



**World Health
Organization**

Regional Office for the Eastern Mediterranean

Post Disaster Rapid Hospital Assessment

Saint Georges University Hospital Report

Prepared by: New Health Concept



This document was prepared as an activity of the World Health Organization (WHO) to assess the damaged hospitals post the Explosion of Port Beirut on August 04, 2020 that have damaged major medical centers in the region of Beirut.

This report is intended to present the assessment held to the damaged hospital: “**Saint Georges University Hospital**” in the region of Achrafieh (*Youssef Sursock Street*).

A overall “engineering assessment” will be presented, followed by an assessment as per the “Post Disaster Rapid Hospital Assessment – Hospital Administrator” tool, adapted from the WHO PAHO Checklist which includes sections on Structural (S), Non-structural (N) and Functional Capacity (F) of the hospital.

In addition, photos from each hospital were taken and added as support documents.

Assessment team:

- The assessment was coordinated by Dr Nagi Souaiby for the ministry of public health (MOPH), under the support of the World Health organization (WHO)
- The assessment team included the following experts: a nurse, a civil engineer, a biomedical engineer, a medical doctor as per below details.

Name	Function	Contact number	Email address
Nagi Souaiby*	Physician	+961 3 845 127	nagisouaiby@yahoo.com
Lina Aoun Choueiry	Nurse	+961 3 936 488	Lina.aoun@laumcrh.com
Elias Raad	Biomedical engineer	+961 3 106 190	elias.raad@laumcrh.com
Christel Chweih	Civil engineer	+961 70 841 129	christel.chweih@gmail.com

Building Description:

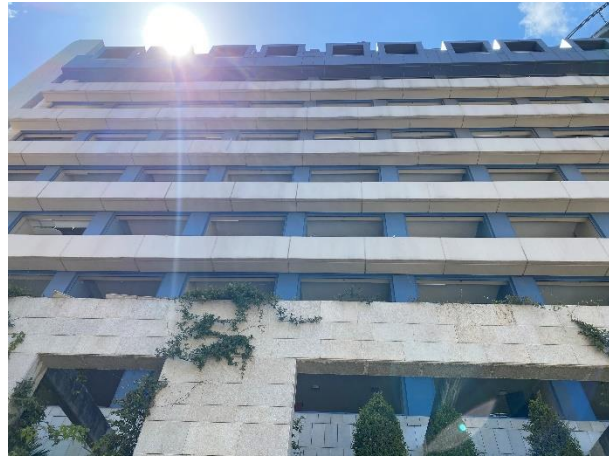
The Hospital building consist of:

- Five underground basements: 4 basements for Hospital Medical Services and 1 basement for Hospital Technical services.
- Ground Floor: Entrances, Administration, Staff services, Medical Services.
- Nine Upper Floors: Medical Services, Patient Rooms, Clinics, etc.
- Roof with Heli-Pad.

A site tour was held - in presence of the Head of Engineering Department - in the hospital building to check the damages occurred from the explosion.

Reference to the site inspection and the visual intensity of damages in the different section of the buildings, we have noticed that the major damages increase while going up from the GF to the upper floors and decrease while going down in the basement's floors.

Firstly, the building Facades are totally damaged. All the windows and doors located on the facades are a total loss; the glass is broken, the rails shows defeats in alignments, the fixation screw are dismantled from place.



Below Some Pictures Showing the broken windows at the Building Facades and the damaged alucobond cladding that risk to fall due to non-stability of fixing rails.



The roof tiles at the old Building are damaged with a high risk of fall. In addition, the remaining broken glass on windows risk to be fallen due to non-stability of rails and wind risk.





The HeliPad is currently not functional awaiting the structure testing report to check its stability and strength.

The Alucobond cladding at the pad is damaged and at risk of falling.



The civil damages to the hospital are limited to: ceiling, windows, doors, and wood/glass partitions, equipment and materials. The intensity of damages to the mentioned items increase in the upper floors and the GF.

Ceiling



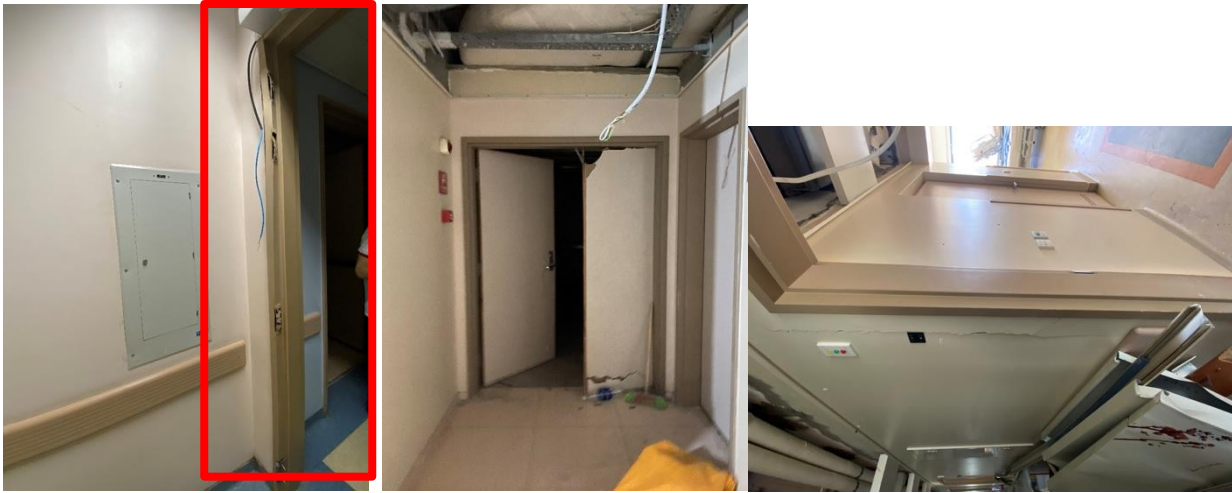
Partitions





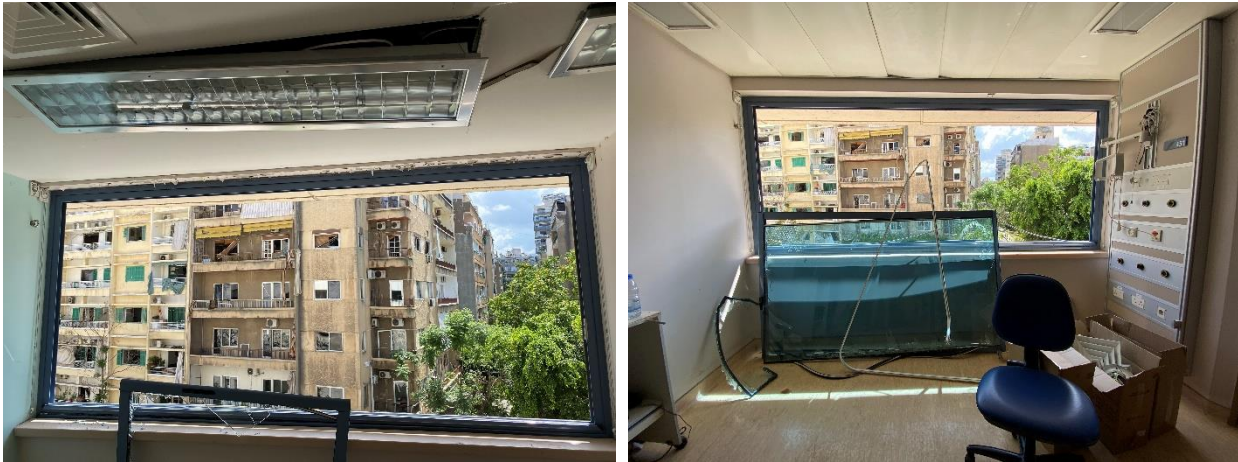
Doors:





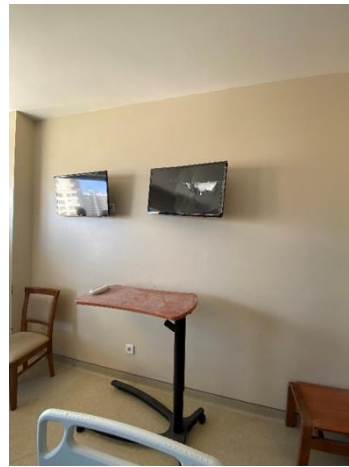
Door showing the crack of the jamb due to the high intensity of the explosion on the upper floors; the metallic door cracked the concrete jamb .

Windows:





Cabinets, equipments, Materials:





Elevators are not functional, door elevator is squeezed, cabinets are damaged and no power supply is available; the elevator require a technical inspection from supplier.



No MEP systems to floors (lighting, power, water supply):



Kitchen and Cantine:



General Information	
Assessment date	Sunday, 09 August 2020
Hospital name	Saint George University Hospital
Hospital type	<input checked="" type="checkbox"/> General <input type="checkbox"/> Specialized
Affiliation	<input type="checkbox"/> Public (Ministry of Health) <input type="checkbox"/> Public (other than MoH) <input checked="" type="checkbox"/> Private (Non-profit) <input type="checkbox"/> NGO
Bed capacity	360 (normal capacity) to 400 (with additional COVID-19 unit)
Health/clinical services provided	All general health and clinical services are provided except "Burn" and "Radiotherapy"
Hospital Condition	<input checked="" type="checkbox"/> Partially damaged <input type="checkbox"/> Not damaged
Hospital Status at the assessment time	<input type="checkbox"/> Fully Functioning <input type="checkbox"/> Partially Functioning <input checked="" type="checkbox"/> Not Functioning
Functional services at the assessment time	<input type="checkbox"/> in-patient <input type="checkbox"/> OPD <input type="checkbox"/> Lab <input type="checkbox"/> imaging <input checked="" type="checkbox"/> others (None) <i>One First Aid room at the ER is on service for local injuries during the cleaning activities</i>

S: Structural

Visual assessment of the structure.

Determine if the structure is safe

#	Safety checks	Yes	No	Observations/Comments/Actions (*)
S1	<ul style="list-style-type: none"> Is the condition of the structure adequate to allow operations to continue of an acceptable quality and in a safe manner? 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> No visual cracks or fissuration in the building structure were shown. The Structure of the Heli-pad requires a technical inspection to check its status (currently the Heli-pad is not functional) As per the Hospital' Engineer, a water leak was detected in the water tank area which might be related to possible crack in the tank structure. Partially damaged, not able to offer any service because it's not safe.
S2	<ul style="list-style-type: none"> Do we need to relocate a particular service(s) to another section of the facility, or must the service(s) be discontinued in-house and be outsourced in other hospitals? 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> Currently, all services are not functional at the Hospital. Services are currently discontinued in-house and only Dialysis and Oncology services have been outsourced in another hospital. Currently, Dialysis Oncology and Chemotherapy are outsourced to other hospitals
S3	<ul style="list-style-type: none"> Has there been any structural damage to walls and or foundations? 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> No visual damages to walls and foundations were shown. Necessary action has already been taken by the Hospital team and accordingly, the Hospital in collaboration with its structural consultant (SKP) are leading a technical inspection on the structure; the report requires one week to be issued. Based on the report result, necessary actions will be provided.

(*) Note: Observations/ Comments/ Actions: Identify the actions that must be carried out to ensure safe operations at the hospital. Provide practical recommendations based on available resource

N: Non-Structural

Assess integrity of the non-structural aspects and patient care areas				
N1	Accessibility	Yes	No	Observations/Comments/Actions
	<ul style="list-style-type: none"> ▪ Is there safe and adequate vehicular access to the hospital? ▪ Is there safe pedestrian access to the hospital? 	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<p>- The roads are clear from debris. However, the Hospital gates entrances are not safe for cars and for pedestrian especially at night due to shortage in electricity and risk of fallen pieces from building.</p> <p>- Gates shall be secured and access to the Hospital shall be limited to authorized staff only.</p> <p>- Window's frames, Alucobond Cladding and non-stable gates that risk to be fallen shall be dismantled from the facades</p>
N2	Safety of external areas	Yes	No	Observations/Comments/Actions
	<ul style="list-style-type: none"> ▪ Are parking lots cleared and safe for usage? <p>Check safety and security of hospital compound, external to buildings:</p> <ul style="list-style-type: none"> ▪ Boundary fence and gate(s) intact? ▪ Fallen power/telecomm lines and poles? ▪ External drains free from blockage? ▪ Are water tanks secured and intact? 	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>- Parking lots; Ceiling is highly damaged and no lighting for safe accessibility.</p> <p>- Only ER and Main Store Gate are damaged.</p> <p>- Neighborhood Trees has fallen</p> <p>- External Drains are physically not damaged; but requires testing to check that the connection network is functional.</p> <p>- Water leak has been detected at the water tank area; reference to the structural report result, the necessary actions shall be taken. Meanwhile, the water shall be removed to temporary tanks in order to reduce pressure on the walls in case of structural defeat.</p>
N3	Safety of internal areas	Yes	No	Observations/Comments/Actions

	<p>Check the building interior for any potential sources of injury:</p> <ul style="list-style-type: none"> ▪ Are ceilings and overhead fixtures intact? ▪ Are windows and doors secured to walls and able to close? ▪ Are shelves, equipment and materials secured from falling? ▪ Gases: Are bottles, tanks and gas links secure and without leaks? ▪ Electricals: Is the electrical supply safe and reliable? 	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<p>- Most ceilings and overhead fixtures have fallen; some of the ceiling parts were hanged back. The ceiling shall be replaced with new one; the fixed parts are not suitable for future use.</p> <p>- Windows glass is broken, doors are damaged, and locks are broken.</p> <p>- After the explosion, the gas valves were closed to prevent leakage and danger. The Gas network shall be tested. Currently no risk from gas system.</p> <p>- No electrical supply from original sources (UPS, Generators and EDL); electricity was shut down due to the explosion. Meanwhile, only temporary line was introduced for partial and basic functioning.</p>
N4	Assessment of major systems (lifelines)	Yes	No	Observations/Comments/Actions
<p>Select YES, if system is functional and, NO, if the systems are non-functional</p>				
	<ul style="list-style-type: none"> ▪ Potable water (Is safe water available in adequate quantities?) (5 litres/out-patient; 40-60 litres/in-patient/day. Additional quantities may be needed for laundry equipment, flushing toilets, etc.) ▪ Electrical generator ▪ Fire system ▪ Chillers / Boilers ▪ Fuel supplies (<i>Check for leaks in fuel storage tanks or lines</i>) ▪ Medical gases ▪ Elevators ▪ Hospital information system (HIS) <i>Check IT infrastructure</i> ▪ Wastewater system ▪ Medical waste system ▪ Air conditioning/Ventilation systems <p><u>Additional System at SGUHMC:</u></p> <ul style="list-style-type: none"> ▪ Heli-pad ▪ RO/Water Treatment ▪ Pool Therapy ▪ EDL ▪ Communication 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<p>- All the mentioned system are not functional at this stage.</p> <p>The systems requires a full technical testing to check the existing defeat in each system and the requirement for future functioning.</p>

F: Functional Capacity

Determine the functional capacity and capability of the institution. Identify the gaps. Please fill out the checklist for the departments that are present at the hospital.

Identify safe areas that can be used to increase patient care capacity (surge capacity) (e.g. use of hospital corridors, lobby and other non-essential spaces and also parking areas and open spaces).

Assessment of critical areas including equipment functionality						
F1	Emergency Room	Yes	No	Observations/quantities/Comments/Actions		
	<p>Bed capacity:</p> <ul style="list-style-type: none"> ▪ Has there been a reduction in bed capacity? (list number of beds currently available) ▪ Is there capability to increase beds/ patient care capacity? (list number of additional beds) ▪ Number of beds available 	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ The hospital is not functioning at all. Patients are transferred to other hospitals. However, they are preparing the Emergency room to be ready as priority in the shortest delays. ▪ Physical visit showed few damages, but the civil works and infrastructure works not done yet. <p>Usually, their capacity is 26 cubicles, 2 minor surgery units, 1 cast room and 10 COVID rooms</p>		
	<p>Equipment:</p> <ul style="list-style-type: none"> ▪ Vital sign monitors ▪ Sphygmomanometer ▪ Defibrillator ▪ ECG machine ▪ Pulse Oximeter ▪ Suction device and connective tubing ▪ Medical gases and regulators ▪ Stretchers ▪ Infusion pumps ▪ Arterial blood gas machine ▪ Glucometer machine ▪ Otoscope ▪ IV (intravenous) poles ▪ Xray reader ▪ other 	<input type="checkbox"/>	<input type="checkbox"/>	No. Functioning	No. Needed	<p>The biomedical engineers couldn't have the inventory and the assessment of their equipment, because of lack of power supply and the huge damage on floors.</p> <p>The staff aren't been able to have access to their files, due to the shortage of communication system and access to their electronic documents.</p> <p>SGH has 40 million\$ of equipment where 38M are located in the underground floors, and apparently they are kept not damaged. But, since the explosion lead to a power disconnection, it may affected their equipment too. On the floors all equipment were kept safe in on room to protect them from theft and external damages, until</p>

evaluation by the biomedical teams.
 Medical gases are not functioning because of massive damage of the infrastructure ; there are leaks in the main circuit and the Hospital Facilities team had to isolate each department / floor.


Supplies:

- IV fluids
- IV administration sets
- Intracaths
- Syringes / needles
- Nebulization sets
- Oxygen mask and nasal cannula
- Scalpel blades and handles
- Catheters
- Tubes
- Personal protective equipment
- Sutures
- Gloves: disposable and surgical
- Extrication collars
- Spinal boards and splints
- Bandages

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All kind of supplies are available in enough quantities



F2	Intensive Care Unit (ICU)	Yes	No	Observations/ quantities/Comments/Actions						
Bed capacity: <ul style="list-style-type: none"> ▪ Has there been a reduction in bed capacity? (list number of beds currently available) ▪ Is there capability to improvise or increase bed capacity/ patient services? (list number of additional beds) ▪ Number of beds available = 0 		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<ul style="list-style-type: none"> ▪ 16 beds not functioning at all. 2 negative pressure rooms. ▪ 5 Covid-19 unit ▪ 6 CCU ▪ 2 CSU <p>All ICUs were closed. Windows and infrastructure were damaged. No capability to open or increase patient beds in critical areas</p>						
F2	Intensive Care Unit (ICU)	Yes	No	Observations/ quantities/Comments/Actions						
Equipment: <ul style="list-style-type: none"> ▪ Ventilator ▪ Vital sign monitor ▪ Infusion pump ▪ Medical gases ▪ Medication refrigerator ▪ Defibrillator ▪ Ambu bags and mask ▪ Blood gas machine ▪ Suction device ▪ Stocked crash cart 		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">No. Functioning</td> <td style="width: 50%; text-align: center;">No. Needed</td> </tr> <tr> <td style="height: 100px;"></td> <td style="height: 100px;"></td> </tr> </table>	No. Functioning	No. Needed			<p>The equipment of the ICU were all stored in a safe room for future assessment since there is no electricity to test them (refer to pictures in ICU folder attached). We did not see any damaged equipment apart from the patient beds (attached pictures in ICU folder).</p>	
No. Functioning	No. Needed									
F2	Intensive Care Unit (NICU)	Yes	No	Observations/ quantities/Comments/Actions						
Related to NICUs:				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">No. Functioning</td> <td style="width: 50%; text-align: center;">No. Needed</td> </tr> <tr> <td style="height: 100px;"></td> <td style="height: 100px;"></td> </tr> </table>	No. Functioning	No. Needed			<ul style="list-style-type: none"> ▪ Ventilator (21) 	
No. Functioning	No. Needed									

- Same above equipment suitable for neonates
 - Incubators
- NICU equipment:
- Ventilator
 - Vital sign monitor
 - Infusion pump
 - Syringe pump
 - Medical gases
 - Medication refrigerator
 - Defibrillator
 - Ambu bags and mask
 - Blood gas machine
 - Suction device
 - Stocked crash cart



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- Vital sign monitor (9)
- Infusion pump (4/bed)
- Infusion pump (11) Syringe pump (22)
- Medical gases are not functioning because of massive damage of the infrastructure
- Medication refrigerator (1) damaged
- Defibrillator (1)
- Ambu bags and mask
- Blood gas machine (0)
- Suction device 1 per bed
- Stocked crash cart (1 /unit)

The functionality of equipment are not tested also, because they don't have electrical power. All equipment are gathered in one secured room till the biomedical engineers perform their assessment and inventory.

F3	Operating Theatre (OT)		Yes	No	Observations/ quantities/Comments/Actions						
<p>Select YES, if items are present and functional and, NO, if equipment was not available at hospital prior to event. If the items are insufficient or non-functional. please mention the number functional equipment and number of needed equipment in the comments section in front of each equipment.</p>											
	Equipment: <ul style="list-style-type: none"> ▪ Anesthetic machine ▪ Operating theatre table ▪ Defibrillators ▪ Suction device ▪ Airway equipment ▪ Operating room lights ▪ Surgical diathermy ▪ Fluid warmer ▪ Stocked crash cart ▪ Medical gases ▪ Autoclave ▪ Air condition ▪ Refrigerator 		<input type="checkbox"/>	<input type="checkbox"/>	No. Functioning	No. Needed	The OR located underground (10 rooms capacity). Physically it was preserved, and kept safe. However, all systems needs to be tested to evaluate its functionality.				
	Supplies: <ul style="list-style-type: none"> ▪ Surgical sets ▪ Airway supplies/ tubes ▪ Medication ▪ Gowns, masks and gloves ▪ Sterile instruments 		<input type="checkbox"/>	<input type="checkbox"/>	All sets and medications were kept in a secure place. Medical supplies are available in main stock.						
F4	Wards		Number of Beds		Is there adequate staff?		Is there adequate equipment?		Observations/ quantities/Comments/Actions		
			Yes	No	Yes	No					
Medical			28	✓		✓		Due to the explosion, the nursing staff lost 3 RNs and 1 PN. 12 wounded still under recovery. Otherwise, the hospital has proper number of staffing.			
Cardio			29	✓		✓					
Surgical			90	✓		✓					
Same day surgery			27	✓		✓					
OB/GYN			13	✓		✓					
Women			25	✓		✓					
Pediatrics			44	✓		✓					
Oncology adult			30	✓		✓					

Pediatric onco	10	✓		✓	
Mental health	13	✓		✓	
General	16	✓		✓	
ICU's	19	✓		✓	
NICU/PICU/ICN	15	✓		✓	

F5	Sterilization Department	Yes	No	Observations/ quantities/Comments/Actions
Select YES, if items are present and functional and, NO, if the items are insufficient or non-functional.				
	<ul style="list-style-type: none"> ▪ Autoclave machines 	✓		The CSSD consists of 3 steam sterilizer, 2 plasma, 2 washers and 2 ultrasonic units. These equipment do not suffer from any physical damage but because they are located underground, however, an operational check on the units couldn't be perform because of the absence of electricity.
F6	Dialysis	Yes	No	Observations/ quantities/Comments/Actions
Select YES, if items are present and functional and, NO, if the items are insufficient or non-functional. State in comments, if equipment was not available at hospital prior to event. □				
	<ul style="list-style-type: none"> ▪ Dialysis machine ▪ Water ▪ Water treatment (reverse osmosis) plant ▪ All dialysis supplies 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>17 units in the Hemodialysis department do not suffer from any physical damage but an operational check on the units couldn't be perform because of the absence of electricity. Also, the water and RO are down at the facility and had to be isolated.</p> <p>The dialysis is located underground which saved the equipment and machines. But, due to damages of water and RO water, it's not able to receive patients, all patients were distributed to other hospitals.</p>
F7	Blood bank	Yes	No	Observations/ quantities/Comments/Actions
	<ul style="list-style-type: none"> ▪ Refrigerated / Frozen blood products storage ▪ Blood warmers ▪ Administration sets ▪ Lab testing equipment and supplies 	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Refrigerators in the blood bank are functional. All other equipment do not suffer from any physical damage but an operational check on the units couldn't be perform because of the absence of electricity.
Assessment of ancillary services				
F8	Radiology	Yes	No	Observations/ quantities/Comments/Actions
Select YES, if items are present and functional and, NO, if the items are insufficient or non-functional. State in comments, if equipment was not available at hospital prior to event.				
	<p>Equipment:</p> <ul style="list-style-type: none"> ▪ MRI ▪ CT Scan ▪ Ultrasound ▪ General radiographic/ fluoroscopic equipment ▪ Film processor/ computerized radiography system (CR reader) ▪ Mammography system 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	All the equipment in the Radiology department do not suffer from any physical damage but an operational check on the units couldn't be perform because of the absence of electricity.

	<ul style="list-style-type: none"> ▪ Defibrillator ▪ Other(interventional...) 					
	Supplies: <ul style="list-style-type: none"> ▪ Films and Cassettes ▪ Processing equipment & chemicals ▪ Contrast media ▪ Emergency trolley 	<input type="checkbox"/>	<input type="checkbox"/>			
F9	Laboratory	Yes	No	Observations/quantity/ Comments/Actions		
<i>Select YES, if items are present and functional and, NO, if the items are insufficient or non-functional. State in comments, if equipment was not available at hospital prior to event.</i>						
	Equipment <ul style="list-style-type: none"> ▪ Hematology analyzer ▪ Chemistry analyzer ▪ Centrifuge ▪ Diagnostic kits / Reagents ▪ refrigerator ▪ Microscope ▪ Autoclave ▪ Others: 	<input type="checkbox"/>	<input type="checkbox"/>	No. Functioning	No. Needed	All the equipment in the Laboratory department do not suffer from any physical damage but an operational check on the units couldn't be perform because of the absence of electricity.
		<input type="checkbox"/>	<input type="checkbox"/>			
F10	Pharmacy	Yes	No	Observations/ quantity/Comments/Actions		
<i>Select YES, if items are present and functional and, NO, if the items are insufficient or non-functional.</i>						
	Equipment: <ul style="list-style-type: none"> ▪ Medication refrigerators 	<input type="checkbox"/>	<input type="checkbox"/>	No. Functioning	No. Needed	
	Availability of medicines based on the approved essential drug list by the Ministry of Public Health, for example: <ul style="list-style-type: none"> ▪ General/Local Anaesthetics ▪ Broad spectrum antibiotics ▪ Antihistamines ▪ Steroids and metabolic medications ▪ Gastrointestinal medicines ▪ Medicines acting on respiratory system ▪ Non-steroidal anti-inflammatory drugs ▪ Cardiac and Vascular Drugs ▪ Delivery related medicines ▪ Narcotics / Opiates ▪ Oncology medications 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	All medications are stored in a closed and secured place. Not able to evaluate physically because the responsible person wasn't on site.		
		<input checked="" type="checkbox"/>	<input type="checkbox"/>			
F11	Mortuary	Yes	No	Observations/ quantity/Comments/Actions		

Select YES, if items are present and functional and, NO, if the items are insufficient or non-functional. State in comments, if equipment was not available at hospital prior to event.

	<ul style="list-style-type: none"> ▪ Refrigerator/ freezer room ▪ Body trolley(s) ▪ All consumables 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>The mortuary is able to receive 6 bodies, and they have the needed supplies.</p> <p>Because of physical damaged rear areas, it's not functional for the time being.</p>
F12	Laundry	Yes	No	Observations/ quantity/Comments/Actions

Select YES, if items are present and functional and, NO, if the items are insufficient or non-functional. State in comments, if equipment was not available at hospital prior to event

	<ul style="list-style-type: none"> ▪ Washing machine / Dryer ▪ Flat work ironer 	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<p>- The equipment exist, they are not tested yet to check their functionality</p>
F13	Kitchen	Yes	No	Observations/ quantity/Comments/Actions
	<ul style="list-style-type: none"> ▪ Is there the ability to prepare, serve and distribute meals? ▪ Refrigerators? 	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<p>- The Kitchen and cantina are totally damaged.</p> <p>- The equipment exist but damaged, they are not tested yet to check their functionality.</p>

F14	Hygiene & Infection control	Yes	No	Observations/ quantity/Comments/Actions
	<ul style="list-style-type: none"> ▪ Has the hospital developed and implemented infection prevention and control measures? ▪ Are there written IPC SOPs? ▪ Personal protective equipment (PPE) ▪ Disinfectant 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>The hospital has a proper IC program. The hands sanitizer were placed in all areas, with instructions posted on walls in all areas regarding hand hygiene and The current staff working now, have their linen mask for protection from COVID-19</p>

F15	Medical records	Yes	No	Observations/ quantity/Comments/Actions
	<ul style="list-style-type: none"> ▪ Are patient records safe and accessible? ▪ Are patient records paper based or automated? ▪ Is there capability to develop and store records for new patients? ▪ Are patient records archives intact? 	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<p>The medical record is partially electronic, the patients' hard copies of medical record were collected from units and stored in archive. Database is available and backup secured according to nursing director says. However, they don't have any access to their files now.</p>

F16	Communication	Yes	No	Observations/ quantity/Comments/Actions
	<ul style="list-style-type: none"> ▪ Is there reliable communication available between the Hospital Emergency Operation Centre (EOC) and all staff and community? 	<input type="checkbox"/>	<input type="checkbox"/>	<p>Currently, no mean of communication except the talky walky between the crises responsible</p>

Staff availability by department

F19	Staff Availability	Yes	No	Observations/ quantity/Comments/Actions
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Select YES, if there is adequate staff available, either present at the hospital or on call and, NO, if there is insufficient staff.

<p>Staff by department:</p> <ul style="list-style-type: none"> ▪ Emergency Room ▪ ICU ▪ NICU ▪ Operating theatre(s) ▪ Sterilization department ▪ Dialysis ▪ Blood bank ▪ Radiology ▪ Laboratory ▪ Pharmacy ▪ Support and general services ▪ Hygiene & Infection Control ▪ Housekeeping & cleaning ▪ Medical Records ▪ General wards 	<ul style="list-style-type: none"> ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ □ ✓ ✓ ✓ 	<ul style="list-style-type: none"> □ □ □ □ □ □ □ □ □ □ ✓ □ □ □ 	<p>Due to the explosion, the nursing staff lost 3 RNs and 1 PN. 12 wounded still under recovery. Otherwise, the hospital has proper number of staffing.</p> <p>The infection control officer is not available because she left the country because of the last events. The ICO responsibilities are covered by the nursing supervisors.</p>
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Summary

Structural

Is the hospital structure safe to continue to be functional? Tick the appropriate box.

Safe	Partially safe	Unsafe/ need to evacuate
X		
<p>Comments: <i>Identify specific areas that are deemed unsafe and immediate action to be taken:</i> <i>The hospital is safe except that there are still broken glass and materials that might be dangerous for healthcare workers, patients and visitors.</i></p>		

Non-Structural

Assessment of the integrity of the non-structural aspects of the hospital; whether they are safe and functional, partially functional or unsafe or non-functional. Tick the appropriate box.

Non-structural aspect	Safe and functional	Partially safe/ partially functional	Unsafe/non-functional	Comments/immediate action
Accessibility		x		
External areas and parking lots		x		
Internal areas		x		
Major systems (lifelines)			X	

Functional

Assessment of the current functionality and capability of the hospital. If the department does not exist at the hospital, leave blank.

Overall bed capacity of the hospital:	
Number of functional beds prior to the event:	360 extended to 400 with the COVID pandemic
Number of functional beds after the event:	0
Can bed capacity be increased? If yes, by how many beds:	First step (one month), make functional the ER (with 26 cubicles, 2 minor surgery units, 1 cast room and 10 COVID rooms) and the technical supportive departments (Labs and imaging)
Staff availability at the hospital:	

Comments: *Identify immediate staff requirements (not currently available) per department to ensure normal operations:*
The nursing staff lost 3 RNs and 1 PN. 12 wounded still under recovery.
Many residents and students are injured
13 physicians are injured among them 3 to 4 severely affected.
But, the hospital has enough number of staffing to gradually recover activities.

Critical functional areas	Functional	Partially functional	Non- functional	Comments/immediate action
Emergency room, ER				
Intensive Care Unit, ICU				
Neonatal ICU (NICU)				
Operating theatre(s), OT				
Sterilization department				
Dialysis				
Blood bank				
Auxiliary functional areas	Functional	Partially functional	Non- functional	Comments/immediate action
Radiology				
Laboratory				
Pharmacy				
Mortuary				
Laundry				
Auxiliary functional areas	Functional	Partially functional	Non- functional	Comments/immediate action
Kitchen				
Housekeeping and cleaning				
Medical records				
Communication				
Others				

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Immediate action in order of priorities:

Remove glass, rubble and debris.

Check functionality of equipment that were not checked.

Check major systems: Gas, ventilation

Make the ER and related technical services (Labs and imaging) functional first

Please provide roughly estimated cost for different components proposed in the tool:

Civil engineering work: estimated USD 8,925,000.00

Biomedical services / medical machines: Not tested yet but apparently minor damages