

AIPC AND UFI GOOD PRACTICE GUIDANCE

# Convention and Exhibition Centres as **Temporary Emergency Facilities**



Dedicated to all AIPC and UFI members in the front line of the worldwide fight against the COVID-19 virus.



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Dear colleagues;

This is the second guide to facility management under pandemic conditions to be produced by AIPC and UFI within a few weeks. As a result of the professionalism, generosity and expertise of AIPC and UFI members – particularly those who are members of the Safety and Security Task Force – it incorporates some of the very latest front-line insights that have been and will continue to be gained in the midst of the crisis itself.

Many of our colleagues around the world are seeing their venues repurposed to serve key roles in dealing with the fallout from COVID-19. Many others will inevitably follow. Yet the experience of conversion to emergency use – and the re-commissioning once the crisis has passed – is currently limited to those convention and exhibition centres that have already faced such demands, generally in the context of a natural disaster. The rationale for this guide is therefore to help all member venues prepare for and perform in an exceptional role – a role that they were not specifically designed for but are increasingly being asked or forced to play as temporary emergency facilities.

As the reasons for having to become a temporary emergency facility (TEF) vary, ranging from pandemics to natural disasters, so does the purpose of the conversion. From emergency hospital to shelter to aid distribution center, this guidance has been collected, assembled and presented with multiple possible TEF purposes in mind. As challenging as such conversions may be, they will inevitably result in enhanced overall capabilities over the long term. They will add a range of new experiences and capabilities that will broaden knowledge and add expertise and protocols. These will leave such centres and venues even better prepared to meet the evolving expectations of clients once the current situation has been resolved and business restored.

As with previous guides in this series, the information and guidance contained in this publication are not definitive but will continue to evolve with the benefit of further experiences gained and lessons learned as we move forward through the stages of the current situation. We call on you to share with us any relevant information you may have in this regard, and we will make sure it is incorporated into future releases of materials, guidance and updates.

We can all be proud of the diverse roles members are taking on in providing emergency capabilities for their respective communities and confident that these actions will only further enhance the respect and support of those communities as we move forward into recovery.

Aloysius Arlando AIPC President

Mary Larkin UFI President

This AIPC and UFI guidance aims to help convention and exhibition centres prepare for and perform in an exceptional role they were not designed for but are increasingly being asked or forced to perform: as **Temporary Emergency Facilities**.

As the reasons for having to become a temporary emergency facility or TEF for short vary, from pandemics to hurricanes to tsunami’s and volcanic eruptions, and the function of a TEF may vary, from emergency hospital to shelter to aid distribution centre, this guidance has been collected, assembled and presented with multiple possible TEF purposes in mind. The immediate worldwide concern and context for this guidance is the COVID-19 pandemic. The outbreak is placing overwhelming pressure on healthcare infrastructures across the planet. Since early 2020, swiftly and on a massive scale, convention and exhibition centres have become part of the front line in fighting the disease, from serving as ICU hospitals to conducting thousands of tests a day. Many AIPC and UFI members are leading this unprecedented effort to save lives.

Health, safety, security and operations experts and managers of the International Association of Convention Centres (AIPC) and the Global Association of the Exhibition Industry (UFI) worked together over early April 2020 via the AIPC-UFI Safety & Security Task Force to create this good practice guidance. While the information is applicable to all kinds of TEF uses, its main emphasis is on the use of TEFs as emergency hospitals.

Convention and exhibition centres have been used in an emergency capacity across the world many times in recent decades, sometimes for weeks and sometimes for months on end. TEFs are most often set up in the wake of major natural disasters that damage or destroy large amounts of infrastructure, like the 2004 Tsunami and Hurricane Katrina in 2005. Time and again they have proven crucial to community survival: as a care centre, a shelter, a hub of aid distribution, and for other emergency purposes.

While many chronicles of the operation of TEFs highlight the fact that it is government agencies that most often run such sites, the truth is that convention and exhibition staff and management have played a critical role in preparing and operating nearly all TEFs.

As military planners, emergency medical facility experts and architects repeatedly note in research and academic literature on the topic, convention and exhibition centres have numerous advantages compared to other structures for being used in a TEF role. These include a lot of space; extensive, advanced infrastructure, particularly when it comes to electricity, AV and IT; high-quality safety features; standard security features; big kitchens; loading docks; large-vehicle ramps and parking areas; good accessibility; and, often, a central location surrounded by other, useful infrastructure.

This guidance aims to capture and offer a range of ideas, measures, insights, plans, procedures, and good practices from both past experience and recently developed material to facilitate the conversion of convention and exhibition centres into a TEF. While not a manual, this guidance does aim to offer something close to it: readily useable, structured information, much at the detail level, to help guide the process.

The information stems principally from joint AIPC-UFI Task Force members specialized in health, safety, security and operations. Task Force members are:

- Carlos Moreno Clemente** | Head of Mobility, Fira Barcelona
- Sunil Govind** | Senior Director Facility Management & Operations, Bangalore International Exhibition Centre

**Rik Hoogendoorn** | Manager Safety & Security, RAI Amsterdam

**Darren Horne** | Senior Manager Security & Safety, Melbourne Convention Exhibition Centre

**Sethu Menon** | Senior Vice President Operations, DWTC Dubai

**Mark Laidlaw** | Operations Director, Scottish Event Campus

**Michiel Middendorf** | General Manager, World Forum

**Robert Noonan** | Chief Information Security Officer, Boston Convention & Exhibition Centre | Massachusetts Convention Centre Authority

**Tomas von Tourtchaninoff** | Head of Unit, Safety & Security, Stockholmssmassan

**Muhammad Yusri** | Manager Venue Security, Crime Prevention and Operations, SingEx

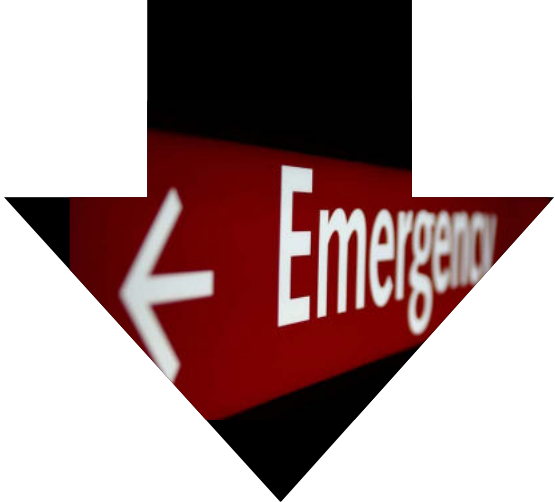
In addition, special assistance was received from other AIPC and UFI members, notably:

- Enrico Pazzali** | President, Fiera Milano
- Enrica Baccini** | Chief Research and Development Officer, Fiera Milano
- Corinna Häsele** | Director Research & Strategy, Reed Messe Wien, Vienna
- Philip Holzman** | Director of Marketing and Development, Espacio Riesco Santiago

**Mandy Luk** | Director of Business Development, Asia World Expo Hong Kong

**Ian Taylor** | Managing Director, National Exhibition Centre Birmingham

Coordination of the collection, vetting, writing, and formatting of this information was performed by **Glenn Schoen** of Boardroom@Crisis BV, based in The Hague. Research assistance was provided by **Madeleine Eichorn**.



How to Use This Guide

The good practice information in this document is divided into five chapters:



These five chapters are meant to structure the information collected as logically as possible, and cover the three main phases of repurposing or conversion of a facility: setting things up, running an operation, and afterwards, closing things back down in preparation for a return to normal.

Most chapters are further subdivided into sections. It is recognized not all of the information provided can be clearly placed into one chapter or section as there will by necessity be some overlap.

As the circumstances for taking a convention or exhibition centre into use as a TEF will vary widely, indeed sometimes dramatically so, and centres themselves vary considerably in size, make-up, location and services, the advisability, applicability and proportionality of steps/plans/procedures/ measures should be taken into account when considering their use. So should the legal and compliance rules and frameworks that might apply. In some cases, the government may simply confiscate a facility for TEF use; in others, management might draw up a proper contract.

Where documents or other resources are mentioned in the text, these should, in most cases, be directly retrievable via the ‘live’ link provided or otherwise by using an Internet search. All documents from AIPC and UFI member organizations shown are used with their explicit permission for the betterment of membership and the industry.

**A NOTE ON TERMINOLOGY:** Readers are asked to exercise a measure of flexibility when it comes to terms used in this document in that many people use different terms for the same thing. For example: health and safety vs. public safety, measures vs. controls, large outbreak vs. pandemic, Coronavirus vs. COVID-19, and so on. Please apply this flexibility when reading the guidance.

AIPC and UFI management hope that the information provided in this guidance will contribute to the improved preparedness, operation and recovery of convention and exhibition centres when put to use as a temporary emergency facility.



# 1

## GOOD PRACTICE: Initial Considerations

### The TEF in Context

The circumstances in which a convention or exhibition centre will be taken into use as a temporary emergency facility (TEF) can vary widely. The kinds of (big) emergencies to prompt creation of a TEF vary considerably, though most are natural disaster related:

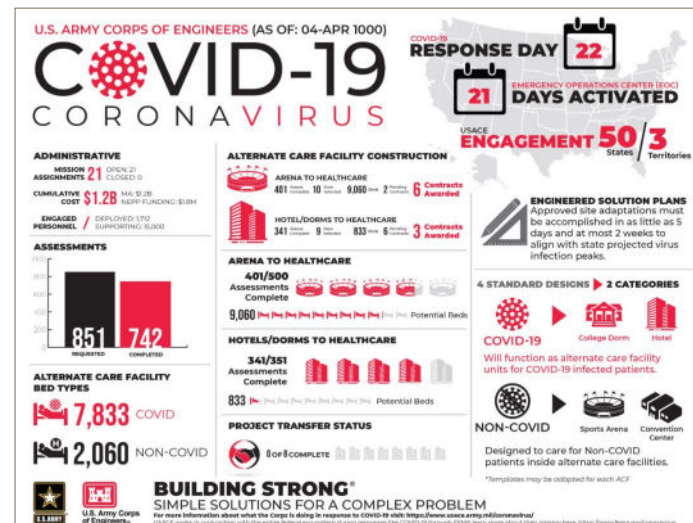
- Airplane Crashes
- Avalanches
- Building Collapses
- Cyclones/Hurricanes/Typhoons
- Earthquakes
- Floods
- Hazardous Materials Releases/Spills
- Landslides
- Pandemics
- Shipwrecks
- Terrorist Incidents
- Tornadoes
- Tsunamis/Storm Surges
- Volcanic Eruptions
- Wildfires

Based on precedent, the most likely purposes of a TEF are:

- As an emergency medical facility
- As an emergency shelter/housing site
- As an emergency aid distribution centre  
e.g. food, water, first aid packages
- As an emergency services staging area  
e.g. military and Search & Rescue base
- As a mortuary to collect, store and process disaster victims' remains
- A combination of the above

In the case of major large-area disasters like pandemics, hurricanes and spread-out wildfires, convention and exhibition centres often serve as a TEF alongside other types of facilities. This may include hotels, resorts, sports arenas, schools, museums, meeting halls and warehouses. In such situations, they often become part of a larger emergency supply and logistical train, with the military serving as the backbone of the operation.

A number of countries like Japan, the US and UK have official designations for a few different types of TEF. Names vary from Alternate Care Facilities, Emergency Medical Stations, Temporary Housing Shelters, Surge Facilities, and Temporary Civil Defense Sites to Nightingale Hospitals.



The US Army Corps of Engineers has 4 standard designs for realizing emergency facilities in pandemic situations (see bottom right), one of them specifically for convention and exhibition centres.

A few international organizations also have specific terms for types of temporary emergency sites, like the UN WHO's typology for Field Hospitals (in categories 1-4). As part of Cold War civil defense plans, many countries from Sweden to Russia to China pre-designated TEFs for medical, evacuation and emergency shelter purposes.

Many other nations developed similar, increasingly standardized plans for a different reason from the 1950s and 1960s forward, namely natural disaster preparedness. This includes nations subject to annual storm seasons like typhoons and hurricanes, or ones situated in active seismic

and volcanic activity zones. In a significant number of these countries ranging from the Bahamas and the US to Japan and the Philippines, convention and exhibition centres have actually been used for emergency purposes following storms and natural disasters, sometimes repeatedly so.

A quick-scan of experiences worldwide prior to 2020 indicates that most TEFs are set up and taken into use between two and ten days, and operate anywhere from several weeks to several months. In extreme cases, use is more prolonged. This is particularly true in areas where the TEF is the principal or only facility of its kind (such as on an island) and where area infrastructure has been badly damaged in a natural disaster. There are other factors that can contribute to 'TEF longevity.' In particular, centres that include a hotel are often gauged as more suitable than those without one. A hotel can be converted into a makeshift hospital or shelter, and if necessary a large group of people like medical personnel can stay on-site at the TEF without having to travel home to rest – a particularly challenging problem in areas hit by natural disasters.

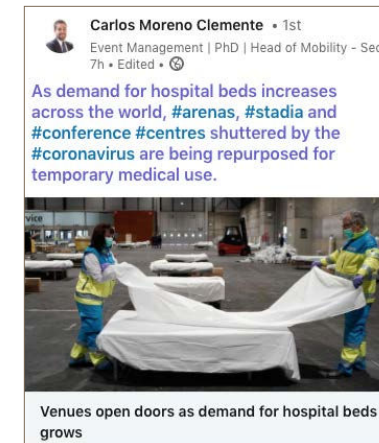
The vast majority of convention and exhibition centres used as a TEF resume normal operations at some point though a few have been lost for good, particularly already damaged sites that saw emergency use during floods and in the wake of hurricanes. These were later demolished rather than repaired or rebuilt. In all known cases, the reason for ultimately tearing them down related to damage sustained in a disaster, not to any reasons related to their use as a TEF.

2020 saw the advent of at least two major new TEF developments:

- 1 | The first ever widespread use of convention and exhibition centres as emergency hospital and housing TEFs to help manage a global pandemic.
- 2 | The first widespread use of TEFs as a place where drive-through virus testing is performed, initially principally in South Korea and the United States. In this capacity, driveways, ramps and parking areas are used to create 'speed lanes' for the swift, safe processing of a large number of test subjects, while the buildings and other site infrastructure are hardly used.

<sup>1</sup> Emergency medical uses of convention and exhibition centres extends beyond hospital use, to include places where test specimens are collected, vaccines are distributed, and drive-through tests are conducted (such as for COVID-19 in South Korea and the United States).

<sup>2</sup> In practice, a TEF often sees some level of dual use. As a hospital, it may also have a room for medical staff to stay and sleep, for instance, or an attached hotel where homeless people stay.



### Initial Considerations on Serving as a TEF

Interviews with convention and exhibition centre owners and operators performed for this guidance yielded the following good practices on considering functioning as a TEF:

**1 | Realize your facility may be able to assist in an emergency even if there are no immediate emergency conditions in effect near your facility.** To assist local health authorities with the COVID-19 pandemic, for instance, the AsiaWorld-Expo (AWE) Hong Kong in March 2020 first facilitated the opening of a triage site for the Hospital Authority and then the opening of a separate Specimen Collection Centre for the Department of Health. The AWE, otherwise closed, could operate normally with standard event checklists but in this way also help its community and the government with a larger emergency situation.

**2 | Ensure there is evident need for your facility at that moment for that purpose.** In some historic crises, officials simply 'went for,' confiscated and put into use a facility they knew was available or thought would be easiest to use. There was no consideration of options in using the site: the circumstances forced the issue. These situations aside, if there is time and your management has a say in it, consider what authorities want to use your venue for and if there are better choices to be made. If roads will be inaccessible due to floods in a few days and cut you off from surrounding areas, does it make sense to become a disaster aid distribution centre?

Experience indicates it is extremely difficult to repurpose your site a second time in the middle of a crisis, for instance trying to turn your emergency shelter into an emergency hospital. If at all possible, you only want to commit to a crisis role once. So try to ensure from your own perspective that the use of your facility for a specific TEF purpose like a hospital or shelter makes good sense and is not impractical or wasteful. If to you it is, discuss with authorities. Be prepared, at the same time, in worst case situations for authorities to simply requisition your facility and leave you no choice.

**3 | Ensure there are no major obstacles to using your facility.** Authorities may judge your centre suitable to serve a particular purpose, such as that of an emergency hospital. But if you know that you suffer from power outages, that the roof leaks in six places, that your basement is prone to flooding and your freight elevators – they only ones big enough to move beds between floors – are broken, then authorities need to be informed right away. Perhaps things can be fixed, or your facility can serve in another capacity. Whatever the issue might be, ensure you help authorities with their decision-making by being as straightforward as you can. Do not assume they know everything you do, or more than you do, or have already foreseen such problems, or their solutions. Assumptions are dangerous.

**4 | Ensure general health and safety risks to staff to (initially) contribute to the effort are acceptable.** Is there a second tsunami wave coming in several hours? Are seismologists expecting major aftershocks like after the 2011 earthquake that badly damaged the Christchurch, New Zealand convention centre? Is another monster storm making landfall tonight? Then perhaps it is better for you and your staff to go elsewhere and save yourselves than to your damaged and perhaps about to be destroyed centre to help others. Harsh, perhaps selfish thoughts, particularly for situations where everyone wants to help their fellow man. The point is: managers should seek to establish and then apprise staff of the potential risks before asking them to perform any work. Volunteering is another matter.

**5 | Get clarity on your ability to minimize liability, insurance and compliance risks.** As shown by such dramatic events as the suffering inflicted upon the Tacloban Convention Centre by Typhoon Haiyan in 2013, there can be far-reaching risks involved in the use of your centre as a TEF. By definition, crisis circumstances prevail for a TEF to exist. Life and death, misery, hardship. If at all possible, when authorities want to use your facility for emergency purposes, engage them and insurers and seek to come to a written agreement that absolves or at the very least significantly reduces your exposure to any legal liability, insurance or compliance risks for all that happens subsequently. “If appropriate, you may wish to stress the point that you are being asked to deal with risks you are simply unfamiliar with”, notes Scottish Events Campus Operations Director Mark Laidlaw. “In building an emergency hospital, you will be confronted with all kinds of medical rules and regulations. If you don’t know them, how can you be held responsible for upholding them?” In some countries, this kind of government risk absolution when taking over an emergency site is fairly standard, but in many other countries, it is not. Address it from the start.

“There is no specific playbook for this.”

Ian Taylor | Managing Director National Exhibition Centre Birmingham, UK (Repurposed into NHS Nightingale Birmingham)

**6 | Establish clarity about the likely costs as to who will pay for what.** A growing number of countries have standard mechanisms so government agencies can finance the emergency use of privately owned facilities. An example is the United States, where the Federal Emergency Management Agency (FEMA) can assist states by facilitating all manner of rapid local, state and national financing and compensation packages. In this manner, they helped convention centres from San Diego to Chicago to New York prepare for their role in the fight against COVID-19. A substantial number of countries by contrast do not have such existing arrangements, or they are incomplete. In crisis situations where there is no other choice and decisions are made at the spur of the moment, addressing questions about financing may be literally impossible or seem irrelevant. Many situations like pandemics do leave time to consider costs including such matters as terms of use, tenancy period and critically what returning to normal means and who’s responsible beforehand, however, and good practice dictates attention be paid to this.

“In discussions with authorities about making your facility available in a crisis,” notes General Manager Michiel Middendorp of the World Forum in The Hague, “it is important to be forthright about financial issues. What are the expectations? How will expenses be covered? Who will pay for what, using what funds?” He observes that “it is great that you want to serve your community. But if you just plunge ahead and after a week you run out of supplies and money to pay your staff, contractors and utility bills, you’ve got a big problem. Resolving the issue of money at the start lets everyone know where they stand, enables planning, prevents fights and stress, and generally helps ensure things will go well. In the end, it’s about ensuring good process and preempting problems.”

**7 | Apply a tough mindset.** Ian Taylor, Managing Director of the National Exhibition Centre (NEC) in Birmingham, England observes that “in suddenly becoming an emergency facility in unusual times, you have to prepare for a tough time. It’s difficult, it’s stressful, it can be challenging in the extreme. There is no specific playbook for this. While everyone is greatly motivated and working with tremendous energy and purpose and unity to serve their community and their country, things can get very hard. There will be frustrations, exhaustion. Whoever tried to build a massive hospital while you have to keep six feet apart at all times, and with part of your staff working from home? In these kinds of conditions, you have to quickly develop and apply a tough mindset to continue to perform properly.”

2 GOOD PRACTICE: Setting Up as a TEF

Usually a large share of the effort to launch and operate a TEF will be done by local and regional officials from different agencies. To set up an emergency hospital, for instance, it is usually a combination of outside medical staff and supporting military personnel. For emergency housing, it is often the local Housing Authority and Civil Defense and military personnel who are brought in. The parties involved will differ per TEF use.

This noted, in almost every case of past TEF use, members of the regular convention or exhibition staff and management were involved in preparing the site for its emergency use, and in most cases, many stayed on to help and serve in its operation. Knowing the facility intimately, they were and are crucial to its functioning in an emergency situation. Related, it is almost certain that regular staff and management will be directly involved in setting up their facility as a TEF.

The engagement process of authorities and convention and exhibition centre management to establish a TEF differs per country but normally entails the following:

- Notification of facility owners and operators of the decision to use site as a TEF
- Engagement between officials and site managers to set a meeting agenda
- Notification of key third parties about plans to use the site as a TEF
- Activation of joint first steps in the planning and preparation process
- Notification of the public that planning for TEF use is underway
- Initiation of detailed planning and preparations

Key Areas Requiring Attention

Convention and exhibition centres focused on good practice have found there are a number of functional areas that require attention in preparation for becoming a TEF. While there are multiple models for this and in some acute situations these areas are hard to properly address, as circumstances allow, attention should be focused on:

- Command and Control (Leadership/Management)
- Communication (Internal and External)
- Safety and Security
- Secondary Requirement Increases (ability to handle a workload surge)
- Continuity of Essential Services
- Human Resources
- Logistics and Supply Management

Good practice guidance from the World Health Organization (WHO) in Europe exists to operationalize the aforementioned areas of attention. While this guidance was developed for hospitals, virtually all of the checklists are applicable for use for setting up a hospital TEF as well. Many checklists and items on them can be used when setting up a TEF for other purposes as well. See Appendix 1 for two sample checklists from the guidance on the topic of Human Resources and on Safety and Security.



[www.euro.who.int/\\_\\_data/assets/pdf\\_file/0020/148214/e95978.pdf?ua=1](http://www.euro.who.int/__data/assets/pdf_file/0020/148214/e95978.pdf?ua=1)



A similarly useful good practice guidance document is the **Mega Shelter Planning Guide** from the International Association of Venue Managers and the Red Cross. Its key areas focus is broader than that of the WHO guidance, and focused on housing TEFs rather than medical TEFs, but similar to the WHO guidance it is highly practical. In contrast to the WHO guidance, it is more extensive, and offers more background and context information beyond the ‘how to’ and checklist contents.

[www.fema.gov/pdf/emergency/disasterhousing/mspg.pdf](http://www.fema.gov/pdf/emergency/disasterhousing/mspg.pdf)

### Steps to Set Up a TEF

Evolving good practice on the steps required to plan and prepare a TEF shows the following key phases apply:

- 1 | Scoping out the requirements in relation to the site (what will it be used for)
- 2 | Laying out the site (what will go where more specifically)
- 3 | Fitting out the site (building it to fulfill its function)
- 4 | Equipping the site (putting the right equipment in the right place to use it)

The UK National Health Service for its emergency Nightingale hospitals based in convention or exhibition centres calls this process ‘Scope Out, Lay Out, Fit Out and Kit Out.’ (See further for more details.) Military Corps of Engineers troops from Brazil to the United Kingdom to Indonesia to the United States have similar ‘one, two, three,’ descriptions of facility planning and preparation phases. Find out what your local health and military authorities use, and align with them by adopting the same steps and terms.

In entering into and following these phases, evolving good practice around planning and preparing for a convention or exhibition centre to become a temporary emergency facility or TEF calls for the following, as applicable and as circumstances allow:

**1 | When first engaging with authorities to become a TEF, gain clarity on what kind of TEF it will be and who will be in charge of planning, preparing and running the site.** Often, crises result in various government agencies, national, regional and local, working in parallel. They are themselves inventing and figuring out who should be doing what, and leading what. It may take several days to establish what kind of TEF is to be prepared, and who the ultimate authority is. This initial what will it be and who will be in charge ‘scrum’ is normal in situations where different

agencies who may not have worked together before are moving into uncharted territory in a crisis situation. It is important, however, that a centre’s management gets clarity on these matters fast so they can scope, organize, and direct questions appropriately and effectively.

**2 | Operate a small, agile, consistent management team of your own to keep control on your end.** You and your convention or exhibition centre team are likely to be overwhelmed by what comes next as all sorts of organizations, people and activity and supply flows get underway. There may be a tendency to just ‘go serve’ and become an adjunct to an official put in charge of your facility. Experience indicates that it is generally useful to maintain your own management team, and function much as a crisis team does, which you effectively are. This allows you to maintain your own position and influence matters, particularly when it comes to the use of your own staff, contractors, and other resources.

Notes Fiera Milano President Enrico Pazzali: “Maintaining our own management position was strenuous at the start but valuable. You have to understand, when the regional government of Lombardy asked us to set up a COVID-19 ICU hospital from scratch, we started with just the two of us. Three days later, I had over 600 people on site and dozens of companies and agencies involved. It proved really important that we didn’t leave all decisions to the government, particularly as they needed us in the preparation process almost as much as we needed them. Directing our own staff and contractors was key to our success.”

**3 | Call in all available staff and managers and brief them** on what is about to happen. If you cannot do it in person, do it remotely. Inform them of what will likely take place and what the potential risks and implications for them and their families are; ask them to consider whether the circumstances allow them to assist, and how; ask them for their commitment if they are willing to assist; and ask if there are any special circumstances that need to be taken into account (health, financial, home situation, transport etc.) while they assist. Important as well to mention is that unless directed otherwise it is useful to use your standard event process workflow. “When authorities approached us about constructing an emergency hospital in the spring

<sup>3</sup> Becoming an emergency hospital for instance can mean many things depending on what the exact purpose is. In the COVID-19 context for example, many countries are setting up four different kinds of emergency hospital facilities: those to treat COVID-19 patients in an Intensive Care Unit (ICU) setting; for recovering COVID-19 patients no longer needing an ICU; for non-COVID-19 patients with ICUs; and for non-COVID-19 patients without ICUs. A few countries are also seeing mixed use purposing, with part of a facility used for ICUs, and part for regular care.

of 2020,” notes RAI Amsterdam Safety and Security Manager Rik Hoogendoorn, “we found using our normal approach to event planning worked best. Everyone knew the drill, what their place and role was, and how to work efficiently to accomplish the mission. Using regularity in crisis time, where feasible, is an effectiveness multiplier.” As soon as you can, find clear role setting in your team: who is coordinating, who are the decision makers, who will issue drawings and plans, who will prepare NDAs, who will compile costs, who will form a communications plan, and so on.

**4 | Inform all of your key contractors who might be assisting with the effort,** and check on their willingness, preparedness and capability to help. Seek to ascertain if there are specific conditions to be met. For instance, they might inform you that “we are willing to help with X number of people but we need help with transporting and housing them,” or “we will assist with the electro-technical installations but cannot access our own equipment.”

**5 | Inform your other key stakeholders including key customers that you will be used as a TEF,** so they are not surprised when they hear this, they are assisted with their own planning and expectations, and so they can support you in turn.

**6 | From the start, keep security and safety front and centre.** Security on site may be controlled by others but keep a team of your own. Your own interests are best known to you and you are best placed to have these covered. Don’t assume others will do this for you. A security-minded focus should remain during the busy period of the build. For example, many site drawings of layouts and critical infrastructure will be requested by many people. In normal circumstances, such things as detailed plans of your facility and the inner workings of your WiFi network are protected information and would not be provided easily. An NDA should be presented before any drawings or plans are released and a disposal / destroy protocol agreed at the end. You want to make sure you have done all you can to prevent your critical drawings reaching further than they need to. As for safety, people like the military often work in a very different way, with different risk factors than you are used to at your facility. Notes Operations Director Mark Laidlaw of the Scottish Events Campus: “We are still responsible for our people. Take the time to assess risk, even in the busy times. Do not charge ahead. Safety First. Be prepared to make strong safety decisions even when speed seems the most important thing. Set the tone around safety.” And where, for instance in pandemic situations, this is called for, consider social distancing, such as for briefings and eating breakfast, lunch and dinner.



Good practice in a pandemic crisis: social distancing applied at coordination meetings at the Scottish Events Campus in Glasgow | April 2020

**7 | If there is clear lack of security, address it first.** If you are in a natural disaster situation marked by a breakdown in law and order, or where this is likely to occur, arrange for security first. It is all good and well to start planning and preparing your site for emergency use but if groups of looting criminals are about to attack or your staff and contractors cannot safely reach your facility because of crime or civil unrest, things simply will not work. Basic security – like basic safety – is a fundamental requirement to prepare your site for TEF use, so if you as an organization cannot provide it, first ask for immediate help from the authorities. Particularly if there are recurrent incidents, ask for a permanent security presence, like armed policemen, civil guards, or soldiers at the entrance(s).

**8 | Realize you may be in a fight for resources when it comes to contractors and supplies.** Market demand for skilled workers from electrical work to construction and IT installation can jump quickly if multiple big facilities near you are vying for the same services. So can demand for things like exhibit floor partitions, electrical cables, generators, pumps, tools, working lights and hundreds of other items. Consider your position, consider your needs, and move quickly. In a situation of joint solidarity and with a little flexibility as regards time, resources might be shared. If not, you may have to act fast on your own, or just with the authorities as a partner, who may have scarce resources available as well.

**9 | Consider whether or not you might want to ask for donations** if time and circumstance allow. This could be a request for money, food, supplies, or other means. In times of need, the support provided can be overwhelming and very helpful. An example is the Fiera Milano in Italy, which when preparing to become a COVID-19 emergency hospital in late March 2020 asked for financial donations to



help defray costs, and received overwhelming community support, starting with 23 million Euros in direct donations. “Funneling public support in this manner was not only highly helpful, constructive and unifying as many people finally had a focus to direct all of their emotion and contributions towards, but it meant we in one fell swoop did not have to waste any time or energy on financing.”

**10 | Engage authorities on communications early, and inform the press and public you will become a TEF.**

Check on whether authorities will put a Non-Disclosure Agreement (NDA) in place, or whether you might want to put one in place yourself for third parties like contractors coming to help who have never worked at your centre, this to protect sensitive and privacy-sensitive information and information flows. Because your staff may suddenly be working with a range of officials they do not know and be given access to all manner of sensitive information they would not normally receive (who is ill, who died, casualty counts, shortages, other problems), government agencies often look to control this. They typically seek to do so by assigning staff to your facility who are already government screened, or trained, and by using some form of a NDA.

Usually, committing to such an NDA is good and necessary, but ensure, if possible, that you as an organization retain some leeway to communicate on your own, both with the public and your key stakeholders, like suppliers, contractors and customers. Ask for an official OK to announce you will be used as a TEF, and at the appropriate moment, inform the press and public about this. A cornerstone of this is usually a statement on your website, but some sites go much further, like setting up a special Wikipedia page. But one good reason to do this kind of proactive communication is to prevent unnecessary calls and visits to your facility by people unaware you are busy helping your community.



Examples of good practice website statements are included in Appendix 2 of this document, as is an example of a general press article where exhibition hall staff helped a journalist frame matters accurately for a leading newspaper article, in this case featuring the convention centre in Vienna, Austria being put to use as an emergency hospital. Such statements should preferably emphasize:

- The facility and its management are seeking to assist the government to serve the local community in times of trouble;
- The situation is temporary;
- The facility will do all it can to resume normal operations and serve its regular clients as soon as possible.

Where feasible and practicable, local news media might be asked or facilitated to amplify the message your facility is being repurposed.

**11 | Plan regular daily meetings with government officials** who are helping prepare and will operate your facility. You are in this together, and need to optimize cooperation. This way everyone knows when the next set moment will come to share information and table, discuss and resolve problems. This can be a call-in or an in-person meeting, for instance scheduled for every 3, 6 or 12 hours. “This regularity was a key success factor for us in building an emergency hospital in record time, notes Corinna Häsele of the Reed Messe Wien in Austria. “It helped structure our long working days, contributed to team performance, and made it easier to successfully interface with the city’s crisis agency and medical staff.” If time and resources allow, communicate daily updates on your progress to keep everyone informed. An example of such good practice is this daily briefer put out by the Scottish Events Campus in Glasgow while they were building a hospital TEF:

## NHS Louisa Jordan: SEC Daily Status Report

prepared by PMO

6pm 6 April 2020

*Remember: Social Distance. No social media.*

### Last 24hrs Summary

**Milestones Achieved:**  
Hard FM contractor, FES appointed.

**Other activity**  
485 contractors on site (751 persons on site. 1418 passes issued).  
Clinical scenario planning session review pm.  
All Halls progressing well.  
Partitioning Halls 3 & 4 (#1,2 & 5 completed).  
Partitions overall 62% complete (653 of 1048)  
2nd fix Halls 1,2 & 5. 17% complete overall.  
Scottish Fire & Rescue walk-round.  
Fire strategy progressing.  
Medical gas supply.  
SERCO staff training.  
Documentary team on-site and initiated.  
Concourse partitioning (eg for Pharmacy).  
Air Handling unit cleaning.  
Water management system group met.  
Under-floor smoke-sealing.  
Hall temperature & AQ monitoring.  
Hall 1 & 2 'builder' clean ('sparkle' clean later)  
Covid related absence monitoring system live as is visitor system.  
SERCO recruiting for soft FM services.

### Next 24hrs Plan

**Milestones Expected:**  
Completion Criteria first draft document.  
First draft of Commissioning Programme.  
Design freeze end of day.

**Other Activity**  
Commissioning plan development.  
Medical gas supply installation  
Mechanical work halls #1 & #2.

### Key Decisions / Information required

Completion criteria to be agreed  
External area co-ordination  
Group 1 equipment schedule.  
Shower requirements.  
Concourse service design decision required (progressed to 95%, but not complete)  
PSCP Contract (sectional completion dates)

### Key Issues/ Risks

Critical Design Issues finalisation.  
Standard of existing ventilation.  
Insurance re Portakabins.  
VIE back up tank 16" delivery.  
Fire Strategy impact on design.  
Mortuary design completion.

### Key Decisions made

Group 2 equipment schedule.

2 Fire personnel to be on-site throughout live state.  
Earthing requirements confirmed.

### Distribution / Comments / amendments / additions to previous reports

Distribution: NHS x10. ScotGov x7. MM x7.

**TARGET: 1048 beds available 15/4.**

**STATUS: Amber\***. Slip: 4 days delay

\*Coding: **GREEN** 300 beds to be available on target date  
**AMBER** 300 beds availability up to one week late  
**RED** 300 beds availability more than one week late

**12 | If you are going to build an emergency hospital, involve medical experts from the very start, and be prepared for a lot of layout configuration changes.** This may sound evident, but experience shows: it is not always the case. In a lot of past situations it has been people other than medical specialists who with all good intentions got going first: generalists, crisis managers, soldiers, civil defense workers, contractors: everybody but the medical specialists. And then things all had to be changed around again. Even medical specialists often change their minds or get conflicting orders about exactly what the facility is supposed to do when completed, or how it is to function. Virus cases or not? Critical ones or recovery? ICUs? Operating tables? Emergency dental care? Dialysis machine ward? To the extent you can, figure out what kind of hospital you are to become, exactly, then have medical experts in hospital operations in those exact fields take the lead and help you set things up.

“This was a big learning for us,” observes Enrica Baccini of the Fiera Milano. “Everyone is doing their very best but confusion at the start is the order of the day as layout configuration possibilities are gauged and requirements change. In the 10 days we had to become an ICU COVID-19 treatment facility, the layout design changed no less than 14 times. Let the medical experts apply their expertise

first and foremost, and then, be flexible. For certain, things will change before it’s all done.” Adds Operations Director Mark Laidlaw of the Scottish Events Campus (SEC) in Glasgow: “Find comfort in not being the expert for once, but be confident that the expertise you do have is useful. In a situation like this, not everyone knows what you know. Work hard to share your knowledge with those who need it. Make it count.”

**13 | If you do not have one already, form a WhatsApp Group** or use a similar App or virtual mini-communication network that links all the main people involved in on-site preparations, planning and execution. Ensure this links key convention or exhibition staff/managers with key government/other officials so they can communicate directly. Other means can be used, including handing out walkie-talkies and the like, but as team participation changes and expands, fast and easy – an App – often works best. Similarly, there are free, easy to download services for secure communications if extra sensitive matters need to be discussed, like Signal. Stress upon everyone to keep communications short and to the point.



TEFs can be large-scale endeavors involving significant distances and spread-out new team members: promote effective team communication

**14 | Beyond voice communications, think efficiency of information collecting, sharing and storage.** Create a central filing system. Make this the only point of collection and control. Avoid gathering information on desktops and local hard drives. People may not always be consistent in following procedures during a crisis, so information and progress needs to be. Related, create a speedy communications procedure to get key information to key people. The site may become different, or be new to people. Think ahead about things your team need to know - like new parking arrangements, new accreditation procedures or the need for personal protection equipment (PPE). This will avoid needless phone calls, WhatsApp messages and emails and speed things up.

**UPDATE ON OUR OPERATIONS**

A temporary medical station is being constructed at the Javits Center to house non-COVID-19 patients and relieve the burden on local hospitals. Our employees are proud to help during this unprecedented crisis, and we hope you will continue to support us, now and in the future. If you have any symptoms or concerns, please consult a physician or call **311**.



WIKIPEDIA  
The Free Encyclopedia

Article [Talk](#)

## NHS Nightingale Hospitals

From Wikipedia, the free encyclopedia

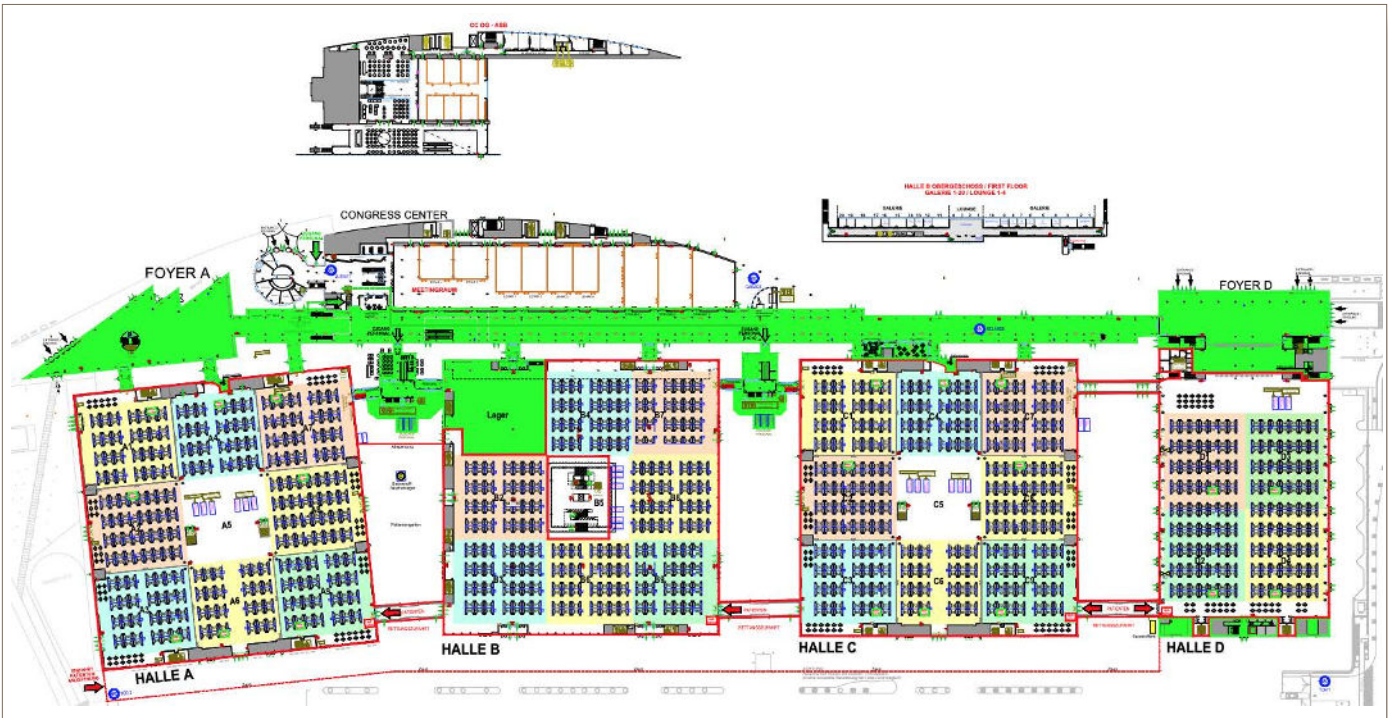
The first March 2020 website notice of New York City Javits’ Centre announcing construction of an emergency hospital there, and the Wikipedia page set up about the same time for British NHS Nightingale Hospitals.



**15 | See what emergency plans and procedures you already have** that you can use or adapt and share with officials for preparing your facility to serve as a TEF. Among the plans facilities use as the basis for helping themselves and authorities are (see next chapter for procedures):

- Pandemic Response Plan
- Health & Safety Plan
- Business Continuity Plan
- Continuity Activity Plan
- Crisis Management Plan
- Communications Plan
- Utility – Building Systems Plan

**16 | Make copies of maps of facilities to share with incoming officials, contractors and first responders.** If already fixed or known, identify key operational locations on these maps, e.g. location of security operations, crisis management meeting room, building management systems control room, IT room. Similarly, when maps for planning purposes showing the newly intended layout of your facility are produced, distribute these. They can help people visualize where things have to go, or ought to go, and sometimes help sequence preparation steps, like what larger structural materials need to be moved or brought into a hall first, from where, in what order. Remember to control or destroy sensitive documents at the end.



**17 | Make copies of key documents on paper and electronically to share.** Pay particular emphasis to the functioning and particulars of key systems, e.g. building management, water, electricity, air, WiFi, etc. so these can be shared for assessing, planning and executing on requirements. Remember to control or destroy sensitive documents at the end.

**18 | If at all possible, engage the military for help with planning and logistics.** While it is often local, regional or national authorities who can or will call in the military, as an organization it is often the most capable and best positioned entity to help with large scale emergency assistance projects. Both on the planning and requirements side and on the actual movement of supplies and equipment logistical side, military units are often uniquely specialized and qualified to do the heavy lifting. This includes preparations for helicopter landing and lifting operations, both for people and for supply and equipment transport. Also in a growing number of COVID-19 emergency hospital settings such as for example at the Stockholmsmassan convention centre in Sweden are helicopter operations becoming an integral part of operations.

An example of a map showing the detailed emergency hospital layout of the Vienna convention centre (Reed Messe Wien) | April 2020

**19 | Perform a quick baseline supply inventory** to check exactly what you have available in terms of supplies and materials. This should be electronically logged and if possible captured with photos as evidence of what you began with, as many supplies will be likely be put to use or distributed. To the extent your staff will be responsible for particular supplies, institute a regular inventory control check to keep track of usage rates and replacement requirements. Unchecked, unsecured supplies may spoil, become damaged, lost or stolen.

**20 | As a general rule, take on only what you are good at.** You may typically offer a service to clients, but ask yourself if you are best placed to provide this same service to realizing a TEF. There may be various reason not to, such as your workload, the size of your resource pool versus speed of delivery, and being unfamiliar with medical standards and different service levels. In line with this, be prepared to change typical responsibilities and reporting lines to get the right people in the right place. You may be seeking the right skill and temperament or added experience rather than a typical job function. Some convention and exhibition centres being prepared as a TEF chose to make one of their larger contractors the main point of contact and coordination for all our other contractors. This was to reduce workload, streamline the response plan and make medical or housing standards and service levels consistent to one design, across the whole contractor base.

**21 | In planning, pay particular attention to waste disposal.** Different kinds of emergencies can generate different kinds of waste challenges. A temporary shelter for 20,000 hungry, sick people including lots of infants without fresh diapers will see a different but possibly equally vexing waste problem as an emergency hospital producing tons of COVID-19 toxic waste. Where and how will waste be collected, where will it go? Does recycling plastic bottles and refilling them with water make sense? Where possible, draw on available expertise to design an appropriate and safe waste disposal process, and do not forget to estimate the likely high volume of waste you will be processing.

**22 | In planning, pay particular attention to fire safety, especially when becoming an emergency hospital.** Becoming a TEF means a lot of activity and or a lot of people will be taking place or present at your site. This by itself requires extra safety vigilance. A lot of equipment brought in during emergency situations can pose extra hazards, and these should be identified and addressed as best



Key learning from the Fiera Milano: plan appropriate fire safety measures when moving, installing and operating (very) large gas and oxygen tanks.

as possible. Consider, for instance, the best placement of and fire safety measures for large oxygen canisters for hospital ICU use, of large compressed gas bottles to drive machinery, and of fuel bladders used to run helicopters.

**23 | If time allows, conduct exercises and pre-planning sessions with emergency services** to better prepare for what is coming. If a slow-moving major disaster like a pandemic or still far-off hurricane is creeping its way to your country, and time allows, exercise. Prior familiarity with the emergency services you will be working with is found to have a high payoff. Belgian, Dutch, Brazilian, UK, US and German officials contacted for this guidance who collaborated with convention and exhibition centres in exercises in previous years indicate this was beneficial in helping them prepare to set up TEFs. Centre managers for their part indicate the same. Observes Ian Taylor of the National Exhibition Centre Birmingham: “joint training and crisis management exercises proved invaluable. Knowing certain people and how they work and what they can bring to the table was a key factor in making certain things go better and faster in setting up NHS



Good practice: World Forum Convention Centre staff in The Hague conducting a COVID-19 scenario exercise in February 2020 with input from local authorities.



Detailed Checklists and Guidance for Setting Up a TEF

For detailed planning and preparing your TEF for use, see the following documents:

- Good practice European WHO guidance on realizing an emergency medical site, with much of the material consisting of checklists also applicable to various different kinds of TEFs.

[www.euro.who.int/\\_\\_data/assets/pdf\\_file/0020/148214/e95978.pdf?ua=1](http://www.euro.who.int/__data/assets/pdf_file/0020/148214/e95978.pdf?ua=1).

- Good practice guidance from the International Association of Venue Managers and the American Red Cross on building emergency mega-shelters, with 274 pages of extensive detail on all functions and stages of build-up and operation.

[www.fema.gov/pdf/emergency/disasterhousing/mspg.pdf](http://www.fema.gov/pdf/emergency/disasterhousing/mspg.pdf)

- Good practice NHS guidance on steps to set up an emergency hospital. Developed in concert with contractors from BDS to template the realization of NHS Nightingale Hospital at the ExCel Centre in London.

[www.architectsjournal.co.uk/download?ac=3180222](http://www.architectsjournal.co.uk/download?ac=3180222)

- Good practice Fiera Milano guidance on setting up an emergency ICU hospital. Detailed slide-deck style document offering insight on all different aspects, facts and figures regarding the COVID-19 ICU facility inside downtown Milan’s Mica. The contents includes key lessons learned (most used in this guidance).



- Good practice WHO Health Programme Severe Acute Respiratory Infection (SARI) Treatment Facility Design – Module 2: Designing Screening and Treatment Area.

[WHO SARI-FACILITIES\\_MODULE-2.pdf](#)

- Good practice WHO Health Emergency Programme detailed guidance on dimensions and layout of emergency care facilities: See Appendix 3.



- Good practice WHO Health Programme Severe Acute Respiratory Infection (SARI) Treatment Facility Design – Module 3: Repurposing an Existing Building into a SARI Treatment Centre.

[WHO SARI-FACILITIES\\_MODULE-3.pdf](#)

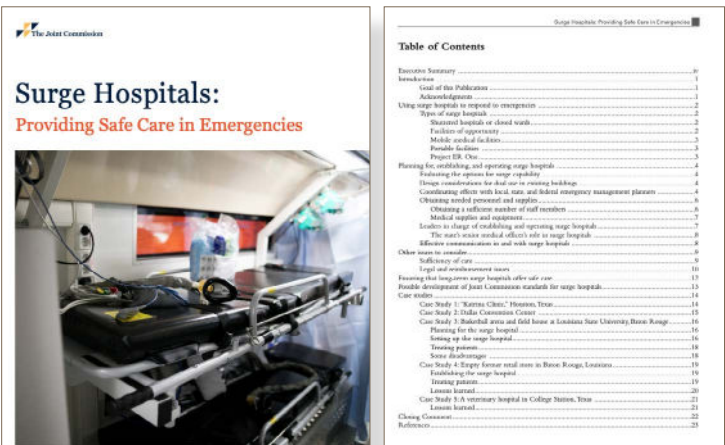
- Good practice American Institute of Architects guidance on all manner of building and structural issues in relation to emergency preparedness. This includes a number of checklists. This document and in particular its Appendix B constitutes one of the world’s largest online compendiums of its kind, from anti-high wind to anti-earthquake and anti-tsunami design.

[content.aia.org/sites/default/files/2017-05/Disaster\\_Assistance\\_Handbook\\_050917.pdf](http://content.aia.org/sites/default/files/2017-05/Disaster_Assistance_Handbook_050917.pdf)

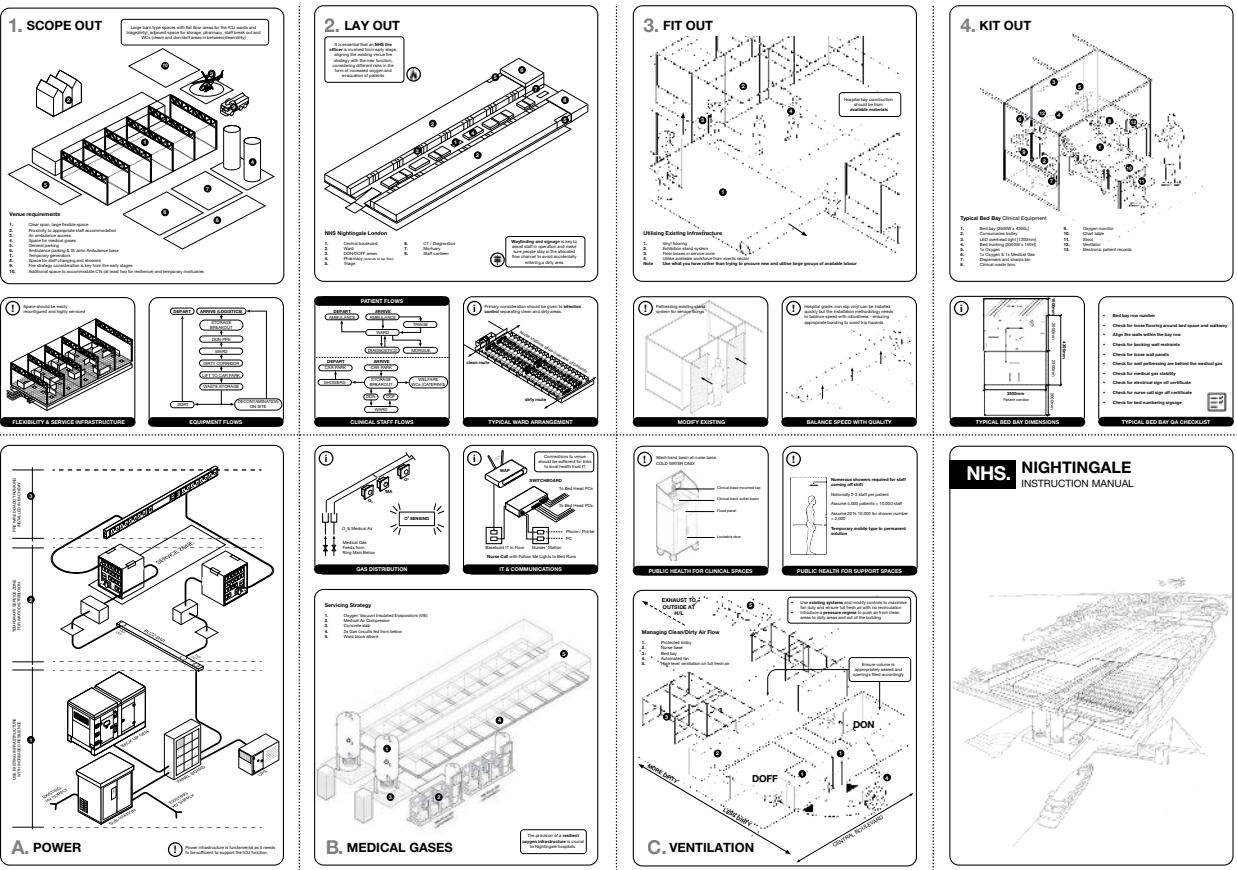
- The main Manual of the US Army Corps of Engineers, at 930 pages the biggest of its kind publicly available (version 2014) detailing the ‘how to’ details on all types of different engineering activities. Widely used in emergency situations.

[www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM\\_385-1-1.pdf](http://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_385-1-1.pdf)

- Good practice Joint Commission Resources guidance on setting up a Surge Hospital. Prepared in response to challenges around hurricane relief efforts in the United States and considered a key resource for COVID-19 operations.



[www.jointcommission.org/covid-19/?\\_ga=2.216849297.681515793.1586100244-1147680105.1586100244](http://www.jointcommission.org/covid-19/?_ga=2.216849297.681515793.1586100244-1147680105.1586100244)



Evolving good practice around operating a convention or exhibition centre as a temporary emergency facility or TEF calls for the following, as applicable and as circumstances allow:

**1 | Log key developments in a daily log.** Keep track of key developments to help track planning requirements, offer overview on measures taken to be monitored, and to have a record of all that was done for insurance, compliance, and legal purposes. Such a log record can also be used for eventual investigative purposes.

**2 | Enforce routines when it comes to regular staff briefings and communication.** Try to enforce a regular schedule of staff briefings to keep all hands apprised of developments and up to date on unfolding plans. Make sure to include staff working from home or otherwise remotely.

**3 | Keep your ‘work from home’ staff close.** Certain disasters including pandemic can witness a lot of staff members supporting efforts at a TEF from home. It is important to keep them well-informed and engaged, also for mental health reasons, and to ensure longer-term good practice. The effectiveness up remote support for a crisis operation often stands in direct relation to their level of engagement.

**4 | Monitor who comes in and out.** Access control, depending of what a TEF is used for, can be crucial. The presence of unwanted or ill persons can disrupt TEF operations, and an appropriate entry protocol – if at all feasible supported by credentialing like badges or passes – with guards at entryways can help guard against this. In the case of a pandemic, a form of health screening may be required. Where possible, this should include the operation of the neutral or ‘clean zone’ where people can be tested and or checked for disease.

**5 | Monitor news sources continuously** and especially local news about developments effecting your situation. Emergency broadcasts, topical news, expert podcasts and more general news can contain a wealth of useful

information and insights to help secure, improve or sustain your operation. Designate someone as the daily internet, radio and TV news monitor, responsible for checking on news of interest at least several times a day, and if need be, distributing it. Past experience indicates many people in a TEF assume someone else is monitoring the news, or that many are too busy too monitor the news, and that hereby important things sometimes get missed.

**6 | Consider operating a hotline or special ‘lifeline’ contact number** for clients, vendors or other stakeholders so they can continue to contact you even as the entire focus of your operations is on serving as a TEF. This also so they can (continue to) support you.

**7 | As you start operations, determine which parts of the complex will definitely not be used and can be closed down.** Where possible, do this right away and seal these areas before outside parties come in and ‘confiscate’ such areas by taking them into use without permission, or use them for personal purposes, like sleeping, smoking, or just relaxing to get a break. This cuts down on the number of rooms and areas that need to be secured, checked, patrolled, and supplied with electricity. If you are in use as an emergency shelter, whether for a particular group like the homeless or for the general public, this is a particularly important point to pay attention to.

**8 | Alert your staff to the presence of journalists so they can assist appropriately.** During a crisis, many journalists seek to educate the public and generate unity and support for TEF workers by high-lighting their efforts. For instance, a TV crew follows a nurse or a doctor around as he or she enters and exits an ICU, or a news photographer takes pictures of a staff member feeding a needy, physically challenged homeless person. So too, staff members might decide to themselves engage the public or particular media platforms via social media, by sending out messages or images. It is considered good practice to monitor and guide all such activity, so that appropriate standards are maintained. This relates both to legal constraints like personal privacy rules and simple decency and bad taste: no one really wants a photograph of a pile of dead bodies with the logo of your centre behind it snapped in the emergency hospital morgue.

**9 | Keep your written procedures updated, add as needed, and distribute widely.** This so that others not familiar with how you do things – extra help, volunteers, replacements, soldiers – who come in not at the start but later in the process, after you have already opened as a TEF, can perform at least basic tasks to your standards and requirements.

Among procedures widely and actively used in TEFs in the past are:

- All safety procedures, notably:
  - Managing suspected virus incident response
  - Waste handling and disposal procedures
  - Inventory control and security of supply procedures
  - Increased/expanded hygiene and disinfection cleaning regime
  - Procedure to conduct health screening of people entering the facility
  - Procedure to report and help in case of illness among staff working from home
  - Protocol for handling the deceased including possible storage of remains
  - Mental health / helpline and suicide prevention procedures

- All security procedures

- All crisis management procedures

- All procedures dealing with Building Management Systems

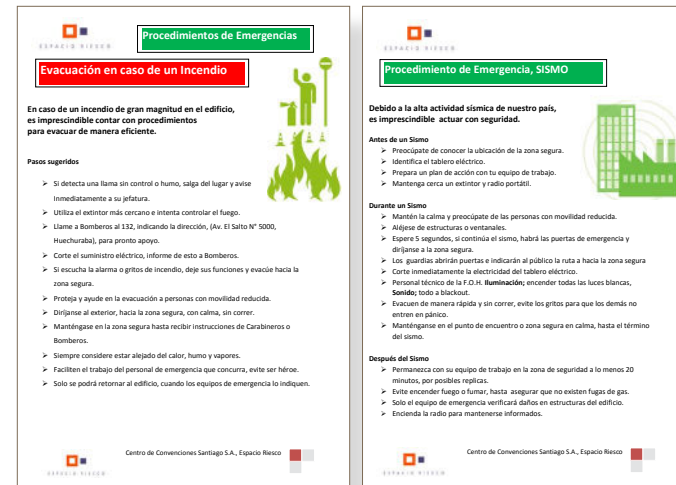
- All logistics, supply and transportation procedures

- All Internal and external communications procedures

**For examples of different procedures, see among others:**

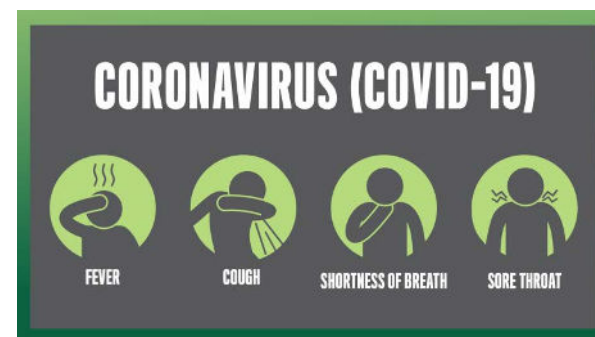
- Chapter ‘Concept of Operations’ and Appendices in ‘Building Emergency Mega-Shelters’  
[www.fema.gov/pdf/emergency/disasterhousing/mspg.pdf](http://www.fema.gov/pdf/emergency/disasterhousing/mspg.pdf)
- Chapter 2 ‘Good Practice: Procedures’ in ‘AIPC and UFI Good Guidance on Covid-19 Challenges’  
[www.aipc.org/uploadFiles/1583929553\\_AIPC\\_UFI%20Good%20Practices%20Guide\\_CV19.pdf](http://www.aipc.org/uploadFiles/1583929553_AIPC_UFI%20Good%20Practices%20Guide_CV19.pdf)

**10 | Where possible and appropriate, display procedures in printed or graphic form openly as much as possible** for ease of use and understanding, for instance on walls, doors, bulletin boards. This may be most appropriate in TEFs where everyone inside is working on the same mission and there is no general public present, like at sites caring for patients, serving as mortuaries or sorting and distributing aid packages.



Two good practice examples of Spanish-language procedures from the Santiago Espacio Riesco in Chile (earthquake zone risk) to be wall-mounted in emergencies

**11 | Personal good hygiene guidance should similarly be prominently displayed.** Such guidance is preferably short, clear, and visually supported by bold graphics. This to help convey the core message(s) better and faster, particularly in a multi-lingual community. If available, use electronic messaging boards alongside any posters, stickers, flyers, handouts or static images.



Examples of graphics used by the Australian government and WHO.

**12 | In addition to safety, pay particular attention to security operations.** Offering a secure environment inside a TEF is an important aspect of maintaining effective operations over the longer term. Particularly in emergency shelter TEFs, or on case of shortages, tensions can flare. If you keep large stores, or an improvised pharmacy, drug addicts might target you. Similarly, if you are an improvised aid distribution centre, for instance one used by authorities to distribute tons of goods in a flood zone or earthquake impact area, you may be of interest to gangs seeking to profit from black marketeering.



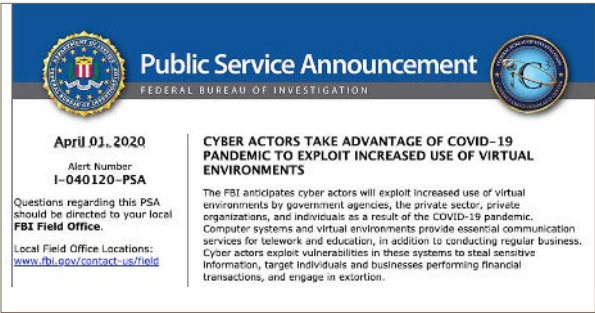
13 | A lot of TEFs have to rely on their own security while up and running.

Among good practice efforts exercised in TEFs in the past when it comes to security are:

- Conduct regular patrols of all interior and exterior areas, preferably by two people at a time, particularly if you are operating an emergency shelter site
- Maintain strict inventory controls, and keep supplies locked and if need be, under guard
- Perform regular patrols of all locked-down, closed-off areas not being used
- Exercise security coverage of any still working ATM money machines
- Check parked vehicles and parking areas on a regular basis
- Check basement areas on a regular basis
- Check roof areas on a regular basis

Be aware that a significant number of companies provide crisis security support services, including emergency evacuations and sending armed or unarmed guard teams to help secure a facility under crisis conditions. These teams usually operate in a self-sufficient manner (carrying emergency rations, medical kits, communication sets, sleeping bags and the like) and are frequently staffed by experienced security veterans able to operate in harsh conditions with a high degree of independence. Contracting such a team can significantly boost a site's security capability, mitigate specific threats, and relieve regular staff. Some teams can deploy with their own doctor or fully trained nurses, as many teams did during the past 15 years in the United States following hurricanes in South Carolina, Louisiana, Mississippi and Puerto Rico.

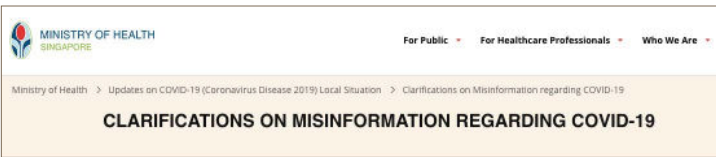
**14 | Pay attention to your cyber security.** Given that a preponderance of any centre's systems are IT-dependent, having your IT team follow news and trends, continuously assess the risks to your operations, and mitigate exposure is important as a matter of course. In times of crisis, it can be more important still as opponents and particularly criminals seek to exploit new vulnerabilities on the one hand, and your dependency on what IT is (still) functioning is even greater on the other. Crises can indeed cause cyber threats to increase or shift. Much information from authoritative government agencies, commercial companies and international organizations is free, and easy to track. Ensure this is done, and where feasible, appropriate action is taken.



The cyber threat: prone to increases and shifts during crises.

See Chapter 5: 'Good Practice: Cyber Security Measures' in 'AIPC Good Practice Managing Critical Threats' [www.aipc.org/uploadFiles/AIPC%20Good%20Practice%20Managing%20Critical%20Threats%2019.6.pdf](http://www.aipc.org/uploadFiles/AIPC%20Good%20Practice%20Managing%20Critical%20Threats%2019.6.pdf)

**15 | Practice rumor control.** Actively monitor news sources and people in your environment for seriously misleading rumors that might result in trouble. Particularly in shelter TEFs, or when people outside your TEF suspect something wrong or bad or unfair is happening inside your facility, rumors can result in serious problems. Arguments, accusations, fights and even looting are but some of the bad results rumors can yield. Increasingly, as major crises occur, governments help monitor for potentially impactful rumors. Tracking this news can be worthwhile.



The Singapore government official rumor tracking service launched in March 2020.

**16 | Ask local government to assist in parallel communications about developments inside of your TEF facility** to prevent rumors from emerging, to keep peoples' expectations clear, and to facilitate regular operations. A lack of information for local community members may result in some people wanting to see for themselves "what is going on" or "what conditions are really like in there." Your own information output in a prolonged, major crisis may only go so far in terms of public acceptance as some sceptics might see it as a biased or overly controlled. Having local government support your centre's own information stream and validate it can prove important.

## 4 GOOD PRACTICE: Standing Down as a TEF

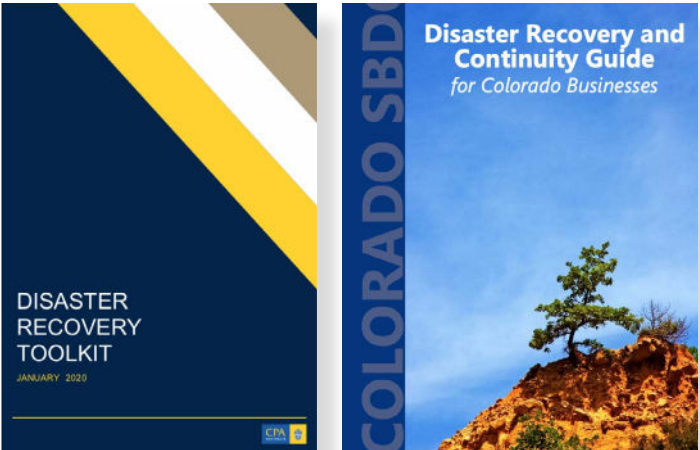
Evolving good practice closing down a convention or exhibition centre as a temporary emergency facility or TEF and reopening it for regular business calls for the following, as applicable:

**1 | Be mentally prepared for a challenging recovery period.** Depending on what happened at and to your facility while it served as a TEF, damage could be considerable. Your staff and management team will likely be exhausted and want a long break. Cleaning, maintenance and repairs alone could be extensive and exhaustive (consider cleaning after an outbreak of disease or weeks of flooding); damage may require rebuilding or replacing structural elements; and your hard-earned good image may have suffered for whatever reason, through no fault of your own, because of what happened there. Being tough, united and working together with key stakeholders will likely be vital to getting your convention or exhibition centre back on its feet.

**2 | Upon ending operations as a TEF, use industry, national or international business recovery plans to guide your way back to normal.** These tend to be academically, practically and government-vetted and build on useful hard-earned experience. Dozens of nations and global associations have developed templates, models, kits and other guidance for business recovery. This includes plans issued in the wake of massive fires, earthquakes, cyclones/hurricanes/typhoons, tornadoes and floods. While some of this guidance is specifically geared towards small business, much of it is organization-size generic, and can be used by convention or exhibition centres as well, including the business impact analysis forms and templates many contain.

An example of the kind of practical step-by-step points many of these plans contain are the two main Recovery Plan Template sheets in the Australian Emergency Management & Recovery Plan included in Appendix 4. They outline steps for reopening for business.

In parallel with your practical operational, business and financial recovery efforts, work on a marketing plan and marketing strategy suitable to the situation. Take into account what just happened, and what is appropriate: having possibly just lived through a national tragedy, your community may wish you to initially adopt a sober, befitting marketing posture.



Two examples out of the many, widely available disaster recovery guides available: a national one from Australia and a regionally oriented one from the United States. Both offer detailed, practical advice and 'how to' steps for restarting business.

'How to' steps for restarting business:

[www.cpaaustralia.com.au/-/media/corporate/allfiles/document/professional-resources/business/disaster-recovery-toolkit](http://www.cpaaustralia.com.au/-/media/corporate/allfiles/document/professional-resources/business/disaster-recovery-toolkit)

[www.coloradosbdc.org/wp-content/uploads/sites/4/2019/01/CSBDC-Business-Recovery-Guide.pdf](http://www.coloradosbdc.org/wp-content/uploads/sites/4/2019/01/CSBDC-Business-Recovery-Guide.pdf)

**3 | Search for opportunities to enter into new partnerships to help speed recovery.** Past large-scale disaster recovery efforts from Haiti to the Bahamas to Australia witnessed businesses form new, often enduring commercial ties with particular construction, repair, cleaning, design and transportation companies. While a new month-long engagement with a helicopter freight company to ferry roof repair equipment may be a one-time thing, a multi-year win-win relationship with a hardware megastore chain could offer cost-savings and other benefits extending years beyond your business recovery period.

**4 | Early in your business recovery process, consider conducting a commemorative event.** Likely much will have happened in the time you spent as a temporary emergency facility, include a share of drama. People may have suffered or even perished as your facility and staff

sought to help your community in arduous circumstances. Having a remembrance ceremony shared with those people who worked there alongside your own, with those who were victims, or family and friends of those who perished, can help provide closure, funnel emotion, and offer a pathway for goodwill and grace. It can also serve as a fitting close on your chapter as a TEF.

**5 | As a later part of your recovery process, consider having a celebratory event to mark the reopening of your facility.**

A big celebration where your centre marks its festive reopening could be a fitting start towards the future. Having all your key stakeholders present, from contractors to customers to local dignitaries, a big reopening event can be just the kind of media-enhanced send-off your centre can use to ‘get back on the map’ and back on its feet. In the past, many facilities that did duty as a TEF and reopened for business had their ‘restart celebration’ follow shortly after, or coincide with, key local government inspections and re-certifications.

**6 | Consider a proactive media communications strategy on past risks** in which you engage the local or national media to highlight preparations you are taking to mitigate future risks at your venue. It might also high-light exceptional capabilities acquired to limit the potential for past problems reoccurring. An example of this is the March 2020 press campaign by AsiaWorld-Expo Hong Kong high-lighting their new “Cleantech” disinfection installation. At a moment of concern about pandemics, the installation was viewed with interest by the press as a timely, desirable addition to capabilities.



Press Release | AsiaWorld-Expo deploys the world's first “CLEanTech disinfection installation.pdf

**7 | Seek to capture lessons learned.** When conditions permit, conduct a series of Lessons learned sessions to capture your experience and its most important learnings. This is not only important for improving your own operations in the future, but you may also hold and have unique, valuable insights for others. Publishing or at least sharing and circulating key learnings, starting amongst your own key stakeholders, carries value for all involved.

**8 | Prepare for a repeat.** No one enjoys thinking about bad experiences just passed, but it is only proper to prepare for a next version, or other type of challenge, to confront your facility. Seasonal storms come again; pandemics know new outbreaks; accidents occur. Maintain and train your business continuity and crisis management teams, and be prepared.

# 5 GOOD PRACTICE: Select Sources for Additional Information

Select organizations that various AIPC and UFI members consult or may otherwise serve as a useful resource for expertise on the use of a convention of exhibition centre as a temporary emergency facility include:

- American Institute of Architects (AIA)
- ASIS International
- Association of Event Venues (AEV)
- Business Continuity Institute (BCI)
- European Arena Association (EAA)
- European Exhibition Industry Alliance (EEIA)
- European Major Exhibition Congress Association (EMECA)
- Event Safety Alliance (ESA) (USA – Canada)
- Exhibition and Event Association Australasia (EEAA)
- Exhibition Services & Contractors Association (ECSA) (USA)
- International Association of Exhibitions and Events (IAEE)
- International Association of Venue Managers (IAVM)
- National Arena Association (NAA)
- National Institute of Standards and Technology (NIST)
- Risk and Insurance Management Society (RIMS)
- US Army Corps of Engineers (USACE)
- US Federal Emergency Management Agency (FEMA)
- Venue Management Association (Australia)



# Appendices

## APPENDIX 1 |

### Examples of Website Statements on TEF Medical and Emergency Shelter Use

22:58 Fri 3 Apr

mecc.nl

96%

mecc  
M A A S T R I C H T

NL | EN | DE | FR

#### Temporary emergency hospital

Maastricht University Medical Center+ will set up a temporary emergency hospital in MECC Maastricht to expand the care capacity for corona-infected patients. The extra capacity should be operational by Saturday 4 April. The temporary hospital is intended for corona patients who have been diagnosed with the virus, but for whom basic care is sufficient. Whether the extra capacity will actually be used depends on how the corona pandemic will develop in the region. If you have any questions about the emergency hospital, please contact Maastricht UMC+

The emergency hospital does not lead to additional safety risks or an increased risk of contamination for our employees, suppliers and partners who have to perform work in or around the buildings of MECC Maastricht. The general guidelines of the Dutch health authority (RIVM) apply, which are applicable to everyone in the Netherlands:

- Keep a safe distance of at least 1,5 meters
- Wash your hands regularly
- Cough or sneeze into the fold of your elbow or into a tissue
- Avoid physical contact
- Do not touch you face
- Stay at home if you show mild complaints of a cold or flu

Current information for the Dutch health authority (RIVM) and answers to questions about the corona virus can be found [here](#)

Baltimore  
Convention Center

ABOUT | PLAN / EXHIBIT | ATTEND | BALTIMORE

### Novel Coronavirus (COVID-19)

#### Baltimore Convention Center Statement

Update March 27, 2020 12:18 P.M.

Updated March 27, 2020 12:18 PM for specific federal terminology. As it has been reported through local and national news outlets, the Baltimore Convention Center has been designated as a federal medical station by Maryland Governor Larry Hogan, becoming an important part of the state's response to the COVID-19 pandemic. The Baltimore Convention Center stands ready to support the City and State as our region works in unison to serve our citizens during this unprecedented event. To prepare our facility for this undertaking, the Maryland National Guard will transform 123,000 square feet of exhibit space inside of halls F & G into medical station with 240 medical beds delivered by FEMA. This federal medical station will operate under the direction of the University of Maryland Medical System and Johns Hopkins. We anticipate that our facility will serve to free up hospitals to care for the most serious and critical patients.

In support of medical station operations, Baltimore Convention Center workers, including employees of our business partners previously deployed, will return to provide food service, telecommunications, utilities, and other services needed for the care of patients and to support the needs of our workers. These essential employees will be following social distancing and food handling guidance as recommended by the Centers for Disease Control, and the Baltimore City's Health Department.

In the midst of this crisis, we have not lost sight of the needs of our clients. In collaboration with Visit Baltimore, we are actively working with all customers, according to event timing, to ensure we are meeting all contractual obligations, we are prioritizing the rescheduling of events for future dates where possible. With regard to the very fluid nature of this crisis, it is important to note that the Baltimore Convention Center is still mandated under the State of Emergency and Catastrophic Health Emergency Activation. Until this decree from Governor Hogan has been rescinded, the facility will remain closed to the public.

We are facing an unprecedented, global emergency and are doing everything within our power to act in the best interest of all involved including the citizens of Baltimore who are in need of our halls, our clients, business and industry partners, and employees.

While information and logistical planning is still in motion, we are doing our utmost to be a resource for all partners. Please check this page regularly for updated information on this ever-changing crisis.

SAN DIEGO  
convention center

## Temporary Shelter

As part of our region's response to COVID-19, the San Diego Convention Center will serve as a temporary shelter for our neighbors in need. The plan will create more space to serve people experiencing homelessness and allow for adequate physical distancing within current shelter facilities.

Please see the following City of San Diego press releases for more information:

April 1: [Convention Center Opens as Temporary Regional Homeless Shelter Amid COVID-19 Pandemic](#)

March 24: [Work Begins To Offer More Room For Homeless To Shelter](#)

March 23: [Preparations Underway to Open All of Golden Hall, Parts of Convention Center to Serve Homeless Individuals](#)

22:52 Fri 3 Apr

excel.london

96%

### ExCeL London to become temporary NHS Nightingale hospital

The NHS has announced that a new hospital will open at ExCeL to provide support for thousands more patients with coronavirus.

The NHS Nightingale Hospital, London, will be ready for use from next week.

It will initially provide up to 500 beds equipped with ventilators and oxygen. [Read more](#)

For further information about ExCeL's response to the spread of coronavirus, [click here](#).

**Die Presse**  
Unabhängige Tageszeitung für Österreich  
Wien, am 14.03.2020, 312x/Jahr, Seite: 6  
Druckauflage: 79 632, Größe: 100%, easyAPQ: ...  
Auftr.: 4060, Clip: 12823812, SB: Messe Wien

## Stadt errichtet Notquartier mit 880 Betten in der Messe Wien

### Epidemie. Maßnahme für Patienten mit milden Krankheitsverläufen.

**Wien.** Noch ist die große Halle auf dem Gelände der [Messe Wien](#) leer und unwirtlich. Zwei Container stehen da. Aber die Arbeiten haben schon begonnen. Beschäftigte der Stadt Wien und von Hilfsorganisationen stellen ab Freitag 880 Betten auf.

Zwischenwände werden errichtet, Toiletten und Duschen eingerichtet. „Betreuungseinrichtung für Covid-Patienten“ nennt sich das amtlich. Bürgermeister Michael Ludwig (SPÖ) ist vor Ort und appelliert an die Wiener: „Es gibt überhaupt keinen Grund, in den Geschäften die Regale leer zu kaufen.“

Patienten mit einem milden Verlauf der Erkrankung sollen hier im Notfall untergebracht werden. Ab Dienstag steht das Quartier zur Verfügung – mit der weiteren Möglichkeit, die Kapazitäten aufzustocken. Intern erwartet und hofft man, dass der Fall der Besiedlung der Messe Wien nie eintreten wird. Gedacht sind die Betten für Erkrankte, die keiner Spitalsbehandlung bedürfen, aber zu Hause nicht betreut werden können; weil sie allein leben oder der Partner selbst im Krankenhaus liegt. Pflegepersonal und Ärzte werden für die Untergebrachten sorgen.

Indes muss das LKH Hartberg wegen einer zweiten Coronavirus-Infektion bei einem Mitarbeiter nun komplett „vom Netz“ genommen werden, sagte ein Sprecher der Steiermärkischen Krankenanstaltengesellschaft (Kages) am Freitag. Der zweite Fall war Donnerstagabend bekannt geworden. Nun sollen nur noch 43 Patienten stationär behandelt werden.

Unter den 43 sind auch zwölf Männer und Frauen, die zu den Kontaktpersonen der ersten infizierten Mitarbeiterin des Krankenhauses gehören. Der nun neu infizierte Mitarbeiter zähle nicht zum Kreis der Kontaktpersonen der ersten Infizierten, daher habe man sich nun entschieden, das Spital komplett zu sperren. Die noch zu behandelnden Patienten und Kontaktpersonen werden von Mitarbeitern mit Kontaktbezug behandelt.

Für das LKH Hartberg gilt, wie auch für andere Spitäler, dass nicht notwendige Operationen und Behandlungen verschoben werden. Unter den verbliebenen 43 Patienten des Spitals sind keine mit dem Coronavirus infizierten Menschen, wurde betont. Alle entsprechenden Tests seien bisher negativ ausgefallen. Die Patienten sollen nach und nach in häusliche Isolation geschickt werden. Bestätigt wurde von der Kages auch ein Fall einer infizierten Mitarbeiterin der Onkologie am LKH Graz. Die Abteilung sollte ersten Informationen zufolge in Betrieb bleiben.

**Patient im KH Nord kollabiert**

Erstmals ist nun auch im Wiener Krankenhaus (KH) Nord ein Patient positiv auf das Coronavirus getestet worden. Wie der Sprecher des medizinischen Krisenstabs der Stadt Wien, Andreas Huber, am Freitag berichtete, war der Mann ohne Anzeichen auf eine Covid-19-Erkrankung zu einer Röntgenuntersuchung ins Spital gekommen. Während der Untersuchung sei der Mann plötzlich kollabiert und Notfallmedizinisch versorgt worden, sagt Huber. Im Zuge dessen wurde auch ein Mundhöhlenabstrich entnommen und eine Infektion mit dem Coronavirus festgestellt. Der Patient wurde ins Kaiser-Franz-Josef-Spital überstellt, wo er auf der Isolierstation weiterbehandelt wird.

Das Personal, das mit dem Mann Kontakt hatte, wurde heimgeschickt und befindet sich für 14 Tage in häuslicher Absonderung. Diese Maßnahme betrifft 30 Spitalsmitarbeiter.

**Verdacht beim Bundesheer**

Auch das Bundesheer hat von einem Verdacht auf Coronavirus in Horn berichtet. Ein Unteroffizier der Garde sei isoliert worden. „Alle 223 Soldaten der Kompanie bleiben vorerst in der Kaserne“, so Michael Bauer, der Sprecher des Verteidigungsministeriums. (d. n./red.).

Zum eigenen Gebrauch nach §42a UrhG. Digitale Nutzung gem PDN-Vertrag des VÖZ voez.at. Anfragen zum Inhalt und zu Nutzungsrechten bitte an den Verlag (Tel: 01/51414\*70).

Seite: 1/1

## Appendices

## APPENDIX 2 |

### Example of Checklists from European WHO Emergency Hospital Guidance

## Key component 7

# Human resources

Effective human resource management is essential to ensure adequate staff capacity and the continuity of operations during any incident that increases the demand for human resources (Recommended Reading 7). Consider taking the following action.

Recommended action	Due for review	In progress	Completed
Update the hospital staff contact list.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Estimate and continuously monitor staff absenteeism.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Establish a clear staff sick-leave policy, including contingencies for ill or injured family members or dependents of staff.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify the minimum needs in terms of health-care workers and other hospital staff to ensure the operational sufficiency of a given hospital department (Recommended reading 7).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Establish a contingency plan for the provision of food, water and living space for hospital personnel.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prioritize staffing requirements and distribute personnel accordingly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recruit and train additional staff (e.g. retired staff, reserve military personnel, university affiliates/students and volunteers) according to the anticipated need.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Address liability, insurance and temporary licensing issues relating to additional staff and volunteers who may be required to work in areas outside the scope of their training or for which they have no licence.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Establish a system of rapidly providing health-care workers (e.g. voluntary medical personnel) with necessary credentials in an emergency situation, in accordance with hospital and health authority policy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cross-train health-care providers in high-demand services (e.g. emergency, surgical, and intensive care units).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide training and exercises in areas of potential increased clinical demand, including emergency and intensive care, to ensure adequate staff capacity and competency.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Key component 3

## Safety and security

## Key component 3

# Safety and security

Well-developed safety and security procedures are essential for the maintenance of hospital functions and for incident response operations during a disaster (Recommended reading 3). Consider taking the following action.

Recommended action	Due for review	In progress	Completed
Appoint a hospital security team responsible for all hospital safety and security activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prioritize security needs in collaboration with the hospital ICG. Identify areas where increased vulnerability is anticipated (e.g. entry/exits, food/water access points, pharmaceutical stockpiles).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensure the early control of facility access point(s), triage site(s) and other areas of patient flow, traffic and parking. Limit visitor access as appropriate.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Establish a reliable mode of identifying authorized hospital personnel, patients and visitors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide a mechanism for escorting emergency medical personnel and their families to patient care areas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensure that security measures required for safe and efficient hospital evacuation are clearly defined.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensure that the rules for engagement in crowd control are clearly defined.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Solicit frequent input from the hospital security team with a view to identifying potential safety and security challenges and constraints, including gaps in the management of hazardous materials and the prevention and control of infection.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify information insecurity risks. Implement procedures to ensure the secure collection, storage and reporting of confidential information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Define the threshold and procedures for integrating local law enforcement and military in-hospital security operations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Establish an area for radioactive, biological and chemical decontamination and isolation (Recommended reading 3).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## APPENDIX 3 |

WHO Health Emergency Programme Detailed Facility Guidance

## Doors, corridors and elevator dimensions

	Elevators and hoists	Corridors	Doors
Minimum dimensions for hospital bed	240 cm x 140 cm	240 cm	120 cm
Minimum dimensions for stretchers	240 cm x 100 cm	180 cm	100 cm

Diagram illustrating the minimum dimensions for hospital beds and stretchers in a corridor:

- Hospital bed:** Minimum dimensions for the bed are 240 cm x 140 cm. The minimum corridor width is 240 cm, and the minimum corridor depth is 180 cm.
- Stretcher:** Minimum dimensions for the stretcher are 240 cm x 100 cm. The minimum corridor width is 240 cm, and the minimum corridor depth is 180 cm.

Legend:

- Hospital bed
- Stretcher

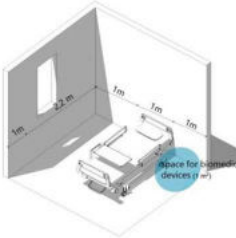
Source: WHO EMERGENCIES programme

## Surfaces, distances and openings

### Severe and critical ward rooms

Self-contained rooms for severe and critical patients should be spacious enough to contain all the needed biomedical devices and for medical staff to stay at the bedside without issue.

Recommended surface is at least 9.6 square meters ( $m^2$ ).



The diagram illustrates a 3D perspective of a ward room. The room has a depth of 2.3 m and a width of 1 m. A medical bed is positioned in the center, with a 1 m clearance on its left side and a 0.5 m clearance in front of it. To the right of the bed, there is a designated 'Space for biomedical devices (≥ 1)' indicated by a blue circle. The total width of the room, including the bed and the device space, is 1 m + 1 m + 1 m = 3 m.

# Surfaces, distances and openings

## Doors, corridors and elevator dimensions

Severe and critical cases may need to be transported to their respective wards with a hospital bed.

Once possible locations for critical and severe wards have been identified, check the pathways heading to these areas to see if they are accessible with a hospital bed.

If pathways are not wide enough, check if the areas are accessible with stretchers.

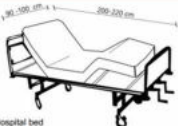


Diagram of a hospital bed with dimensions: width 90-100 cm, length 200-220 cm.




Diagram of a stretcher with dimensions: width 60 cm, length 200 cm, height 85 cm.

World Health Organization

HEALTH EMERGENCIES programme

# Ventilation and light

**Two different types of ventilation are required**

- Natural ventilation should be assured for the waiting room, triage, mild and moderate wards, staff working area with a minimum flow rate of 60 l/s/patient.
- Hybrid ventilation should be assured for severe and critical wards. A top-down airflow moving from clean to dirty zones with a minimum flow rate of 160 l/s/patient.

Legend:

- blue: natural ventilation
- orange: natural ventilation 60 l/s/patient
- purple: hybrid ventilation 160 l/s/patient



Appendices

APPENDIX 4 |

Australian Business Emergency Management and Recovery Plan Template

Recovery: Reopen | Steps

Now consider the answer to each of the following questions. Make a to-do list using the action column. If necessary, assign the task to someone, with a clear due date. There are headings to make this longer list easier to manage.

Item	Yes	No	Action and/or Comments	By whom	By when
EMPLOYEES					
Staffing needs? Take a look at the jobs that existed before and make sure your needs are the same. What should change? Make a list of jobs that need to be filled. <i>Use Jobs Needed to Re-open Worksheet *</i>					
Re-hire key employees? Match with jobs list above.					
Need to hire new employees? Write job descriptions. Begin hiring process. Work with your local Workforce Center.					
LOCATION					
Reopen existing location? Move temporarily?					
Move permanently?					
Any changes in the status of the location due to the disaster from the local or federal government that should be considered? For example, if it was a flood are you now in a newly designated flood plain?					
What is the status of other business and their plans? Will you be the first to reopen? (Is the whole area is going to be perceived as closed. Is it time to reopen?) <i>Use Local Business Assessment List *</i>					
Are your needs being met by the current location? Is it big enough? Too big? Layout correct? If there were renovations on your wish list, is now the time to do them? Find out if your funding can include these upgrades.					
MAJOR EQUIPMENT					
Make an assessment. <i>Use the Equipment Assessment List *</i>					
Equipment in working order?					
Given the new conditions (or any changes you are considering) should you replace equipment?					
Insurance covering equipment replacement needs?					
Consider which is best for equipment - purchase (and how to finance) or lease?					
Expertise readily available to install the equipment?					
Wait time for equipment replacement? How will this affect reopening?					
Any new equipment needs?					
INVENTORY					
What needs to be replaced?					
Insurance coverage?					
Before reordering, check past sales data. What was selling? What was not?					
Will the post-disaster market change your customer's needs? New items to order.					
MARKETING					

Before creating reopening plan, assess marketing efforts before the disaster for their effectiveness (type, message, cost, if it was working or not). Apply this assessment to new media plan.					
Reopening ad plan (traditional media, social media, online media) <i>Use the Media List for Re-opening *</i>					
Price/Budget for media plan. Add cost to above list.					
Reopening event? Work with local chamber of commerce. Appropriate press releases.					
What changes need to be made to the website to reflect the reopening plan?					
Are there any promotions being done in your local area by government or others that you can take advantage of?					
PRICING					
Have you undertaken a breakeven analysis to determine whether the prices you charge are making the profit you want to achieve? Do this product by product with your SBDC consultant or accountant.					
Compared your pricing to your competitors?					
BUSINESS LICENSES AND PERMITS					
Are all licenses/permits up to date?					
Do you have copies?					
Replace all copies that were destroyed.					
ACCOUNTING AND RECORD KEEPING					
Has all of your accounting been restored?					
Was it efficient and effective pre-disaster?					
Meet with CPA and bookkeeper to discuss any changes that should be made before reopening.					
Are you backing up off site? If not, set up.					
Make sure that you are recording all expenses (including any out-of-pocket) for any disaster repair and reopening expenses.					
LEGAL OBLIGATIONS					
Has your ability to file and pay such returns/forms/obligations been delayed?					
Have your reconstructed financial records given you the necessary information and evidence to be able to complete such returns?					
INSURANCE					
Review your insurance coverage to see whether it is adequate and whether there are any gaps in your coverage.					
Do a new assessment with your agent.					
Do you need any special (e.g., flood) insurance now? Cost?					
THANK YOU'S					
Keep track of everyone who has helped you. <i>Use Thank You List *</i>					
When there is time, send thank you notes.					

