PROVIDING CARE FOR AN INFLUX OF WOUNDED

(War wounded – Natural disasters)

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INTRO

This pocket guide, modelled on a « user's guide », forms part of a series focusing on the activities involved in the first phase of an emergency (0-3 months).

It has the advantage of being concise, simple and light to carry… and therefore excludes some details… which you will find in the different guidelines cited in the pocket guide.

➔ *Note that, considering the extent of the subject, this pocket guide is more substantial than the others.. You should however be able to read it on the aircraft between the moment you sit down in your seat and the moment they start the movie.*

If you've consulted the guidelines and you still haven't found the answer you're looking for, don't hesitate to ask your field coordinator and/or medical or logistics coordinator for advice *(according to the type of information you need)*.

This pocket guide is accompanied by technical sheets which will help you set up the various activities. The forms are available on the Pocket Guides Emergency CD.

New in 2007 : on the CD you will also find a library. Most of the books and documents cited in the chapter "References" are there !

Your remarks

…are welcome.

You can't see how to use a particular sheet… perhaps because the sheet has been badly thought out or the explanations are insufficient…your remarks will help us to improve the tool.

Have you been confronted with situations necessitating a change in strategy? Do you have any pearls of wisdom or tips to share? Contact us, so as many people as possible can benefit from your experience.

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Once an influx of wounded becomes too great for the medical facilities' capacity to provide immediate case management, a strict and specific organisation is required in order to save the maximum number of lives.

Once an influx of wounded becomes too great for a medical facility's capacity to provide immediate case management, a strict and specific organisation is required in order to save the maximum of lives.

General objective

Reduce the morbidity and mortality by providing the most appropriate care as rapidly as possible after the event.

Specific objectives

Receive wounded patients in a secure setting and offer them quality surgical treatment and nursing care as part of a well-organised system endowed with sufficient material whilst aiming to "do the best possible for the maximum number of people".

This requires:

- **An emergency preparedness plan at mission level**
  - When to intervene: as rapidly as possible but taking into account the capacity of existing facilities and the security
  - Where: which level of health care, which kind of facility
  - How: what form of collaboration, which personnel, what material, etc
- **A disaster plan at the medical facility level**
  - A strict and specific organisation put into place during an influx of wounded in order to save as many lives as possible

➔ It is impossible to cope correctly with an influx of wounded without emergency preparedness and a disaster plan.

- **Ensure preparation for handling all aspects of case management for the wounded**: not just surgery, but all the pre-op *(triage and first aid included in the disaster plan)*, and above all post-op, including:
  - Post-operative care
  - Nutrition
  - Psychological support
  - Physiotherapy
  - Reference towards other facilities if necessary

➔ Some of these aspects will be particularly complex to handle in situations of conflict or disaster *(lack of personnel, lack of access to material resources, etc)*. So preparation is required.

N.B. This pocket guide above all addresses situations in which the influx of wounded results from a conflict or natural disaster. Nonetheless, the principles of a disaster plan can be applied to all influxes of wounded, such as after a road accident, for example (accident involving two bush taxis = +/- 50 people wounded).

WHEN TO INTERVENE?

1. As soon as the case management capacities of existing health care facilities are overwhelmed

Emergency preparedness

- Evaluate capacity of the health care facilities
- Disaster plan existing or not
- Number of facilities apt to take on case management of the wounded
- Possibility of evacuating the wounded towards better equipped medical facilities
- Scenario: number and type of victims expected according to the type of event expected

Alert Phase /Emergency Phase

- Scenario: estimate the number and type of victims expected according to:
  - What: type of event
  - Where: location of the event
  - When: timing of the event
- Re-evaluate the health care facilities

2. As soon as possible after the event

The later the intervention, the fewer lives will be saved
↓
Importance of emergency preparedness

3. As soon as security permits

Conflict →

- Depending on the context, envisage:
  - Global evacuation
  - Partial evacuation
  - Bunkering down *(whilst waiting for evacuation or intervention)*
  - Medical intervention
- Watch out for post-conflict risks
- Check on:
  - Identification of teams, buildings, vehicles
  - Security of buildings
  - Respect for humanitarian law

Natural disasters →

- Before the emergency
  - Preventive measures of protection
- After the emergency
  - Risks associated with the disaster that has taken place
  - Risks associated with the regional context

1. As soon as the case management capacities of existing health care facilities are overwhelmed.

Emergency preparedness

1.1. Evaluate the existing facilities in each region at risk

Capacity of the health care facilities: Number of personnel and in particular specialised personnel *(surgeons, anaesthetist, etc.)*, infrastructure *(operating theatres, number of beds, water, electricity, etc.),* medical material and supply of renewable items, etc

→ ***Sheet n°1: « Evaluation of a health care facility »***

Disaster plan in existence or not: All health care facilities, everywhere in the world, should have a « disaster plan » enabling them to handle an influx of wounded. If these plans do not exist, facilities will not be able to cope with such a situation. ***(See «Disaster Plan » p. 19)***

Number of facilities capable of providing case management for the wounded: including military hospitals for troops and war prisoners during conflicts and civilians during natural disasters.

Possibility or not of rapid evacuation of the wounded to better equipped but further away medical facilities *(e.g. During the earthquake in Pakistan in October 2005, the army evacuated most of the wounded to the capital by helicopter; fighting in Chad in December 2006 resulted in numerous victims amongst the combatants, who were also for the largest part transferred to the capital, 1000 km away from the fighting. In both cases, the local medical facilities had not to cope with the influx of wounded).*

Alert Phase /Emergency Phase

1.2. Estimate the number and type of victims expected

Depending on the nature of the event

- Type of conflict: light arms, bombing, mines, etc., conflict involving only combatants or civilians too, etc.
- Type of natural disaster: earthquake, flood, etc.

→ ***Sheet n°2: « Types of wounded according to types o f arms »***
→ ***Sheet n°3: « Types of wounded according to types o f natural disaster »***

Depending on the location of the event

- Densely populated area or not
- Near or far from all medical facilities, easily accessible or not *(the remoter and more inaccessible the facility, the fewer the chances of seriously wounded reaching it in time to be saved)*.

Depending on the timing of the event

- Day or night? *(Natural disasters occurring during the night generally result in more victims because people are taken by surprise in their sleep and do not have time to flee)*
- In summer or winter, during the dry or wet season? The climatic conditions can have a negative influence on the state of victims *(lying wounded in the snow or rain)* and access to them *(roads impassable during the rainy season),* reducing the number of seriously wounded who can be saved.

1.3. Re-evaluate the health care facilities when the event occurs

The facilities may have been affected by the event themselves *(buildings totally or partially destroyed, water/electricity cut-off, personnel fled, equipment and material looted, etc.).*

2. As soon as possible after the event

«The wounded start to die as soon as they are wounded. They can only survive if they receive adequate lifesaving care and immediate surgical care » [1]

The intervention must take place as soon as possible after the event. Obviously, the later it is, the fewer lives will be saved.

This supposes that:

- We are already present in the country and ready to intervene *(emergency preparedness plan, national and international human resources, material)*, or
- A team can arrive without delay, or
- The conflict lasts during several days or weeks and the influx of wounded continues
- The wounded are numerous and scattered over a large, barely accessible area and therefore cannot all receive care during the first few days *(e.g. the earthquake in Pakistan in October 2005 when it took nearly 3 weeks to evacuate all the wounded who were dispersed all over the mountains)*.

3. As soon as security permits

3.1. Conflict

Being at the heart of a conflict can only be justified if:

- An assistance to populations in danger is possible
- This assistance stands a chance of reaching the beneficiaries *(in certain cases this assistance can amount to an additional risk for the beneficiaries: diversion of aid for the benefit of combatants, racketing of beneficiaries, targeting of victims assembled in a health care facility, etc.)*
- The security of the teams can be ensured

We should thus not intervene at all costs: the security of the teams should be ensured above all else. It will therefore be important to estimate the risks involved and specific to the context and the moment.

Even if it is difficult to decide against intervention when we know that wounded are abandoned without care, it should never be forgotten that if any member of the MSF team is wounded, evacuation to an appropriate health care facility may not be possible, and in addition the whole team will be immobilised!

[1] ***The « Golden Hours »***
The « Golden Hours » is a medical emergency concept. Most of the seriously wounded (poly-traumatised or victims of internal haemorrhage) die within hours. We therefore obtain an optimal survival rate if the victims reach an operating table in the 4 to 6 hours following the accident:
- *50% of seriously wounded die on the spot from their wounds*
- *30% die in the four to six hours following the accident*
- *20% die during the following week due to multi-visceral deficiency*

Please note: when we refer to team security, we refer to security for international and national staff. Even if the latter often have the advantage of knowing the area, the language, the culture, etc, they are nonetheless sometimes more at risk than international staff (during a conflict with ethnic connotations, for example)

Several scenarios are possible:

3.1.1. The team is based in one area, the conflict takes place in another *(e.g. the conflict takes place in the bush whilst the team is based in town).*

- In this case the security of the teams is not threatened. They can undertake preparations for receiving the wounded, either in an existing hospital facility or in a field hospital[2]. The difficulty lies in ensuring the victims' access to this facility *(See below: "where to intervene?" § 1).*

  It is nonetheless important to follow the situation carefully. The conflict can move around, approaching the team's base.

3.1.2. The conflict takes place where the team is based

- **The conflict has not yet started but is likely to** *(e.g. rebel factions approaching the town, etc.).* This is when we're happy to have an emergency preparedness plan!!!

  It will be necessary to evaluate, according to the context, the possibility for the teams to remain on the spot and prepare for an intervention. Depending on its outcome, we can opt for:

  - A complete evacuation of the team whilst it is still possible. In this case, before evacuating we can give supplies to existing health care facilities in accordance with their intervention capacities *(evaluation carried out during emergency preparedness)*.
  - A partial evacuation *(non-indispensable personnel)*. In this case, the team remaining behind prepares itself for an intervention and possibly protects itself in a confined living space ("bunkering down"[3]) whilst waiting to see what will happen. An MSF building *(house, office)* can be used for this exercise, but a health care facility, previously identified as the best equipped and best located for receiving the wounded, is preferable. It offers relative protection, draws attention to the association between our presence and our activities and, last but not least, enables us to get to work without delay if the risk becomes a reality.

  → ***Sheet n°4: « How to bunker down »***

- **The conflict has started**

  - Complete or partial evacuation will also be considered in this case, if evacuation is still an option. If it is no longer possible and the insecurity is such that an intervention cannot be envisaged, the teams will bunker down whilst waiting for an opportunity to evacuate or the situation to calm down.
  - If access to a hospital facility is possible *(e.g. because this facility is not in the part of the town affected by the events)* a team could be sent there with the necessary working material, plus all necessary items for the team to remain in the hospital *(even if the situation is not extreme enough to require to bunker down in the hospital, it will avoid the risks involved in return journeys, especially as the situation can change from one moment to the next).*

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[2] ***A field hospital*** *is a temporary medical structure, set up during a disaster or in proximity to a combat zone, that can be deployed rapidly in order to respond to urgent needs for a limited period of time.*

[3] ***« Bunkering down »*** *consists of reinforcing all passive measures of security. Nonetheless, it should be born in mind that excessive protection, above all over time, can lead to the team's withdrawal or isolation with regards to its environment.*

- If access to the hospital facility is not possible, we should envisage transforming the MSF building *(office, house, warehouse)* or all other accessible facilities *(sports hall, etc.)* into a hospital facility *(field hospital)*. *(Once again the feasibility of this solution requires examination, ideally during emergency preparedness).* ➔ Never forget that our best form of protection is the justification of our presence by a medical activity exercised according to the principles set out in our charter: neutrality, impartiality, independence.

➢ **The conflict is over**

Even if the conflict has ended, this does not mean that the risks are over:

1. All the combatants need to be informed of the end of hostilities *(it should be noted that even in « traditional wars »[4] shots have been exchanged right up to the last minute before the official end of hostilities!).*
2. All the combatants need to respect the cease fire, which requires checking as it is rarely the case in "non-traditional" wars *(civil wars, ethnic conflicts, etc).*
3. Arms circulate during conflicts... and when the fighting ends, the arms are rarely locked away until the next conflict... so there is an acute risk of "stray bullets", acts of banditry, etc.
4. Some of the access routes may not have been secured, and, depending on the type of conflict, there may be mortars, unexploded ordnances (UXOs), mines etc.

   ➔ ***Sheet n°5 : « Mines, mortars and unexploded ordnances»***

Extreme prudence is therefore required, with all necessary precautions being taken before any travel.

3.1.3. The following is required in all cases:

➢ **Check the identification of teams, buildings and vehicles[5].**

According to humanitarian law, only the emblem of the Red Cross (and/or the Red Crescent) is recognised as a distinctive sign protecting all health services during a period of conflict *(installations, personnel and material)*.

- **Do we have the right** to use the Red Cross' and/or Red Crescent's sign to protect our health care installations?

  Yes. Use of this protective sign does not belong to the Red Cross movement in times of war, but can also be used by other organisations to protect health activities.

- **Do we have to** use the Red Cross' and/or Red Crescent's sign?

  No: whatever happens, a deliberate attack against civilians, and *a fortiori* health care facilities *(even if they are not identified by a distinctive sign)*, constitutes a serious violation of humanitarian law.

  No: if in your context the use of the Red Cross' and /or Red Crescent's sign does not have a protective effect or represents a risk (*e.g. during the Lebanese war, Red Crescent vehicles were targeted by Israeli aviation whereas MSF vehicles were not.)*

  Yes: if in your context the use of the Red Cross' and /or Red Crescent's sign *(on top of MSF's sign)* can have an additional protective effect *(e.g. MSF is little known in the*

*[4] By **« traditional war»**, we mean a war between two belligerent parties with opposing interests and seemingly equal forces who decide to fight it out on the battle ground. This kind of war involves state armies or groups organised in army-style with a clear chain of command guaranteeing a certain discipline.*

[5] Don't forget: in the case of complete evacuation (assuming the national staff will not carry on working in the absence of the expatriate team), all signs of identification should be withdrawn, removed or destroyed to avoid ill-advised use.

region – in Iraq, the Red Crescent is the only organisation that is still respected……). In this case, the use of the Red Cross' and /or Red Crescent's sign will be an obligation of protection that you owe to your patients.

Please note

- It is of primordial importance that the facility is known and recognised as a hospital: the parties to the conflict and the population should be informed of the hospital's existence, purpose and independent status
- Even if your facility is well known and identified, only deliberate attacks can be condemned, and not stray bullets or collateral damage, and the belligerents often demonstrate bad faith in this respect!

➢ **Secure the buildings and access to them**

Building have to be protected against the impact of projectiles, the effects of explosions *(windows being shattering, etc.)* and non-desired intrusion.

→ ***Sheet n°6 « Securing buildings »***

→ ***Sheet also the chapter « The means required : Infrastructure »***

➢ **Try to obtain guarantees from the parties concerning respect for humanitarian law**

- It is important to know that all the parties to armed conflicts *(international or not)*, whether they involve states or non-state actors, are bound by international humanitarian law
- The parties' knowledge of humanitarian law should not be under-estimated, including rebel factions. They know of its existence, at least, and sometimes they even know it better than us!
- The "Practical Guide to Humanitarian Law" is an indispensable tool in conflict situations

→ ***See also the chapter « Humanitarian Law »***

3.2. Natural Disasters

Two possible scenarios:

3.2.1. Teams working in an area at risk of natural disasters

These teams must above all anticipate and set up preventive protection measures for themselves and their beneficiaries whilst drawing up their emergency preparedness plan: choice and location of buildings *(houses, health centres, etc.)*, reinforcement of buildings, information and training on how to behave in the event of a disaster, etc.

→ ***Sheet n°7: « Preventive measures in areas at risk o f natural disaster»***

3.2.2. Teams intervening following a natural disaster

Teams have to be vigilant during an intervention following a natural disaster as they run two types of risk:

- **Risks linked to the disaster which has taken place**: a second wave of the disaster, land slides, collapsing buildings or roads, water contamination, fires or explosions following damage to the electricity or gas network, epidemics, etc.

  → ***Sheet n°8: « Post-natural disaster risks »***

- **The risks linked to the regional context:** Natural disasters do not take place in virgin territories, but in regions that have their own history, which is sometimes marked by conflicts. Even if all energy is focused on emergency response during the initial days or weeks following the disaster, the ongoing conflict will soon re-gain the upper hand. It is therefore important to read up on the intervention region.

  Some examples in recent history:

  October 2005 – Pakistan – Earthquake in Kashmir

  Both India and Pakistan have laid claim to Kashmir since its independence from India in 1947, whilst the inhabitants themselves want their independence. Two years of an Indo-Pakistani war (1947 – 49) resulted in 500,000 deaths and a million refugees; this war also left numerous mines behind it, and no one knows precisely where they are. In 1949, Kashmir was divided into two parts. The first, Azad Kashmir, was "given" to Pakistan, the second, Jammu-and-Kashmir, to India. Pakistan still claims the Indian part and India the Pakistani part. The region remains one of the tensest regions in the world due to the two countries' possession of nuclear arms which could be used in reprisals.

  December 2004 – Indonesia – Tsunami - Aceh Province

  For nearly thirty years Aceh has been a zone of conflict between the Jakarta central government and the GAM, a separatist movement which has been claiming the province's independence since 1976. In 2004, the conflict was estimated to have caused nearly 12,000 deaths. It has also had disastrous consequences for the population on a humanitarian front, destroying the existing means and local infrastructures in the domains of health care, sanitation and water supply.

WHERE TO INTERVENE?

1. Where the wounded are lying

Conflict or disaster area

Stretcher Bearers

- Rapid evacuation

First Aid

- Basic Life Support
- Triage
- Evacuation

2. Medical facility in secured zone

Existing or field hospital

Outside the conflict or disaster area
But
As close as possible from the wounded

→

- Emergency plan
- Triage
- First aid /Stabilisation
- Emergency surgery
- Post-operative care
- Nutrition
- Psychological support
- Physiotherapy

3. Reference hospital or medical village

Reference hospital

→

- Specific care
- Secondary surgery
- Reconstructive surgery

Medical village

- Decongest the hospitals
- Provide case management up to the end of treatment in acceptable conditions

→

- Hospitalisation and/or long term care

1. Where the wounded are lying, i .e. where the event occurred

> ***«The first aid provided at the point of wounding, or at the safest place near the battlefield, and rapid evacuation are of vital importance, because mortality and morbidity increase with delay between wounding and treatment. The most effective the first aid and the quicker the evacuation to a hospital, the better will be the final results»*** [6]

Unfortunately, in most of the contexts we work in, there is a shortage or complete lack of first aid, and the chain of evacuation takes too long. Patients who could have survived therefore die, and those who survive suffer from infections and other complications that reduce their chances of survival and increase the risks of disablement.

1.1. Who will intervene

1.1.1. Red Cross /Red Crescent[7]

In principle, in conflict and disaster situations, national societies of the Red Cross or Red Crescent are mandated to provide first aid and evacuation of the wounded to a hospital facility. But even if these teams are trained and practiced in first aid and evacuation of the wounded, they still need the means to operate *(ambulances are often broken down, material and equipment are insufficient, etc.)* and sufficient security to allow them access to the victims. It should be noted that in conflict situations, humanitarian law dictates that access to victims should be guaranteed… unfortunately the reality is very often different to the theory ! *(On this subject, see the chapter "Humanitarian Law")*.

1.1.2. Armies' medical services

In conflict situations, regular armies generally have the possibility of evacuating their wounded and prisoners of war to military hospitals. Nonetheless, it should be noted that evacuation of the wounded will not always take place according to medical priorities, but rather according to priorities concerning military rank or strategy (*first of all officers, or first of all members of the ethnic group in power, etc.)*. And if capacities are limited, certain wounded can be abandoned where they fell…

Army services are often the first to intervene during natural disasters, and have the advantage of being able to render large numbers of staff without delay *(including medical staff)*, as well as freeing up exceptional logistics means *(helicopters, boats, etc).*

1.1.3. «Look after yourself as best you can »

When security permits, the wounded often try and reach hospital facilities themselves, or are taken there by family, friends, etc.

1.1.4. What is MSF's role?

If no one intervenes in the evacuation of the wounded to hospital facilities, MSF teams can become involved if:

- Security allows
- We have sufficient human resources for taking on first aid/evacuation in the event's location **and** staffing a medical facility in a secured area to offer the wounded the care they need.

None of these conditions will be met in the majority of cases !

[6] *« Surgery for Victims of War» - D. Dufour – CICR*

[7] *Mandates of the National Red Cross, ICRC, The Federation of the Red Cross: see chapter «Humanitarian Law »*

- Indeed, if the security is not assured, no one can move *(neither MSF nor anybody else !)*. On the other hand, as soon as security permits, the wounded will flock to medical facilities, transported by their families, friends, the Red Cross or other emergency services.
- And, generally speaking, we have barely enough human resources for assuring the case management at the hospital. It is therefore better to concentrate our efforts at this level rather than spreading ourselves too thin and trying to participate in the evacuation of the wounded who will then not receive adequate medical care in the hospital due to the lack of human resources.

During the emergency preparedness, it is important to check if there are rescue organisations present *(Red Cross or others)* who could assume this role: what means do they have available? *(trained human resources, medical material, ambulances)* and what support could MSF provide them in the event of an emergency?

→ Sheet n°9: « Checklist of rescue organisations»

1.2. Objectives of an intervention on the site of the event

1.2.1. Gathering and evacuation – Scoop and Run

Stretcher Bearers

→ Rapid evacuation

- We do not have medical personnel we can allocate to this activity, but just "stretcher bearers"
  - In this case the main objective will be to evacuate the wounded as fast as possible to a medical facility in a secured area. The stretcher bearers will receive simple instructions on the measures to take and the order of priorities to follow during evacuation[8].

    → Sheet n°10: « Instructions for « stretcher bearers » for evacuating wounded + human resources and material required »

  - If the wounded are located near the hospital, we can also call on volunteers to help with rapid evacuation *(in Monrovia, Liberia, volunteers evacuated the wounded in wheelbarrows).*

Rescuers

→ Basic Life Support
→ Triage
→ Evacuation

- We have trained personnel for this type of intervention *(MSF or other)*, and we can develop more specialised interventions with stabilisation of the wounded before evacuation:
  - **First aid → « Basic Life Support ».**

    The overriding goal of first aid is to prevent death by concentrating on:

    A. Respiratory track : clear the obstructed airways
    B. Respiration: does the wounded breath and if yes how ?
    C. Circulation : control external haemorrhages

[8] *In Haïti, drivers and stretcher bearers have been trained in « first aid ». Anyone member of MSF's national staff can follow this training as part of emergency preparedness. They are often organised by the local Red Cross.*

- The lateral recovery position: for all unconscious and choked patients
- Protection against hypothermia: covering the patient *(survival blanket)*

And, if possible:

- Immobilisation of fractures
- Making the patient comfortable depending on the type of wound

→ ***Sheet n°11: « First aid: basic life support –immobi lisation of fractures – making the patient comfortable + human resources and material required»***

- **Triage of the wounded** according to:

  - The seriousness of the lesions
  - The necessity of treatment *(surgical intervention,....)*
  - The prognosis *(chances of survival)*

→ ***Sheet n°12: « Triage : method, personnel, infrastr ucture, forms and registers, material »***

- **Rapid evacuation**, according to the order of priority, to a medical facility in a secured area

→ ***Sheet n°13: « How to transport the wounded correct ly »***

Please note: depending on the situation, even if there are experienced medical personnel on hand, an evaluation is required to decide on strategy : "scoop and run" or 'stay and play"

If the wounded are located near the medical facility, it is preferable to opt for "scoop and run" rather than loosing time trying to stabilise the patient on the spot.

If the wounded are located at some distance from a medical facility *(sometimes a journey of several hours by road in certain contexts)*, either the first line medical facility should be moved nearer to them *(including at least triage and first aid)*, or, if this is not possible, we should opt for the "stay and play" strategy *(so long as we have experienced medical personnel available)*, although care should be limited to just enough to allow patients to support the journey.

2. In a medical facility in a secured area

N.B. MSF generally intervenes at this level, which is why this point is developed extensively in the next chapter.

2.1. Which medical structure

By « medical structure » we mean any place which can be used and/or adapted to receive an influx of wounded. It involves, in order of priority:

- An existing hospital *(MSF or not)*
- An existing health centre
- A field hospital set up for the emergency
  - In an existing building *(MSF office, MSF house, other solid building,...)*
  - In elements especially constructed and/or equipped for emergencies *(tents, hospital boats, containers, etc.).*

→ ***See Part 2 « The means required : Infrastructure »***

2.3. Objective of the intervention

The intervention will include the following activities:

1. Disaster plan
2. Triage
3. First aid
4. Emergency surgery
5. Post-operative care
6. Nutrition
7. Psychological support
8. Physiotherapy
9. Referral to a specialised hospital structure for specific care or secondary and/or reconstructive surgery

It should be noted that, depending on the context *(emergency surgery carried out in a field hospital in order to be as close as possible to the wounded or carried out in an existing hospital with a large technical capacity)* and the possibilities *(existence of a referral hospital or not)*, activities 5 to 8 will either be developed at this level or in a reference hospital facility or medical village *(see below)*.

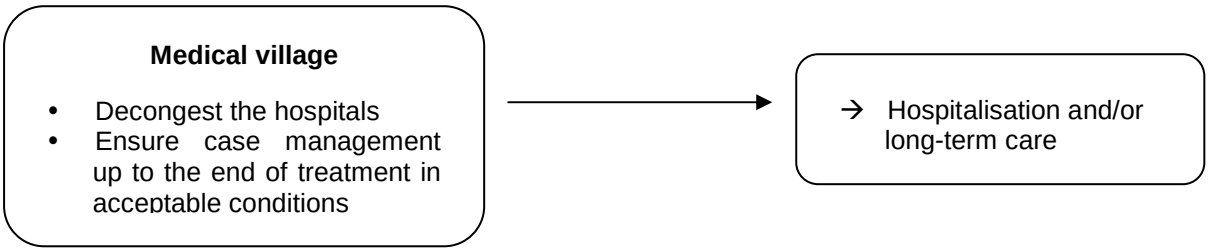
3. Reference hospital and/or medical village

3.1. Reference hospital

Whenever possible, a reference hospital should be identified for:

- Following up the case management of patients who have been stabilised in a field hospital and who need longer-term hospitalisation. If there is no reference hospital available, the patient can receive care in a medical village.
- Providing case management for patients requiring specific care or secondary and/or reconstructive surgery.
  - These patients should be sent to a hospital centre with a technical capacity sufficiently large to respond to specific needs, when such a centre exists *(dialysis, osteosynthesis,...)*.

3.2. Medical village



The concept of a medical village has been developed to respond to the following objectives:

- Freeing up the hospitals so they can continue to receive the newly wounded and sick
- Providing case management of patients up until the end of their treatment in acceptable conditions

Indeed, most of those wounded in war or disasters require long hospitalisations of 4 to 6 weeks or more *(fractures under traction, large wounds, etc.)*. As a consequence, the hospital's capacity is rapidly overwhelmed, making it impossible to receive the newly wounded or sick.

In addition, these patients often require daily care during an extended period following their hospitalisation *(care for wounds, physiotherapy)*. But it is not always possible to send them home, because there is no health facility where they live, or no medical personnel who can provide the care required, or because they no longer have any family *(wiped out by the war or natural disaster, or fled the region)* or because they quite simply no longer have a home *(destroyed during the event)*.

- The medical village is quite simply a facility resembling a "refugee/displaced camp", but on a much more modest scale. It can receive those wounded requiring extended hospitalisation and/or care, and at least one person accompanying the wounded patient, or all members of his/her close family if necessary *(e.g. following a natural disaster, if the family no longer has a home, it can live with the wounded until an acceptable solution has been found)*.

  A specific medical facility adapted to the needs of these patients will be set up within the village.

  The infrastructure should also be adapted to the patients' needs *(latrines with support bars, showers with seats, etc)*.

  → ***Sheet n°14: « Setting up a medical village »***

CASE MANAGEMENT FOR THE WOUNDED IN A MEDICAL FACILITY IN A SECURED AREA

Part 1 – Objectives of the intervention

1. Disaster plan
2. Triage
3. First aid
4. Emergency surgery
5. Post-operative care
6. Nutrition
7. Psychological support
8. Physiotherapy
9. Referral to a specialised hospital facility for secondary and/or reconstructive surgery

Part 2 – The means required

10. Infrastructure
11. Personnel
12. Material

Part 1 – Objective of the intervention

1. Disaster plan

During an influx of wounded, a strict and specific organisation is required in order to save the maximum of lives. We call this a **"disaster plan"**.

- All hospital facilities should have a disaster plan. An influx of wounded is always possible, even when there is no conflict situation or natural disaster *(e.g. a road accident involving several vehicles, a fire in a densely occupied building, etc.).*

The disaster plan should detail:

1. When and how the triage is set up
2. The precise role of each member of the hospital team *(organisation charts)*, and of each department
3. A list of additional personnel that can be called upon *(doctors and nurses as well as personnel for sterilisation, washing, cooking, cleaning, transporting patients, security, etc.)*
4. The patients' circuit from admission until they leave *(including for the dead)*
5. Case management procedures *(protocols)*
6. Case management tools *(triage forms, registers, etc.)*
7. The material required and its location *(medical and logistics material, means of communication and identification, food for patients and personnel, etc.)*
8. A set up for coordination and communication with other hospital facilities capable of receiving the wounded *(for evacuating the wounded from an over-loaded hospital to another, less full facility)* or re-enforcing personnel.

Please note, the disaster plan should be:

- Simple, to the point and clear
- Conceived as an extension of the normal way of working in the hospital, and not an opportunity for changing everything: introducing all sorts of new procedures at this stage will only add to the confusion *(so the role attributed to each person should remain as close as possible to his or her normal tasks).*

And don't forget that as well as those wounded in war or disasters, the "normal" emergencies also require care: obstetric and medical emergencies. These latter emergencies can be less frequent than normal, with patients hesitating to go to hospital due to insecurity in the town or region, or more frequent than normal, with many patients presenting troubles associated with stress *(hypertension, psychiatric troubles, etc.).*

→ Sheet n°15: « Disaster plan : checklist and example »
→ Sheet n°16: «The patients' circuit – advice and examples»

2. Triage

2.1. Objective

Save the maximum number of lives
by drawing up priorities according to
the patient's chance of survival and the resources available

Thus, when the number of wounded overtakes the hospital's capacity to care for them in contexts of multiple wounded and limited resources, contrary to the "normal" practice in emergency rooms, those persons presenting the most serious and potentially mortal wounds may in fact be a lesser priority than those persons with wounds they are more likely to survive.

2.2. Method

Rapid evaluation of all the wounded

↓

Classification of the wounded according to simple criteria

There is no standardised system of triage, and several systems are used on an international level. Nonetheless, the main criteria are always:

- The vital prognosis
- The necessity of a surgical intervention and/or reanimation
- The degree of emergency of the surgical intervention

The ICRC uses roman numerals to identify the different categories of wounded (I, IIa, IIb et III). We have opted for colours (green, yellow, red and black), partly because numbers are not universal and partly because it is above all the stretcher bearers who have to work out quickly where to take the wounded, and they may not be able to read *(obviously, if they're colour blind, you have a problem ![9]).*

[9] *It could be useful to check that the stretcher bearers can identify colours before hiring them!*

GREEN	Minor wounds – no surgical intervention required
YELLOW	Surgical intervention required but not urgent
RED	Good chance of survival if immediate surgical intervention or reanimation
BLACK	Very small chance of survival – surgery will not help

→ ***Sheet n°12: « Triage: method,*** *personnel, infrastructure, forms and registers, material* ***»***

REMINDER

This triage system was conceived for an influx of wounded. This is why it is mainly based on the need for surgery or not. But in situations of conflict and natural disaster, you will also be confronted with medical emergencies which may or may not be linked to the conflict or natural disaster.

Thus there is a specific category of patients, mainly encountered during earthquakes, but also during conflicts or even in "normal" situations: victims of "crush syndrome", or a syndrome of compression following the crushing of a member. Whilst these patients do not require surgical care *(unless they present other pathologies as well as crush syndrome)*, they nonetheless need specific emergency care *(volemic reanimation and possibly dialysis)*[10].

→ ***Sheet n°17 : « Crush syndrome : specificity and tr eatment »***

There is a particular risk of being confronted with victims of sexual violence in conflict situations. These cases should also be considered as medical emergencies *(the quicker HIV prophylaxis is taken, the higher its chances of succeeding).*

→ ***On this subject, see the pocket guide: « Care for victims of sexual violence »***

These patients should also undergo triage according to their degree of urgency and receive care accordingly. Ideally, a specific team will be in charge of medical emergencies, otherwise these patients should be categorised yellow or red according to their degree of urgency and receive care from the team allocated to these categories.

Finally, the dead also require attention. Indeed, numerous dead are brought to the hospital during situations of conflict *(the people bringing them do not know they are dead)*, and other patients die during their hospital stay. These deaths will often remain « unaccompanied » whilst the conflict prevents families getting to the hospital.

→ ***Form n°18: « Management of the dead »***

2.3. When

The moment of setting up triage is defined in the disaster plan. Once the event occurs, it is up to the emergency coordinator *(the disaster plan also defines who will occupy this post)* to decide if the disaster plan should be put into practice or not and to ensure that all departments are informed.

[10] *It should be noted that MSF OCB has a collaboration agreement with the « Renal Disaster Relief Task Force » based in the University of Gent, an institution which can provide specialised teams on an immediate basis as well as the material required for case management of patients suffering from crush syndrome and requiring dialysis.*

2.3.1. How many wounded should arrive simultaneously before starting?

This number should be determined for each hospital depending on its capacity in terms of infrastructure, material and personnel. *(N.B .In the ICRC's hospitals, triage is usually initiated once 7 patients arrive simultaneously. Starting with such a low figure allows the hospital personnel to become familiar with the system)*

Be careful : the influx can be sudden or involve a slow but regular increase and it is generally not possible to foresee:

- How many wounded are going to arrive
- How much time the influx will last
- When the next massive arrival will occur

2.3.2. In which circumstances?

During a massive influx of wounded, all patients admitted to the hospital should pass through triage:

- Whether they are wounded arriving at the hospital without having received first aid beforehand
- Or whether they have already received first aid and been through triage before being evacuated to the hospital, because their state may have developed since and the hospital's priorities are not necessarily the same

2.4. Where → triage zone

The admissions hall will soon be too full to receive new patients. A triage zone must therefore be defined in the disaster plan. This should be:

- Near the hospital entry used by patients *(because this is where they will go by habit)*
- Accessible for the walking wounded and vehicles *(ambulances, private cars bringing in the wounded, etc.).*
- Secure *(conflict situation)* and protected from the weather *(rain, snow, sun, etc.)*
- Spacious in order to receive large numbers of patients
- Near the operating theatre
- Watched over carefully in order to avoid intrusions *(families, military, the curious, etc.)* and keep all the space available for the patients

Depending on the space available, the triage zone will be used for:

- Or triage and first aid for all patients
- Or triage and first aid for the wounded in the yellow and red categories, with the wounded in the green and black categories being taken to an alternative room for first aid
- Or uniquely triage, and all patients will then be taken to different rooms for first aid according to their category

In all cases, the wounded should be evacuated from the triage zone as soon as possible, leaving space for new arrivals. The evacuation of the dead should also be taken into account.

A plan localising the following elements will be included in the disaster plan:

- The wounded's entry
- The triage zone
- The first aid zones *(if first aid are not given in the triage zone)*

All the personnel should be familiar with this plan, and it should be tested out during emergency preparedness.

→ ***Sheet n°12:*** *« **Triage:** method, personnel, **infrastructure,** forms and registers**,** material **»***

2.5. Who is responsible for triage?

One person, and one person only, who is:

- Experienced in wounds caused by war and/or disaster
- Capable of taking clear decisions
- Having an overall view of how the hospital works

This person should see all the wounded in order to:

- Carry out a clinical evaluation
- Attribute a triage category

He/she should not:

- Treat the wounded *(but he/she should be accompanied by a team who can carry out emergency first aid if necessary – freeing up obstructed airways, controlling haemorrhages, etc.)*

The decisions taken during triage must be respected!

Please note: when there is an influx of wounded, everyone has the tendency to rush towards them, giving their opinion, wanting to intervene… which adds to the confusion. It is important that everyone remains at the post attributed to them in the disaster plan, only changing at the instigation of the emergency coordinator.

Sometimes the wounded's family, the military hierarchy, the authorities, etc. can try and influence triage decisions, but only medical factors should be taken into consideration *(incidentally, these persons should not have access to the triage zone; the presence of your best guards is indispensable for this!)*

Debriefing

Taking triage decisions is often difficult and can generate disagreement. They should not be discussed there and then, but afterwards, following evaluation. It can be a good idea to organise a meeting with the personnel after each triage session to evaluate how it went, how procedures can be improved and how to organise the next triage session.

→ ***Form n°12: «Triage:*** *method,* ***personnel,*** *infrastructure, forms and registers, material* ***»***

3. First aid for stabilisation

As soon as a patient has been examined and categorised, the medical team in charge of the category concerned provides him or her with first aid. This takes on different forms depending on the categories:

Green	→	First aid before being sent home, if security allows it
Yellow and Red	→	Stabilisation care before surgical intervention
Black	→	Palliative care

Standard protocols will be used in all cases in order to facilitate rapid case management and rationalise the use of material available. These protocols largely concern:

- Surveillance
- Preparation for the intervention
- Antibiotherapy
- Pain treatment

- Tetanus prevention
- Treatment of wounds, burns, fractures

→ ***Sheet n°19: « First aid : protocols per category, personnel, forms and registers, material »***
→ ***Sheet n°20: « Protocol antibiotherapy »***
→ ***Sheet n°21: « Protocol pain treatment »***
→ ***Sheet n°22: « Protocol tetanus prevention »***
→ ***Sheet n°23: « Protocol for treatment of wounds, bur ns and fractures »***

Pain treatment

All injuries cause pain, the intensity of which varies according to the person and the location of the wound

↓

Do not forget to treat all the wounded for pain, including those injuries considered as "minor"

Pain treatment is often delayed because it is considered as non-urgent or less urgent than other treatments or interventions, yet:

Physiologically, pain leads to a vasoconstriction of arterial capillaries. This causes:

- A diminution of the arteriolar flow
- A deceleration in the arrival of white globules to the location of the injury, thereby diminishing immunity defence
- And, later on, during the healing process, a reduction in the contribution of O2 and nutritive required for rapid recovery, risking weakened local defence against infection

Pain must therefore always be treated as soon as possible

4. Emergency surgery

4.1. Some essential points

The objective here is not to spell out what is involved in emergency surgery, which is the business of surgeons and anaesthetists, *(anyone interested can read «Surgery for Victims of War – ICRC »)* but to draw attention to a few essential points:

1. ***Primary surgery is essential*** for war and disaster wounded :

   ➔ It is the key to rapid recovery and determines the final results *(a post-operative infection is generally due to incomplete primary surgery)*.

2. We often work in contexts with limited medical equipment. In other cases, the equipment is partially or totally out of working order following a conflict or disaster:

   ➔ ***It is possible to practice quality surgical acts with simple technology***

3. ***There is an order of priorities for surgery***, but:

   ➔ Teams should not wait for all the patients to arrive before deciding which ones are priority for the operating theatre: the surgical teams should start to operate red category patients immediately.

   ➔ Intervention priorities should be constantly reviewed, as the state of the wounded waiting for surgery can change and/or other wounded continue to arrive.

→ ***Sheet n°24: « Surgical priorities »***

4. ***All « bullet holes », and all lesions due to the entry of shrapnel, debris,... even very tiny, should undergo detailed investigation!*** :

   ➔ Small injuries, representing the access point, can hide extensive internal injuries

   ➔ Projectiles do not always move in a straight line *(entry wounds in the thoracic area can be associated with abdominal lesions, entry wounds around the rear can be associated with intra-abdominal lesions including the bladder, the urethra and the rectum, etc.)*.

5. ***It is not necessary to extract all the fragments of bullets or metal***:

   ➔ It is of no use and dangerous to draw out the surgical intervention with the aim of localising a bullet or fragments of metal which are lodged in tissue without lesions

6. War and disaster wounds *(mainly earthquakes)* are contaminated:

   ➔ ***They must not be sutured*** *(except for the face, the dura, the soft tissues of the chest wall, the peritoneum)* but excised and then left wide open until a delayed primary closure is possible *(suture or skin graft) (between 3 to 7 days if there are no complications).*

   N.B. We insist on this point because it is often not known by doctors/surgeons who lack experience in war or disaster surgery. If this is the case in your context, do not hesitate to organise training for your health care facility's medical personnel and/or obtain the ICRC manual «Surgery for Victims of War » for the surgeons.

4.2. Infrastructure, Equipment, Personnel

This point is above all developed in part 2: « The means required » and particularly in the sheets listed below:

→ *Sheet n°47 : « Activities, tasks and personnel requirements – from the wounded's admission until they leave », which presents, in table form and for each activity (and so in this case for surgery and anaesthesia), the tasks to be carried out and the type and number of personnel required*

→ *Sheet n°45 : « Recommendations for planning your facility », which contains advice on setting up operating theatres and associated care*

→ *Sheet n°52 : « Operating theatre checklist: surgery – anaesthesia - sterilisation », which contains lists of indispensable material*

And as « you can't trust anyone like you can trust yourself », it is the operating theatre personnel *(surgeons, anaesthetists, operating theatre nurses)* who check that the operating theatres are ready to receive the wounded *(equipment, medical material, medicines)*!

4.3. Hygiene in the operating theatre

Even if there is an emergency, it is essential to ensure impeccable hygiene in the operating theatres. And, given the intense rhythm of operations, there must be sufficient numbers of well trained personnel on hand!

→ ***Sheet n°25: «Protocol hygiene operating theatre »***

4.4. Sterilisation

The on-going surgery will also exert considerable pressure on the sterilisation department due to the intense rhythm of surgery. If the team's facility is well equipped and the personnel sufficiently trained, you are lucky! Unfortunately, in many contexts the material stops working just when it is needed, and the personnel do not come to work because of the conflict or disaster! Its is therefore

highly recommended to have replacement strategies in mind…. i.e. sterilisation material in stock and trained personnel.

If you can only rely on the resources available, ideally you should chose an autoclave 90 L for a hospital *(sterilises a large volume of instruments and linen)*. N.B. the kits generally ordered for this type of intervention do not include sufficient sterilisation material for complete autonomy *(kit 25 interventions: 1 autoclave 39 L – Kit 150 wounded: no sterilisation material).* In addition, the sterilisation material is generally supplied with a small petrol burner, which is relatively slow. If possible, another solution should be chosen such as the gas cooker *(in one of the MSF houses, for example)* or camping gas, which will reduce the duration of the cycle by half.

→ See: « Sterilisation: Set up guide for Health Care Facilities – Hospital – Part 1 MSF 2006 », available in paper formal or CD and in the Emergency CD library.

4.5. Radiology

Radiological examinations help the precision of diagnoses, particularly in the case of thoracic lesions and complex fractures, but **they are not indispensable for carrying out surgery correctly during a conflict or disaster.**

In addition, even if radiology equipment is available and technicians present to operate it, it may be impossible to carry out radiological examinations during a massive influx of wounded without the surgeons loosing too much precious time *(the patients queuing for an x-ray).*

4.6. Transfusion

Blood banks are often inexistent or unreliable in MSF's intervention contexts. It can also be difficult to obtain blood from volunteer donors, who are few in number due to cultural or religious factors and/or high HIV prevalence in the region. Furthermore, in conflict situations, potential donors will not take the risk of moving around. The only recourse often lies in turning to the patient's family or close circle[11].

The indications for transfusion should be severely limited:

- Blood should be used only for vital needs

and

- For patients who stand a good chance of survival

4.7. Laboratory

The essential functions of the laboratory involve measuring haemoglobin and ensuring total security for the collection, testing and use of blood for transfusions.

It should be able to operate 24 hours a day and be equipped with a reliable cold chain for preserving blood (4 to 6°C).

All the material and tests required for transfusion and measuring haemoglobin are included in the transfusion module KMEDMTRA01- *(this forms part of the surgical kits for 25 interventions and 300 interventions and can also be ordered separately)*.

[11] *Don't forget that a ration of protein biscuits + iron should be given to potential donors: BP5 : 1 Box of 500 g (= 9 bars = 2275 kcal) + iron Sulphate, 200mg + Folic Acid 0.4mg : 1 tablet/day during 15 days.*

5. Post-operative care

The key to a cure resides as much in a good surgery as in a good post-operative follow-up.

↓

There is no point in saving your patients with good surgical procedures, If they die afterwards due to lack of correct post-operative care !

5.1. Follow the recovery period

Any surgical operation represents a shock to the organism and, although the final goal is to save the life of the patient, an intervention causes side effects *(mainly respiratory depression)* which may result in death. The risk of respiratory depression is greatest during the immediate post-operative phase and the recovery phase but persists until several days after the surgical intervention.

The worse the state of the patient the greater the risk. However, in war and disaster surgery, we are often confronted with patients that have lost a lot of blood/liquids and/or have multiple trauma. Moreover they can also have medical antecedents which increase the anesthetic risk (score ASA[12]).

It is thus essential that the recovery phase is correctly supervised, ideally by an anesthetist, and, failing this, by a trained nurse or the family *(if there are not sufficient personnel)*.

5.2. Nursing care

We will not spell out the A to Z of nursing care here, which in any case is supposed to be known by the nurses, but we will insist on a few essential points.

➔ ***Sheet n°26 : «Post-operative nursing care : Technic al sheet for medical personnel »***

The basics

1. Do not be satisfied with merely supervising the vital parameters *(pulse, breathing, blood pressure, temperature)* but ***also observe the patients*** *(locate those that are in pain, those that are anxious or depressed, those that do not have accompanying family members to take care of their comfort, their hygiene,…)*.

2. ***The pain***, too often neglected, must be considered as a vital parameter: its treatment facilitates the recovery. How to evaluate it ? If one is attentive and receptive to it, one sees it! But there are also scales of the pain which allow evaluation *(see sheet n° 21: Protocol treatment of the pain).*

3. It is obviously essential to administrate care correctly and more particularly ***to correctly follow the prescriptions*** which are essential in order to avoid the development of infections and gangrenes.

4. ***The rules of asepsis must be scrupulously followed***. Without this the cross infections *(where the patient is infected by germs coming from other people: medical staff, other patients, visitors, or the environment)* will develop quickly.

[12] Score ASA : or "Physical Status Score", was introduced by the American Society of Anesthesiologists (ASA). It is used to express the state of health of a patient prior to operation. Patients are classed according to their state of health on a scale from 1 to 5. The score allows for an evaluation of the risk of anesthesia and an estimated parameter of mortality and morbidity during operation.

5. Avoid systematically re-examining the wounds: ***do not change the dressing before delayed primary closure***[13], that is to say 5 days after the intervention, except where the surgeon gives indication to the contrary *(the external dressing can be changed if it is dirty, without touching the part which is in contact with the wound)*. If the doctor estimates that the general state of the patient is not satisfactory, the revision of the wound will be carried out in operating room, under anaesthesia.

6. ***A nursing care form*** must be filled in. If we work in a non-MSF structure, we will use the form to which the personnel is accustomed for preference: it is up to us to adapt to the situation, it is not the moment to instigate a revolution in the management tools! If this form is not adequate *(the parameters to be followed are not mentioned)* or non-existent, the MSF model will be used.

→ ***Sheet n°27 : « Patient's file and Nursing care form –MSF model »***

The dangerous hours....

In the majority of our medical projects, the patients "at risk" often die towards the end of the night, between 2 and 4 am in the morning. Very often this is related to an absence of follow-up nursing care just before this period, which leads to a slow degradation of the patient. Indeed, not only are "the best" nurses assigned to shifts during the day but moreover the number of nurses present during the night is often limited → It is therefore necessary to take care to always have a nurse-supervisor and a sufficient number of nurses or assistants during the night. Do not forget that accompanying persons *(family, friends)* can assist you in many tasks. Admittedly you will have to take the time to explain to them what they must do, but this "wasted" time will pay off in the long term.

5.3. Hygiene

In a hospital, a good hygiene is fundamental. In order to achieve this, it is necessary to have:

- Staff in charge of hygiene *(cleaners, staff for the laundry, staff for maintenance, WHS personnel,..).*
- Means to clean at the disposal of the patients and the personnel
- Good patients and staff awareness on the use of the means at their disposal

→ ***Sheet n°28 : « Hygiene hospitalization ward :daily planning of the activities, material for the patients and the staff, awareness messages for the patients and the staff »***

Note that the hygiene material is also included in the checklist of the sheet n°54.
The job descriptions for the staff in charge of hygiene are included in the sheet n°48.

5.4. The comfort of the patient and prevention of pulmonary embolism and decubitus ulcers.

- Never forget that a patient confined to bed tends to lose heat quickly *(absence of muscular movements, catabolism, dehydration, fever,…)* → a blanket *(or two or three according to the climate and needs'*) can make all the difference.

- If possible, install the patient *(using cushions,…)* with the top of the body slightly raised in order to facilitate breathing.

- A light tilt of between 15 and 20% from the foot to the head of the bed[14] in order to raise the legs will facilitate the venous return which decreases the risk of pulmonary embolism

[13] *The delayed primary closure is the covering of a wound 3 to 7 days after the trauma (depending on the location of the body).*

[14] *One can simply slide a brick or a pallet under each leg at the foot end of the bed, .. make sure that your assembly is stable, it would be unfortunate if your patient fell out of bed!*

(orthopaedic surgery and confinements of a long duration, more than 5 days, are regarded as the principal factors contributing to the development of embolisms).

- There is nothing more likely to cause a decubitus ulcer than a wet bed, clothing or bandage. It is imperative that the patient remains dry *(sheets, clothing, bandages)*!
- Immobility is also a contributing factor, it is therefore necessary to mobilize the patient as soon as possible *(see chapter 8: "Physiotherapy)*

5.5. Food

We should not forget to nourish the patients, including the patients who can not feed themselves.

→ See also chapter 6 « Nutrition » and the sheet 31 : « Nutrition for the wounded : energy needs – nutritional diet – emergency stock – personnel ».

5.6. Separation of the patients

According to sex :. It is obvious that it is necessary to hospitalize men and women in separate services. If that is not possible, it is necessary to ensure the intimacy and the dignity of the patients, by using "home-made" folding screens for example.

According to status : Any wounded person is entitled to receive medical care. You are therefore likely to have to deal with the civilian wounded but also soldiers, rebels[15],… It is delicate, or even dangerous to oblige these different populations to cohabit. It is therefore necessary to separate them and to have a good security setup in order to avoid incidents.
Please note: it is not always easy for us to make the distinction between a soldier of the regular army and a rebel *(same uniform,…)*. Do not hesitate to ask your staff, they will be able to give you valuable advices.

Also note that your staff can have difficulties accepting the presence of rebels and/or soldiers considered as the "source of all the evils", "enemies of the people",… It is therefore important to explain humanitarian law to your personnel.

5.7. Patients' relatives

In many countries, the patients' relatives find it natural to stay at the hospital as well. This will be even more true in situation of conflict where the hospital will be perceived as the last refuge offering a certain safety *(in certain cases, even the staff of the hospital will want to shelter their families there)*.

However, while the patients' relatives are very useful, and even essential in taking care of their patients *(hygiene, food, mobilization, moral support,…)*, they can also quickly become invasive *(besides taking into account that the more there are, the more difficult it is to maintain good hygiene and the higher risk of cross infections)*.

It will therefore be necessary :

- To limit the number of accompanying family members to 1 only person/patient
- To inform the families that, even if they play the part "of assistant-nurse", they will be asked to leave the ward during the doctors round or when care is being given.
- If it is really not possible to limit the number of accompanying family members, to envisage a place, separate from the hospitalization, where they can remain.
- To have one or more guards that are able to contain the families, with tact and diplomacy.

[15] *In principle wounded soldiers are taken care of in a military hospital. The same applies to rebels who should be hospitalized in military hospitals under the status of "prisoners of war", in a separate ward and ideally under the supervision of the ICRC. However, if there is no military hospital in the region or if it is overflowing, you may be obliged to take care of them until such a time that they can be transferred to a more adequate structure.*

5.8. Discharging the patients

When can a patient leave ?

It is the surgeon who decides on the departure of a patient, who signs the discharge card and which clearly indicates the treatments to be taken at home as well as the dates of follow-up consultation.
Take care: it is important to make sure that the patient has clearly understood the prescriptions and recommendations! *(How many patients have remained with suture or plasters for months, not because they could not return to the hospital for reasons of geographical accessibility or safety, but because they had not understood the initial message!).*

In theory, the patients should leave when the wounds are completely healed, the suture and plasters withdrawn,… However, if the hospital is overflowing because of a massive arrival of wounded, one will be obliged to discharge certain patients prematurely in order to free up more space.

Whether the patient is healed or not, one should ask oneself the following questions before they leave :

Where ?	- Does the patient have accommodation ? - Is there access to the patient's home ? - Does he/she need family support, if yes, is his/her family present ?
How ?	- Does the patient have a means of transport or does he/she have money for transport ? - Does he/she have adequate clothes ?
Medical follow-up ?	- Does the patient have access to the hospital ? - Is he/she mobile enough to go to the hospital ? - Is follow-up possible in an other health facility ?

Discharge card

Upon discharge from the hospital every patient is given a card that will be used to retrieve his file, to check that the treatments prescribed at discharge have been followed correctly and to plan and document further treatment. It is very important that the patient clearly understands the importance of this card and that without it, it will be difficult to follow his treatment properly..

→ ***Sheet n°29 : «Discharge card »***

Medical certificate

The medical certificate is obligatory for the clinician

- *In situations where illness, injury, or death, is the result of a misdemeanour or felony (e.g. rape, torture, or assault), the doctor is under the obligation to establish an individual, confidential medical report certifying the results of the medical examination. The report is for the benefit of the victim or his or her heirs.*

It is the victims' right

- *Medical reports may play an important role, since they may be the only evidence available for a victim to prove the violation suffered, and thus be able to defend his or her rights, whether claiming refugee status or disability or denouncing torture or rape in a criminal case.*

Completing a medical certificate takes time and adds a further constraint to the achievement of the medical humanitarian mission. Furthermore, many doctors are not used to dealing with these formalities. As a result, various excuses are often given for not providing the victims with these certificates.

→ ***Sheet n°30 : « The need for establishing a medical certificate + Example of a medical certificate »***

6. Nutrition

**If the patients do not eat well,
their wounds will not heal.**

Patients who have undergone major surgery for serious wounds, those with extensive burns and those who develop complications may lose weight rapidly; and unless this is corrected, their recovery will be slower and more difficult.

6.1. What type of nutrition is required?

The trauma and subsequent surgical interventions do modify nutritional physiology: the metabolism goes through three phases which each have specific nutritional needs.

- Phase 1 : The “ebb” phase, starts immediately after the trauma and does not last longer than 6 to 18h, even after severe injury.
  No high-energy feeding during this phase – fluids, enteral feeding solutions or light diet

- Phase 2 : The “flow” phase, which can last up to 5 days after a minor intervention or much longer (some months) if there are complications.
  A highly energetic diet is indispensable – muscular protein loss, and consequently weight loss, can set in very quickly

- Phase 3 : The « anabolic » phase which starts when the injuries are closed and the healing process of fractures or burns has started.
  The patient regains weight

Energy needs vary according to the seriousness of the patient’s condition and his/her age: from 2200 to 4400 Kcal/day for an adult and from 90 to180 Kcal/Kg/day for a child

6.2. Nutritional diet

Whether the patients receive care *(from the hospital, from the family)* or not, a nutritional diet is always required.

- Patients receiving care from the hospital or from the family → nutritional supplement
- Patients receiving no care → complete nutritional contribution

This represents a great deal of work that should not be overlooked, and a special team should be allocated to this task.

The situation will be particularly complex when markets no longer function *(due to insecurity or following their destruction in an earthquake or a tsunami, for example)*, rendering the provision of foodstuffs extremely difficult or even impossible

In this type of situation, it is critical to have an emergency stock composed of specialised food for coping with “x” wounded *(number to be determined when the emergency preparedness plan is being drawn up)* during 3 to 5 days.

It should be noted that in this type of situation, a food stock should also be available for the personnel who may not be able to return home for their meals, and for the persons accompanying patients *(the number of persons accompanying patients should ideally be limited, but this is not always*

possible: once they have arrived at the hospital door, it can be impossible to send them home if there is major insecurity in the town or region).

→ ***Sheet n°31 : « Nutrition for the wounded: energy needs – nutritional diets – emergency stocks - personnel »***

7. Psychological support

Remember that all wounded,
even those with wounds considered as "minor", have undergone a traumatic experience

In addition, in conflict or disaster situations, the close circle of the wounded *(family, friends etc.)* has often also undergone a traumatic event. Likewise for the national staff, Ministry of Health staff, etc.

→ ***Sheet n°32 : « Traumatising factors during natural disasters and armed conflicts»***

7.1. Objectives

- Reduce the state of stress during the acute phase in order to avoid the apparition of psychopathological troubles
- Help people to overcome the traumatising event
- Help people who have not managed to overcome their traumatic experiences or their psychosocial problems

In crisis situations, the majority of the population concerned presents symptoms of stress. This does not signify that everybody is "traumatised", but rather that each person needs to re-establish his/her psychological equilibrium.

These symptoms are considered normal given what the population has been through. They will be more or less intense and more or less persistent depending on the type of event in question, the characteristics of the person in question and the characteristics of the recuperation environment *(family, friend, social group).*

→ ***Sheet n°33 : «Trauma : what is it »***
→ ***Sheet n°34 : « Psychological reactions to a traumatic incident»***
→ ***Sheet n°35 : « Factors involved in traumatic reactions »***

7.2. Intervention

The intervention will be based on the victims' needs, which will change over time. It should begin in the minutes following the wounded patient's arrival, whether or not there is a psychologist in the team. Indeed, all persons implicated in the care of the wounded can, by his or her attitude and by the way in which he or she administers care, influence the patient's psychological development.

→ ***Sheet n°36 : «The immediate psychological support – helpful attitudes »***

- Recruiting personnel
- Training personnel
- Supporting personnel
- Supporting the patient's close circle
- Organising the care and post-emergency follow up

7.2.1. Recruiting personnel

- As mentioned above, all persons implicated in the care of the wounded have a role to play. Nonetheless, it is obviously better to have specialised personnel available. They can ensure

the training of medical and paramedical personnel and more specifically help patients who have not managed to overcome their traumatic experience.
A list of people to call in the event of an emergency will have been drawn up during the emergency preparedness *(psychologist/social assistants etc. working in private practices or in other health care facilities, personnel from other local or international NGOs, psychology students, etc.).*

- Both masculine and feminine paramedical and medical personnel should be recruited[16], given that it is not possible for some people to express their feelings to a person of the opposite sex. *(Most of our intervention contexts are marked by a limited access to education for the female sex. So we tend to have the reflex of filling the qualified posts – and often also the non-qualified ones – with men.)*

7.2.2. Training the personnel

- You need to provide the personnel (*from the watchman through to surgeons*) with information on possible psychological reactions following a traumatising event and attitudes that can have a positive influence on the psychological development of the wounded.

- You should insist on the importance of receiving patients correctly and according them attention. Each patient needs to feel listened to… and a few minutes can make all the difference *(we often tend to rush about during an emergency situation, attending to the most urgent care, forgetting sometimes that psychological needs also form part of the « most urgent » care[17])*.

- You should emphasis the fact that everyone has undergone a traumatic experience, and so a patient with a "minor" wound should not be sent home without checking his/her level of stress and capacity to cope beforehand *(family or friends to support him/her, etc.).*

7.2.3. Supporting personnel

- Don't forget that the national staff form part of the population and so can also be affected by what is happening in their country/region, or undergo traumatic experiences.

- They can be worried about their families, left alone whilst they are working, perhaps without shelter following a disaster, etc. You should adapt the personnel's working hours and numbers whenever possible to take these preoccupations into account.

- National staff are also confronted with terrible situations at work *(serious wounds, deaths, etc.)*: you should set aside a discussion area where emotional difficulties can be aired or anticipated.

→See also point 11 « Personnel »

7.2.4. Supporting the close circle (family, friends)

- During the first moments of the emergency, the persons accompanying the wounded are often a burden for the health care personnel, who are already rushed off their feet and could do without extra people "getting in their hair", asking non-stop questions, making comments, etc. But the entourage *(family, friends, etc.)* also needs support. Indeed, not only is it affected by the fact that a member of the family or a friend is injured; but it may furthermore have undergone other trauma *(loss or disappearance of a family member, destruction of the house, etc.)*. It is therefore very important *(for their good and yours!)* to have personnel specifically designated to receive and support the families and respond to their questions… and to set aside an area especially for this purpose.

- In certain cases, patients die before arriving at hospital; a certain number of patients will also die during their hospital stay. These deaths need to be announced to the families, and the body taken care of whilst respecting cultural traditions. It is also necessary, as far as

[16] *This often amounts to having a list of people available in the event of an emergency*

[17] *Thus we have seen patients with both legs amputated letting themselves die (by refusing to drink and eat) because they have given up hope for the future*

possible, to take care of “non-accompanied” bodies in a way that enables their transfer to families once they appear.

→ Sheet 37: « How to announce a death »
→ Form 18: « Management of the dead »

7.2.5. Organising post-emergency care and follow-up

- Certain patients, and in particular those who have not managed to overcome their traumatic experiences, will require more specific care and/or accompaniment over and above the emergency and hospitalisation period. This can also be the case for members of their entourage.

- It is therefore important to know about the existing possibilities in the region/country *(local or international organisations, services for psychological case management, etc.)* so you can refer them on.

- How can we judge if such services are adequate? Obviously it is difficult to evaluate the qualities of sessions and/or therapies on offer. We can nonetheless look into some elements including the team’s training, the methods used, etc., and check the credibility of the organisation or service in question with other recognised actors present in the field.

→ Sheet n°38 : « Evaluation scale for organisations offering psychosocial follow up»

8. Physiotherapy

The physical re-adaptation of patients wounded by war or disaster is a crucial element of their case management; it should always be integrated into surgical case management and nursing care. Unfortunately, this activity is often neglected, above all during emergency situations, due to the lack of available and trained personnel. Yet it can help to avoid numerous risks of complications, and simple techniques can be applied by non-specialised personnel.

8.1. Objectives

- Avoid the medical complications associated with immobilisation
- Avoid the psychological suffering associated with immobilisation
- Render handicapped patients as autonomous as possible following their injuries

8.1.1. Medical complications associated with immobilisation

- Skin *(decubitus ulcer)*
- Respiratory *(reduction in the vital capacity, lungs blocked by secretions, hypostatic pneumonia, atelectasis)*
- Cardiac and vascular *(phlebitis, thrombosis, pulmonary emboli)*
- Intestinal *(transit slowing down, constipation and risk of fecaloma)*
- Bones *(demineralisation, heightened elimination of calcium in the urine increasing the risk of urinary calculus)*
- Locomotors *(amyotrophia, muscular retractions, articulary ankylosis, etc.)*

8.1.2. Psychological suffering associated with immobilisation

Each person experiences immobility differently, and the causes behind it as well as they way it works play an important role. Lying down immobilised evokes death and images of childhood dependence. Immobility also generates worry and anxiety due to the state of dependence and the fear of abandon it entails. Other difficulties include establishing relational contacts *(only looking at the ceiling and interlocutors’ nostrils)*, being cut off from sensations, situating things in space and time, etc.

8.1.3. Handicap following injury

The most frequent risk is amputation of a member, but there are other handicaps such as blindness *(an affected eye requiring enucleation)*, deafness *(rupture of the tympanum following an explosion, for example)*, paralysis *(following cerebral or cervical trauma, etc.)*, etc.

8.2. Intervention

- Recruiting staff
- Training staff
- Having material pre-positioned
- Organising post-emergency care and follow up

8.2.1. Recruiting staff

- Physiotherapists: it is obviously ideal to recruit qualified staff. A list of people to call in the event of an emergency will have been drawn up during the emergency preparedness *(physiotherapists working in private practices or in other health care facilities, personnel from other local or international NGOs, physiotherapist students, etc.).*

- Volunteers: volunteers often offer their help during an emergency situation. They can be allocated diverse tasks depending on the level of their training, including the mobilisation of patients by using simple physiotherapy techniques.

- The family: like the volunteers, the family can also learn simple physiotherapy techniques and thus help mobilise the patients.

8.2.2. Training the staff

Non-qualified staff should receive training including simple exercises adapted to the type of patient. The level of the qualified personnel's training should also be checked and their skills refreshed if necessary.

→ Sheet n°39 : «Simple physiotherapy exercises for a voiding complications associated with immobilisation»
→ Sheet n°40 : « Mobilisation exercises and material for persons handicapped following their injuries »

8.2.3. Having material pre-positioned

All too often we forget to anticipate even simple material such as crutches, for example, which can be difficult to obtain in an emergency. So we strongly advise that in regions at risk of conflict and/or disaster, you should have a little stock of this type of material and/or know where it can be procured without delay and/or have a model that is easily copied by a local craftsman.

→ See also point 12: « Material » and the sheet 40 « Mobilisation exercises and material for persons handicapped following their injuries » where you will find models of material that can be made locally.

8.2.4. Organising post-emergency care and follow up

Certain patients, and particularly patients handicapped following their injury, will require care and accompaniment well over the emergency and hospitalisation period *(re-education, prosthesis, etc.)*. It is important to know the possibilities *(how they work and conditions for accessing them[18])* available in the region/country *(local and international organisations, re-education and fitting out centres, etc.)*, not only for referring patients at the end of their hospitalisation but also for passing on such information right from their first day in hospital. Indeed, when confronted with their handicap, patients fear for their futures and certain are tempted to let themselves die *(by refusing to eat, for example)*, having lost all hope of leading a "normal" life. Knowing that there is care for them after the hospital, and they will be offered re-education, fitting out etc. can give them future perspectives which often lead to a re-discovery of the will to live.

[18] *It should be noted that in certain cases, the ICRC can cover the costs of re-education and fitting out of injured persons recognised as being war wounded in approved centres. Do not hesitate to find out about this with ICRC if it is present.*

If possible, do not hesitate to organise a meeting between the wounded and the people working in these re-education and/or fitting out centres.

9. Referral to a hospital facility specialised in specific care or secondary and/or reconstructive surgery

We are often led to work in "field hospitals", installed for the emergency in an emergency, or poorly equipped district or provincial hospitals. This is why we frequently need to transfer certain patients to facilities offering a higher level of care.

9.1. It is therefore necessary to identify a reference hospital for:

- Providing case management of patients requiring:
  - Specific care (e.g. dialysis)
  - Secondary surgery
  - Reconstructive surgery (e.g. skin graft, etc.)
- Following up the case management of patients who have been stabilised in a field hospital and require long term hospitalisation.
  (N.B. If there are no facilities offering patients a level of care adequate for long term hospitalised case management, a medical village should be envisaged – see "Where to intervene – point 3")

This requires identification of existing facilities and their technical capacities, which ideally should take place during emergency preparedness.

→ ***Sheet n°1: « Evaluation of a health care facility »***

9.2. Collaboration agreements with reference facilities

Obviously a collaboration agreement should be drawn up with a health care facility before patients are sent there.

The agreement should establish the following:

- Which gestures and acts of care can be carried out directly and which ones require the approbation of the MSF medical manager beforehand *(we have received bills in the past for massage care which was absolutely not necessary…. Do not be naïve – sometimes the health care facilities' interests take priority over the patients'!)*
- How the medical collaboration between the health care facility and MSF works, including:
  - Authorisation for follow up of the patient referred by a member of MSF personnel
  - Consultation between the MSF referral doctor and the hospital doctor in the event of any problems
  - The drafting of a hospitalisation report, and its transmission to the MSF doctor, when the patient leaves hospital
- What the hospital cannot handle *(if the hospital is short of medicines, compresses, etc., it is better to be informed immediately...)*
- The financial set-up: what MSF will pay for *(technical acts, hospitalisation – in cost recovery systems, standard charges normally exist for each type of activity);* when and how MSF will be invoiced. You need to insist on the fact that patients should not be made to pay anything! If there are any problems or questions, the hospital should refer to the MSF manager.

→ ***Sheet n°11 : « Example of a collaboration agreement between an MSF facility and a reference facility »***

9.3. Which patients will be transferred?

Criteria should be established to decide if a patient should be transferred or not. These criteria vary according to context, and will include:

- Non-covered needs which can be met by a reference facility *(adapted technical capacity, quality of pre and post-operative care, etc.)* and which represent a real benefit for the patients.
- Feasibility of the reference *(possibility of collaboration agreement, possibility of transfer, etc.)*

9.4. How will patients be transferred to this facility?

9.4.1. Practically speaking, how do we transfer patients?

- Do we have an ambulance adapted to long journeys?
- Is there an organisation that can transport them by plane *(ICRC, UNHCR, etc.)* ?
- How much will this cost?
- Is a medical person required to accompany the patients in the plane?
- Do the organisations in question accept to transport the persons accompanying the patients?
- Who will transport the patient from the landing strip to the hospital?

There are many questions requiring responses before transferring the first patient.

9.4.2. Reference document

A standard reference document should be drawn up for each patient transferred to a health care facility.

→ ***Sheet n°42 : «Example of a reference document »***

9.5. Follow up of referred patients

Even if the technical capacity seems to correspond to our needs, there can be problems with the care accompanying them, particularly post-operative care. In addition, even if a collaboration agreement exists with the reference facility, it is not always (*frequently not)* respected… this will above all be the case in health care facilities using a "cost recovery" system. They have a tendency to limit or neglect the care of "non-paying" patients *(even though they are in fact paying patients because MSF pays their hospital bills for them).* Thus dressings are not always renewed when they should be, for example *(compresses are apparently a rare commodity!)*...

So it is often necessary to have someone follow up the referred patients, on a daily basis if possible.

Don't forget that in many health structures, the hygiene and diet of the patient are not covered by the hospital, so the patient needs a person accompanying him/her *(a member of the family)*. And if he/she does not have the financial wherewithal, which is often the case…. a "per diem" or food ration should be provided, allowing the patient and accompanying person to feed themselves.

9.6. When referred patients are discharged from the hospital

In a certain number of cases, patients also need care after they have left hospital.

- Organising their return home *(especially if the patients were referred to a facility outside his/her town or village),* or to a refugee/displaced camp
- Ensuring that they receive the care and medical examinations required after their hospitalisation

Part 2 – The means required

10. Infrastructure

10.1. Which medical facility

Any place which can be used and/or organised to receive an influx of wounded. This includes, in order of priority:

- An existing hospital *(MSF or not)*
- An existing health centre
- A field hospital set up for the emergency
  - in an existing building *(office, house or MSF warehouse, other solid building, etc.)*
  - in structures especially envisaged and/or equipped for the emergency *(tents, hospital-boat, containers, etc.)*

10. 2. Choice of facility

10.2.1. Location

As close as possible to the wounded But, if possible Outside the conflict area or area at risk	➔	Avoid the need to transport the wounded over long distances Ensure the security of patients and staff
Accessible For the wounded and the personnel	➔	Certain parts of the town or region are better « protected » by the military and therefore less accessible, or become a conflict area, or are destroyed, flooded, at risk, etc.

Ideally, the choice of possible facilities will have been made during the emergency preparedness according to:

- The scenario(s) [19], and particularly:
  - Where does the event risk taking place? *(in the bush, in town, etc.)*
  - Which places could still be accessible for the wounded and staff and which are more at risk (*potential targets for assailants: military installations, government installations, certain neighbourhoods targeted due to their ethnic associations, airport, radio-television, etc., assailants' access/exit routes, the areas the most at risk in the case of natural disaster: land slides, collapsing buildings, etc.)*
- Existing health care facilities and other possibilities *(field hospital, evacuation to the capital, etc.).*

Please note: Several scenarios should be envisaged **including several options of health care facilities because the situation can develop in an unexpected manner** *(the hospital you are counting on is completely inaccessible with the front line standing between you and it, or on the contrary the rebels have been stopped at the edges of the town and the central hospital, which in your scenario was situated in the area at risk, is in fact accessible,…the road has collapsed during a second earthquake and there is no longer any access to the facility chosen, etc.)*

[19] *On the subject of scenarios, see the pocket guide « Emergency preparedness »*

With this in mind, a plan of the town or region will have been studied during the emergency preparedness, localising the main existing health care facilities and other buildings which could be used as field hospitals *(or land available for setting up a field hospital)* as well as the main strategic areas in the event of conflict *(presidential palaces, government headquarters, military garrisons, access routes, etc.)* and the areas most at risk in the event of a natural disaster *(building situated at the foot of a hill which can be wiped out, areas more exposed to flooding, etc.)*

10.2.2. Type of facility: MSF facility versus existing facility

We will opt for an existing facility whenever possible, given that this is a complicated facility to set up *(requires a lot of human resources and material)*, **unless** the evaluation of existing facilities has not given satisfying results and there is no improvement possible *(access difficulties, security problems, ethnic tensions, administrative obstacles, etc.).*

Several collaboration models are possible: either MSF takes charge of everything during the emergency *(from the wounded's admission until they leave)*, or MSF reinforces and supervises the triage and surgery and provides all post-operative care, or the opposite,...

In all cases, the following is required:

- The conclusion of a sound collaboration agreement *(Be careful, during an emergency, everyone is ready to collaborate and sign anything … but initial euphoria often gives place to frustration and discontent all round. In order to avoid this, it is* ***important to take the time to discuss each point and be certain that each party is satisfied before concluding a collaboration agreement****).*
- The certitude that we can guarantee the quality of care *(respect for protocols, supervision of all the care provided, etc.)*
- The joint preparation of the disaster plan and carrying out a simulation exercise together

  → ***Sheet n°43 : « Training session : Disaster plan, triage and first aid – general presentation + exercise simulating triage and first aid »***

- Obviously, the facility should be reinforced according to the results of the evaluation *(medicines, medical equipment, logistics equipment, installations (latrines, showers, waste area, etc.), tents to increase accommodation capacity, staff)*

If no structure meets these criteria *(positive evaluation and collaboration possible)*, we can opt for an MSF structure, i.e. a field hospital *(See below point 10.6).*

10.2.3. Type of facility: Building

In a conflict situation:

- We prefer solid buildings as they offer better protection against stray bullets, shards, etc.

In the case of a natural disaster:

- We prefer light buildings during earthquakes *(tents, containers, etc.)* unless there are solid buildings conforming to anti-seismic norms *(which is rarely the case in the contexts we work in)*, because there is always an « after shock » after an earthquake. Structures should thus not be located next to solid buildings which can collapse *(be careful, structural weaknesses in buildings are not always visible)* or on land which can slide *(sloping land, ravines, etc.).*
- During floods, chose a facility or set one up in a non-flood zone and sheltered from any possible land slides. If there is no non-flood zone sufficiently close to the victims, we can think about a boat-dispensary for delivering first aid and stabilising the wounded and/or boat-ambulances for transporting the patients towards a medical village or a reference hospital!

  → ***Sheet n°8: « Post-natural disaster risks »***

10.3. Securing the facility

The facility should guarantee the security of the patients and staff.

→ Sheet n°44 : « Security check list – Influx of wounded »

10.3.1. Securing material

- The facility should be given material protection against the impact of projectiles, the effects of explosions *(windows shattering, etc.) (N.B. On principle, the facility should be located outside the conflict area...but this is not always possible, particularly when the conflict takes place in a town like Monrovia, N'Djaména, Conackry, ..and in addition a conflict can move around!)*

- The facility should be protected against the weather *(floods, storms: violent wind; deluges of rain, etc.)* and against the risks associated with after-shock *(earthquakes).*

  → Sheet n°6: « Securing buildings »
  → Sheet n°7: « Preventive measures in zones at risk of natural disaster »

10.3.2. Identifying the structure

- It should be known and recognised as a hospital:

  - The parties to the conflict and the population should be informed of the hospital's existence, purpose and independent status

- It should be identified as a medical establishment:

  - Presence of large distinctive signs on the outside walls and on the roofs
  - Lighting up the distinctive signs at night

10.3.3. Identifying the staff

- All the personnel working in the hospital should be identified *(armband, overjumpers, jacket, etc. + for MSF staff : MSF identity card and mission order if travelling).*

10.3.4. Security at the hospital entrance

- The hospital should be secured against a "flood of visitors" and all types of intrusions *(military, the curious, etc.)*:

  - Security guards at all the entrances and exits *(it will never be possible to keep everybody out of the hospital, so an area should be set aside for « visitors » where they can wait, receive information, etc.).*

  - If possible, separate access for ambulances/vehicles, the wounded and the staff

- No arms should enter the hospital *(in a conflict situation, we will inevitably have to deal with military and/or rebels carrying arms... They should be unloaded and deposited in a safe provided for this purpose).*

10.3.5. Security inside the hospital

- If possible, the different populations should be separated: military/rebels/civilians. *(N.B. The military should be referred towards a military hospital as soon as possible).*

- Have security guards circulating inside the hospital for watching over the general security *(intrusions, arms, fire risks, etc.)*.

10.3.6. "Normal" security measures

- Protection against fire *(« No Smoking » signs, correct storage of dangerous products, sufficient space between the tents to avoid the rapid spread of fire, fire fighting material, etc.).*

→ ***Sheet n°6: « Securing buildings »***

- Provide sufficient lighting, both for the work rooms and the access routes *(corridors, paths leading from one hospital zone to another, etc.)*, as well as areas and infrastructure provided for the public *(latrines, etc.)*.
- There should be no obstacles that can lead to falls *(holes, tent cords or material in the middle of paths, etc.)*: think of the stretcher bearers and the walking wounded!
- And do not overlook communication means, both internal *(between different departments in the hospital)*, and external *(communication with the coordination team, headquarters, etc.)*.

10.4. Plan of the facility

It is not possible to propose a standard plan. It has to be drawn up according to the facility being used. Different zones need to be foreseen in the facility for:

- The entrance *(if possible separated for ambulances, the walking wounded, personnel)*
- Triage
- Treatment *(first aid by category)*
- Operations *(operating theatre, recovery room)*
- Reanimation *(attentive care unit)*
- Sterilisation
- Hospitalisation *(separate wards for military/rebels/civilians if necessary)*

The following are also required:

- A morgue *(or another arrangement if there is a large number of dead)*
- A logistics stock
- A medical stock
- A food stock
- A kitchen *(for feeding patients and staff)*
- An office /meeting room for the staff
- A rest room for the staff + staff accommodation if they cannot leave the facility for security reasons
- A waiting room for families

Without forgetting the organisation of water, hygiene and sanitation *(see point 10.5.below).*

→ ***Sheet n°45: « Recommendations for the planning of your facility »***

10.5. Equipment for the facility

10.5.1. Water – Hygiene – Sanitation

We recommend that you read the sheet below.

→ Sheet n°46: « Essential water and sanitation requ irements for health structures »

Please note: in situations of conflict or natural disaster:

- Installations can be damaged or completely destroyed
- Water sources can be contaminated (*sometimes deliberately!*) or can disappear *(earthquake modifying the geography of the region*)
- Access to the infrastructure is sometimes not possible (*insecurity, roads cut off or flooded, etc.*).

And even if the original installations *(latrines, showers, waste area, etc.)* are still functioning, an influx of wounded puts them to intensive use and can quickly surpass their capacity.

So, you need:

- Water, lots of water! *(100 litres per surgical intervention, without counting all the rest: kitchen, laundry, showers, maintenance of all the departments, etc.)*
- Impeccable hygiene at all levels *(as in all hospitals, of course, but here you risk being particularly busy because an influx of wounded rapidly transforms your triage zone into a bloodbath!)*
- And you are going to generate a lot of waste (*of all types, particularly organic waste from amputations which are unfortunately often the common currency of war surgery*).

It is therefore necessary to:

- During the emergency preparedness → anticipate some water-hygiene-sanitation material for re-enforcing or replacing existing installations
- During the alert phase → prepare a rescue stocks (sufficient water reserves for X[20] wounded during 3 to 5 days).

10.5.2. Energy

As for water-hygiene-sanitation, the existing equipment may have deteriorated or been destroyed. Material and fuel should therefore be on hand for:

- Working the apparatus required *(sterilisation, operating theatre, cold chain, etc. and perhaps radiology)*
- Lighting up the facility at night: a security measure *(lighting up the protective signs for identifying the hospital – lighting up the access routes and public areas to avoid falls),* and a measure of reassurance for the patients *(pitch blackness can cause anxiety amongst patients, especially when they are scared of dying, which can be the case for war wounded)*.

If possible, you should plan on using a main source of energy *(generally town or generator electricity)* and have a back up source of energy to hand *(solar panels, or even solar lamps)*.

Do not forget that certain apparatus can function in 2 modes *(e.g. autoclave/fridge can function on electricity or gas)* so you need to have both types of fuel in stock.

Plan a source of energy for the kitchens as well *(if the electricity and/or gas are limited, opt for wood or coal in order to conserve the other fuels for medical apparatus)*.

[20] The number of wounded expected should be determined during the drafting of the emergency preparation plan and will depend on different scenarios as well as the facility's case management capacity (infrastructure, personnel and material).

10.5.3. Material

N.B. This point is detailed in chapter 12 .

Beds or no beds?

Whenever possible, the facility will be equipped with beds which are more comfortable for the patients and staff and facilitate the maintenance of the wards. But beds are nonetheless not indispensable *(nobody is bound to the impossible!)* and patients can lie down on mattresses (*covered with plastic, and with sufficient cushions to improve their comfort*) posed on the ground, unless:

- They have a member under traction
- They are equipped with drains or tubes

➔ It is therefore always necessary to have a sufficient number of beds in stock.

10.6. Field hospital

10.6.1. Field hospital

- Is a temporary medical structure set up during a disaster or in proximity to a combat zone, that can be deployed rapidly in order to respond to urgent needs for a limited period of time.

We will opt for a field hospital when :

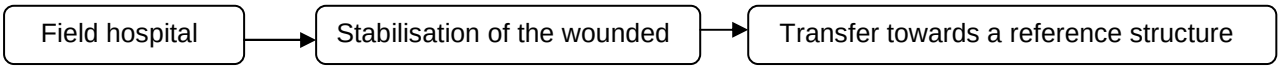
- There is no existing medical structure close enough to the wounded *(the location of the conflict or the catastrophe being distant from any existing medical structure)*

OR

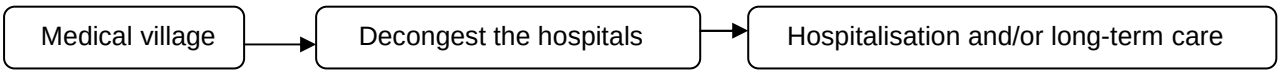
- The existing medical structure are not accessible *(they have been severely damaged, they are in the conflict area, they do not have the confidence of the population for historical, religious or ethnic reasons,...)*.

10.6.2. Field hospital – Medical village

One should not confuse these two entities which, even if they are often close one to the other, meet different needs.



➔ *It should be noted that, in some cases, the transfer to a reference structure will not be possible, either because there are no existing structures, or because they are not accessible. In this case one can transfer the patients who require long-term care to a medical village.*



➔ *For more details about the medical village see p.17 and sheet n°14.*

10.6.3. Where to set up a field hospital ?

Often when one speaks about a field hospital one thinks of converted offices, houses or MSF compounds. Even if those can be indeed accommodated as such *(ex. Monrovia)* they should not be the only solution considered. Indeed, whereas they offer certain advantages *(infrastructures generally well organised, water, electricity,… in certain cases stocks on the spot,…)* they are also often located in areas that are less accessible for the population : suburb of the embassies, proximity of the airport,… places which are likely to be, in the event of conflict, very militarized zones.

➔ ***See also 10.2.1. « Localization »***

10.6.4. How to set up a field hospital ?

All the recommendations in the chapter « Infrastructure » are also adaptable to the field hospital.

- Be particularly vigilant to clearly identify this structure, as contrary to an existing structure, is not yet recognised as being a hospital!
- It is undoubtedly worth remembering that installing a field hospital in emergency without having prepared for the emergency can turn to the nightmare and in turn have consequences on the speed and the effectiveness of the intervention and thus the number of lives which could be saved!

11. Staff

11.1 Determining human resources needs

The HR needs must be determined before anything else. This requires:

- Drawing up a list of activities to be carried out
- Defining the tasks involved in each activity
- Identifying the different categories of staff required for executing these tasks

Example

Triage Activity		
Tasks	Category of staff	Number
Watching over the entrance	Security guard	4
Registering the wounded admissions	Registration clerk	2
Undressing the wounded	Nurse-aide	2
Triage of the wounded	Doctor	1
Providing life saving first aid	Nurse	2
Transporting the patients to wards, operating theatres, etc.	Stretcher bearer	8
Cleaning the triage area	Cleaner	2
Re-supplying the triage boxes	Store keeper	1

To help you with this, we have detailed the activities, tasks and categories of staff from the wounded's admission until they leave the hospital. Obviously these tables need adapting to your context *(depending on your activities – case management of triage and first aid only, for example, with surgical and post-operative care being provided by the Ministry of Health hospital -, the type of staff you have at hand and the number of patients expected, etc.)*.

→ Sheet n°47: « Activities, tasks and staff needs – from the wounded's admission until they leave the hospital »

You can then draw up **job descriptions** for each category of personnel. And of course, to help you along, we have prepared some standard job descriptions which you can adapt to your context if required.

→ Sheet n°48 : « Job descriptions »

11.2 Specific difficulties associated with conflict and disaster situations.

Providing care for an influx of wounded requires large numbers of staff (medical and non-medical). This is particularly so in situations of conflict and disaster where logistics difficulties are added to the difficulties of the medical work *(health facilities damaged, provision of water and electricity disrupted, no more supply circuit following the closure of markets, etc.).*

And, whether in a situation of conflict or disaster, the usual staff may not longer be available. They may:

- Have fled the conflict or disaster area *(to protect their family, live in better conditions, etc.)*
- Have no access to the hospital or health care facilities *(because the town is cut into two by the front line, or an earthquake has destroyed the access routes, etc.)*
- Have been a victim of the conflict or disaster *(the person or a member of his/her entourage is wounded or dead)*
- Not be available because they have to look after their family *(provide protection in a conflict situation, find new accommodation in a disaster situation, etc.)*
- Be too disturbed by events to come to work, etc.

Adjustments in the organisation

To prepare for this situation, you need to anticipate adjustments to normal practices. Here are some ideas...

Difficulty in accessing the hospital	Go and find the staff at home *(if security allows and you know exactly where to find them[21])*
The staff want to come to work but are not in a state to work full time *(too disturbed, need time to look after their families, etc.)*	Increase the number of staff in order to decrease the number of hours/days worked per person
Insufficient staff available : The disaster plan must foresee a list of staff that can be called upon in the event of emergency	- Call up persons who are not currently on duty - MSF staff working in other regions in the country - MSF staff from other sections - Ex-MSF staff laid off due to a reduction of activities - Staff from structures that close during emergency situations - Staff from local or international NGOs - Medical, nursing, physiotherapy, psychology students, etc.

At the same time, and above all during natural disasters, you will be confronted with numerous volunteers who will turn up spontaneously to offer their services in rescue operations. Whist this is not the ideal moment to initiate neophytes into the way a hospital works, it is sometimes difficult to refuse these offers of aid, and even if these people are not necessarily trained or qualified, there are numerous indispensable tasks they can carry out *(carrying stretchers, cleaning the triage zone, preparing meals for staff, etc.)*

[21] *During the emergency preparedness, you will have drawn up a list of the exact addresses of all your national personnel's homes and checked out the routes to get there. To avoid having to drive all over town in tense situations, you will have also foreseen assembly points for each neighbourhood or region. And, if possible, you will have established a means of communication between you and these assembly points (e.g. radios left at key national staff's homes).*

Large numbers of volunteers	Have 1 person who will be in charge of « recruiting » and directing these volunteers according to their qualifications, availability, etc.

And of course, recruiting staff....

If there are no staff available on the spot, you should bring in staff from a non-affected area *(but be careful: this implies a heavy logistics because they will have the same needs as expatriates: accommodation, food, etc.)*

11.3 Management of staff

As in all projects, good management of staff is fundamental, and even more in these situations, given the difficulty of the work and the intense and stressful environment.

We particularly insist on:

11.3.1. Support when confronted with emotional difficulties at work

Staff require close support when the conditions are particularly stressful. Be careful: this concerns all staff, international or national, watchmen or surgeons...

Indeed, surgeons can also tire out and fall ill, or be scared, impeding them from working normally. Cultural problems can increase frustration, preventing surgeons from carrying out what they consider is best for the patient. In certain countries, for example, an amputation or a laparoscopy is only possible with the consent of the family, and it is hard to leave a young man to die simply because the surgical intervention did not take place when required.
Watchmen are also submitted to a lot of pressure from families, friends, visitors, etc who want to enter the hospital at all costs and who sometimes demonstrate aggressive behaviour due to their stress. They need to be reassured and contained, and directed towards a waiting room organised for them.

11.3.2. Adequate working conditions for each employee

- Excessive working hours should be avoided - there is a high risk of rapid staff “burn out”. During an influx of wounded, the first 24 hours are often particularly busy and the teams limited in number *(few personnel have managed to reach the hospital)*, meaning they have to work way over normal working hours. You therefore need to anticipate the replacement of these teams right from the start, and as rapidly as possible *(as soon as other personnel are available)*, and then introduce a detailed plan for team turnover.
- Rest time must be respected: personnel often work way over their normal hours during emergencies, continuing to offer assistance to the victims. If there are enough personnel, and this is not indispensable, you need to insist that personnel take some rest, thereby avoiding burn out after a few days.
- Personnel should have at least 1 day of rest per week.
- Appropriate material should be supplied, particularly protection material *(gloves, boots, overalls, etc.)*. Personnel should also be vaccinated, at least against tetanus and hepatitis B[22] *(ideally regular personnel will have already been vaccinated as part of emergency preparedness, but you need to think of checking the vaccination status of persons recruited for the emergency)*.
- In conflict situations, it is possible that the personnel will need accommodation at the hospital, with security preventing them coming and going between their homes and work. You therefore need to set aside a place where personnel can rest *(annex to the hospital, tents inside the hospital compound, etc.)*. Personnel may no longer have their own accommodation after a natural disaster because their homes have been destroyed. They should be found decent shelter as soon as possible.

[22] *And against all other pathologies at risk in this context and at this time of year (meningitis, typhoid, etc.).*

- Food and drink will also be required, with personnel helping themselves on a regular basis to "recharge their batteries".

11.3.3. Regular meetings

There should be a meeting with the personnel at least once a week with the aim of exchanging information, giving feedback on the activities in progress, listening to the difficulties encountered by the different categories of personnel and trying to try and resolve them.

11.3.4. Security

- You should be aware that in certain circumstances, national personnel can be exposed to bigger risks than expatriate personnel. They can also be subjected to greater pressure *(for example pressure from a local representative wanting a member of his family to be treated as a priority when he/she is not a medical priority)*. If this is the case, national personnel should not be placed in positions exposing them to these risks. Expatriates can assume this "front line" role instead.

- Identification of personnel: identification material should be distributed to all personnel *(jackets, overjumpers or armbands, etc.,)* and, for personnel under contract with MSF: an MSF identity card and mission order *(when travelling).*

11.3.5. Without forgetting the essentials

- Explain what MSF is about *(the charter, translated into the local language)*: understanding of the notions of neutrality and impartiality require particularly close monitoring.

- Job descriptions: each member of the personnel should have a job description and everyone should know exactly what is expected of him/her.

- Organisation chart: an organisation chart enables each person to situate him/herself within the facility and know who to address if there is a problem.

- Administrative management of personnel *(working hours, holidays, types of contract, salary scale, working regulations, etc.)* in accordance with the « minimum social package » or «Ethical Employer's Charter » signed by MSF *(see sheet 49)*. In the first phase of an emergency, the administrator will not have the time to give detailed briefings to all the newly recruited personnel *(there is incidentally a risk that the administrator will have been evacuated during a conflict situation!)*[23], and the personnel will not necessarily have the time to read the work regulations…It may therefore be useful to have a short memo listing the main points contained in the regulations *(hours, days off, ways and dates of payment, etc.)*.

- Constant training and close supervision in the field: this is not always easy to carry out during the initial phase of an emergency, but it should be set up as soon as possible. If you are in a region at risk of this type of emergency, you can also organise training sessions before the risk occurs, as part of emergency preparedness. And if you plan to work in collaboration with an existing health care facility, do not hesitate to include the personnel from this facility in the training by carrying out, if possible, a simulation exercise.

→ Sheet n°49 : « Administrative package : MSF charter in different languages, Minimum Social Package, MSF Identity Card, Mission Order »
→ Sheet n°50 : « Example of an organisation chart for "providing care for an influx of wounded »

See also, for all administrative questions: « HR Admin Kit –June 2007 »

[23] *«Tradition » holds that the administrator's post is not considered essential during an emergency and so he/she is one of the first to be evacuated when the security situation worsens. We think that this « judgement » requires review, particularly in this type of situation (case management of an influx of wounded) involving large numbers of personnel compared to the number of beneficiaries.*

11.4 A balance between the sexes

Both masculine and feminine personnel should be recruited, given that for certain persons it is not possible to express their feelings before someone of the opposite sex, or even in some cultures to be examined by someone of the opposite sex. *(Most of our operational contexts are marked by a limited access to education for girls. So we tend to have the reflex of filling the qualified posts – and often also the non-qualified ones – with men!).*

11.5 Ethnic balance

It is also important in certain conflicts to check that a balance is maintained between the different ethnic groups represented amongst the personnel and beneficiaries.

12. Material

12.1. Which material

We have drawn up a checklist including all the material (*medicines, tests, reagents, food, medical and logistics material)* you may need.

And what about kits, you ask? Be careful: kits are useful (*and they are included in the checklist*), but not sufficient.

- → ***Sheet n°51 : « Triage and first aid: checklist drugs, medical and logistics material »***
- → ***Sheet n°52 : « Operating theatre: surgery – anaesthesia – sterilisation: checklist drugs, medical and logistics material »***
- → ***Sheet n°53 : « Transfusion and laboratory: checklist tests, reagents, medical and logistics material»***
- → ***Sheet n°54 : « Hospitalisation : checklist for drugs, medical and logistics material »***
- → ***Sheet n°55 : « Nutrition: checklist food, medical and logistics material»***
- → ***Sheet n°56 : « Physiotherapy: checklist medical and logistics material»***
- → ***Sheet n°57 : « Security and identification of buildings – vehicles – personnel : checklist material »***
- → ***Sheet n°58 : « Water – Hygiene – Sanitation: check list material»***

N.B. For following up orders during emergencies, it is important that you have an initial stock inventory, including the contents of kits. *(This inventory will be part of an IT form, as well as on the stock cards collected in a file, which in the event of an emergency can be used from the first moment of distribution, thereby avoiding the usual mess in consummation follow up at the beginning of an emergency).*

12.2. Where and how to stock?

12.2.1. Emergency preparedness

As part of emergency preparedness, you will have evaluated whether or not you need an emergency stock for this type of intervention[24]. If you do need one:

- Check that the material is stocked correctly *(obviously this does not just apply to emergency material, but in this particular case material will be left "dormant » for longer in your stock and so is more at risk than "rotating" material.)*
- Check that emergency stock is clearly identified and stored away from the normal stock in order to avoid other projects "shopping" and finding yourself short at the moment of the emergency[25] !

[24] *See pocket guide «Emergency preparedness »*

- Check the general state and working order of technical material on a regular basis (*unpacking a bladder in the middle of an emergency only to find that it has been nibbled by rats is not great!*) and note the last check date and the state of the material on the form attached to it[26].

- Set up a system for following up products *(medicines, chlorine, etc.)* according to expiry dates.

12.2.2. Alert phase

In the alert phase, i.e. when a risk is becoming more concrete and an intervention is probable in the 2 or 3 weeks to follow, the stock should be placed in proximity to the personnel's normal work place *(office or MSF house*). Indeed, stocks are often at some distance from the offices or MSF houses, and when the risk materialises, they may no longer be accessible, and in any case it is better to avoid unnecessary journeys during conflict situations.

Why stock the material near the personnel and not near the health care facility?

Quite simply because you will definitely need personnel to use the material (*one cannot function without the other*), but depending on the development of the conflict, you may not use the health care facility you have identified (*e.g. In Monrovia, an emergency preparedness stock was kept at the MSF's hospital, but the conflict cut the town in two: the teams were on one side in the MSF compound, the hospital on the other....they therefore created a field hospital in the compound.. fortunately the "usual" stock was kept in there).*

It should be noted that in the "pre-emergency" phase *(when your indicators and/or instincts make you think that the risk could materialise at any moment...)* you can decide to move the personnel and material to the health care facility identified as being the most adapted and best placed for an intervention *(see point 3.1.2. p.9)*.

Please note

There is a lot of medical material in your kits... but it cannot be used...
It has not been sterilised!

So it's time to start up a « mass sterilisation campaign »![27]

12.2.3. The emergency

At this point, your stock should be where you are going to use them *(health care facility, field hospital, etc.)*. In conflict situations, we advise you to move sufficient stocks *(stock for X wounded during X days, with the value of X being decided during emergency preparedness)* of useful material for this type of intervention because you could soon be 'blocked" in the hospital.

You should have with you:

- A medical stock
- A logistics stock
- A food stock

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[25]Check nonetheless that there is turnover according to expiry dates – on this subject, see also « Emergency preparedness » : Stocks

[26] Obviously if the material is no longer usable, either it needs repairing or it should be removed from the stock!

[27]Items can remain sterilised for 15 days (wrapped in crepe paper – or boxes with 2 filters) or 7 days (wrapped in craft paper/textile) if storage conditions are correct and the quality of the paper is sufficient. On this subject, see:
" Sterilisation: Set up guide for Health Care Facilities – Hospital – Part 1 MSF 2006 ».
Note that it is possible to order single-use linen (surgical drape and clothes) which is pre-sterilised and remains sterilised for 5 years.

If these stocks are assembled in the same place *(because no other space is available – or because you do have not enough personnel to allow for 3 stock managers)*, they should be divided into 3 distinct parts and dangerous products *(fuel, chlorine, etc.)* should be kept elsewhere.

And in your stock, you must have an experienced store manager for:

- Supplying the different departments *(plan on sending a handset to the store manager so he/she can communicate with the different departments).*
- Following up consummation on stock cards *(on the base of an initial inventory, entries and exits for the different departments)*
- Drawing the medical coordination's attention to items reaching their "alert threshold" on a daily basis: this « alert threshold » should be fixed by the Medical Coordinator and the Log supply according to the timeframes involved in supply and the quantities required for each item during these timeframes. *(E.g. for « compresses »: there is a timeframe of ten days for supply, you know that you have to treat 50 wounded and you may receive 20 more during these 10 days, so how many compresses should you have as a minimum in stock to avoid a stock shortage? If you reply: 5,000 compresses, this means that as soon as there are only 5,000 compresses in stock, your stock manager must raise the alert and you must place an order immediately!)*
- Checking the goods are stacked correctly and the stock is correctly maintained

You will also have pharmacies or specific stocks in each department:

- Triage/First aid
- Surgery/Anaesthesia/Sterilisation
- Hospitalisation
- Kitchen, etc.

These pharmacies/stocks will be placed under the responsibility of the head of department who should check that there is sufficient material for the department to run smoothly for at least 24 hours (*obviously unforeseen events can always occur, but you should avoid endless trips to the central stock, and also avoid having nothing left in stock at the end of the day, as night personnel are often fewer in number*).

HUMANITARIAN LAW

Please note

This chapter is just a brief introduction to humanitarian law. It aims to raise your awareness on this body of law and its importance. To know everything, or nearly, about humanitarian law, we strongly advise you to read the « The Practical Guide to Humanitarian Law » by Françoise Bouchet-Saulnier.

1. What is humanitarian law ? [28]

International humanitarian law is a collection of rules which aim to limit the effects of armed conflict:

- By protecting the persons who do not or who no longer participate in the combat
- By restraining the means and methods used in the war.

International humanitarian law is set out in diverse treaties and conventions, of which the most important are:

- The four 1949 Geneva Conventions
- The two Additional Protocols to the Geneva Conventions, adopted in 1977.

These should be known to humanitarian organisations because they are the only ones to organise, in legal and practical terms, the role of relief organisations during conflicts.

2. When does humanitarian law apply ?

→ Humanitarian law only applies during armed conflict.

It provides two protection regimes depending on the type of conflict:

- ***International armed conflicts***: This amounts to armed conflicts between two or more states.

- ***Non-international armed conflict***: Often referred to as « civil war », a non-international armed conflict is a conflict that takes place on the territory of one state, between its armed forces and dissident armed forces or other organised armed groups that, under responsible command, exercise such control over a part of the territory in a way which enables them to carry out sustained and concerted military operations.

  An internal armed conflict may become « internationalized »:
  - When a foreign state exercise control over combatants involved in an internal armed conflict, or when it plays a role in the organisation, coordination or planning of military action of a party to the internal conflict,
  - When a multinational peace-keeping force becomes involved on the territory.

  The rules covering internal conflicts are less elaborate than those concerning international armed conflicts. The difficulties in reinforcing the protection regime during non-international armed conflicts can be explained by the fact that the principles of state sovereignty are involved.

[28] *The expressions «international humanitarian law » and « the law of armed conflict » can be considered as equivalents.*

→ It therefore does not apply in the case of :

- ***Internal disturbances or tensions:*** Situations of internal disturbances or tensions, such as riots, isolated and sporadic acts of violence and other similar acts, are not considered to constitute armed conflicts. Nonetheless, even in these situations, the principles contained in common article 3 of the four 1949 Geneva Conventions, but also the human rights considered to be inalienable, remain enforceable.

  → Sheet n°59: «Fundamental guarantees : Common Artic le 3 of the four Geneva Conventions and human rights inalienable »

- ***Natural disaster:*** Humanitarian law does not establish any legal protection for individuals in such situations. On the contrary, it gives national authorities extended powers to deal with disasters, which may include the momentary suspension of certain human rights.

  On the other hand, one aim of humanitarian law is to prevent wars from causing natural disasters. Attacks against the natural environment, against objects indispensable to the survival of the civilian population, and against works or installations containing dangerous forces *(which may cause damage to the natural environment and hence prejudice the health or survival of the population)* are therefore prohibited. Such installations include dams, nuclear or chemical installations, and other such works likely to cause widespread disasters and population displacement. Any such attacks is a war crime.

- ***« Crisis » or « Humanitarian disaster »:*** These titles are non-legal terms which may be used in good or bad faith to describe circumstances of suffering without indicating their causes. They describe a situation but do not invoke or create any rights for victims or relief organizations. These terms must therefore be avoided when a more precise term can be applied.

N.B.: Humanitarian law is just one branch of international law. Other branches of international law, however, may be relevant for humanitarian action - such as those relating to human rights and the rights of the refugees - whether there is a conflict situation or not.

3. Who is bound by the Geneva Conventions?

Only States can adhere to international treaties and so the Geneva Conventions and their Additional Protocols *(194 States are party to the Geneva Conventions, i.e. almost all States).*

Nonetheless, ***all parties to an armed conflict, whether they are states or non-state actors, are bound by international humanitarian law, the Geneva convention being considered as "customary"***[29]

4. What protection is foreseen for the wounded, medical personnel and health care facilities?

The protection and care that must be granted to sick and wounded persons are the keys to treating individuals humanely in times of war and of peace, and are the most ancient activities foreseen by humanitarian law[30].

The provisions concerning protection for the wounded and sick persons, medical personnel, medical installation, medical material and means of transportation are regrouped under the title « medical duties » *(sometimes known as the "medical mission").*

[29] *International customary law is as binding on states as the international convention to which they are parties. The fact that a state has not signed an international convention has no bearing on its obligations under customary law.*

[30] *Henri Dunant created the first Red Cross Committee to regulate the fate and care of the sick and dead left on the battlefields of war.*

The general principles regulating the protection of the medical duties are:

- Ensuring the protection of wounded and sick persons in all circumstances
- Ensuring that the medical services function *(the term «medical services » covers medical personnel, medical units and medical transportation)*.
- Searching and caring for the wounded and sick
- Offering special measures of protection in certain situations such as occupied territory, detention or internment so as to avoid the specific risks incurred by both the sick person and the person providing the care.
- Reinforcing the strength and resilience power of medical ethics in situations of conflicts
- Sanctioning the obligation to care for the wounded and sick and to respect the medical ethics surrounding these acts *(the non-respect of these obligations constitutes a grave breach of the Geneva Conventions and hence a war crime).*

➔ ***Sheet n°60 : « Medical duty : protection for the wounded and sick persons, medical personnel, medical installation, medical material and means of transportation »***

5. Who is considered wounded or sick?

All persons, military or civilian, who, whether because of trauma, disease or other physical or mental disorder or disabilities, are in need of medical care and who refrain from any acts of hostility.

N.B. Pregnant women, maternity cases, newborn infants and infirm persons are included in the humanitarian law definition of wounded and sick, for the purpose of increasing the protection to which they are entitled.

What happens to combatants?

In the event that a combatant is wounded or sick, his/her status as a wounded or sick person takes precedence over that of combatant, as long as the wound or disease keeps the person out of combat. He/she can later become a prisoner of war.

Caution: it is always a possibility that the military authorities come “to collect” rebels being treated in a neutral medical structure. What to do? This case is discussed in detail in the sheet n°61.

➔ ***Sheet n°61 : « What to do when confronted with military authorities requisitioning wounded “combatants” hospitalized in your structures?”***

Order of priorities

The general principle concerning the wounded and sick of any party to a conflict is that they must be treated humanely in all circumstances, and given the medical care required by their condition, to the fullest extent practicable and with the least possible delay. No distinction may be made among them, except ones founded on medical grounds.

6. Utilisation of the Red-Cross/Red Crescent/ Red Crystal sign[31]

[31] *On the 8th December 2005, the **red crystal** was adopted during the signature of the third additional Protocol to the Geneva Conventions of 1949 by 98 States (27 against 10 abstentions). This new emblem can be used by all components of the International Movement of the Red cross and Red Crescent who, for cultural and operational reasons, prefer not to use the crescent or the cross.*

Indicative sign

The indicative use of the emblem, in times of peace or war, demonstrates that a person or object has a link with the International Red Cross and Red Crescent Movement.

To avoid confusion with the protective sign, the indicative sign should be presented in small dimensions and should not appear on an arm band, a roof, etc.

Protective sign

The protective use of the emblem amounts to a visible manifestation of protection accorded by humanitarian law to health services, health installations, health personnel and health material during war. Hence, the protective emblem does not belong to the Red Cross Movement, but may also be used by other organisations to protect medical activities.

N.B. In order to play its role of protection, the protective sign should be used in large dimensions compared to the object it is applied to: huge crosses or crescents on the roof of a hospital, arm bands or overjumpers , etc.

7. Red Cross /Red Crescent Mandates

National Red Cross and Red Crescent societies

National societies serve as medical auxiliaries to the authorities. In times of peace, they make up a civilian health network. In times of armed conflict, they serve as auxiliary to the military medical services. Hence, their personnel is subjected to military laws and regulations.

- ➜ National societies of the Red Cross and Red Crescent are not recognised by humanitarian law as neutral and independent humanitarian actors in times of conflict.

International Federation of Red Cross and Red Crescent societies

The Federation implements the principles of the Red Cross and Red Crescent in situations that are not specifically addressed or covered by humanitarian law and hence are missing from the ICRC mandate.
It coordinates emergency activities in which several Societies participate and provides them with operational support. It also carries out its own rescue projects for disaster victims.

- ➜ The Federation is competent in times of peace or natural disasters.

The International Committee of the Red Cross – ICRC

The mission of the ICRC is explicitly defined by the Geneva Conventions. Through these Conventions, the party States have recognised the ICRC as a neutral and impartial actor in all situations of armed conflicts and put it in charge of striving to ensure the rights of military and civilian victims in conflicts.

Amongst the rights and obligations to ensure the relief for, and protection of victims of war, some are reserved for ICRC's activities *(exclusive mandate: visiting places of internment and detention, monitoring the implementation of conventions, searching for missing persons and exchanging correspondence)*, while others are foreseen for the ICRC and all other impartial humanitarian organisation *(general humanitarian mandate)*.

- ➜ The ICRC intervenes in all situations of armed conflict to ensure the protection of, and assistance to, victims of war.

DATA COLLECTION

1. Objective

In all cases, and thus also in emergency, it is essential to collect data in order to :

1.1. Evaluate the programme set up : does the programme answer the objectives that it had been fixed ?

- Utilisation/Access : Have the victims of violence or disaster access to the service and do they use the service ?
- Offer of service : Can the programme meet the needs *(do we have the capacity to take care of all the victims coming)* ? Does the programme proceed as planned *(staff and material is there, protocols are known and accepted,...)* ?
- Impact : Does the programme set up has an effect of the health of the victims ?

1.2. Evaluate the quality of the service offered : do we provide good care ?

- Quality of input : The resources required are available and they are appropriate.
- Quality of the course of the activities : The patients are quickly and correctly sorted *(triage)*, they receive appropriate first aid,...
- Quality of the results : The patients treated are in good health.

1.3. Monitor the situation as regards violence and disasters

- Type and cause of violence and/or trauma, number of cases, number of civilians affected,...

One should not been satisfied to just collect data *(to fill your sitrep, to please the cell,...)*, it is necessary also and especially to **analyse these data**, i.e. to put relevant questions starting from the results obtained.

Thus, e.g., if you have few or no victims coming to the hospital, whereas you know well that there is a significant number of victims, maybe there is a problem of access (geographical or security). If only one part of the victims are coming, it can be that the hospital is identified by one of the party as "non neutral" (for historical reasons, religious, ethnic,...).

According to the collected data and analysis of these data, it will be necessary to **identify corrective measures to implement** *(better staff training, improvement of the access,...).*

2. Which data to collect ?

Please note

Before collecting data, it is necessary to fix clear and precise definitions or these data.

2.1. Quantitative data – Indicators

Before starting to collect data, it is necessary to :

- Identify the indicators of the programme : those which will make if possible to evaluate what you want and can evaluate.

2.2. Qualitative data

At any moment you will be able to also collect qualitative data using the medical files according to what you want to evaluate.

> *Thus, in order to evaluate systematically the application of the medical protocol, it is necessary to analyse regularly and in a random way a sample of medical files and compare the cares received with that the patients should have received.*

To help you to determine the objectively verifiable indicators and the additional data you could collect, you will find on the sheet n°2 a logical framework based on this pocket guide.

→ Sheet n°2 : « Logical framework "Providing care for an Influx of Wounded"

3. How to collect data

3.1. Data collection form

One should not increase the number of documents to fill in ➔ Data should be collected from the following documents that contain all the useful information :

- Triage and first aid register
- Operation theatre register
- Hospitalisation register
- Patient files

3.2. Who will collect the data ?

One must identify clearly who will be in charge of checking that the registers are well filled in. The register of the operation theatre will of course be filled in by the surgeon or the anaesthesiologist after the intervention. The register of hospitalisation can be filled in by the surgeon during his daily visit or by the person responsible for the hospitalisation...

The persons in charge of filling in the registers will receive all the information needed : why do they need to fill in the register correctly and regularly ?; when to fill in the registers ? ; the meaning of each column.

4. Data encoding

The encoding of the data will be done through the standard tool : "MSF-OCB – 2007 Data Collection", available on CD.

Note that while the data collection in the registers has to be done during the emergency, clearly the encoding can be done once the situation has calmed down.

TEMOIGNAGE

Temoignage is an integral part of our medical humanitarian aid. The aim is to make known the suffering of the population we are helping so that their living conditions can be improved and their rights respected.

Our temoignage should be based on :

- What we see and hear when working in close proximity to the populations
- The medical data we collect which demonstrates the consequences of disasters on the health of the population.

Our temoignage may take several forms depending on :

- The nature and importance of the incidents
- The context in which the incidents occur
- Whether protective measures have already been taken

- Our fist step is to inform the organisations responsible for assistance and/or protection so that they can take the appropriate and/or reinforced measures of assistance and/or protection.

- If these organisations do not react, or fall short, the Head of Mission and/or the Cell must pressurise these organisations to increase their efficiency in carrying out their mandate.

- If violence is used as a weapon of war and/or a means to terrorising the civilian population, a policy of appropriate temoignage should be developed as quickly as possible by the Head of Mission and the Cell.

→ See also : "Bearing Witness : Strategies and Risks – The Basic Collection n°2".

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FIRST AID IN ARMED CONFLICTS AND OTHER SITUATIONS OF VIOLENCE
ICRC – 2006

PRIMARY TRAUMA CARE
Douglas A. Wilkinson and Marcus W. Skinner
2000

SURGICAL CARE AT THE DISTRICT HOSPITAL
WHO - 2003

Sterilisation

STERILISATION – Set up guide for health care facilities
Hospital – Part 1
MSF - 2006

Transfusion

CLINICAL USE OF BLOOD HANDBOOK
WHO – 2001

LABORATORY BLOOD TRANSFUSION GUIDELINES
MSF – Laboratory Working Group – 2007 - Draft

Nursing Care

SOINS INFIRMIERS : Manuel pour les missions MSF
MSF – 2007 : Should be available in English at the end of the year 2007

INFECTION CONTROL IN PRECARIOUS SITUATION
MSF - 2005

Management of Deaths

MANAGEMENT OF DEAD BODIES AFTER DISASTERS : A field manual for first responders
PAHO – WHO – ICRC – IFRC - 2006

Mental Health

TRAUMA : Guidelines for Psychosocial Care
MSF - 2004

MENTAL HEALTH : Guidelines – A Handbook for implementing Mental Health Programmes in Areas of Mass Violence

Human Resources

KIT ADMIN – CD
MSF - 2007

Humanitarian Law

THE PRACTICAL GUIDE TO HUMANITARIAN LAW
Françoise Bouchet-Saulnier
Rowan & Littlefield – 2006

THE GENEVA CONVENTIONS and THE ADDITIONAL PROTOCOLS

Data Collection

DATA COLLECTION
MSF – OCB – 2007
Available on CD at the Medical Department

Témoignage

BEARING WITNESS : STRATEGIES AND RISKS
Basics n°2 – MSF - 2001

LIST OF TECHINCAL FORMS ON THE CD

When to intervene

1. Evaluation of a health care facility
2. Types of wounded according to types of arms
3. Types of wounded according to types of natural disaster
4. How to bunker down
5. Mines, mortars and unexploded ordnances
6. Securing buildings
7. Preventive measures in areas at risk of natural disaster
8. Post-natural disaster risks

Where to intervene

9. Checklist of rescue organisations
10. Instructions for « stretcher bearers » for evacuating wounded + human resources and material required
11. First aid: Basic life support – Immobilisation of fractures – Making a patient comfortable + Human resources and material required
12. Triage: method, personnel, infrastructure, forms and registers, material
13. How to transport the wounded correctly
14. Setting up a medical village

Objective of the Intervention

Disaster plan

15. Disaster plan : checklist and example
16. The patients' circuit : advice and examples
17. Crush syndrome: specificity and treatment
18. Management of the dead

First aid

19. First aid : protocols per category, personnel, forms and registers, material
20. Protocol antibiotherapy
21. Protocol pain treatment
22. Protocol tetanus prevention
23. Protocol for treatment of wounds, burns and fractures

Emergency surgery

24. Surgical priorities
25. Protocol hygiene operating theatre

Post-operative care

26. Post-operative nursing care : technical sheet for the medical staff
27. Patient's file and Nursing care form – MSF model
28. Hygiene hospitalisation : daily planning of the activities, material for the patients and for the staff, awareness messages for the patients and the staff
29. Discharge card
30. The need for establishing a medical certificate + example of a medical certificate

Nutrition

31. Nutrition for the wounded: Energy needs – Nutritional diet – Emergency stock – Personnel

Psychological support

32. Traumatising factors during natural disasters and armed conflicts
33. Trauma: what is it
34. Psychological reactions to a traumatic incident
35. Factors involved in traumatic reactions
36. Immediate psychological support – helpful attitudes
37. How to announce a death
38. Evaluation scale for organisations offering psychosocial follow up

Physiotherapy

39. Simple physiotherapy exercises for avoiding complications associated with immobilisation
40. Mobilisation exercises and material for persons handicapped following their injuries

References

41. Example of a collaboration agreement between an MSF structure and a reference structure
42. Example of a reference document

The means required

Infrastructure

43. Training session : 43 a – Power Point Presentation - Disaster plan, triage and first aid + 43 b - exercise simulating triage and first aid
44. Security checklist – influx of wounded
45. Recommendations for the planning of your facility
46. Essential water and sanitation requirements for health structures

Personnel

47. Personnel activities, tasks and needs – from the wounded's admission up until they leave the hospital
48. Job descriptions
49. Administrative package
50. Example of an organisation chart for the case management of an influx of wounded

Material

51. Triage and first aid: checklist of medicines, medical and logistics material
52. Operating theatre: surgery – anaesthesia – sterilisation: checklist of medicines, medical and logistics material
53. Transfusion and laboratory: checklist of tests, reagents, medical and logistics material
54. Hospitalisation: checklist of medicines, medical and logistics material
55. Nutrition: checklist of food, medical and logistics material
56. Physiotherapy: checklist of medical and logistics material
57. Security and identification of buildings – vehicles – personnel: checklist of material
58. Water – Hygiene - Sanitation: checklist of material

Humanitarian law

59. Fundamental guarantees: Article 3 common to all Geneva Conventions and inalienable Human Rights
60. Medical duty: protection for the wounded and sick, medical personnel, medical installation, medical material and means of transportation
61. What to do when confronted with military authorities requisitioning wounded "combatants" hospitalized in your structures?

Data collection

62. Logical framework "Providing care for an influx of wounded"