems should arrive clean from the factory for oxygen service, in compliance with CGA G-4.1 Cleaning Equipment for Oxygen Service. Accessories will be permitted to arrive clean from a distributor or agency other than the manufacturer.

Medical Air: Simultaneity factor: 75%. Airflow through the ventilator of 3.5 standard cubic feet per minute (only if the ventilator requires medical air). The network can be supplied from a source consisting of a medical air compressor and a tubing network. The amount of medical air will be determined by multiplying the number of ventilators to supply by 3.5

cubic feet per minute, and the compressor size will have a capacity sufficient to handle the flow of medical air obtained from multiplying 3.5 scfm by 0.75 by the number of ventilators.

It is recommended that EMTs deployed with tents, whose ventilators may require medical air, use duly secured oxygen tanks placed beside the patient.

In containers: The tubing network should be constructed with seamless cold-drawn tubes compliant with ASTM standard B 819, Standard Specification for Copper Tube for Medical Gas Systems; this should be type L copper. This tubing should bear the factory name with any of the following legends: “OXY,” “MED,” “OXY/MED,” “OXY/ACR,” or “ACR/MED” in blue (Type L). The tubes, valves, accessories, outlets, and other components of the tubing in the medical gas systems should arrive clean from the factory for oxygen service in compliance with CGA G-4.1 Cleaning Equipment for Oxygen Service. Accessories will be allowed to arrive clean from a distributor or agency other than the manufacturer. The compressor should be at least a double compressor mounted on a receiver tank to guarantee duplication for reliability.

STAFF

EMT-SARIs should ensure that for each shift they have the right personnel, with training and experience in the management of this type of patient.

- **Intensivist physician:** One for every 10 critical patient beds
- **Physicians,** preferably with a specialty consistent with the need:
 - o One physician for every 10 beds for patients in severe condition
 - o One physician for every 5 beds for critical patients
- **Nursing staff** specializing in intensive or emergency care:
 - o One professional nurse for every two critical care beds
 - o One professional nurse for every five beds for patients in severe condition

Note: for every 10 beds for critical patients, one of the professional nurses should have ample intensive care experience.

- **Auxiliary nurse:** Six for each EMT-SARI.
- **Respiratory therapy technician:** One technician for each area for the hospitalization of critical patients
- **Radiology technician:** One for each EMT-SARI.
- **Pharmacist:** One for each EMT-SARI.
- **Pharmacy technician:** Two for each EMT-SARI.
- **Clinical laboratory technician:** Two for each EMT-SARI.
- **Medical records technician:** One for each EMT-SARI.
- **Cleaning and disinfection staff:** Six for each EMT-SARI.
- **Support staff:**
 - o One **person in charge of store logistics** for each EMT-SARI.
 - o One **electromechanical maintenance technician** for each EMT-SARI; two should be provided during the initial days of the EMT's operation
 - o One **medical equipment technician** for each EMT-SARI.
 - o Two **WASH technicians** for each EMT-SARI.

It is also necessary to plan the rotation of the different teams throughout deployment to ensure the sustainability of the mission. The EMT should have a contingency plan to adjust shifts and ratios to the availability of national professionals.

DESIGN

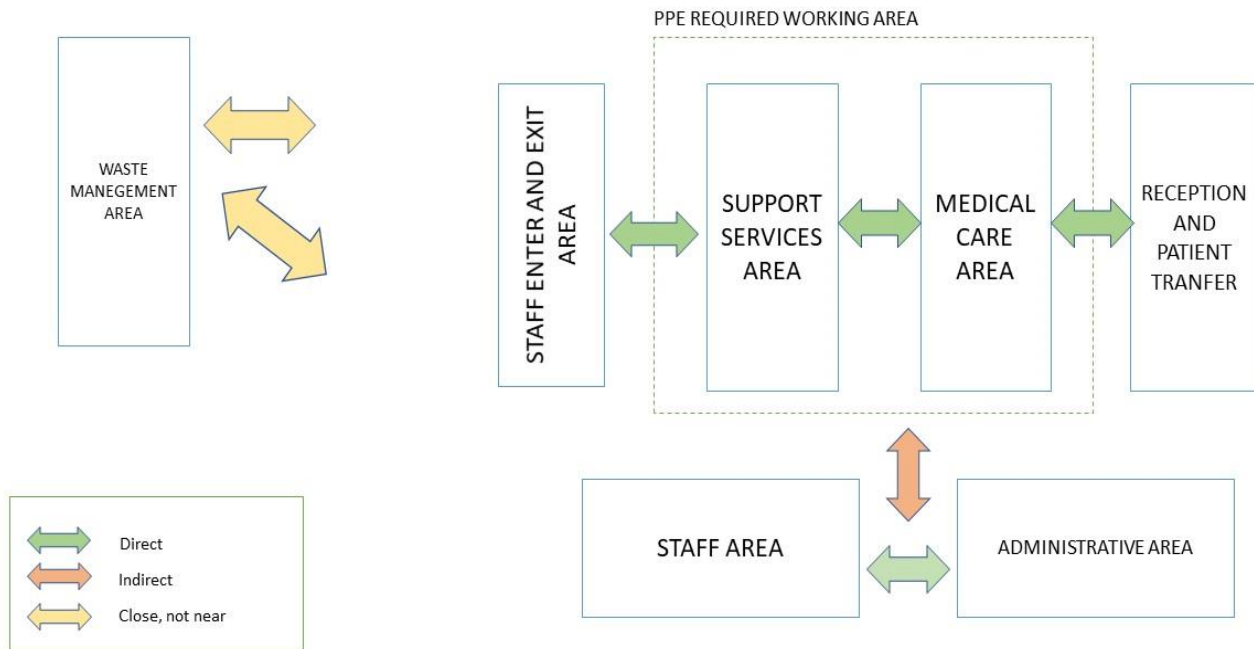
EMT-SARIs should prepare a diagram of their compound showing the spaces, capacities, and location of electromechanical systems, adapting it to the selected deployment site.

An example can be found in Annex No. 06

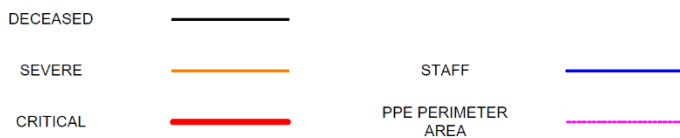
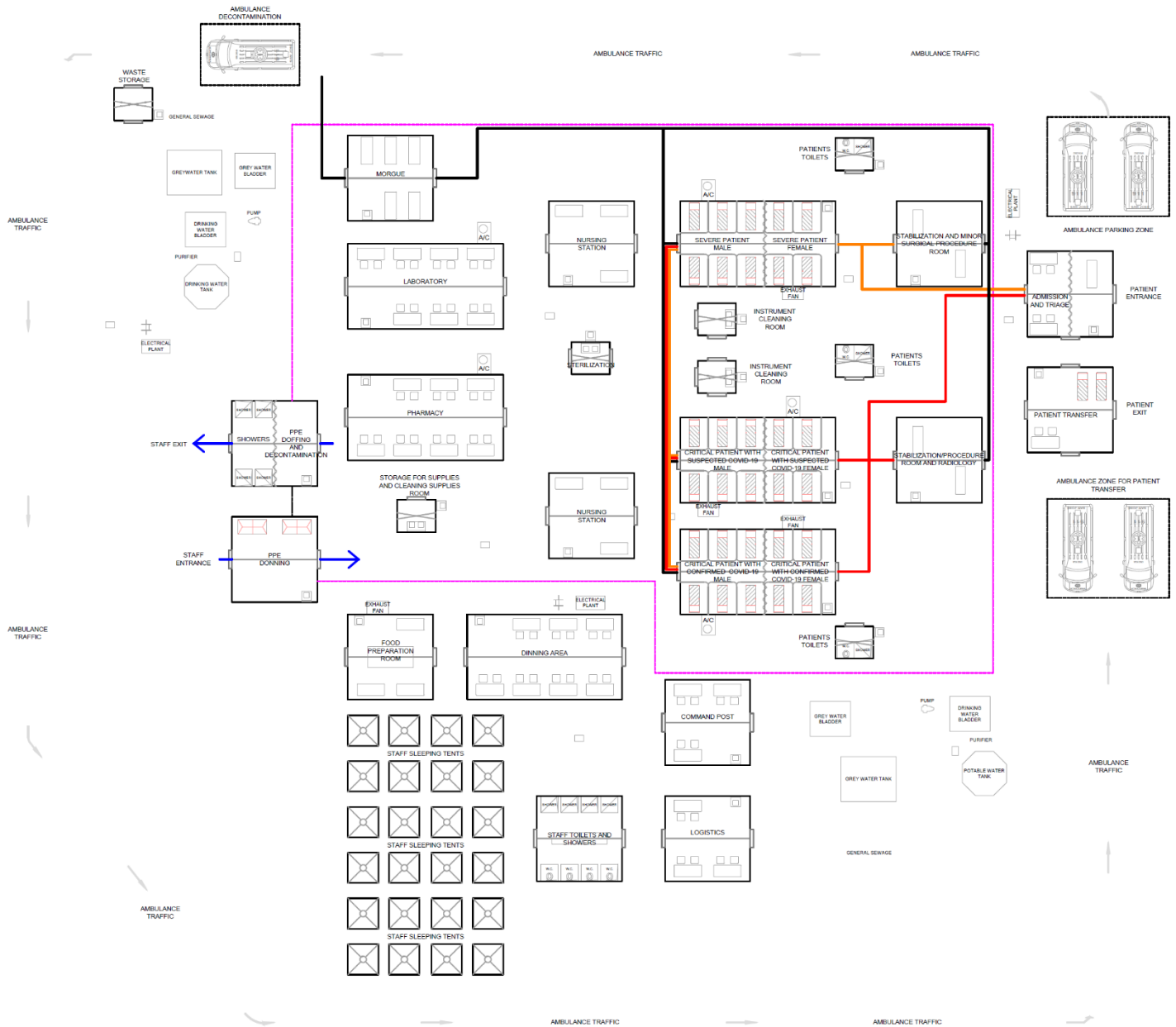
ANNEX NO. 01: ZONES AND APROXIMATE AREAS

Zone	AREA	MINIMUM SPACE
Patient reception zone		
	Triage area	30 m ²
	Patient transfer area	30 m ²
Staff entry and exit zone		
	Entry and donning of personal protective equipment	30 m ²
	Decontamination and shower area	30 m ²
Medical care zone		
Isolation module for the care of patients in severe condition	Stabilization and minor surgical procedure area	23 – 25 m ²
	Hospitalization area	70 - 75 m ²
	Nursing station area	23 – 25 m ²
	Instrument cleaning area	23 – 25 m ²
	Patient hygiene centers	23 – 25 m ²
Isolation module for the care of critical patients	Stabilization and minor surgical procedure area	23 – 25 m ²
	Hospitalization area	70 - 75 m ²
	Nursing area	23 – 25 m ²
	Instrument cleaning room	23 – 25 m ²
	Patient hygiene centers	23 – 25 m ²
Support service zone		
	Sterilization area	23 - 25 m ²
	Laboratory area	50 – 54 m ²
	Pharmacy area	50 – 54 m ²
Sanitation zone		
	Waste storage area	23 – 25 m ²
	Ambulance decontamination area	40 m ²
Administrative zone		
	Command Post area	23 – 25 m ²
	Logistics area	50 – 54 m ²
Staff living zone		
	Staff dormitory area	100 m ²
	Shower area	50 – 54 m ²
	Toilet area	50 – 54 m ²
	Kitchen area	50 – 54 m ²
	Dining area	50 – 54 m ²
Morgue zone		
	Morgue area	23 – 25 m ²

PROXIMITY OF AREAS

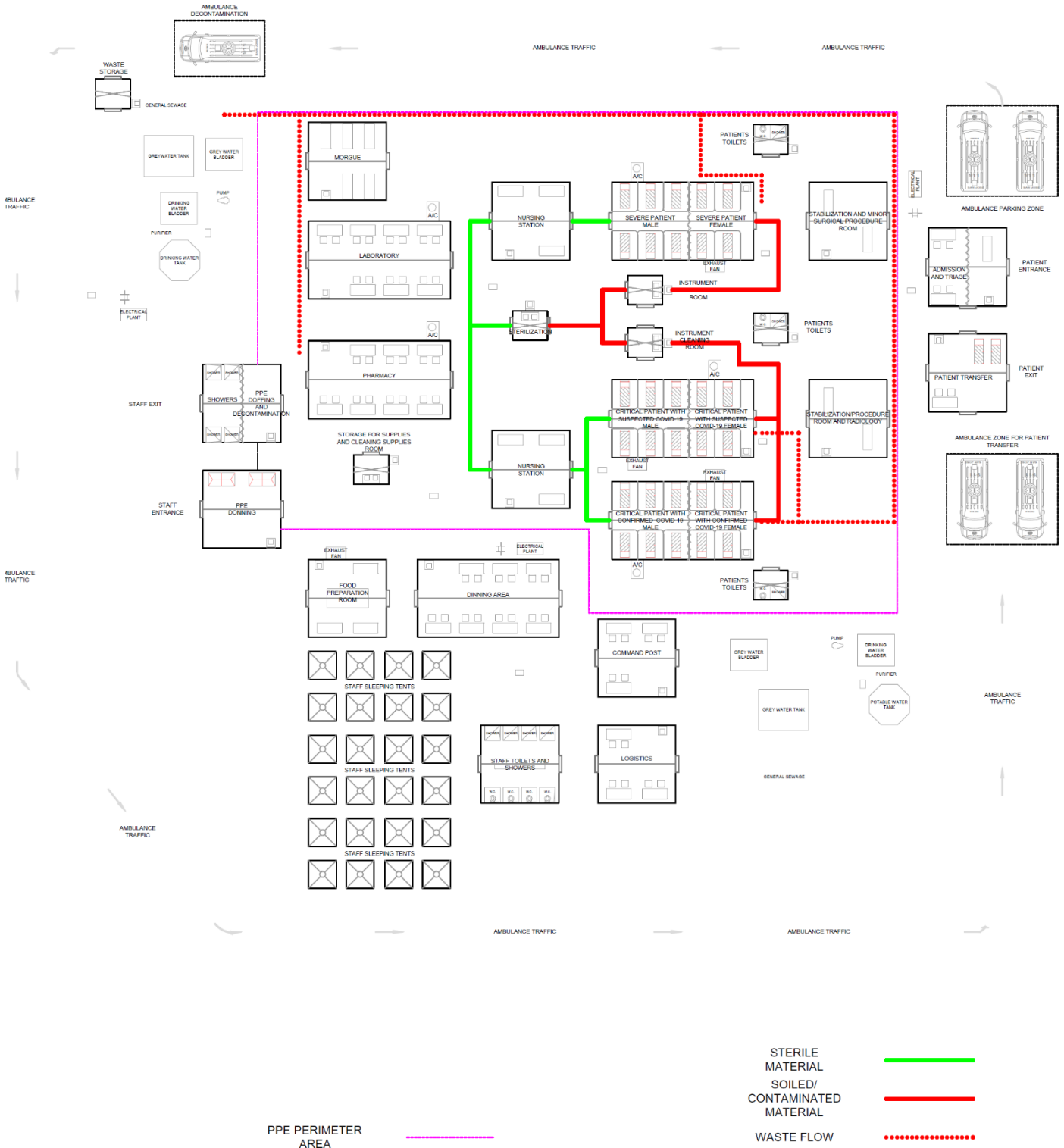


ANNEX NO. 02: PATIENT AND STAFF FLOW CHART



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ANNEX NO. 03 STERILE AND SOILED/CONTAMINATED MATERIALS FLOW



ANNEX NO. 04 SUGGESTED EQUIPMENT

ZONE	AREA	EQUIPMENT
Patient reception zone	Triage area	1 desk 2 chairs 1 digital sphygmomanometer 1 digital thermometer 1 supply organizer 1 ordinary waste container 1 pulse oximeter
	Patient transfer area	1 desk 2 chairs 2 transport stretchers
Staff entry and exit zone	Area for entry and donning of personal protective equipment	1 set of shelves for personal protective equipment 2 chairs 1 full-length mirror 1 surgical scrub sink 1 ordinary waste container
	Decontamination and shower area	1 container for disposable garments 1 chair 1 full-length mirror 1 decontamination shower Regular shower Staff toilets
Medical care zone		
Isolation module for the care of patients in severe condition	Stabilization and minor surgical procedure area	1 transport stretcher 1 surgical lamp 1 vital signs monitor 1 adult/pediatric transport respiratory ventilator 1 defibrillator 1 cardiopulmonary crash cart 1 electrocardiograph 1 supply organizer 1 instrument table 1 IV holder 2 syringe pumps 1 oxygen concentrator (based on the availability of oxygen tanks) 1 surgical aspirator 1 video laryngoscope 2 oxygen tanks 1 surgical scrub sink 1 infectious waste container 1 pulse oximeter
	Hospitalization area (Separate areas for men and women)	10 transport stretchers, with 2 m of separation between beds 10 divider curtains 10 IV holders 10 respiratory ventilators 20 syringe pumps or infusion pumps 10 oxygen concentrators (based on the availability of oxygen tanks) 10 vital signs monitors 10 pulse oximeters 30 oxygen tanks (based on consumption estimates) 4 supply organizers

		1 sink
	Nursing area	1 desk 2 chairs 1 set of shelves for supplies 2 transport cases with drawers for supplies 1 defibrillator 1 cardiopulmonary crash cart 1 ECMO (optional) 2 digital thermometers 2 glucose meters 1 refrigerator for drugs 1 work table 1 surgical ink 1 infectious waste container
	Instrument cleaning area	1 surgical scrub sink 1 ordinary sink 1 stainless steel work table 1 infectious waste container
	Patient hygiene centers	Shower Toilets Waste containers Sink
Isolation module (x2) for the care of critical patients with confirmed COVID-19	Stabilization and minor surgical procedure area	1 transport stretcher 1 surgical lamp 1 vital signs monitor 1 adult /pediatric transport respiratory ventilator 1 defibrillator 1 cardiopulmonary crash cart 1 electrocardiograph 1 portable digital x-ray machine 1 supply organizer 1 instrument table 1 IV holder 2 syringe pumps 1 oxygen concentrator (based on the availability of oxygen tanks) 1 ultrasound scanner 1 surgical aspirator 1 video laryngoscope 2 oxygen tanks 1 surgical scrub sink 1 infectious waste container
	Hospitalization area (Separate areas for men and women)	10 transport stretchers, with 2 m of separation between beds 10 divider curtains 10 IV holders 10 respiratory ventilators 20 syringe pumps or infusion pumps 10 oxygen concentrators (depending on the availability of oxygen tanks) 10 vital signs monitor 10 pulse oximeters 30 oxygen tanks (based on consumption estimates) 4 supply organizers 1 sink

	Nursing area	<ul style="list-style-type: none"> 1 desk 2 chairs 1 set of shelves for supplies 2 transport cases with drawers for supplies 1 defibrillator 1 cardiopulmonary crash cart 1 ECMO (optional) 2 digital thermometers 2 glucose meters 1 refrigerator for drugs 1 work table 1 surgical scrub sink 1 infectious waste container
	Instrument cleaning area	<ul style="list-style-type: none"> 1 surgical scrub sink 1 simple sink 1 stainless steel work table 1 infectious waste container
	Patient hygiene centers	<ul style="list-style-type: none"> Shower Toilets Waste containers Sink
Support service zone	Sterilization area	<p>Area for the reception of soiled and prewashed material:</p> <ul style="list-style-type: none"> 1 double surgical scrub sink 1 stainless steel table 1 chair <p>Packaging:</p> <ul style="list-style-type: none"> 1 stainless steel work table Paper dispenser <p>Sterilization:</p> <ul style="list-style-type: none"> 2 tabletop sterilizers 1 stainless steel cooling table 1 bag sealer 1 set of shelves for sterile material 1 sink Waste containers
	Laboratory area	<ul style="list-style-type: none"> 2 work tables 4 swivel benches 4 portable analyzers 4 thermoses for sample transport 10 test tube racks for test tubes 1 ordinary sink 1 double sink for instruments and/or samples 1 infectious waste container.
	Pharmacy area	<ul style="list-style-type: none"> 1 table 4 chairs 1 refrigeration chamber for drugs. 1 refrigeration chamber for biologicals. 2 refrigeration chambers for transport Miscellaneous shelving. 1 environmental thermometer 1 hygrometer

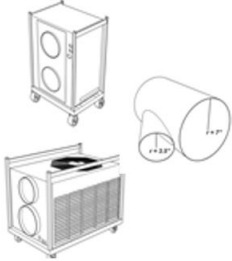

		<ul style="list-style-type: none"> 1 label-maker 1 plastic bag sealer Benches 1 sink 1 ordinary waste container
	Kitchen	<p>KITCHEN</p> <p>WASHING OF KITCHENWARE</p> <ul style="list-style-type: none"> 1 deep sink 1 stainless steel table 1 ordinary waste container <p>FOOD PREPARATION</p> <ul style="list-style-type: none"> 1 electric or gas stove 1 food preservation chamber 1 industrial rice cooker 1 microwave 1 cooler 1 industrial percolator 1 stainless steel table 1 deep sink 1 set of shelves 1 sink 2 ordinary waste containers <p>PANTRY</p> <ul style="list-style-type: none"> 1 stainless steel table 1 set of shelves Benches 1 freezer 1 refrigeration chamber Cabinet for kitchenware
	Dining area	<ul style="list-style-type: none"> 2 tables that seat six 12 chairs 1 sink 1 ordinary waste container
Staff living area (for international EMTs and, if applicable, national EMTs)	Staff dormitories (Separate for men and women)	Individual sleeping tents for each member of the EMT if they do not have local lodging.
	Showers	Shower
	Toilets	<ul style="list-style-type: none"> Waste containers Sink

ANNEX NO. 05 CLIMATE CONTROL AND VENTILATION AREAS

Zone	Area	CLIMATE CONTROL AND VENTILATION
Patient reception zone	Triage area	Natural ventilation.
	Patient transfer area	Natural ventilation or climate control with air conditioning, if desired.
Staff entry and exit zone	Entrance and donning of personal protective equipment	Natural ventilation or climate control with air conditioning, if desired.
	Decontamination and shower area	Natural ventilation or climate control with air conditioning, if desired.
Medical care zone		
Isolation module for the care of patients in severe condition	Stabilization and minor surgical procedure area	Natural ventilation or climate control with air conditioning, if desired.
	Hospitalization area (separate areas for men and women)	Negative pressure should be generated through the use of air conditioning systems with a HEPA filter and air extraction. In the case of containers or fixed installations, air conditioning systems with a HEPA filter can be installed and the use of wall exhaust fans adopted. When the air conditioners do not have a HEPA filter, the air entering the hospitalization areas must not be recycled but entirely fresh
	Nursing station	Natural ventilation or climate control with air conditioning, if desired
	Instrument cleaning area	Natural ventilation or climate control with air conditioning, if desired
	Patient hygiene centers	Natural ventilation
Isolation area for the care of critical patients with suspected COVID-19	Stabilization and minor surgical procedure area	Natural ventilation or climate control with air conditioning if is desired
	Hospitalization area (separate areas for men and women)	Negative pressure should be generated through the use of air conditioning systems with a HEPA filter and air extraction. In the case of containers or fixed installations, air conditioning systems with a HEPA filter can be installed and the use of wall exhaust fans adopted. When the air conditioners do not have a HEPA filter, the air entering the hospitalization areas must not be recycled but entirely fresh
	Nursing area	Natural ventilation or climate control with air conditioning, if desired.
	Instrument cleaning area	Natural ventilation or climate control with air conditioning, if desired.
	Patient hygiene centers	Natural ventilation
Isolation area for the care of critical patients with confirmed COVID-19	Stabilization and minor surgical procedure area	Natural ventilation or climate control with air conditioning, if desired.
	Hospitalization area (separate areas for men and women)	Negative pressure be generated through the use of air conditioning systems with a HEPA filter and air extraction. In the case of containers or fixed installations, air conditioning systems with a HEPA filter can be installed and the use of wall exhaust fans adopted. When the air conditioners do not have a HEPA filter, the air entering the hospitalization areas must not be recycled but entirely fresh
	Nursing station	Natural ventilation or climate control with air conditioning, if desired.
	Instrument cleaning room	Natural ventilation or climate control with air conditioning, if desired.
	Patient hygiene centers	Natural ventilation
Support service zone	Sterilization	Negative pressure be generated through the use of air conditioning systems with a HEPA filter and air extraction. In the case of containers or fixed installations, air conditioning systems with a HEPA filter can be installed and the use of wall exhaust fans adopted. When the air conditioners do not have a HEPA filter, the air entering the hospitalization areas must not be recycled but entirely fresh
	Laboratory	Negative pressure be generated through the use of air conditioning systems with a HEPA filter and air extraction. In the case of containers

		or fixed installations, air conditioning systems with a HEPA filter can be installed and the use of wall exhaust fans adopted. When the air conditioners do not have a HEPA filter, the air entering the hospitalization areas must not be recycled but entirely fresh
	Pharmacy	Air conditioning with temperature and humidity control
	Kitchen	Natural ventilation Exhaust fan
	Dining area	Natural ventilation
Staff living zone	Staff dormitories (separate areas for men and women)	Natural ventilation
	Showers	Natural ventilation
	Toilets	Natural ventilation
OTHER	Morgue	Air conditioning
	Waste storage	Natural ventilation

TYPES OF EQUIPMENT THAT CAN BE USED

TYPE OF EQUIPMENT	DESCRIPTION
	PACKAGE-TYPE AIR CONDITIONING WITH EXHAUST SYSTEM.
	WALL EXHAUST FAN, WHEN PACKAGE-TYPE AIR CONDITIONING SYSTEMS ARE NOT AVAILABLE.

ANNEX NO. 06 LAYOUT



PPE PERIMETER AREA

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