



Exploration & Production

GENERAL SPECIFICATION

Medical

GS EP MED 060

Onsite medical structures

02	08/2009	General revision
01	10/2005	Addition of EP root to document identification
00	11/2004	First issue
Rev.	Date	Notes



Contents

1. Purpose.....	3
2. References documents.....	3
3. Definition of medical structures	4
4. Construction and layout of medical structures.....	6
4.1 Complex medical structure	6
4.2 Simple medical structure	19
4.3 First-aid station	21
5. Specific equipment and furniture for medical structures.....	22
5.1 Complex medical structure	22
5.2 Simple medical structure	29
5.3 First-aid station	32
6. Small non-consumable equipment.....	32
6.1 Simple and complex structures.....	32
6.2 First-aid station	33
7. Consumables.....	34
7.1 Simple and complex structures.....	34
7.2 First-aid station	38
8. Initial supply of drugs	38
9. Gynaecology – Obstetrics supplies.....	64
9.1 Gynaecological equipment	64
9.2 Obstetric equipment.....	64
9.3 Gynaecological - Obstetric drugs.....	65
10. Paediatric supplies.....	67
10.1 Equipment.....	67
10.2 Drugs	68
Appendix 1 Temperature conditions	74
Appendix 1 Temperature conditions	76



1. Purpose

The purpose of this General Specification is to define requirements and recommendations for the construction, layout and equipping of onshore and offshore onsite medical structures.

2. References documents

The reference documents listed below form an integral part of this General Specification. Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published at the effective date of the CONTRACT.

Standards

Reference	Title
Not applicable	

Professional Documents

Reference	Title
Report N° 343	Managing health for field operations in oil & gas activities, OGP, May 2003

Regulations

Reference	Title
Code de Travail (2008 edition) (French legislation)	Title 1: The client's obligations for the design of workplaces (article R 4211 and following) Title II: The employer's obligations for the installation of workplaces. Chapter1: General provisions (article R 4221)
SI 1976/1019	The offshore installations (operational safety, health and welfare) Regulations 1976 (amendment of regulations 4&5, 14&15, schedule 1, schedule 4 in SI 1998/2306)
SI 1999/3242	The management of health and safety at work Regulations 1999 (amendment of regulation 22 in SI 2006/438)

Codes

Reference	Title
Not applicable	

Other documents

Reference	Title
ICRP Publication 103	Recommendations of the International Commission on Radiological Protection, 2007

Total General Specifications

Reference	Title
GS EP CIV 403	Temporary construction camps and associated facilities (onshore)
GS EP ENV 001	Environmental requirements for projects design and E&P activities
GS EP ENV 421	Landfill design and operation for E&P sites
GS EP HVA 100	Basis of design
GS EP HVA 202	Air handling unit(s) (AHU)
GS EP HVA 211	Electrical heaters
GS EP MED 061	Medical support for E&P sites
GS EP MED 062	Hygiene on bases and living quarters
GS EP MED 063	Specific risks: clinical and therapeutic elements
GS EP SAF 221	Safety rules for buildings

3. Definition of medical structures

Three standard facilities are possible:

- A complex medical structure with a complete medical service that can support several thousand people.
- A simple medical structure that meets the needs of an offshore platform or a small onshore site.
- A first-aid station: auxiliary structure at a worksite run by a first-aid worker, intended to offer routine medical care to complement the primary structure.

As these complex and simple structures have a modular layout, an intermediary structure may be put together with only the required modules.

There is no standard layout for a first-aid station. This structure may be installed in a container, in a room in a building, in a temporary worksite area, etc. Only its equipment and a few minimum fittings are laid out in detail in § 4.3.

Table 1: Minimum surface areas recommended by structure type

Type of structure	Min. surface area	Ratio Surface area:occupant	Complex structure	Simple structure	First-aid station
Sector Entrance, Consultation, Routine and Emergency Care					
Entrance + Welcome desk According to expected number of patients/visitors	9 m ²	0.50 m ² to 1.00 m ² per pers	According to POB	-	-
Waiting room According to number of people waiting = number of doctors holding consultations x 3	6 m ²	0.50 m ² to 1.00 m ² per pers	According to POB	-	-
Consultation area - Office - Consulting room (square) According to number of doctors holding consultations	10 m ² + 9 m ² (3X3m)	1 office + examining room per doctor	According to POB	Office 12 m ²	15 m ²
Treatment area - Routine treatment room - Medical equipment storage - Toilets - Emergency room according to number of emergency beds - Emergency equipment storage	24 m ² 10 m ² 6 m ² 20 to 25 m ² 15 to 20 m ²		40 m ² 35 to 45 m ²	15 m ²	
Additional testing sector					
Laboratory + optional sector (bacteriology+virology)	12 m ² + 9 m ²		21 m ²	-	-
Radiology room	25 m ²		39 m ²	-	-
Development room	12 m ²				
Changing room	2 m ²				

Hospitalisation sector					
Single room (multiply by the selected number)	15 m ²	Chosen according to evacuation possibilities	According to number of beds chosen	-	-
Twin bed room (multiply by the selected number)	20 m ²			-	-
Observation room	15 m ²		15 m ²	8 to 10 m ²	-
On-call room	15 m ²		15 m ²	-	-
Staff toilets	6 m ²		6 m ²	-	-
Kitchen area	6 m ²		6 m ²	-	-
Linen room	6 m ²		6 m ²	-	-
Logistical support sector					
Pharmacy	20 m ²		20 m ²	6m ²	-
Secretariat	10 m ²		10 m ²	-	-
Medical record storage	2 m ²		According to POB	-	-
Staff Changing rooms - toilets	8 m ²		8 m ²	-	-
Dirty linen room	4 m ²		According to POB	-	-
Cleaning products storage	4 m ²		According to POB	-	-
Waste disposal area	2 m ²		According to POB	-	-
Mortuary	15 m ²	-	15 m ²	-	-
Total surface area by type of structure	-	-	According to selected modules	41 to 43 m ²	15 m ²

The following requirements and recommendations concern the layout and functional organisation of these structures. Buildings shall comply with the General Specifications on construction **GS EP CIV 403** and **GS EP SAF 221**, and the specifications listed in appendix 1 of this document.

4. Construction and layout of medical structures

4.1 Complex medical structure

This structure is divided into four sectors:

- Entrance – consultations – routine and emergency care
- Additional testing
- Hospitalisation
- Logistical support

4.1.1 Entrance – consultation – care sector

4.1.1.1 Access to the medical centre

Onsite, the medical centre shall be recognisable and its access shall be clearly indicated. Nearby utility areas include:

- a garage for ambulances

- a staff car park
- access to the emergency department entrance through a covered walkway
- satisfactory lighting particularly for the emergency room entrance
- external signage.

The entire medical structure shall be accessible to disabled people.

4.1.1.2 Welcome area – functional analysis

When a large number of consultations is expected (> 50 per day), patients and visitors shall be welcomed to the medical centre by a person in charge of directing them (emergency room, waiting room, secretariat), proceeding with administrative formalities (registration, retrieval of medical record) and notifying healthcare personnel if necessary.

The welcome desk is an easily accessible place at the structure's entrance. Indoor signage shall be clear.

4.1.1.3 Access doors

Preferably located on the same level as the access road, these shall be double doors, so that a stretcher carried by four people (1.60 m) can easily pass through. If the door and the road are not on the same level, a ramp will be provided for allowing access for trolleys.

The lighting shall be adequate. The floor shall be skid-proof and a sound (and light) call system shall be in place.

4.1.1.4 The entrance

It is a heavy traffic area and gives access to the waiting room and the care and hospitalisation rooms.

It has the following characteristics:

- preferably located on ground level
- minimum 9 m²
- floor covering that resists heavy traffic
- an adequate quality and quantity of natural and artificial lighting
- is clear of obstacles so that a stretcher with four carriers can pass through, particularly toward the emergency room if that does not have its own entrance.

4.1.1.5 Hallways and passageways

They shall have:

- sufficient width to take stretchers: minimum net width: 1.60 m
- protected walls and corners

4.1.1.6 The welcome desk

When a large number of consultations is expected (> 50 consultations per day), a welcome area adjacent to the entrance and/or waiting room shall be installed. People entering shall present themselves here upon arrival.

It has the following characteristics:

- a surface area of at least 10 m²
- floor covering that resists heavy traffic
- windows and general lighting (double glazing or double windows in countries with risk of sandstorms)
- electrical outlets for a desk lamp and IT equipment
- a telephone socket.

This area may be part of the waiting room.

4.1.1.7 The waiting room

It shall be located near the consultation rooms.

Its size depends on the number of healthcare personnel holding consultations at the same time: 0.50 m² to 1.00 m² per person in the waiting room.

In some countries, waiting rooms for men and women shall be separated.

The waiting room shall have:

- natural or artificial, and preferably indirect, lighting (double glazing or double windows in countries with risk of sandstorms)
- floor covering that resists heavy traffic
- heating and/or air-conditioning generating temperatures as set out in appendix 1
- toilets with separate facilities for men and women may be attached. These toilets may be accessed from the waiting room and are separated from the waiting room by a space equipped with washbasins.

4.1.1.8 The consultation area – functional analysis

There are a series of steps involved in a medical consultation:

- Welcoming of the patient by the doctor: the doctor (or the healthcare worker holding the consultation) is responsible for welcoming the patient. The desk shall therefore be positioned in such a way that allows him/her to approach the patient.
- The patient's history is taken in the doctor's office and demands absolute confidentiality, hence the importance of having good soundproofing.
- The clinical examination is conducted in the examining room, which shall be large enough to walk around the examination couch (room measuring at least 3 x 3m).
- Prescription: this is a conclusion directing the patient to outpatient treatment or hospitalisation and sometimes further tests.

- Patient departure: after the consultation, the patient may:
 - o simply leave the medical centre
 - o retrieve medicine from the treatment room
 - o be given care or further tests
 - o be hospitalised.

4.1.1.9 The consultation area – layout

- Access to the consultation area shall be strictly controlled by the secretarial staff. Avoid providing patients with direct access without passing through the secretariat.
- The consultation area is divided into two parts – the office and the examination room – which, if possible, are separated by a partition to keep the medical examination private. In these two parts, the floor covering shall be resistant to heavy traffic and the walls shall be covered with soothing-coloured paint or a soothing-coloured washable material.
- The heating and/or air-conditioning shall generate temperatures as set out in appendix 1.
- There are double windows or double glazing in countries with a risk of sandstorms.
- The office shall hold two people in addition to the doctor. Its recommended surface area is 10 m². It has windows with blinds. The lighting shall be adequate. It also has electrical outlets close to the desk (for desk lamp, IT equipment and mobile telephone and radio chargers), telephone sockets and an IT network cable.
- The examining room, with a near-square surface area of 9 to 12 m², has windows with opaque glass and blinds and general lighting such as natural light. It also has:
 - o a washbasin with a supply of hot and cold water, controlled if possible by a pedal or motion detector, a liquid soap or dry soap dispenser and a hand towel dispenser;
 - o electrical outlets for general use and others near the examining table for medical devices.

4.1.1.10 The treatment area – functional analysis

This is the area where medical and paramedical personnel can administer outpatient care, give treatment and perform further tests. It is divided into a waiting room (optional), a treatment room and auxiliary areas.

The interview and paramedical examination take place in the treatment room, where care and further tests are also performed. All administered care is recorded in the medical record or on a computer file.

After they are used, instruments are cleaned in the treatment room's sink. They are then sterilised. Then this equipment is stored in the treatment room's cupboards.

Soiled consumables are thrown into waste bins and medical refuse collectors that undergo special treatment (evacuation to an approved treatment centre or incineration).

The waiting room, when one exists, separates consultants from patients waiting to be treated. It is adjacent to the treatment room.

The treatment room plays five roles:

- administration of care (including minor surgery)
- cleaning of small equipment
- storage of routine equipment and drugs
- receipt of medical prescriptions for delivery to the patient
- updating of medical records.

A sound system connecting the room with the rest of the medical centre may be installed.

The areas attached to the examination room include at least:

- toilets with a bedpan
- a storage room for medical equipment.

4.1.1.11 The treatment room - layout

Having a minimum surface area of 24 m², it shall have a double door (1.60 m) and windows used for lighting and ventilation with blinds or opaque glass (double glazing or double windows in countries with risk of sandstorms).

The lighting shall be adequate. It shall have electrical outlets for general use, a system for an autoclave if one is used for sterilisation, and telephone and computer connections.

The floor coverings shall be ceramic or thermoplastic with a 0.10 to 0.15 m skirting board. The walls shall be tiled up to 2 m or covered with paint or washable synthetic materials that resist disinfectant detergents. The wall shall be tiled above the draining board and the washbasin.

There shall be no suspended ceilings.

The heating and/or air-conditioning shall generate temperatures as set out in appendix 1.

It shall be fitted with:

- a large (0.60m x 3.5m) double sink with hot and cold water and an adjoining draining board, placed at an ergonomic height (0.85m);
- a washbasin with a supply of hot and cold water, controlled if possible by a pedal or motion detector, a liquid soap dispenser and a hand towel dispenser;
- medical fluid equipment (O₂, etc.).

4.1.1.12 The adjoining areas – layout

The toilet area is traditional with separate facilities for men and women (two men's toilets, one women's toilet, one disabled-friendly toilet). These toilets may be accessed from the waiting room and are separated from the waiting room by a space equipped with washbasins. They also shall contain a utility sink with a water inlet for draining the urine and faeces basins.

The storage room for medical equipment shall be able to hold a refrigerator and miscellaneous medical equipment (perfusion stand, stretchers, wheelchairs, etc.). Its recommended surface area is 10 m². It shall have a cupboard. It has standard openings and the room shall be ventilated. It shall have adequate lighting and electrical outlets for general use.

4.1.1.13 The emergency room – functional analysis

This section examines only those functions related to use of the emergency room. Accommodation for patients under close surveillance is described in the hospitalisation section.

The emergency room is the area where the patient is undressed, washed (if necessary) and examined. Intensive care is administered here in addition to preparation for transport and then evacuation when necessary.

After s/he is seen in the emergency room, the patient is evacuated, placed under observation or simply discharged.

The emergency room's accessibility depends on:

- the quality of indoor and outdoor signage
- the quality of lighting for night access
- the existence of direct access to the emergency room from the exterior through a space fitted with double doors or, even better, an automatic door. Failing that, it shall be accessed through the lobby.
- the presence of means to alert the medical team (buzzer).

There shall be an adjoining area where specific emergency equipment may be stored.

4.1.1.14 The emergency room – layout

Whenever possible, the emergency room shall be directly accessible from the exterior through an enclosed space. Its characteristics are as follows:

- Unloading area protected by an awning high enough so that medical vehicles may pass through. This area has its own lighting.
- 2-metre-wide doors (preferably automatic).
- 3-metre-long vestibule, with non-skid floor covering, equipped with lighting and an A/C or heating system so the patient can be undressed.
- 20 m² surface area for one emergency bed, 25 m² for two beds. It shall be large enough so that a stretcher can enter and be handled between the static installations.
- Windows with opaque glass and blinds, exhaust fan (double glazing or double windows in countries with a risk of sandstorms).
- The floor coverings shall be ceramic or thermoplastic with a 0.10 to 0.15 m skirting board. The walls shall be tiled up to 2 m or covered with paint or washable synthetic materials that resist disinfectant detergents. The wall shall be tiled above the draining board and the washbasin.
- Adequate quantity and quality of lighting, electrical outlets for general use, power strip around the edge of the room.
- Means of communication (telephone socket or interphone).
- Hot and cold water sink with adjoining draining board. The latter shall be a countertop that may be used for the preparation of injectable drugs, perfusions, etc.
- Outlets for mobile bathtub (hand shower and evacuation) used to “bathe” the patient.



- Washbasin with a supply of hot and cold water, controlled if possible by a pedal or motion detector, liquid soap or dry soap dispenser and hand towel dispenser.
- Heating and/or air-conditioning generating temperatures as set out in appendix 1.
- Medical fluid (O₂) supplies are possible, with wall outlets and outdoor bottle storage in a ventilated service area.

4.1.1.15 The emergency equipment storage room – layout

This room that communicates with the emergency room is used to store equipment needed for emergency procedures.

Having a 15 to 20 m² surface area, this room may be windowless.

It shall be fitted with adequate lighting and electrical outlets for general use (several battery chargers have to be connected).

The floor coverings shall be ceramic or thermoplastic, and the walls shall be painted.

This room does not require heating but does require an anti-freeze system. The temperature shall not exceed 25°C. If it has windows, they shall be double or have double glazing in countries with a risk of sandstorms.

4.1.2 Additional testing sector

4.1.2.1 The laboratory – functional analysis

The laboratory's installation (equipment, dimensions, construction and location) shall comply with the regulations in force in the country.

Laboratory tests are used by the doctor or nurse to help in diagnosis. If they are not performed by a specialist (biologist), they cannot be certified.

A limited set of tests may be carried out.

All test results are recorded in the patient's medical record or on a computer file.

Soiled consumables are thrown into waste bins and medical refuse collectors that undergo special treatment (evacuation to an approved treatment centre or incineration). Waste disposal shall comply with current laws and regulations.

Samples are taken in the treatment room or by the patient's bed.

In the laboratory, four activities are performed:

- testing
- recording of results
- cleaning of machines and equipment
- storage of routine consumables.

4.1.2.2 The laboratory – layout

The laboratory has two separate areas that communicate with one another:

- An area dedicated to bacteriology and virology (if this option is chosen), having a surface area of around 9 m², separated from the rest of the laboratory, possibly by a partially glazed partition. It shall be fitted with:
 - o a double sink
 - o a draining board with an extractor hood and filter leading outdoors.
- A 12 m² area dedicated to other tests. It shall be fitted with:
 - o a double sink, with hot and cold water
 - o a large (0.60 m x 3.5 m) draining board, adjoining the sink, placed at an ergonomic height (0.85 m), with storage underneath.

The lighting shall be adequate. The laboratory shall have electrical outlets for general use and for powering biology devices as well as refrigerators and freezers.

The floor coverings shall be ceramic or thermoplastic with a 0.10 to 0.15 m skirting board. The walls shall be tiled up to 2 m or covered with paint or washable synthetic materials that resist detergents and disinfectants. The wall above the draining board and the sink shall be tiled.

There shall be no suspended ceilings.

The heating and/or air-conditioning shall generate temperatures as set out in appendix 1.

4.1.2.3 The radiology department – functional analysis

The installation of the radiology department (equipment, dimensions, construction and location) shall comply with the regulations in force in the country, or if no such regulations exist, with [ICRP Publication 103](#); in general, use of a radiology device requires certification.

Only standard radiology tests shall be performed: cranium, limbs, thorax, spine, abdomen, pelvis.

Radiology tests are used as diagnostic tools. The doctors or nurses who take, develop and then interpret x-rays are not specialists, and do not have recognised skills as x-ray technicians or radiologists. This means that when there is doubt about an x-ray interpretation or during difficult diagnoses (for which the x-ray is essential), the patient shall be referred to an approved radiology unit.

Two structures are possible:

- A simple structure comprising:
 - o a mobile x-ray machine
 - o a development room
- A complex structure comprising:
 - o a room equipped with a fixed or mobile x-ray machine
 - o a development room equipped with an automatic processor (preferred to a manual system). Films, cassettes and reagents are stored here.



- o two undressing booths used as entry and exit vestibules for able-bodied patients.

The number of x-rays taken per day determines which of these two structures is the most appropriate. If this number is greater than two, a complex structure is the most appropriate.

4.1.2.4 The radiology room – layout

It shall have a surface area of at least 25 m².

The lighting shall be adequate. The room shall have electrical outlets for general use. The power supply is determined by the type of machine that is chosen.

The floor coverings shall be ceramic or thermoplastic. The walls shall be covered with paint or washable synthetic materials that resist the application of detergents.

There shall be no suspended ceilings.

The heating and/or air-conditioning shall generate temperatures as set out in appendix 1.

The entrance shall be designed so that a stretcher or hospital bed can pass through: it shall have double doors, with a total width of 1.60 m.

If a remote controlled table is to be installed: arrange for wiring such that the table is supplied from the floor.

Radioprotection rules:

- The recommendations of the X-ray machine's manufacturer shall be followed.
- The walls shall be made of 0.15 m solid concrete blocks or plasterboard. Sheet lead at least 1.5 mm thick and 2.20 m high shall be affixed to each of the walls.
- The doors shall be lined with sheet lead at least 1.5 mm thick.
- Warning signs shall be posted on all of the radiography room's entrances. These signs shall include the radiation warning symbol and the notice "Authorised personnel only".
- If the X-ray beam is directed toward a wall, the additional lead thickness is 2 mm over a surface area that is at least one metre wide by two metres high.
- The ceiling tiles and floor slabs shall have a layer of solid concrete that is at least 0.15 m thick.
- Transoms with an apron greater than 2.20 m do not require protection unless the X-ray beam can be directed toward them during tests.
- The windows may be protected by sliding or standard shutters lined with sheet lead at least 1.5 mm thick.
- The operator is required to wear:
 - o an X-ray apron with 0.35 to 0.50 mm of lead (the best protection) or an apron made of an equivalent material, covering the pelvis and the genital organs
 - o a pair of radiation protection gloves (at least 0.35 mm lead) is advised when the operator performs procedures under the X-ray (operation, immobilisation, etc.)
 - o a thyroid collar to go with the apron
- All personnel working in the room when the installation is turned on shall wear a dosimeter



- An indicator light shall be installed at the entrance to the room to indicate that the X-ray machine is on.

4.1.2.5 The development room – layout

It has a surface area of 12 m².

It shall be fitted with a sink (hot and cold water) with an adjoining draining board, measuring 0.60 m x 1.5 m, and placed at an ergonomic height (0.85 m).

The lighting shall be adequate. The room shall have electrical outlets for general use and to power the processor.

The floor coverings shall be ceramic or thermoplastic with a 0.10 to 0.15 cm skirting board. The walls shall be tiled up to 2 m or covered with paint or washable synthetic materials that resist the application of detergents. The wall above the draining board and the sink shall be tiled.

There shall be no suspended ceilings.

The heating and/or air-conditioning shall generate temperatures as set out in appendix 1.

It shall be completely light-tight (except if it is equipped with a fully automated processor: Modern processors are not vulnerable to light exposure, as complete cassettes are inserted and reloaded automatically). Safelights equipped with bulbs having an appropriate intensity shall be installed in the room, above the workstation. They shall have appropriate filters for the emulsions that are used and be installed at the recommended distance. An indicator light shall be installed at the entrance to the room to indicate that development is in progress.

If it is adjacent to the radiology room, it shall be adequately protected from radiation. So that the personnel working there and the films stored there do not become exposed, sheet lead with a thickness of at least 1.5 mm at a minimum height of 2.20 m shall be affixed to each of the walls.

Film storage

Unexposed X-ray film shall be stored so that it is thoroughly protected from stray background radiation. The storage rooms shall be organised so that no film is exposed to more than 0.2 milli-röntgen of stray background radiation before being used.

The films are placed vertically in a cool, dry place.

4.1.3 Hospitalisation sector

4.1.3.1 Functional analysis

- The number of beds does not depend solely on the size of the population but also on the population's characteristics, expected illnesses and diseases and especially evacuation possibilities. For example, a clinic run by the COMPANY, the last resort before repatriation on medical grounds to a country with very few reliable hospitals, shall be able to hospitalise more people than a complex medical structure on a worksite that, with a comparable population size, is located close to a modern hospital.
- The rooms shall be adaptable to the patient and his/her illness: contagiousness, sex, need of special surveillance, limited or no possibility to move around independently.
- Care that was not administered in the treatment room is performed by the patient's bed.
- Meals are eaten in the room, either by the bed (on a table to that effect) or on the table in the room. A kitchen area for reheating meals and doing dishes could be added. The site's



collective catering service is responsible for providing patients with meals. On-call personnel takes turns to go to the site's food service area for their meals. The on-call room is arranged in such a way that a medical worker can sleep there.

- There are to be two sections:
 - o a "close supervision" section with 1 or 2 beds. This room shall be adjacent to the on-call room and be separated from it by a partially glazed partition;
 - o a section for normal overnight hospitalisation organised into 1- or 2-bed rooms each equipped with washrooms (toilet, shower).
- Having a separate sector for contagious diseases is not necessary due to the limited number of beds per room, which also have their own washrooms.
- A special linen room for the medical department is considered only if there are more than six hospital beds. However, sheets and uniforms from the medical department receive special treatment and are not combined with other linen. When there is no specific linen room, an area in the medical building shall be reserved for linen storage (clean and dirty linen).

4.1.3.2 Layout

- The passageways shall be wide enough so that an intensive care bed can move about and enter the rooms.
- The doors, double if possible, shall be such that an intensive care bed may pass through.
- The other openings are standard (double glazing or double windows in countries with a risk of sandstorms).
- There shall be adequate lighting and electrical outlets for general use.
- The floor coverings shall be ceramic or thermoplastic with a 0.10 to 0.15 m skirting board.
- The soothing-coloured painted walls are washable and disinfectable.
- Heating and/or air-conditioning generating temperatures as set out in appendix 1.
- The supervisory care room shall have a surface area of at least 15 m² and open onto the on-call room. It is fitted with standard lighting and electrical outlets, a washbasin with a supply of hot and cold water controlled by a pedal or motion detector if possible, a liquid soap dispenser (or dry soap dispenser) and a hand towel dispenser. Medical fluid (O₂) supplies are possible, with wall outlets and outdoor bottle storage in a ventilated service area.
- A 1-bed room shall have a 15 m² surface area, toilet areas included, and a 2-bed room shall have a 20 m² surface area, toilet areas included. The rooms have standard lighting and electrical outlets, a call system to alert the treatment room and a telephone socket. The toilet areas shall be equipped with an extractor fan. They include a toilet, one washbasin per bed and a shower.
- The on-call room has a surface area of 15 m² and toilet areas reserved for staff only (washbasin, toilet and shower). It is fitted with a telephone socket and an alert system that can be triggered from:
 - o the buzzer on the outside entrance



- o the emergency room and the treatment room
- o normal patient rooms
- o the welcome desk.

4.1.4 Logistical support sector

The non-medical personnel assigned to the care structure are appointed by the site's management upon recommendation by the SMS manager. They shall all have at least AFA or PSE₁ or even PSE₂ (level 2 OGP) training and shall not be operational until they have attended training onsite run by a healthcare worker.

4.1.4.1 Vehicles

The choice of the type and number of vehicles is based on the data collected. There shall be:

- A cross-country ambulance if the worksite requires access at a level that normal vehicles cannot attain
- An ambulance (possibly 4X4) for transport to a hospital or an aircraft boarding point that complies with the specifications for a life-support ambulance
- One or more support vehicles

If the medical structure includes an EMU, an ambulance may be dedicated to that EMU.

The vehicles are maintained by the ambulance drivers under the supervision of the site's logistics department.

The garage shall be close to the emergency room entrance, protected from extreme heat or cold and equipped with electrical points to enable any equipment carried to be fully charged.

4.1.4.2 Site maintenance

The catering department, together with the management, appoint the personnel responsible for site maintenance. An area for storing cleaning materials and products may be fitted out.

The following may also be installed:

- an area for dirty laundry
- a waste disposal area (soiled products, unsoiled products, collectors for soiled products)
- an additional storage area for cleaning implements.

4.1.4.3 The pharmacy

The medical department manager organises drug ordering and inventory management.

Having a surface area of at least 20 m², the pharmacy shall have:

- a window with bars and blinds, secure doors
- an adequate quantity and quality of lighting and electrical outlets for general use
- ceramic or thermoplastic floor coverings with a 0.10 to 0.15 m skirting board
- heating and/or air-conditioning producing a temperature between 15°C and 25°C.



Utility room: inflammables are stored in a room separate from the pharmacy, with ventilation that complies with the current standards. Their volume shall not exceed the strict minimum needed for routine consumption.

A storage area for a possible disaster kit, allotted by request of the SMF's Coordinating Doctor, shall be planned in advance: this kit is either stackable or on a trailer but shall be stored at a temperature between 15 and 25°C. The utility room therefore gives direct access either to a pallet or to a trailer and is also protected as for any storage area for pharmaceuticals.

4.1.4.4 The secretariat

The secretarial staff performs administrative tasks to support medical activities and logistics. In complex structures, specific personnel is assigned to this function.

The secretariat is an effective screening point for access to the consultation rooms.

Having a surface area of 10 m², the secretariat shall have:

- standard openings (double glazing or double windows in countries with a risk of sandstorms)
- adequate lighting, electrical outlets for general use
- telephone socket and computer connection
- as in the office, the walls are covered with soothing-coloured paint or a soothing-coloured washable material. Heating and/or air-conditioning generating temperatures as set out in appendix 1. The floors are made of materials that resist heavy traffic.

4.1.4.5 The storage room for medical records

This room shall be secure and open onto the secretariat if possible. Its surface area is proportional to the expected volume of records. If this number is low, medical records may be stored in a secure cabinet in the secretariat.

4.1.4.6 Accommodation for medical personnel

In general, accommodation is not provided for medical staff with the exception of on-call personnel.

4.1.4.7 Changing rooms – toilets reserved for medical staff

Changing rooms and toilets shall be reserved for medical staff (not including those on-call).

There shall be a men's changing room and a women's changing room, with a number of showers, washbasins and toilets in correlation to the number of potential users.

4.1.5 Mortuary

There shall be a room fitted with two refrigerated units and body bags. It shall be accessible from an independent entrance, far from the structure's other entrances if possible. The temperatures set out in appendix 1 shall be maintained.



4.1.6 Service areas

4.1.6.1 Generator unit(s) with inverter

The following shall be given priority:

- electricity for the operating room and intensive care
- electricity for the laboratory machines
- electricity for the emergency rooms
- electricity for the x-ray room

4.1.6.2 Fluid storage

This room shall be easy to access with a pressure regulator, open onto the exterior, be protected from the sun and extreme cold, be in a calm area and be closed by a grate or a screen.

It shall be divided into two sections: one reserved for empty bottles, and another reserved for full bottles. It shall be illuminated.

4.1.6.3 Fire protection room

This room shall be easy to access from all parts of the medical structure.

It shall be connected to the water system provided for that purpose and be large enough to hold fire-fighting materials and protective equipment for the site's personnel (independent breathing apparatus, air bottles, clothing, etc.).

4.2 Simple medical structure

In this type of structure, consultations, care, emergency care, additional tests and even hospitalisation (or rather supervisory care) all take place in the same, and often limited-size, space.

The purpose of this unit is to offer routine consultations and minor care and to stabilise patients with severe illnesses before their evacuation.

In the specific case of an offshore platform, this structure shall be located in a place that can be easily and quickly accessed from the work areas (moving and collecting an injured worker shall be as simple as possible).

The structure can support only a limited population.

It is divided into three sectors:

- consultation – care
- recovery and supervisory care room
- office +/- accommodation for healthcare personnel

4.2.1 Consultation – care sector

- Surface area: 15 m² minimum after a 2.5 m long vestibule (at a moderate temperature) where the patient can be undressed and be bathed if needed (shower head and drain for a mobile bathtub).

- Openings: double doors (1.60 m) opening onto the outside and if possible onto the supervisory care room (double glazing or double windows in countries with a risk of sandstorms).
- Adequate general lighting, electrical outlets for general use, power strip around the edge of the room.
- Heating and/or air-conditioning generating temperatures as set out in appendix 1.
- Hot water – cold water sink controlled, if possible, by a pedal or motion detector with an adjoining counter covered with a washable and disinfectable material, liquid soap (or dry soap) dispenser and hand towel dispenser.
- The floor coverings shall be ceramic or thermoplastic with a 0.10 to 0.15 m skirting board. The walls shall be tiled up to 2 m or covered with paint or washable synthetic materials that resist disinfectant detergents. The wall shall be tiled above the counter.

4.2.2 Recovery and supervisory care room

- Surface area: minimum 10 m².
- Openings: double doors (1.60 m) opening onto the outside and if possible onto the supervisory care room (double glazing or double windows in countries with a risk of sandstorms).
- There shall be adequate lighting and electrical outlets for general use.
- The floor coverings shall be ceramic or thermoplastic with a 0.10 to 0.15 m skirting board.
- The soothing-coloured painted walls are washable and disinfectable.
- Heating and/or air-conditioning generating temperatures as set out in appendix 1.
- Call system to alert the treatment room, the office and the housing area for healthcare personnel.
- The toilet areas shall be equipped with an extractor fan. They include a toilet, a washbasin and a shower. The washbasin has a supply of hot and cold water, controlled if possible by a pedal or motion detector, a liquid soap or dry soap dispenser and a hand towel dispenser.

4.2.3 Office

- Surface area: 9 m².
- Adequate general lighting, electrical outlets near the desk (for a desk lamp, IT equipment, mobile telephone and radio chargers), electrical outlets for general use.
- Heating and/or air-conditioning generating temperatures as set out in appendix 1.
- Telephone socket and IT network.

4.2.4 Accommodation for healthcare personnel

- If possible, adjacent to the care structure, with direct access.
- The shower room and toilets shall not be shared with patients.



- The quarters shall be insulated against all noises and odours from the care area, but be connected to the supervisory care room thanks to a buzzer or other alarm system. The telephone in this area shall be connected to the office telephone.

4.2.5 Logistical support sector

4.2.5.1 Equipment storage

There needs to be a stock of pharmaceuticals as well as a room for storing emergency and medical/first-aid materials. These premises shall be secure (reinforced closure), the temperature maintained between 10 and 25°C, they shall be well lit and have electrical outlets.

4.2.5.2 Vehicles

Refer to § 4.1.4.1.

4.2.5.3 Site maintenance

Refer to § 4.1.4.2.

4.2.5.4 The storage room for medical records

Refer to § 4.1.4.5.

4.2.6 Service rooms

Refer to § 4.1.6.

4.2.7 The mortuary

A refrigerated room that can hold two body bags shall be made available if needed.

4.3 First-aid station

4.3.1 Functional analysis

The first-aid station is a small auxiliary structure located immediately next to a worksite. It is run by a healthcare worker having an "E" profile (ambulance attendant – first-aid worker, OGP level 2) and reports to a medical structure.

The person assigned there knows how to initially prepare a patient in a serious condition but has limited skills to hold consultations. S/he does not have the necessary means to completely prepare a patient for evacuation on medical grounds. However, s/he can:

- send out a specific alert indicating the signs of an injured person's severity
- perform emergency first-aid
- perform all basic treatment for minor traumas
- help the arriving team lift up a severely injured patient in optimum conditions.

4.3.2 Layout

There is no standard layout for a first-aid station. This structure may be installed in a container, in a room in a building, in a temporary area on a worksite, etc.



Minimum requirements:

- Minimum surface area: 15 m².
- Communication: telephone, VHF radio or any means that may be used to issue an alert and communicate information about a patient's condition to the back-up team.
- Lighting (minimum 500 lux) and an electrical outlet to plug in the semi-automatic defibrillator's charger.
- The entry shall be wide enough so that a stretcher carried by four people (1.60 m) can pass through.
- A water supply point with a liquid soap (or dry soap) dispenser and a hand towel dispenser.
- Heating and/or air-conditioning generating temperatures as set out in appendix 1.
- There shall be double windows or double glazing in countries with a risk of sand storms.
- It shall have a shower head and a drain so that the victim may be "bathed" in a portable bathtub. This drain can lead to storage tanks for "contaminated" water.

5. Specific equipment and furniture for medical structures

5.1 Complex medical structure

5.1.1 Entrance – consultation – care sector

5.1.1.1 The welcome desk

- a desk
- a swivelling chair
- a storage unit for registers and administrative documents

5.1.1.2 The waiting room

- functional, homogenous furniture tailored to the population (worksite personnel)
- 6 seats (chairs or armchairs) per consulting station

5.1.1.3 The consultation rooms

- Office:
 - o communication and auxiliary equipment (telephone socket, IT network and, if necessary, VHF radio that may require an external antenna)
 - o a desk +/- a unit for IT equipment
 - o an additional office table
 - o a swivelling chair with an adjustable seat
 - o two visitor's chairs
 - o a cabinet

- o a desk lamp
- o a bookcase-type cabinet
- o a coat rack
- o a wastepaper basket.
- Examination room:
 - o a chair, a height-adjustable stool
 - o an inclinable examination table (1.80 m x 0.60 m)
 - o a footstool, a height-adjustable stool
 - o a trolley with wheels for instruments
 - o a cabinet for surgical supplies and medicines
 - o a negatoscope, a scale and a height gauge
 - o a perfusion stand on wheels
 - o a small-capacity refrigerator
 - o a paper and soap dispenser near the washbasin
 - o a small operating lamp on wheels
 - o a pedal waste bin that can hold bags for medical waste.

5.1.1.4 The treatment room

- Next to each washbasin or sink, a hand towel dispenser and a pedal waste bin.
- Shelves or above-ground units with sliding doors or drawers no higher than 2 m.
- A cabinet for surgical supplies, cupboards or floor units on wheels with drawers.
- For the secretariat area:
 - o a table or a desk, with a lamp
 - o chairs
 - o computer base.
- For each treatment compartment:
 - o an examination table
 - o a footstool
 - o a trolley on wheels for instruments and dressings
 - o a height-adjustable stool, an operating lamp on wheels (17000 lux portable projector for surgical lighting)
 - o a small table on wheels that can be used as a rest for an upper limb
- A machine for sterilising surgical instruments.
- A pedal waste bin that can hold bags for medical waste.