Save Lives!
Make Hospitals Safe in Emergencies.
Hospital and Health Facility
Emergency Exercises

Guidance Materials
Acknowledgments

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Preface

Practice is crucial to prepare for emergencies. Health organizations may have preparedness and contingency plans yet only when these plans are put to a test through drills can managers determine gaps and areas that needed strengthening. Emergency exercises are one of the best ways to test emergency plans. Hospital drills are essential components to ensure that health professionals are prepared to face emergencies and disasters.

This resource aims to guide hospital management in preparing for and conducting exercises for emergencies and disasters. After introducing basic principles in emergency exercises, it proceeds into describing the process of planning for and conducting them. It presents five exercise types: orientation, drill, tabletop, functional and full-scale. Emergency exercises are not just one time annual events but must be an essential component of a comprehensive emergency response plan.

The document was developed through a review of relevant literature and consultation with hospital directors and emergency exercise managers. A draft was presented before emergency preparedness and response experts at the regional office. Resource materials, examples and forms were included to provide a comprehensive overview of the emergency exercise process.

Hospital managers and supervisors will find this document useful in preparing for their emergency drills and preparedness plans. The document will also provide good information to disaster preparedness and risk reduction advocates and trainers especially those who are working within the health sector.

This publication is a part of a series of tools and guides for safe hospitals campaign that focus on health facility preparedness, risk reduction, emergency planning and management. The regional implementation of the global safe hospitals campaign was supported by the European Commission Humanitarian Aid department.
Executive Summary

As part of the World Health Organization’s Hospitals Safe from Disasters campaign, *Guidance Materials: Hospital and Health Facility Emergency Exercises* was written with the goal of aiding hospital and health facility emergency management committees in preparing for and conducting exercises for emergencies and disasters. It was developed through a review of relevant literature and consultation with emergency exercise managers. The discussed materials, examples and forms adapted were selected with the hope of providing a brief but comprehensive overview of the emergency exercise process. Although there are common guiding principles in the execution of hospital emergency exercises, this document takes into consideration that each institution has unique circumstances. Thus, this document is not intended to serve as definitive guidelines—rather, it is meant to provide a starting point for hospital emergency management committees in developing emergency exercise plans customized to their particular needs and setting.

Emergency exercises are activities done to practise, develop, test and improve plans and procedures on how a hospital or health facility will respond to emergencies and disasters. This collection of plans and procedures is also known as the hospital or health facility emergency response plan. The emergency response plan is a prerequisite for conducting emergency exercises—for without the plan, there would be nothing to exercise.

There are five commonly used types of exercises: (1) orientation, (2) drill, (3) tabletop, (4) functional and (5) full-scale.

Each exercise type has its own strengths and limitations. More complex exercises more closely simulate reality; however, they also are more difficult to organize and require more resources. The choice of exercise type to be used will depend on the objectives for conducting the exercise.

A general emergency exercise process is provided to outline the four phases of preparing for and conducting exercises, and lists individual steps for each activity. Tool guides and example forms are provided at the end of each section. The four phases of the process are (1) pre-planning, (2) planning, (3) exercising and (4) post-exercise.

After going through the general exercise process, each type of exercise is discussed. Briefly, (1) an orientation is an informal seminar discussion on the emergency response plan or its particular parts; (2) a drill is an operational activity for maintaining and developing skills in a single-response procedure; (3) a tabletop exercise is an informal dialogue in which simulated emergency situations are discussed by
officials with emergency management responsibilities to resolve problems based on the emergency plans; (4) a functional exercise is a real-time, interactive emergency simulation conducted in the emergency operations centre, coming just short of deploying personnel to an emergency site; and (5) a full-scale exercise, also known as a field exercise, is an interactive activity that includes real-time conduction and actual deployment of resources in response to a fully simulated emergency. Exercise type-specific tool guides are also provided at the end of each section.

These different exercise types are then discussed with reference to their potential use in the context of a comprehensive exercise programme. This is a process that makes use of the five exercise types in a progressively complex fashion until mastery of the emergency response is achieved.

At the end of the document, annexes attached include a discussion listing several elements of a hospital emergency response plan (Annex 1), as well as a listing of key definitions (Annex 2), which are useful to review for this guide.
Introduction

Rationale

In 2009, Guidance Materials: Hospital and Health Facility Emergency Exercises was created for the World Health Organization’s (WHO) Hospitals Safe from Disasters campaign. WHO realizes the need for continuous efforts to lessen the potential morbidity and mortality from disasters and emergencies. Hospitals and health facility disaster preparedness is particularly important not only because of the intrinsic vulnerability of their inpatient population, but because these institutions have the additional burden of maintaining some level of function after a disaster to respond to the health needs of the community emerging from the same event. One strategy for emergency preparedness and risk reduction is through the routine execution of hospital and health facility emergency exercises.

Although there is recognized value in the routine practise of such emergency exercises, they are often perceived as being cumbersome, labour-intensive and time- and resource-consuming activities. Yet despite these challenges, emergency exercises remain as critical components of preparedness. Moreover, when done properly, their intrinsic potential to reduce risks and to protect lives more than validate their necessary place in routine practise for all hospitals and health facilities. Thus, this document was created to aid in these efforts.

Scope and Limitations

This document was formulated taking into account various health facilities, from the largest tertiary care hospitals to the smallest primary care centres in a community. Although there are common guiding principles in the execution of hospital emergency exercises, this document takes into consideration that each institution has unique circumstances. Thus, this document is not intended to serve as definitive guidelines—rather, it is meant to provide a starting point for hospital emergency management committees in developing emergency exercise plans customized to their particular needs and setting.

Methods and Style

This document was assembled through review of current relevant literature, as well as consultation with hospital and health facility emergency exercise experts and practitioners. The discussed materials, examples and forms adapted were selected with the hope of providing a brief but comprehensive overview of the emergency exercise process. A direct writing style with the use of questions and bullet points was intentionally applied to run through essential information for emergency management committees who may not
have time to read lengthy explanations. Further information can be found in the reference documents listed. Associated tool guides—provided within each section—also help walk through the various steps of exercise planning, execution and evaluation. It is hoped that after going through this document, the reader may have a good preliminary grasp of what it takes to conduct an emergency exercise, as well as some practical insight in how it can actually be done.

Looking Forward

In spite of all efforts, this document’s final validation will only be seen in its use in communities. Emergency and disaster preparedness is a continually developing field, so improvements and recommendations will thus be included in succeeding versions. It was, however, in this same spirit of constant vigilance that these guidance materials were made; with the vision of keeping hospitals safe, reducing risk and saving lives.
CHAPTER 1

Emergency exercise basics

This section introduces the generalities (i.e. the what, why, who and when) of emergency exercises and gives a brief overview of the five exercise types.

What are emergency exercises?

Emergency exercises are activities to practise, develop, test and improve the plans and procedures on how a hospital or health facility will respond to emergencies.

Why are emergency exercises done?

Emergency exercises are done to assess the effectiveness of the hospital emergency response plan. They are conducted to:

- assess gaps in the plan,
- assess gaps in implementation and
- note areas for improvement.

What is an emergency response plan?

The emergency response plan is the guiding document for a hospital or health facility during an emergency.

It is a prerequisite for the conduct of emergency exercises, for without the plan there would be nothing to exercise.

It details the organizational structure, roles, responsibilities, policies and procedures in response to emergencies.

It is implemented and assessed during emergency exercises, and to which recommendations from exercise evaluation are applied.

Figure 1. The emergency exercise and emergency response plan.

IMPORTANT: Before emergency exercises can be conducted, there must first be an emergency response plan that will be practised, developed, tested using the exercise. Conversely, feedback and recommendations made from the emergency exercise are then applied back to the emergency response plan so that gaps or areas of improvement can subsequently be addressed.
Who conducts emergency exercises?

An exercise planning team, headed by the exercise director, is usually in charge of the overall conduction of the exercise from planning to execution. The team may do this by undertaking all tasks themselves or through overseeing various sub-units.

The exercise planning team may be part of a larger emergency management committee, which in turn is responsible for all emergency preparedness and response activities in the hospital. The emergency management committee is headed by an emergency management programme manager.

When should the emergency exercises be conducted?

Often, exercises are only done as frequently as standards for accreditation require. However, emergency exercises should be done as often as necessary to keep all staff members up-to-date on the emergency response.

---

**Table 1. Considerations in frequency of conducting emergency exercises.**

<table>
<thead>
<tr>
<th>Changes in plans</th>
<th>Changes in the emergency response plan need to be disseminated and practised.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes in personnel</td>
<td>New staff members need training in their emergency response roles. Emergency roles left by former staff members need to be filled.</td>
</tr>
<tr>
<td>Changes in property</td>
<td>Infrastructure changes can affect how the plan is implemented. New tools may require training for their use.</td>
</tr>
<tr>
<td>Foreseen problems</td>
<td>Upcoming major events, prone to emergencies, may prompt the need for exercising. Newly developing threats need to be prepared for.</td>
</tr>
</tbody>
</table>
What are the different types of emergency exercises?

There are five commonly used types of exercises. They can be classified as discussions-based or operations-based.1

Table 2. Exercise types.

<table>
<thead>
<tr>
<th>Discussion-Based</th>
<th>Operations-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Orientation</td>
<td>(3) Drill</td>
</tr>
<tr>
<td>(2) Tabletop</td>
<td>(4) Functional</td>
</tr>
<tr>
<td></td>
<td>(5) Full-scale</td>
</tr>
</tbody>
</table>

Each exercise type has its own strengths and limitations. More complex exercises more closely simulate reality; however, they also are more difficult to organize and require more resources. The choice of exercise type to be used will depend on the objectives for conducting an exercise.

Table 3. Comparison of key activity characteristics of exercise type.3

<table>
<thead>
<tr>
<th>Format</th>
<th>Orientation</th>
<th>Drill</th>
<th>Tabletop</th>
<th>Functional</th>
<th>Full-Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format</td>
<td>Informal discussion in group setting</td>
<td>Actual field or facility response</td>
<td>Narrative presentation</td>
<td>Interactive, complex</td>
<td>Realistic event announcement</td>
</tr>
<tr>
<td>Format</td>
<td>Various presentation methods</td>
<td>Actual equipment</td>
<td>Problem statements or simulated messages</td>
<td>Players respond to messages (events/problems) provided by simulators.</td>
<td>Personnel gather at assigned site</td>
</tr>
<tr>
<td>Format</td>
<td></td>
<td>Group discussion</td>
<td>No time pressure</td>
<td>Realistic but no actual equipment</td>
<td>Visual narrative (enactment)</td>
</tr>
<tr>
<td>Format</td>
<td></td>
<td></td>
<td></td>
<td>Conducted in real time; stressful</td>
<td>Actions at scene serve as input to emergency operations centre simulation</td>
</tr>
</tbody>
</table>
### Guidance Materials: Hospital and Health Facility Emergency Exercises

<table>
<thead>
<tr>
<th>Leaders</th>
<th>Orientation</th>
<th>Drill</th>
<th>Tabletop</th>
<th>Functional</th>
<th>Full-Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitator</td>
<td>Manager, supervisor, department head or designer</td>
<td>Facilitator</td>
<td>Controller</td>
<td>Controller(s)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participants</th>
<th>Orientation</th>
<th>Drill</th>
<th>Tabletop</th>
<th>Functional</th>
<th>Full-Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single agency or department, or cross-functional</td>
<td>Personnel for the function being tested</td>
<td>Anyone with a policy, planning or response role for the type of situation used</td>
<td>Players (i.e. policy, coordination and operations personnel)</td>
<td>Simulators</td>
<td>All levels of personnel (i.e. policy, coordination, operations and field)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facilities</th>
<th>Orientation</th>
<th>Drill</th>
<th>Tabletop</th>
<th>Functional</th>
<th>Full-Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conference room</td>
<td>Facility, field or emergency operations centre</td>
<td>Large conference room</td>
<td>Emergency operations centre or other operating centre (multiple rooms)</td>
<td>Emergency operations centre or other operating centre</td>
<td>Realistic setting</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Orientation</th>
<th>Drill</th>
<th>Tabletop</th>
<th>Functional</th>
<th>Full-Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–2 hours</td>
<td>0.5–2 hours</td>
<td>1–4 hours or longer</td>
<td>3–8 hours or longer</td>
<td>2 hours to 1 or more days</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Preparation</th>
<th>Orientation</th>
<th>Drill</th>
<th>Tabletop</th>
<th>Functional</th>
<th>Full-Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple preparation, 2 weeks</td>
<td>Easy to design, 1 month</td>
<td>1 month of preparation</td>
<td>Complex, 6–18 months of preparation</td>
<td>Extensive time, effort, resources</td>
<td>1–1.5 years of development</td>
</tr>
</tbody>
</table>

---

CHAPTER 2

Emergency exercise process

How are emergency exercises done?

This section is a practical summary that the exercise planning team can use to walk through the exercise process.

It is divided into 4 phases:
1. pre-planning,
2. planning,
3. exercising and
4. post-exercise.

Figure 2. Phases of the exercise process.

Within each section are check-lists designed to aid the exercise planning team in conducting each step.

3 This emergency exercise process model including check-lists and figures are largely adapted from (1) Ibid and (2) Op cit. Ref 1. with the concepts applied to the hospital and health facility setting.
**Phase 1: Pre-Planning**

Figure 2. Phases of the exercise process.

Prior to exercise planning, it may be beneficial to assess the hospital’s emergency preparedness needs, what resources are available, what type of exercise is appropriate (if any) as well as what kind of support can be garnered from within and outside the hospital. These preliminary steps may help focus attention, concentrate efforts and wisely allocate often limited resources. Taking the time to go through these assessments can fine-tune goals and expectations, so as not to waste emergency management efforts, personnel time and hospital funding in activities that may be inappropriate or unnecessary.

The various steps of the pre-planning phase are in Box 1. This segment runs through these steps concisely to provide a cursory overview, and the tool guides at the end of the section are designed to aid the exercise planning team in walking through this process in detail. Do not skip the initial steps, for they can determine the entire direction, plans and outcome of the exercise activity.

**Box 1: Pre-planning steps.**

1. Review the emergency response plan (review what you have)
2. Conduct needs assessment (determine what needs to be done)
3. Assess capability to conduct an exercise (consider what can be done)
4. Define exercise scope and type (decide on what will be done)
5. Gain support from management and staff (involve and inform the staff)
6. Coordinate with external agencies (work with others)
Step 1. Review the emergency response plan (review what you have).

Since the emergency response plan is practised and assessed during emergency exercises, before any exercise planning can be done, the plan must be reviewed.

While reviewing the plan, consider the following questions:

- What hazards or emergencies are addressed by the plan?
- What emergency responses are listed in the plan?
- What resources and materials are used?
- Which staff members are involved in the plan?
- What training is necessary for them to carry it out?
- What is necessary to apply the plan to reality?

Step 2. Conduct needs assessment (determine what needs to be done).

After reviewing the response plan, a needs assessment should be done. This activity is an appraisal of the actual current state of hospital emergency preparedness. It helps determine

- if exercises are needed,
- in what areas should they be applied,
- who should be involved,
- what emergency functions should be tested and
- what type of exercise should be done (if any).

Step 3. Assess capability to conduct an exercise (consider what can be done).

Once the needs for exercising are determined, resources available must be inventoried for exercise conduction.

These include an honest assessment of available

- funding
- personnel
- skills
- facilities
- time
- support

Any deficiencies must be considered in the planning of the exercise. They may lead to

- levelling of expectations on what can be accomplished and
- adjustments in the scope of and type of exercise to be used.

Step 4. Define exercise scope and type (decide on what will be done).

Based on the needs assessment and capability assessment, the exercise scope and type can be determined. The exercise scope pertains to the limits
of an exercise. There are five noted exercise scope elements. Each element isolates particular considerations in planning an exercise.

- Type of emergency. What hazard or emergency will be prepared for?
- Location. Where will the exercise be done?
- Functions. What emergency response function or operation will be tested?
- Participants. Who will be involved?
- Exercise type. Which particular type of exercise will be used?

Step 5. Gain support from management and staff (involve and inform the staff).

After the details regarding the exercise have been decided, it is important to gain support for the exercise from hospital management and staff.

One way to do this is to prepare an exercise directive memo containing the details of the exercise. A sample memo is provided as part of the pre-planning tool guides. It includes information on

- What exercise is to be done (exercise type)?
- What is expected from the exercise (objectives)?
- Why it is being done (purpose)?
- Who will be involved (participants)?
- Where it will be done (location)?
- When it will be scheduled (date and time)?
- Who is in charge (exercise director and planning team)?

Have the directive read and approved by the hospital director along with a statement of support for the activity. Then send it to hospital staff. This serves to:

- inform and gain support from the administration,
- announce plans to conduct an exercise and
- gain support from the rest of the facility staff.

A similar exercise directive memo can also be used to communicate plans to the media and external agencies.

Step 6. Coordinate with external agencies (work with others).

In conducting emergency exercises, it is beneficial to work with external agencies that also take part in disaster response.

- Emergency exercises provide opportunity to share expertise, resources and manpower.
- These can also lead to the development of systems for more coordinated response in case of a true emergency.

Examples of such agencies include
Emergency exercise process

- other hospitals or health facilities
- ministry of health
- local government
- fire department
- law enforcement
- media

**Phase 1: Pre-planning Tool Guides**

1. Needs assessment check-list
2. Capability assessment check-list
3. Exercise scope guide
4. Sample exercise directive memo

**Pre-planning tool guide 1: Needs assessment check-list.**

<table>
<thead>
<tr>
<th>Potential hazards</th>
<th>Biological hazards</th>
<th>Societal hazards</th>
<th>(Geological hazards)</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Disease outbreaks</td>
<td>Armed conflicts</td>
<td>Volcanic eruptions</td>
<td>Forest fires</td>
</tr>
<tr>
<td></td>
<td>Deliberate use of biological agents</td>
<td>Acts of terrorism</td>
<td>Earthquakes</td>
<td>Food contamination</td>
</tr>
<tr>
<td></td>
<td>Deliberate use of chemical incidents</td>
<td>Mass gatherings</td>
<td>Tsunamis</td>
<td>Bomb threats</td>
</tr>
<tr>
<td></td>
<td>Chemical spills</td>
<td>Stampedes</td>
<td>Landslides</td>
<td>Hostage/shooting incidents</td>
</tr>
<tr>
<td></td>
<td>Structure fires</td>
<td>Social unrest</td>
<td>Avalanches</td>
<td>Violent patient/personnel</td>
</tr>
<tr>
<td></td>
<td>Radiological incidents</td>
<td></td>
<td></td>
<td>Other(s) (please specify):</td>
</tr>
<tr>
<td></td>
<td>Building collapse</td>
<td></td>
<td></td>
<td>________________________</td>
</tr>
<tr>
<td></td>
<td>Transport crashes</td>
<td></td>
<td></td>
<td>________________________</td>
</tr>
<tr>
<td></td>
<td>Infrastructure failure</td>
<td></td>
<td></td>
<td>________________________</td>
</tr>
<tr>
<td></td>
<td>Pollution</td>
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<td>________________________</td>
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<td></td>
<td></td>
<td>________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>________________________</td>
</tr>
</tbody>
</table>

1. List various hazards that threaten your institution. Use the following check-list as a starting point. (Check all that apply. You may extend beyond the space provided.)
### Pre-planning tool guide 1: Needs assessment check-list.

#### Secondary effects

2. What secondary effects from the listed hazards above are likely to impact your institution? Use the following check-list as a starting point. (Check all that apply. You may extend beyond the space provided.)

- [ ] Communication system breakdown
- [ ] Compromise of structural integrity
- [ ] Hospital operation interruptions
- [ ] Loss of power
- [ ] Loss of water
- [ ] Mass evacuation
- [ ] Mass casualty incident
- [ ] Overwhelmed medical services
- [ ] Shortage of medical supplies
- [ ] Transport blockages
- [ ] Other(s) (please specify): ________________
- [ ] Other(s) (please specify): ________________
- [ ] Other(s) (please specify): ________________
- [ ] Other(s) (please specify): ________________
- [ ] Other(s) (please specify): ________________

#### Hazard priority

3. What are the highest-priority hazards?

* Consider such factors as frequency of occurrence; relative likelihood of occurrence; magnitude and intensity; location (affecting critical areas or infrastructure; spatial extent; speed of onset and availability of warning; potential severity of consequences to people, critical facilities, community functions and property; and potential cascading events.

<table>
<thead>
<tr>
<th>#1 Priority hazard:</th>
</tr>
</thead>
<tbody>
<tr>
<td>#2 Priority hazard:</td>
</tr>
<tr>
<td>#3 Priority hazard:</td>
</tr>
</tbody>
</table>

*Place additional hazard priorities here as appropriate.*

#### Hazard mapping

4. What geographic area(s) or facility location(s) is (are) the most vulnerable to the high-priority hazards?

(*You may extend beyond the space provided.*)
### Pre-planning tool guide 1: Needs assessment check-list.

#### Plans and procedures

5. What plans and procedures (e.g. emergency management programme, emergency response plan, departmental standard operating procedures) will guide your organization’s response to an emergency?

(*You may extend beyond the space provided.*)

#### Functions

6. What emergency management functions are most in need of rehearsal (i.e. what functions have not been exercised recently and where have difficulties occurred in the past)? Use the following check-list as a starting point.

- Alert notification (emergency response)
- Communications
- Coordination and control
- Emergency public information (EPI)
- Damage assessment
- Transport
- Resource management
- Continuity of operations
- Other(s) (please specify):
  - Other(s) (please specify):
  - Other(s) (please specify):
  - Other(s) (please specify):

#### Participants

7. Who (e.g. agencies, departments, operational units, personnel) needs to participate in exercises? For example:

- Have any entities updated their plans and procedures?
- Have any changed policies or staff members?
- Who is designated for emergency management responsibility in your plans and procedures?
- With whom does your organization need to coordinate in an emergency?
- What do your regulatory requirements call for?
- Which personnel can you reasonably expect to devote to developing an exercise?
### Pre-planning tool guide 1: Needs assessment check-list.

**Internal**
- Administration
- Central supply
- EMS/patient transport service
- Emergency department
- Engineering and physical plant
- Infection control
- Intensive care unit
- Laboratory
- Medical Staff
- Nursing
- Pharmacy
- Public affairs
- Security

**External**
- Other hospitals or health facilities
- Ministry of health
- Local government
- Fire department
- Law enforcement
- Media
- Other(s) (please specify):
  - 
  - 

List specific staff members if applicable.

(*You may extend beyond the space provided.*)

### Past exercises

8. If your organization has participated in exercises previously, what did you learn from them, and what do the results indicate about future exercise needs? Consider the following questions:

- Who participated in the exercise, and who did not?
- To what extent were the exercise objectives achieved?
- What lessons were learned?
- What problems were revealed, and what is needed to resolve them?
- What improvements were made following past exercises, and have they been tested?

(*You may extend beyond the space provided.*)
# Pre-planning tool guide 2: Capability assessment check-list.

## Plans

1. How familiar are the exercise planners with the emergency plans, policies and procedures of the institution?

- [ ] Very familiar
- [ ] Only general familiarity
- [ ] Familiar with only a portion
- [ ] Need to review plans, policies and procedures

## Time

2a. How far in advance would the institution realistically have to schedule to plan and design each of the following exercise activities effectively?

- Orientation:
- Drill:
- Tabletop:
- Functional:
- Full-scale:

2b. How much preparation time can reasonably be allocated to developing the exercise?

- Actual person days:
- Elapsed time to exercise:

## Experience

3a. When was the institution’s last exercise?

3b. What is the exercise planners’ previous experience with exercises? (Check all that apply)

<table>
<thead>
<tr>
<th>Orientation</th>
<th>Presenter</th>
<th>Participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drill</td>
<td>Controller</td>
<td>Participant</td>
</tr>
<tr>
<td>Tabletop</td>
<td>Facilitator</td>
<td>Participant</td>
</tr>
<tr>
<td>Functional</td>
<td>Controller</td>
<td>Simulator</td>
</tr>
<tr>
<td></td>
<td>Player</td>
<td>Evaluator</td>
</tr>
<tr>
<td>Full-scale</td>
<td>Controller</td>
<td>Responder</td>
</tr>
<tr>
<td></td>
<td>Evaluator</td>
<td>Victim</td>
</tr>
</tbody>
</table>
### Pre-planning tool guide 2: Capability assessment check-list.

<table>
<thead>
<tr>
<th>3c. What other exercise-related experience is available from the facility staff and community?</th>
</tr>
</thead>
<tbody>
<tr>
<td>(*You may extend beyond the space provided.)</td>
</tr>
</tbody>
</table>

#### Facilities

<table>
<thead>
<tr>
<th>4. What physical facilities are used when conducting an emergency operation?</th>
</tr>
</thead>
<tbody>
<tr>
<td>(*You may extend beyond the space provided.)</td>
</tr>
<tr>
<td>Will they be required for the exercise?</td>
</tr>
<tr>
<td>Will they be required for the exercise?</td>
</tr>
</tbody>
</table>

#### Communications

<table>
<thead>
<tr>
<th>5. What communications facilities and systems are used in a real emergency?</th>
</tr>
</thead>
<tbody>
<tr>
<td>(*You may extend beyond the space provided.)</td>
</tr>
<tr>
<td>Will they be required for the exercise?</td>
</tr>
<tr>
<td>Will they be required for the exercise?</td>
</tr>
</tbody>
</table>

#### Administration

<table>
<thead>
<tr>
<th>6. Are the hospital director and emergency service coordinators or other administrative leaders expected to have a positive attitude towards the exercise?</th>
</tr>
</thead>
<tbody>
<tr>
<td>If NO, how can this be overcome?</td>
</tr>
<tr>
<td>(*You may extend beyond the space provided.)</td>
</tr>
</tbody>
</table>
### Pre-planning tool guide 2: Capability assessment check-list.

#### Barriers

7. Are there any resource barriers that need to be overcome to carry out this exercise?  
   - ☐ Yes  
   - ☐ No

   If YES, what are the barriers and how can they be overcome?  
   (*You may extend beyond the space provided.)

#### Costs

8a. What types of costs may be included for these exercises in the hospital or health facility? Include possible hidden costs such as staff overtime salaries, contract services, equipment and materials, fuel for equipment and transport, hospital liability insurance and miscellaneous expenses.

   Orientation:  
   (*You may extend beyond the space provided.)

   Drill:  
   (*You may extend beyond the space provided.)

   Tabletop:  
   (*You may extend beyond the space provided.)

   Functional:  
   (*You may extend beyond the space provided.)

   Full-scale:  
   (*You may extend beyond space provided.)

8b. Are there ways that the hospital or health facility can reduce costs (e.g. combining exercises among different departments, cost-sharing, resource-sharing with nearby institutions)? Explain.  
   (*You may extend beyond space provided.)
## Pre-planning tool guide 3: Exercise scope guide.

<table>
<thead>
<tr>
<th>Exercise Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Type of emergency</td>
</tr>
<tr>
<td>What hazard will the exercise prepare for?</td>
</tr>
<tr>
<td>(*You may extend beyond the space provided.)</td>
</tr>
<tr>
<td>2. Location</td>
</tr>
<tr>
<td>Where will the simulated event occur?</td>
</tr>
<tr>
<td>(*You may extend beyond the space provided.)</td>
</tr>
<tr>
<td>3. Functions</td>
</tr>
<tr>
<td>What functions will be tested?</td>
</tr>
<tr>
<td>(*You may extend beyond the space provided.)</td>
</tr>
<tr>
<td>4. Participants</td>
</tr>
<tr>
<td>Who will be participating in the exercise?</td>
</tr>
<tr>
<td>(*You may extend beyond the space provided.)</td>
</tr>
<tr>
<td>5. Exercise type</td>
</tr>
<tr>
<td>Select the exercise type:</td>
</tr>
<tr>
<td>☐ Orientation</td>
</tr>
<tr>
<td>☐ Drill</td>
</tr>
<tr>
<td>☐ Tabletop</td>
</tr>
<tr>
<td>☐ Functional</td>
</tr>
<tr>
<td>☐ Full-scale</td>
</tr>
</tbody>
</table>
Date:

TO: (Involved departments/agencies)  
FROM: (Chief administrative officer)  
SUBJECT: EMERGENCY EXERCISE

A (specify exercise type) involving (specify hazard) will be scheduled for (specify date or approximate dates).

The purpose of the proposed exercise is to improve the following emergency operations: (List appropriate functions or operations.)

a.

b.

c.

It is important that your agency participate in this exercise. We encourage involvement at the highest level.

I believe that we all realize the importance of emergency exercises as a means to community preparedness. I fully support this exercise and intend to join with you in participating.

The emergency management committee will be coordinating the exercise. They will be contacting you to make necessary arrangements for the development and conduct of the exercise. For purposes of realism and interest, details of the exercise situation will not be made known prior to the exercise.

For further information, please contact (specify appropriate contact person) at (specify contact information).

Thank you for your cooperation in this matter.
Phase 2: Planning

Figure 4: Overview of phase 2, planning.

The exercise planning phase focuses on the specific details of the exercise. It is often the longest and most tedious part of emergency exercises. It involves the design and development of all elements that come to play during execution of the exercise.

The general exercise planning steps are listed below, with each discussed individually. Of all these steps, the importance of setting specific goals and objectives for the exercise must be highlighted, since these goals will eventually determine the rest of the exercise.

These listed steps are not prescriptive—only advisory. Exercise design is only limited by the exercise planning team’s creativity in reaching for the objectives. It nevertheless provides a general overview of common design elements applicable for most exercises.

At the end of the section, sample forms and check-lists are provided to aid the exercise planning team in the design process. Particular attention in this section was given to evaluation tools and forms, because this is an often neglected—yet integral—aspect of exercise design.

Plan well. Although the planning process is mostly unnoticed by most participants, observers and outsiders, the success of an exercise is often based on how well it was planned.
Box 2: Planning steps.

1. Establish exercise planning team and subordinate units (form the team)
2. Determine exercise objectives (set the goals)
3. Write exercise narrative (set the scene)
4. List major and detailed events (develop the story)
5. Determine expected actions (what participants should do)
6. Write messages (what participants are told)
7. Develop master scenario events list (make an overall guide)
8. Finalize exercise enhancements (make the exercise believable)
9. Develop an evaluation format (assess the exercise)

Step 1. Establish exercise planning team and subordinate units (form the team).

Under the emergency management committee, the exercise planning team is placed in charge of the exercise from design to execution. Members may do the required tasks themselves or oversee various specialized subordinate teams. Examples of these specialized teams include

Figure 5: Exercise planning organizational structure.
• Exercise design team. This team plans the exercise: how it will be done, what scenario will be used (including assumptions, artificialities and simulations), expected timetable, what is expected of participants and volunteers, and all other matters pertaining to how the exercise is to be conducted.
• Exercise control team. This team operates during all or part of the actual exercise performance phase, and ensures that the exercise purpose and objectives are achieved in a realistic manner.
• Logistics team. This team gathers all supplies, materials, equipment, services and facilities required for the implementation of the exercise.
• Physical arrangement team. This team is in charge of the venue and other facility arrangements.
• Simulators team. This team is responsible for acting as various agencies that may interact and send messages to the hospital or health facility during an exercise.
• Victim actors team. This team identifies the victims played, orients them into their assigned roles and deploys them to assigned areas.
• Exercise evaluation team. This team reviews all existing evaluation tools, develops new tools based on the objectives, identifies and orients evaluators on the tools to be used, reproduces and distributes the tools, deploys evaluators to assigned areas, collates all evaluation findings and develops a final evaluation report with recommendations.
• Documentation team. This team ensures adequate documentation of the exercise (e.g. pictures, videos and notes) from pre-planning, planning, execution and post-incident evaluation and provides the final report on the events of the exercise.
• Emergency medical service team. This team provides emergency medical service during the conduct of the exercise, and ensures that all participants, victims, simulators, evaluators, observers and bystanders are safe during the conduct of the exercise.
• Food and refreshments team. This team is in charge of providing nourishment during the entire process.

Step 2. Determine exercise objectives (set the goals).

Objectives are descriptions of performance expected of participants to demonstrate competence.

They should state who should do what under what conditions and what standards.
• A useful guideline for writing objectives is the SMART system, outlined in Box 4.
Emergency exercise process

Box 3: Sample objective.

<table>
<thead>
<tr>
<th>Standards</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Within 5 minutes)</td>
<td>(after the hospital fire notice is given),</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Who</th>
<th>Specific Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>the (members of the emergency operations centre)</td>
<td>will (complete notification procedures to local fire authorities.)</td>
</tr>
</tbody>
</table>

Box 4: SMART objectives.

<table>
<thead>
<tr>
<th>Simple</th>
<th>A good objective should be simply and clearly phrased. It should be brief and easy to understand.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurable</td>
<td>The objective should set the level of performance, so that the results are observable, and it can be that when the objective is achieved, that is reportable.</td>
</tr>
<tr>
<td>Achievable</td>
<td>The objective should not be too difficult to achieve. Achieving it should be within the resources that the organization is able to commit to an exercise.</td>
</tr>
<tr>
<td>Realistic</td>
<td>The objective should present a realistic expectation for the situation. Even though an objective might be achievable, it might not be realistic for the exercise.</td>
</tr>
<tr>
<td>Task-Oriented</td>
<td>The objective should focus on a behaviour or procedure. With respect to exercise design, each objective should focus on an individual emergency function.</td>
</tr>
</tbody>
</table>

Step 3. Write exercise narrative (set the scene).

A narrative is a brief description of simulated events that lead up to when the exercise begins. It

- sets the mood for the exercise, and
- provides the information that the participants will need during the exercise.

The narrative should work to capture the participants’ attention, and motivate them to be actively involved.

Step 4: List major and detailed events (develop the story).

Major events are the potential large problems resulting from an emergency.

Detailed events are the more specific problem situations that require participants to respond with expected actions to fulfil exercise objectives. They provide unity to an exercise and link simulated events to actions that participants perform to meet exercise objectives.
Step 5: Determine expected actions (what participants should do).

Expected actions are the actions or decisions that should be demonstrated by participants to display competence in the exercise and to fulfil exercise objectives. They are used to evaluate whether there was appropriate response to an emergency situation.

To determine whether an action is appropriate for a given event, one must simply go back to the emergency response plan.

Box 5: Sample related scenario, major event, detailed event and expected action.

<table>
<thead>
<tr>
<th>Narrative Scenario</th>
<th>Major Event</th>
<th>Detailed Event</th>
<th>Expected Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earthquake</td>
<td>Hospital structural damage</td>
<td>Operating room gas pipe leak</td>
<td>Activation of operating room evacuation procedure</td>
</tr>
</tbody>
</table>

Step 6: Write messages (what participants are told).

Messages are used to communicate detailed events to participants. They are meant to evoke expected actions from participants to meet the exercise objectives. Messages—no matter how simple—have five main variables.

It is best to use the method of transmission that would likely be used in an actual emergency (e.g. landline, cell phone, radio, in person, written note, fax or e-mail).

Box 6: Four general types of expected actions.

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verification</td>
<td>Gather or verify information.</td>
</tr>
<tr>
<td>Consideration</td>
<td>Consider information, discuss among players, negotiate and consult plan.</td>
</tr>
<tr>
<td>Deferral</td>
<td>Defer action or put action on priority list.</td>
</tr>
<tr>
<td>Decision</td>
<td>Deploy or deny resources.</td>
</tr>
</tbody>
</table>
Box 7: Who sends what to whom, via how, and with what effect?

<table>
<thead>
<tr>
<th>Message source (who)</th>
<th>Who sends the message? (must be a credible source)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission method (how)</td>
<td>How the message is transmitted? (must be a credible means of transmission)</td>
</tr>
<tr>
<td>Message content (what)</td>
<td>What information is conveyed? (does this message contain the information needed by the recipient to make a decision?)</td>
</tr>
<tr>
<td>Recipient (to whom)</td>
<td>Who should receive the message? (who would credibly receive it, and who would ultimately need to receive it to take action?)</td>
</tr>
</tbody>
</table>

All of these variables will influence the action taken (to what effect).

Keep the message realistic. A message is successful if it is able to motivate the expected action.

**Step 7. Develop master scenario events list (make an overall guide).**

The outputs from the design process are pulled together in a master scenario events list or master schedule. This is a chart that controllers and simulators refer to so the exercise remains on track. It lists

- events or messages,
- time they are to be released and
- expected actions from the participants.

Although the master scenario events list is the overall guide for the exercise, organizers should still remain flexible and appropriately adjust to the participant responses and exercise situation as it develops.

The goal should be to accomplish the objectives rather than being overly strict in following the time schedule.

**Step 8. Finalize exercise enhancements (make the exercise believable).**

Exercise enhancements are the tools, materials and strategies used to add to the realism of the exercise. Examples include:

- use of real equipment and actual locations,
- use of simulated victims with convincing mock injuries and
- use of actual equipment and materials used and available at the emergency operations centre during a real emergency.
Exercise enhancements need not require a lot of money or energy—all that is needed is creativity and resourcefulness.

**Step 9. Develop evaluation format (assess the exercise).**

For evaluation goals to be met, a systematic and methodical approach must be given to evaluation planning and conduction. This involves determining

- structure of the evaluation team,
- objectives to be measured and
- observation methods and recording forms to be used.

Criteria to determine if an exercise has been successful must be based on

- listed objectives and
- expected actions.

It is from the expected actions that pertinent evaluation measures can be developed.

Some sample evaluation tools (see Planning Tool Guides) that may be adapted include

- data collector observation log
- observation check-list
- problem log
- evaluator check-list
- narrative summary.

In addition to these tools, more information can be obtained through the conduction of post-exercise debriefing and evaluation team meetings.

The final output of the entire evaluation process is the after-action report, which is to be used for implementing improvements to the emergency response plan and emergency management programme.

**Phase 2: Planning Tool Guides**

1. Narrative outline guide
2. Expected actions planning table
3. Sample message format
4. Sample master scenario events list format
5. Data collector observation log
6. Observation check-list
7. Problem log
8. Evaluator check-list
9. Narrative summary
**Planning tool guide 1: Narrative outline guide.**

<table>
<thead>
<tr>
<th>Narrative Outline</th>
</tr>
</thead>
<tbody>
<tr>
<td>What emergency event:</td>
</tr>
<tr>
<td>How fast, strong, deep, dangerous:</td>
</tr>
<tr>
<td>How it was found out:</td>
</tr>
<tr>
<td>Response made:</td>
</tr>
<tr>
<td>Damage reported:</td>
</tr>
<tr>
<td>Sequence of events:</td>
</tr>
<tr>
<td>Current time:</td>
</tr>
<tr>
<td>Was there advance warning:</td>
</tr>
<tr>
<td>Location:</td>
</tr>
<tr>
<td>Relevant weather conditions:</td>
</tr>
<tr>
<td>Other factors that would influence emergency procedures:</td>
</tr>
<tr>
<td>Predictions for the future:</td>
</tr>
</tbody>
</table>
### Planning tool guide 2: Expected actions planning table.*

<table>
<thead>
<tr>
<th>Detailed Event</th>
<th>Expected Action</th>
<th>Participant/Department</th>
<th>Objective Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire in corner room of hospital, 7th floor</td>
<td>Alert transmitted to deputy incident commander within 5 minutes of detection</td>
<td>Duty staff nurse</td>
<td>Timely activation of incident command system in response to noted fire</td>
</tr>
</tbody>
</table>

*You may choose to add additional spaces as necessary.

### Planning tool guide 3: Sample message format.

<table>
<thead>
<tr>
<th>EMERGENCY EXERCISE</th>
<th>&lt;MESSAGE&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO:</td>
<td>TIME:</td>
</tr>
<tr>
<td>TO:</td>
<td>METHOD:</td>
</tr>
<tr>
<td>CONTENT:</td>
<td></td>
</tr>
<tr>
<td>ACTION TAKEN:</td>
<td></td>
</tr>
</tbody>
</table>
### MASTER SCENARIO EVENTS LIST

<table>
<thead>
<tr>
<th>Time</th>
<th>Message/Event</th>
<th>Expected Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:15</td>
<td>Fire alarm signal detected in hospital, 7th floor</td>
<td>Alert to be transmitted to deputy incident commander by duty staff nurse within 5 minutes of detection.</td>
</tr>
</tbody>
</table>

*You may choose to add additional spaces as necessary.

### SAMPLE DATA COLLECTOR OBSERVATION LOG

<table>
<thead>
<tr>
<th>Date:</th>
<th>Location: EOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Assignment: Control</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Event description/assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:15</td>
<td>Fire alarm signal detected on hospital 7th floor</td>
</tr>
<tr>
<td>7:18</td>
<td>Alert transmitted to deputy incident commander (&lt;5 minutes) by duty staff nurse</td>
</tr>
</tbody>
</table>

*You may choose to add additional spaces as necessary.*
### Planning tool guide 6: Observation check-list.*

<table>
<thead>
<tr>
<th>Objective</th>
<th>Expected Action</th>
<th>Players to Observe</th>
<th>Location</th>
<th>Expected Time</th>
<th>Done</th>
<th>Not Done</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAMPLE</td>
<td>1. Activation of incident command system in response to noted fire</td>
<td>Alert transmitted to deputy incident commander</td>
<td>Duty staff nurse</td>
<td>7th floor</td>
<td>7:20</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

*You may choose to add additional spaces as necessary.

### Planning tool guide 7: Problem log.*

<table>
<thead>
<tr>
<th>PROBLEM LOG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
</tr>
<tr>
<td>Exercise Assignment:</td>
</tr>
<tr>
<td>Time</td>
</tr>
</tbody>
</table>

*You may choose to add additional spaces as necessary.
**Planning tool guide 8: Evaluator check-list.**

**EVALUATOR CHECK-LIST**

<table>
<thead>
<tr>
<th>Evaluator:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location:</td>
<td>Function Being Evaluated:</td>
</tr>
</tbody>
</table>

**Objective No.:**

**Objective:**

**SAMPLE OBJECTIVE**

Demonstrate adequacy of displays to support the emergency response plan during the exercise.

**Points of Review:**

Please answer the following: Y = Yes, N = No, NA = Not applicable, NO = Not observed.

<table>
<thead>
<tr>
<th>SAMPLE POINTS FOR REVIEW</th>
<th>Y</th>
<th>N</th>
<th>NA</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Status boards availability in facility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Status boards utilized</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Status boards kept updated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Maps available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Maps up to date</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comments:**

(You may extend beyond the space provided.)
## Planning tool guide 9: Narrative summary.

### NARRATIVE SUMMARY

<table>
<thead>
<tr>
<th>Objective No.:</th>
<th>Criterion No.:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Evaluator:**

**Location:**

**Issue:**

A specific statement of the problem, plan or procedure that was observed

(You may extend beyond the space provided.)

**Discussion:**

A discussion of the issue and its specific impact on operational capability

(You may extend beyond the space provided.)

**Corrective Action Recommendation:**

Recommended course(s) of action to improve performance or to resolve the issue to improve operational capability

(You may extend beyond the space provided.)

**Office of Primary Responsibility:**

The department, agency or organization responsible for implementation of corrective actions

<table>
<thead>
<tr>
<th>Individual Responsible</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Time:</th>
<th>Date Assigned:</th>
<th><strong>/</strong>/__</th>
<th>Suspension Date:</th>
<th><strong>/</strong>/__</th>
</tr>
</thead>
</table>

32

Guidance Materials: Hospital and Health Facility Emergency Exercises
Phase 3: Exercising

Figure 6: Overview of phase 3, exercising.

All planning and preparation culminates in the performance of the exercise. This phase involves the final pre-exercise preparations, execution of the exercise, and recovery period post-exercising. Each of these parts is discussed in this segment individually.

Final preparations involve setting the stage for the exercise. These include final personnel briefings, equipment and systems testing, implementation of safety precautions and proper positioning of personnel and equipment. It should be ensured that everything and everyone are ready for the successful performance of the exercise.

The conduction or execution of emergency exercises involves the cooperation and coordination of multiple elements and personnel. Like an orchestra conductor, the exercise control team should be able to manage the tempo of the activity while giving participants the freedom to perform their roles adequately. There must be balance between guiding the activity away from potential chaos and directly manipulating the outcome.

If well planned, an exercise should run smoothly. However, the exercise controllers should remain flexible and calm if unexpected problems arise, as they often do. In some cases, these problem situations can even be capitalized on to simulate additional stress to the emergency management system that would similarly be present in a real emergency. This can provide a more realistic training experience and a more accurate assessment of emergency response capability. As the exercise commences, however, it is most important to keep focused on the objectives of the exercise, as well as on the safety and welfare of all concerned.

After the exercise is completed, there should be protocols for recovery to normal operations. These involve cleaning
up the exercise site, returning equipment for proper safekeeping and discharging personnel to their designated posts.

If done well, the successful performance of an exercise can be a fulfilling experience for everyone involved.

**Box 8: Exercising steps.**

1. Preparation (set the stage)
2. Conduction (monitor the action)
3. Recovery (return to normal state)

**Step 1. Preparation (set the stage).**

Even just prior to the start of an exercise, several tasks should still be accomplished.

First, a last minute briefing should occur with staff members and participants just prior to the exercise. The IIMAC system for structured briefing may be used, which divides the briefing into five specific areas.

Second, safety precautions should be implemented.

- A notification alert should be raised for those who will be affected by the exercise.
- Personal protective equipment should be used when necessary.
- Briefings on potential actions in event of unforeseen circumstances should occur.
- The exercise call-off procedure should be reiterated in the event of a real emergency.

Third, a final systems check should occur on important systems and materials (e.g. technology-dependent tools like

**Box 9: IIMAC system.**

<table>
<thead>
<tr>
<th>Information</th>
<th>Why the exercise is taking place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention</td>
<td>What the exercise is intends to do (goals and objectives)</td>
</tr>
<tr>
<td>Method</td>
<td>How the exercise will run</td>
</tr>
<tr>
<td>Administration</td>
<td>All administrative arrangements for the exercise</td>
</tr>
<tr>
<td>Communication</td>
<td>All arrangements concerned with communication among parties</td>
</tr>
</tbody>
</table>
computers, projectors, radios and communication devices as well as equipment prone to breakdowns).

Finally, those involved should be properly positioned, such as

- simulated casualties,
- props and equipment,
- exercise staff members and
- participants.

Once all is clear, the exercise director gives the signal for the exercise to begin.

**Step 2. Conduction (monitor the action).**

During the actual conduction of the exercise, the facilitator or controller assumes responsibilities for ensuring that the exercise follows the plan and remains directed towards the objectives.

This includes the following tasks:

- presenting the players with the exercise narrative,
- announcing the first event of the scenario,
- stimulating player responses without assuming control of play and
- managing the flow and pace of

the exercise through the use of messages.

Special considerations in conducting the exercise include

- fostering realism,
- maintaining valid time-lines,
- sustaining action,
- keeping safety a common concern and
- being open to capitalize on problem situations.

**Step 3. Recovery (return to normal state).**

At the end of the exercise, as in actual emergencies, there must be provisions for system recovery and return to normal operations. These include:

- demobilization and cleaning of exercise site,
- return of emergency equipment and
- proper discharge of participants from the exercise and return to regular posting.

Although primarily the responsibility of maintenance staff and the physical arrangement team, a group effort is imperative to return everything to its proper place.
**Phase 3: Exercising Tool Guides**

1. Pre-exercise check-list  
2. Exercise conduction check-list  
3. Exercise recovery check-list

**Exercising tool guide 1: Pre-exercise check-list.**

<table>
<thead>
<tr>
<th>Briefing exercise directing staff members and support personnel</th>
<th>□ Yes □ No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has a briefing been done for exercise directing staff members and support personnel?</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>If YES, have the following elements been discussed?</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Exercise purpose and objectives</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Scenario and how it may develop during the exercise</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Roles and responsibilities during exercise</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Information, communication and technology systems</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Actions in the event of unforeseen circumstances</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Post-exercise requirements</td>
<td>□ Yes □ No</td>
</tr>
</tbody>
</table>

**Briefing exercise participants**

<table>
<thead>
<tr>
<th>Has a briefing been done for exercise participants?</th>
<th>□ Yes □ No</th>
</tr>
</thead>
<tbody>
<tr>
<td>If YES, have the following elements been discussed?</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Exercise purpose and objectives</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Roles and responsibilities during the exercise</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Information, communication and technology systems</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Actions in the event of unforeseen circumstances</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Post-exercise requirements</td>
<td>□ Yes □ No</td>
</tr>
</tbody>
</table>

**Prior to start time**

<table>
<thead>
<tr>
<th>Has there been a final test of important systems and materials?</th>
<th>□ Yes □ No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has there been a last-minute briefing for all staff members, confirming readiness to proceed?</td>
<td>□ Yes □ No</td>
</tr>
</tbody>
</table>
### Exercising tool guide 1: Pre-exercise check-list.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have the simulated casualties, props and special effects been placed in proper position?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Have directing staff members and support personnel been placed in proper position?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Have exercise participants been placed in proper position?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Has an alert been raised for those who will be affected by the exercise?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Has the exercise director been advised that all is ready?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

### Exercising tool guide 2: Exercise conduction check-list.

**Effectiveness**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the exercise proceed according to the exercise design and plan?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Did the exercise follow the master schedule?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Were the exercise participants able to follow instructions and behave according to their assigned roles?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Were exercise directing staff members and support personnel able to fulfil their assigned tasks?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Were the evaluators and observers able assess the exercise properly?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Was appropriate documentation of the exercise being done?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Was the exercise director and exercise control committee able to stay on top of the exercise proceedings?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Were the aims and objectives of the exercise fulfilled?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

**Safety**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was there a notification alert regarding the conduction of the exercise sounded for uniformed bystanders?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Were the participants informed and given personal protective equipment against all possible hazardous materials and activities encountered during the exercise?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Was an emergency medical service team available for unforeseen incidents?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Was there a clear policy and procedure for early termination of the exercise?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
## Exercising tool guide 3: Exercise recovery check-list.

<table>
<thead>
<tr>
<th>Recovery</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was there a designated parameter (e.g. time period or completion of tasks) to signify the end of the exercise?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was there a procedure for organized cessation of the exercise?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Were the emergency materials and equipment accounted for and returned appropriately?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was the exercise site cleared and cleaned?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Were participants discharged and allowed to return to their appropriate posts?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phase 4: Post-exercise

Figure 7: Overview of phase 4, post-exercise.

The exercise process does not end after the execution of an exercise. Just as important are the evaluation activities done afterwards to process the events and lessons from the activity.

This phase involves debriefing meetings, writing up an after-action report and monitoring follow-up measures to ensure that the lessons learned from the exercise are applied. Each activity is discussed in this segment, and sample forms are provided in the tool guide section.

The importance of this phase is to ensure that all efforts in preparing for and conducting an exercise grow the emergency management system. By taking the time to go through the feedback, recommendations and insights from the exercise, changes to the emergency response plan can be made and improvements applied. Gaps in the plan or in its implementation can be noted and rectified. Future actions can be determined, and the purpose for conducting the exercise fulfilled.

Simply, post-exercise processing helps ensure that all efforts invested into the activity are not put to waste.

Box 10: Post-exercise steps.

1. Conduct post-exercise meetings (debrief the participants)
2. Write after-action report (make a written evaluation)
3. Conduct follow-up activities (apply the learning)
Step 1. Conduct post-exercise meetings (debrief the participants).

There are two types of post-exercise meetings:

- hot debriefing, which is conducted immediately after an exercise (i.e. player debriefings) and
- cold debriefs, which can be conducted some days after the exercise (i.e. evaluation team meetings).

In either case, they involve getting feedback, critiques and suggestions regarding the activity.

Step 2. Write after-action report (make a written evaluation).

The after-action report is the final output of the evaluation team. It documents the effectiveness of the exercise. It also

- improves the emergency response plan,
- improves how the emergency response plan is implemented and
- serves as the basis for future exercises.

The after-action report should be distributed to the chief executive of the institution and each participating department or other affected units.

Step 3. Conduct follow-up activities (apply the learning).

Recommendations in after-action report are reviewed by the chief executive, emergency management programme committee and other key decision-making units.

These may translate to

- changes in policy,
- resource acquisition or allocation,
- personnel training and/or
- decision to conduct further exercises.

Exercise follow-up strategies include

- clearly assigning tasks and schedules, and designating responsibility for each recommended improvement.
- establishing a monitoring plan to track the progress of the recommendations’ implementation.
- completing the cycle by incorporating the testing of noted improvement indicators into succeeding exercises.

In the end, the recommendations—and the exercise itself—are useless if no efforts are placed into their implementation.
Phase 4: Post-exercise Tool Guides

1. Exercise debriefing form
2. Exercise critique form
3. Participant feedback form
4. After-action report outline
5. Tracking improvement check-list

Post-exercise tool guide 1: Exercise debriefing form.

<table>
<thead>
<tr>
<th>EXERCISE DEBRIEFING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overview</strong></td>
</tr>
<tr>
<td>Date/location:</td>
</tr>
<tr>
<td>(Department/institution) hosted a (type of exercise) on (date). Attendees included representatives from (list of attendees).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Hot debrief</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>After the exercise’s conclusion, planners and participants met briefly to discuss the exercise conduct and planning process. Discussion primarily focused on (number) aspects: (list aspects).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Discussion points per listed aspect</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
</tr>
<tr>
<td>(You may extend beyond the space provided.)</td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td>(You may extend beyond the space provided.)</td>
</tr>
<tr>
<td>3.</td>
</tr>
<tr>
<td>(You may extend beyond the space provided.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Points of action</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem summary</td>
</tr>
<tr>
<td>Recommended action</td>
</tr>
<tr>
<td>Responsible person/department</td>
</tr>
</tbody>
</table>

(*You may choose to place additional spaces as necessary.)
## EXERCISE CRITIQUE FORM

<table>
<thead>
<tr>
<th>Name of exercise:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant name:</td>
<td>Department/agency:</td>
</tr>
<tr>
<td>Role:</td>
<td>player</td>
</tr>
</tbody>
</table>

Please take a few minutes to fill out this form. Your opinions and suggestions will help us prepare better exercises in the future.

### 1. Please rate the overall exercise on the following scale.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>

Very poor | Very good

### 2. Compared to the previous exercise, this one was:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>

Very poor | Very good

### 3. Did the exercise effectively simulate the emergency environment and emergency response activities?

Yes | No

If NO, briefly explain why.

(*You may extend beyond the space provided.)

### 4. Did the problems presented in the exercise adequately test readiness capability to implement the plan?

Yes | No

If NO, briefly explain why.

(*You may extend beyond the space provided.)
## EXERCISE CRITIQUE FORM

<table>
<thead>
<tr>
<th>5. The following problems should be deleted or revised:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(*You may extend beyond the space provided.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. I suggest that you add the following problems for the next exercise:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(*You may extend beyond the space provided.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7. Please add any other comments or suggestions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(*You may extend beyond the space provided.)</td>
</tr>
</tbody>
</table>

---

### PARTICIPANT FEEDBACK FORM

<table>
<thead>
<tr>
<th>Name of exercise:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant name:</td>
</tr>
</tbody>
</table>

**Agency:**

**Role:** □ player □ facilitator □ simulator □ victim actor □ observer

**Part 1. Recommendations and action steps**

1. Based on today’s exercise and tasks identified, list important issues and/or areas for improvement.

   (*You may extend beyond the space provided.)

2. Identify the steps needed to address the identified issues. For each one, rate it as high, medium or low priority.

   (*You may extend beyond the space provided.)
### PARTICIPANT FEEDBACK FORM

3. What action steps should be taken in your area of responsibility?

(*You may extend beyond the space provided.)

4. What policies, plans and procedures should be reviewed or developed? List in order, and indicate the priority level for each.

(*You may extend beyond the space provided.)

**Part 2. Design and conduct of exercise**

1. Please rate the following on a scale of 1 to 5, with 1 indicating strong disagreement with the statement and 5 indicating strong agreement.

<table>
<thead>
<tr>
<th>Assessments</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>The exercise was well organized and structured.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The scenario was realistic.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The briefing and/or presentation helped me understand and become engaged in the scenario.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The facilitator(s)/controller(s) was (were) knowledgeable about the material and kept the exercise on target.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation in the exercise was appropriate for my role.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The level and mix of disciplines and participants included the right people for the exercise.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. How would you improve the exercise? What changes would you make?

(*You may extend beyond the space provided.*)
Post-exercise tool guide 4: After-action report outline

**AFTER-ACTION REPORT OUTLINE**

**Introduction.**
- Main purpose of the report, why it is being submitted, preview of main topics, evaluation methodology used and perhaps a general summary of main problems and recommendations.

**Statement of the problem.**
- Purpose of the exercise

**Exercise summary.**
- Goals and objectives
- Pre-exercise activities
- Participants and agencies
- Description of exercise scenario

**Accomplishments and shortfalls.**
- Evaluation group findings
- Summary of post-exercise debriefing

**Recommendations.**
- Training needs
- Changes in the emergency plan
- Other corrective actions
## Post-exercise tool guide 5: Tracking improvement check-list.

<table>
<thead>
<tr>
<th>Emergency Management Function</th>
<th>Command</th>
<th>Operations</th>
<th>Planning</th>
<th>Logistics</th>
<th>Finance</th>
<th>Corrective Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Items for Action</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SAMPLE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve notification of personnel outside hospital</td>
<td>O</td>
<td>P</td>
<td>C</td>
<td>S</td>
<td></td>
<td>Purchase of personnel pagers</td>
</tr>
</tbody>
</table>

*P = Primary responsibility  S = Secondary/support  O = Oversight  C = Coordinator role

(*You may choose to add additional spaces as necessary.*)
Exercise Type-Specific Guidance: Orientation

What is it?

An orientation is an informal discussion seminar on a particular topic. It is headed by a facilitator or lecturer overseeing a selected group of participants. It is a low-stress event, having little or no simulation involved. It can function as an overview of the emergency response plan or focus on its particular parts. It may also serve as a prelude to other exercises by familiarizing participants with roles, responsibilities, plans, procedures or equipment. During the orientation, a capable notetaker keeps track of the discussion, and lists noted issues such as identified operations plan weaknesses and suggestions for improvement. It is the simplest and least costly of all the exercise types.

Several orientation formats can used:

- lectures,
- discussions,
- slide or video presentations,
- computer demonstrations,
- panel discussions or
guest lecturers.

Who is involved?

- Facilitator. This person presents information and guides the discussion. A familiarity with the topic to be discussed is desirable, but no other major prerequisites are required.
- Participants. They may come from any variety of backgrounds. They may be composed of one or more participants for each function being discussed or they may all come from a single agency or department. The exercise objectives determine who the participants will be.
- Notetaker. This person helps the facilitator keep track of the discussion and keep a record of the proceedings.

Where is it done?

An orientation can be conducted in any conference room or similar facility that allows for discussion.

How is it done?

There are no specific rules on how orientations are to be conducted. The purpose of the seminar usually determines its format. However, it is important to:

- be organized in planning,
- be deliberate about execution,
- be creative in presentation and
- be sensitive in facilitating.

Remember to keep the discussion open yet focused, and let all participants contribute and feel engaged in the discussion.
Orientation exercise check-list guide.

<table>
<thead>
<tr>
<th>Orientation direction</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation title:</td>
<td></td>
</tr>
<tr>
<td>Orientation goal:</td>
<td></td>
</tr>
<tr>
<td>Orientation objectives: (1)</td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td></td>
</tr>
<tr>
<td>(3)</td>
<td></td>
</tr>
</tbody>
</table>

(*You may include more objectives as appropriate.)

Human resources

Which staff members will participate in the orientation exercise? (Check all that apply.)

**INTERNAL**
- Administration
- Central supply
- EMS/patient transport service
- Emergency department
- Engineering and physical plant
- Infection control
- Intensive care unit
- Laboratory
- Medical staff
- Nursing
- Pharmacy
- Public affairs
- Security

**EXTERNAL**
- Social services
- Toxicology
- Maintenance
- Medicine department
- Paediatrics department
- Psychiatry department
- Radiology department
- Surgery department
- Hospitalwide
- Other(s) (please specify):

______________________

______________________

**EXTERNAL**
- Other hospitals/health facilities
- Ministry of health
- Local government
- Fire department
- Law enforcement
- Media
- Other(s) (please specify):

______________________
## Orientation exercise check-list guide.

### Which subcommittees, if any, need to be organized? (Check all that apply.)

<table>
<thead>
<tr>
<th>Exercise design</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise control</td>
<td>Food and refreshments</td>
</tr>
<tr>
<td>Logistics</td>
<td>Other(s) (please specify):</td>
</tr>
<tr>
<td>Arrangement</td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td></td>
</tr>
</tbody>
</table>

### Who will be the facilitator?

### Material resources

**Orientation venue:**

**Orientation date:**

**Time start:**

**Time end:**

### Orientation materials

<table>
<thead>
<tr>
<th>Invitations</th>
<th>Board</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation outline</td>
<td>Writing materials</td>
</tr>
<tr>
<td>Handouts</td>
<td>Other(s) (please specify):</td>
</tr>
<tr>
<td>Computer</td>
<td>Other(s) (please specify):</td>
</tr>
<tr>
<td>LCD</td>
<td></td>
</tr>
<tr>
<td>Projector</td>
<td></td>
</tr>
</tbody>
</table>

### Orientation conduction check-lists

#### Orientation preparation

- Exercise planning
- Resource inventory
- Information dissemination
- Invitation of participants
- Train for required prior skills and knowledge

#### Pre-orientation (tell participants what is to be discussed)

- Outline/agenda
- What is expected of them (roles and responsibilities)
- Time–frame

#### Orientation proper (discuss what is to be discussed)

- Discuss outlined points in detail
- Give time for questions, clarifications, complaints and suggestions
**Orientation exercise check-list guide.**

**Post-orientation (review what was discussed)**

- [ ] Agreed points of action
- [ ] Assignment of responsibilities
- [ ] Schedule of subsequent meetings
- [ ] Gratitude for participation

**Exercise evaluation (evaluate the process)**

- [ ] Immediate debriefing
- [ ] Evaluation forms
- [ ] Assessment of accomplishment of goal and objectives
- [ ] Recommendations for improvement for future activities
Exercise Type-Specific Guidance: Drill

What is it?

Drills are a method of maintaining and developing skills in a single-response procedure. They are operational exercises used to train and assess emergency skills that constitute one or more components of an emergency plan. The goal of a drill is to practise and perfect one small part of the response plan and to address a specific potential problem area. They are limited in scope due to their procedural focus. Drills are only meant to train and support specific skills and interactions as part of a larger organizational response.

Example activities that may use drills include

- earthquake evacuation drill,
- fire extinguisher use drill,
- biological hazard decontamination drill and
- emergency operations centre notification drill.

Who is involved?

- **Drill masters.** They head the drills, supported by the exercise control team.
- **Exercise control team.** Members manage the exercise and ensure that it is proceeding according to the objectives.
- **Participants.** They may come from any department or agency requiring assessment or training in a particular emergency operations response. The only prerequisite prior to conducting the drill is that the participants have a good understanding of the single function to be tested. This can be aided by an orientation exercise on the function prior to conducting the drill.
- **Evaluator(s) and observer(s).** They may also be employed to assess if the drill is proceeding according to the objectives.

Where is it done?

A drill can be conducted within any facility or field site where the particular operational function can be exercised.

Since the drill is an operational exercise, the goal is to be as realistic as possible. The equipment and resources to be used to during an actual emergency must be made available at the exercise location.

How is it done?

Step 1. Prepare.

- Review the response procedures to be tested.
- Select appropriate participants.
- Prepare the site and equipment to be used.
• Orient participants beforehand on what needs to be done and how to do it.
• Plan for and observe safety precautions as appropriate.

Step 2. Set the stage.

• Begin the drill with a short general briefing. Review the drill purpose and objectives. Explain safety precautions.
• Set the scene to place the participants in the appropriate mood and mindset. These may be done using oral narrative, written narrative or through audio-visual presentations.
• In field drills, the location may have to be set up to approximate what it would be like during a real emergency. Create a “visual narrative” to which the participants are to respond with the function being practised and assessed.

Step 3. Monitor the action.

• If the participants are appropriately briefed and motivated, the drill will usually proceed as planned.
• However, when expected actions are not being fulfilled by the participants, the drill master may choose to intervene through the insertion of appropriate trigger messages. These are messages related to the scenario intended to guide the participants to the expected action.

Step 4. Evaluate the exercise.

• Evaluators should be employed to observe how the drill is proceeding in reference to the objectives.
• A hot debriefing can be immediately done after the activity to receive participants’ input while the experience is still fresh. A cold debriefing can also be held at a later time to further iron out details.
• Written evaluation forms can also be used aside from oral discussions during debriefing.
• All this information should then be summarized in an after-action report to assess the exercise and to facilitate the necessary improvements that must be implemented.
# Drill exercise check-list guide.

## Drill direction

**Drill goal:**

**Drill objectives:**
1.
2.
3.

(*You may include more objectives as appropriate.*)

## Human resources

Which staff members will participate in the exercise? (Check all that apply.)

### INTERNAL
- Administration
- Central supply
- EMS/patient transport service
- Emergency department
- Engineering and physical plant
- Infection control
- Intensive care unit
- Laboratory
- Medical staff
- Nursing
- Pharmacy
- Public affairs
- Security

### SOCIAL SERVICES
- Social services
- Toxicology
- Maintenance
- Medicine department
- Paediatrics department
- Psychiatry department
- Radiology department
- Surgery department
- Hospitalwide
- Other(s) (please specify):

### EXTERNAL
- Other hospitals/health facilities
- Ministry of health
- Local government
- Fire department
- Law enforcement
- Media
- Other(s) (please specify):

Which subcommittees, if any, need to be organized? (Check all that apply.)

- Exercise design
- Exercise control
- Logistics
- Arrangement
- Evaluation

- Documentation
- Food and refreshments
- Other(s) (please specify):

- Other(s) (please specify):
**Drill exercise check-list guide.**

**Who will be the drill master?**

**Who will be the evaluators?**

### Material resources

<table>
<thead>
<tr>
<th>Drill venue:</th>
<th>Drill date:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time start:</th>
<th>Time end:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Drill materials

- Briefing materials
- Drill guide
- Operations equipment
- Communications equipment
- Personal protective equipment
- Other(s) (please specify): _______________
- Other(s) (please specify): _______________

### Drill conduction check-lists

#### Drill preparation

- Review of relevant parts of emergency response plan
- Resource Inventory
- Information dissemination
- Invitation of participants
- Training on required prior skills and knowledge
- Evaluation planning
- Safety planning

#### Set the stage

- Short exercise briefing prior to start
  - Objectives
  - Procedures
  - Precautions
- Set the scenario
  - Oral
  - Written
  - Audio visual
  - Visual narrative on location
**Drill exercise check-list guide.**

<table>
<thead>
<tr>
<th>Monitor the action</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Proceed with drill as planned</td>
</tr>
<tr>
<td>• Drill master to guide participants as necessary</td>
</tr>
<tr>
<td>• Spontaneous messages</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evaluate the exercise</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Debriefing</td>
</tr>
<tr>
<td>• Evaluation forms</td>
</tr>
<tr>
<td>• Assessment of accomplishment of goal and objectives</td>
</tr>
<tr>
<td>• Recommendations for improvement</td>
</tr>
</tbody>
</table>
Exercise Type-Specific Guidance: Tabletop

**What is it?**

In a tabletop exercise, simulated emergency situations are discussed by officials and key staff members with emergency management responsibilities in order to resolve problems based on their emergency plans. It is essentially a group brainstorming session centred on a scenario narrative with problem statements or messages presented to the members for discussion. The exercise is guided by a simulated series of events that are designed to highlight potential problem areas. This simulation often contains elements of ambiguity to encourage creativity in the application of the emergency plan. Equipment and resources are not deployed, and time pressures are not introduced. The success of the activity is determined by group participation in resolving the noted areas of concern.

**Who is involved?**

- **Facilitator.** This person presents the scenario narrative and facilitates discussion among the participants.
- **Participants.** They are usually composed of decision-making level staff members and individuals with emergency management responsibilities who discuss the simulated problems based on their emergency plans.
- **Recorder(s).** They observe and document the discussion.
- **Evaluator(s).** They assess the proceedings and how they progress towards the objectives.

**Where is it done?**

A tabletop exercise can be conducted in any conference facility that can accommodate the expected number of participants in a comfortable face-to-face setting.

It is recommended, however, that the emergency operations centre or the facility designated for the coordination and management of emergency events be used so that the necessary plans, displays and maps that may aid discussion are readily available on the premises.

**How is it done?**

**Step 1. Prepare.**

- Select the topic areas to be discussed.
- Design the tabletop exercise.

Two example tabletop approaches used are as follows.

- **The scenario development approach.** This uses an overarching narrative presented in small sections, with each section followed by problem
Emergency exercise process

statements. The participants discuss each of these problem statements until reasonable solutions are reached.

- The single narrative with messages approach. This approach uses just one narrative presented at the beginning of the exercise. The scenario is then developed through messages distributed to players during the course of the exercise.

Regardless of method used, what is important is to stimulate discussion and encourage in-depth problem solving.

Events detailed in the scenario—and the messages and problem statements associated with them—should be closely connected to the exercise objectives.

They should guide participants to discussions on issues targeted in the exercise objectives.

**Step 2. Set the stage.**

- Welcome the participants and put them at ease.
- Brief participants on the purpose, objective, ground rules and procedures so that they will know what to expect and what is expected of them.
- Introduce the scenario narrative along with the first problem statement or message.

**Step 3. Monitor the action.**

- Continue the discussion through the use of messages or problem statements.
- Involve everyone. Ensure that no individual or organization dominates the discussion.
- Provide extra encouragement to participants who might seem more reserved. Organize messages in such a way that each participant gets a chance to contribute.
- Manage the pace. As the discussion begins to wane, the next message or problem statement can be introduced to regain momentum. Balance between rushing through the topics and overtalking them. Both extremes are counterproductive.
- The goal of a tabletop exercise is primarily to resolve problems or to make plans as a group. Take time to come to real solutions and not superficialities. If there is limited time, set a subsequent meeting to tackle the remaining issues and to give them the appropriate amount of time that they deserve.

**Step 4. Evaluate the exercise.**

- Recorders note key points in the tabletop discussion.
- Evaluators observe how the tabletop proceeds in reference to the objectives.
- The success of a tabletop exercise
is based on the quality of the
discussion, the ability of participants
to tackle identified areas of concern
(i.e. identification of appropriate
responses, identification of gaps in
procedures, reaching group consensus
and developing ideas for change) and
the commitment of those involved to
follow through with agreed points of
action.

Tabletop exercise check-list.

<table>
<thead>
<tr>
<th>Tabletop exercise check-list.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tabletop direction</td>
</tr>
<tr>
<td>Tabletop title:</td>
</tr>
<tr>
<td>Tabletop goal:</td>
</tr>
</tbody>
</table>

| Tabletop objectives:         |
| (1)                          |
| (2)                          |
| (3)                          |

(*You may include more objectives as appropriate.)

<table>
<thead>
<tr>
<th>Human resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which staff members will participate in the tabletop exercise? (Check all that apply.)</td>
</tr>
</tbody>
</table>

**INTERNAL**
- Administration
- Central supply
- EMS/patient transport service
- Emergency department
- Engineering and physical plant
- Infection control
- Intensive care unit
- Laboratory
- Medical staff
- Nursing
- Pharmacy
- Public affairs
- Security

**EXTERNAL**
- Social services
- Toxicology
- Maintenance
- Medicine department
- Paediatrics department
- Psychiatry department
- Radiology department
- Surgery department
- Hospitalwide
- Other(s) (please specify):

_____________________
_____________________
<table>
<thead>
<tr>
<th>Tabletop exercise check-list.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which subcommittees, if any, need to be organized? (Check all that apply.)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>☐ Exercise design</td>
</tr>
<tr>
<td>☐ Exercise control</td>
</tr>
<tr>
<td>☐ Logistics</td>
</tr>
<tr>
<td>☐ Arrangement</td>
</tr>
<tr>
<td>☐ Evaluation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Who will be the facilitator?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who will be the recorder(s) (if any)?</td>
</tr>
<tr>
<td>Who will be the evaluator(s) (if any)?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tabletop venue:</td>
</tr>
<tr>
<td>Time start:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tabletop materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Invitations</td>
</tr>
<tr>
<td>☐ Orientation outline</td>
</tr>
<tr>
<td>☐ Handouts</td>
</tr>
<tr>
<td>☐ Computer</td>
</tr>
<tr>
<td>☐ LCD</td>
</tr>
<tr>
<td>☐ Projector</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Write tabletop narrative and select tabletop approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1: Scenario development approach</td>
</tr>
<tr>
<td>Scenario development 1 (narrative, part 1)</td>
</tr>
<tr>
<td>Narrative:</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Tabletop exercise check-list.

<table>
<thead>
<tr>
<th>Problem Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
</tr>
<tr>
<td>(2)</td>
</tr>
<tr>
<td>(3)</td>
</tr>
</tbody>
</table>

(*You may include more statements as appropriate.)

Scenario development 2 (narrative, part 2)

Narrative:

(*You may extend beyond the space provided.)

<table>
<thead>
<tr>
<th>Problem Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
</tr>
<tr>
<td>(2)</td>
</tr>
<tr>
<td>(3)</td>
</tr>
</tbody>
</table>

(*You may include more statements as appropriate.)

OR Type 2: Single narrative with messages approach

Narrative:

(*You may extend beyond the space provided).

<table>
<thead>
<tr>
<th>Messages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message No.:</td>
</tr>
<tr>
<td>To:</td>
</tr>
</tbody>
</table>
## Tabletop exercise check-list.

<table>
<thead>
<tr>
<th>Message No.:</th>
<th>Time:</th>
<th>Message No.:</th>
<th>Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>To:</td>
<td>From:</td>
<td>To:</td>
<td>From:</td>
</tr>
<tr>
<td>Message No.:</td>
<td>Time:</td>
<td>Message No.:</td>
<td>Time:</td>
</tr>
<tr>
<td>To:</td>
<td>From:</td>
<td>To:</td>
<td>From:</td>
</tr>
</tbody>
</table>

## Tabletop conduction check-lists

**Design preparation**
- □ Determine objectives
- □ Select tabletop discussion topics

**Planning**
- □ Select approach
- □ Write narrative
- □ Write messages and problem statements

**Set the stage**
- □ Welcome participants
- □ Brief on purpose and objectives
- □ Brief on ground rules and procedures
- □ Introduce scenario narrative and first problem statement or message

**Involve everyone**
- □ Encourage participation from everyone
- □ Organize messages to involve all organizations

**Manage the pace**
- □ Use multiple event stages
- □ Provide appropriate time for each topic

**Documentation and evaluation**
- □ Get oral and written feedback regarding the activity
- □ Organize documentation and evaluation forms
- □ Prepare evaluation report
- □ Implement necessary changes
Exercise Type-Specific Guidance: Functional

What is it?

A functional exercise is an interactive simulation conducted in the emergency operations centre or the facility designated for the coordination and management of emergency events. The exercise requires participants to perform their emergency management roles designated by the emergency response plan. It is conducted under time constraints similar to a real emergency and is simulated in significant detail, only coming short of deploying personnel to an emergency site. The players practise by responding in a realistic way to a carefully planned scenario narrative and sequenced messages. These messages reflect a series of ongoing events and problems, and the decisions and actions made by the players generate real responses and consequences from other players. The exercise is designed to validate policies, roles and responsibilities, capabilities and procedures for multiple emergency management functions. The goal is to imitate reality in the emergency operations centre.

Who is involved?

• Players. They respond to the scenario based on their emergency management roles.
• Controller(s). They are the managers of the exercise.
• Simulators. They play the parts of organizations and field units outside of the emergency operations centre who deliver messages to the players.
• Evaluators. They record and assess the exercise according to the objectives and expected actions of participants.

Where is it done?

The activity should be held at the emergency operations centre to be used in case of an actual incident.

How is it done?

Step 1. Prepare.

• Set the exercise objectives.
• Write a convincing narrative.
• Develop major and minor events that grow out of the narrative. They should elicit expected actions that are tied closely to the objectives, and they should be arranged in a realistic and convincing sequence from the beginning of the exercise.
• Prepare many messages. Convey the development of events, trigger the expected actions and use appropriate simulated delivery method (e.g. oral, written, phone, radio or e-mail)
• Incorporate time-skip transitions (if necessary), which are pre-planned controlled advancement of simulated time and allow participants to address
events seen much later in real time.
- Finalize a master scenario of events list or master schedule that includes all of the events and messages, delivery times and expected actions.

**Step 2. Set the stage.**

- Notify players. The exact schedule of the exercise can be announced or unannounced depending on exercise objectives. In “no-notice” or unannounced exercises, the exact time when the exercise will be called is unknown—only a general time period is given to the players.
- Brief players on an overview of the exercise objectives, how the exercise will be carried out, time period to be simulated and ground rules and procedures.
- Present the narrative through oral, written or audio-visual means.

**Step 5. Monitor the action.**

- Note how players react to developing scenario.
- Simulators communicate messages that signify major and detailed events.
- Controllers manage the action by adding or deleting messages as necessary. It is advisable to have a supply of optional messages on hand during the exercises that can be used if needed.

**Step 6. Evaluate the exercise.**

- Evaluators observe how the functional exercise proceeds in reference to the objectives.
- A hot debriefing can be done immediately after the activity to receive input regarding the exercise while the experience is still fresh.
- A cold debriefing can also be held at a later time to further iron out details.
- Written evaluation forms can also be used during debriefing.
- All of this information should then be summarized in an after-action report to assess the exercise and to facilitate necessary improvements.
**Functional exercise check-list.**

<table>
<thead>
<tr>
<th>Functional direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional goal:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Functional objectives:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
</tr>
<tr>
<td>(2)</td>
</tr>
<tr>
<td>(3)</td>
</tr>
</tbody>
</table>

(*You may include more objectives as appropriate.)*

<table>
<thead>
<tr>
<th>Human resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which department staff members will participate in the exercise? (Check all that apply.)</td>
</tr>
</tbody>
</table>

**INTERNAL**

- Administration
- Central supply
- EMS/patient transport service
- Emergency department
- Engineering and physical plant
- Infection control
- Intensive care unit
- Laboratory
- Medical staff
- Nursing
- Pharmacy
- Public affairs
- Security

**EXTERNAL**

- Social services
- Toxicology
- Maintenance
- Medicine department
- Paediatrics department
- Psychiatry department
- Radiology department
- Surgery department
- Hospitalwide
- Other(s) (please specify):

<table>
<thead>
<tr>
<th>Who will be participating? (List names and positions of all designated players.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>
### Functional exercise check-list.

**Which subcommittees, if any, need to be organized? (Check all that apply.)**

- Exercise design
- Exercise control
- Logistics
- Arrangement
- Evaluation
- Documentation
- Food and refreshments
- Other(s) (please specify):
  - __________________________
  - __________________________

**Who will be the controller?**

**Who will be the simulator(s) (if any)?**

**Who will be the recorder(s) (if any)?**

**Who will be the evaluator(s) (if any)?**

**Material resources**

- **Exercise venue:**
- **Exercise date:**
- **Time start:**
- **Time end:**

**Functional Exercise materials**

- Invitations
- Major events log
- Master sequence of events list
- Message flow table
- Exercise plan
- Control plan
- Evaluation plan
- Player handbook
- Displays easily visible or accessible
- Maps or other visuals
- Bulletin board
- Status boards
- Simulation plotting board
- Easels, chart, paper
- Message forms
- Pencils and paper
- Name cards
- Telephones
- Radios
- Computers
- LCD projector
- Writing materials
- Other(s) (please specify):
  - __________________________
  - __________________________

**Functional exercise narrative**
Functional exercise check-list.

**Narrative:**

(*You may extend beyond the space provided.)

**EVENTS**

<table>
<thead>
<tr>
<th>Major event 1</th>
<th>Detailed events:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td></td>
<td>(2)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major event 2</th>
<th>Detailed events:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td></td>
<td>(2)</td>
</tr>
</tbody>
</table>

(*You may choose add more major and detailed events as necessary.)

**Expected Actions Planning Sheet**

<table>
<thead>
<tr>
<th>Detailed Event</th>
<th>Expected Action</th>
<th>Participant/Department</th>
<th>Objective Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(*You may choose add more spaces as necessary.)

**MASTER SCENARIO EVENTS LIST**

<table>
<thead>
<tr>
<th>Time</th>
<th>Message/Event</th>
<th>Expected Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(*You may choose to add more spaces as necessary.)
Emergency exercise process

### Functional exercise check-list.

<table>
<thead>
<tr>
<th>MESSAGES</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Message No.:</td>
<td>Time:</td>
<td>Message No.:</td>
<td>Time:</td>
<td></td>
</tr>
<tr>
<td>To:</td>
<td>From:</td>
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<td></td>
</tr>
<tr>
<td>Message No.:</td>
<td>Time:</td>
<td>Message No.:</td>
<td>Time:</td>
<td></td>
</tr>
<tr>
<td>To:</td>
<td>From:</td>
<td>To:</td>
<td>From:</td>
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<td>Message No.:</td>
<td>Time:</td>
<td>Message No.:</td>
<td>Time:</td>
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<td>To:</td>
<td>From:</td>
<td>To:</td>
<td>From:</td>
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</tr>
</tbody>
</table>

### Functional exercise design check-list: special considerations

<table>
<thead>
<tr>
<th>Beginning</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ No-notice</td>
<td>□ Scheduled</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Briefing (short)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Objectives</td>
<td>□ Process</td>
<td></td>
</tr>
<tr>
<td>□ Time period portrayed</td>
<td>□ Ground rules and procedures</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Narrative</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Verbal, print, TV, computer, slides or dramatization</td>
<td>□ Time skips if needed</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Messages</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Large number (appropriate for scope)</td>
<td>□ Prescripted</td>
<td></td>
</tr>
<tr>
<td>□ Optional additional messages for adjusting flow</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Message delivery</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Written</td>
<td>□ Phone</td>
<td></td>
</tr>
<tr>
<td>□ Other (verbal, speaker, phone/radio, hand signals)</td>
<td>□ Standardized forms for written messages</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strategies for adjusting pace</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Rescheduling</td>
<td>□ Adding/deleting messages</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Documentation and evaluation</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Get oral and written feedback regarding the activity</td>
<td>□ Organize documentation and evaluation forms</td>
<td></td>
</tr>
<tr>
<td>□ Prepare evaluation report</td>
<td>□ Disseminate findings to relevant groups</td>
<td></td>
</tr>
<tr>
<td>□ Implement necessary changes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Exercise Type-Specific Guidance: Full-Scale

What is it?

A full-scale exercise—also known as a field exercise—is a simulated interactive activity designed to challenge the emergency management system in a highly realistic and stressful environment. It includes the real-time conduction and actual deployment of resources required to demonstrate coordination and response capabilities. It is the most elaborate of the exercise activities and requires significant investment of time, effort and resources. It also incurs logistic, coordination, and potential safety issues. Short of a true incident, a full-scale exercise provides the closest approximation for assessing how the emergency response plan would be implemented without directly placing participants at risk to an emergency.

Who is involved?

A full-scale exercise is a significant human resources undertaking. Personnel include

- Players. They come from all levels of command, operations and field work.
- Controllers. They manage the entire exercise.
- Victim actors. They simulate the victims.
- Evaluators. They observe and assess the exercise according to the objectives.
- Safety officers. They ensure that the activity is conducted safely.

Two types of victims may be used.

- Moulaged. “Victims” made up to look like having particular injuries or diseases, and who need not have specialized training in fulfilling their roles.
- Smart-casualties. “Victims” with medical training who later are able to give feedback on the kind of treatment that they received.

The safety officer is ideally involved from the start of the design process to final execution. His or her primary responsibility is to analyse the entire exercise from a safety perspective.

Where is it done?

The emergency operations centre to be used in an actual emergency should be utilized during the full-scale exercise.

The field sites should also be selected based on the exercise scenario and objectives. They should:

- approximate the scene of an actual emergency,
- not interfere with the normal working conditions of the hospital or health facility and
• be a safe environment for all personnel involved in the activity.

The ideal sites for conducting full-scale exercises should be as realistic as possible given logistic and safety considerations.

**How is it done?**

**Step 1. Prepare.**

• Set the exercise objectives.
• Identify expected actions based on the exercise objectives. Remember, full-scale exercises are operational activities, and expected actions are the foundation of exercise design and evaluation.
• Prepare the narrative, which should be less dependent on written or verbal description. Use things and people to demonstrate a visual narrative of the scenario.
• Design the scene. Select the site; it must be realistic, credible and have adequate space.
• Create a believable scene; it must good enough to trigger the expected actions. Finally, use equipment to be utilized in actual emergencies.
• Develop events. Major and detailed events exist as actual occurrences rather than as verbal descriptions. Plant both visual and written messages.
• Consider safety. The safety officer should be assigned early in the design process, and provides for exercise call-off procedures in the event of an actual emergency.

**Step 2. Set the stage.**

• Ensure that all props, support personnel, materials and equipment are in place before beginning the exercise.
• The exercise schedule can be previously announced or unannounced (“no-notice”) to the players depending on the objectives.
• Once notified, players must proceed to their respective emergency exercise posts (i.e. emergency operations centre for command and control personnel and designated field sites for operations response staff members).
• Upon arrival, conduct a short player briefing on an overview the exercise objectives, ground rules and procedures and review safety and exercise call of procedures.
• Introduce the narrative.

**Step 3. Monitor the action.**

• Players react to the narrative and developing scenario.
• Responses of various players have effects on the others (i.e. command decisions from the emergency operations centre players affect the field site players, and the actions of field site personnel affect simulation occurring in the centre).
• Controllers may also input messages
(written or visual) to manage the action of the exercise.

- Additional prescribed or spontaneous messages can be injected if expected actions are not being done.
- The conclusion occurs upon completion of all the designated tasks or at a designated time according to the master schedule.
- Safety precautions are observed throughout the exercise.

**Step 4. Evaluate the exercise.**

- Evaluators observe how the full scale proceeds in reference to the objectives.
- A hot debriefing can be immediately done after the activity to receive input regarding the exercise while the experience is still fresh.
- A cold debriefing can also be held at a later time to iron out details.
- Written evaluation forms can also be used during debriefing.
- All of this information should then be summarized in an after-action report to assess the exercise and to facilitate necessary improvements.
### Full-scale exercise check-list.

<table>
<thead>
<tr>
<th>Full-scale direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-scale goal:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Full-scale objectives:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
</tr>
<tr>
<td>(2)</td>
</tr>
<tr>
<td>(3)</td>
</tr>
</tbody>
</table>

(*You may include more objectives as appropriate.*

### Human resources

Which department staff members will participate in the exercise? (Check all that apply.)

<table>
<thead>
<tr>
<th>INTERNAL</th>
<th>EXTERNAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>Other hospitals/health facilities</td>
</tr>
<tr>
<td>Central supply</td>
<td>Ministry of health</td>
</tr>
<tr>
<td>EMS/patient transport service</td>
<td>Local government</td>
</tr>
<tr>
<td>Emergency department</td>
<td>Fire department</td>
</tr>
<tr>
<td>Engineering and physical plant</td>
<td>Law enforcement</td>
</tr>
<tr>
<td>Infection control</td>
<td>Media</td>
</tr>
<tr>
<td>Intensive care unit</td>
<td>Other(s) (please specify):</td>
</tr>
<tr>
<td>Laboratory</td>
<td></td>
</tr>
<tr>
<td>Medical staff</td>
<td></td>
</tr>
<tr>
<td>Nursing</td>
<td></td>
</tr>
<tr>
<td>Pharmacy</td>
<td></td>
</tr>
<tr>
<td>Public affairs</td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td></td>
</tr>
<tr>
<td>Social services</td>
<td>Documentation</td>
</tr>
<tr>
<td>Toxicology</td>
<td>Food and refreshments</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Other(s) (please specify):</td>
</tr>
<tr>
<td>Medicine department</td>
<td></td>
</tr>
<tr>
<td>Paediatrics department</td>
<td></td>
</tr>
<tr>
<td>Psychiatry department</td>
<td></td>
</tr>
<tr>
<td>Radiology department</td>
<td></td>
</tr>
<tr>
<td>Surgery department</td>
<td></td>
</tr>
<tr>
<td>Hospitalwide</td>
<td></td>
</tr>
<tr>
<td>Other(s) (please specify):</td>
<td></td>
</tr>
</tbody>
</table>

Which subcommittees, if any, need to be organized? (Check all that apply.)

<table>
<thead>
<tr>
<th>Exercise design</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise control</td>
<td>Food and refreshments</td>
</tr>
<tr>
<td>Logistics</td>
<td>Other(s) (please specify):</td>
</tr>
<tr>
<td>Arrangement</td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td></td>
</tr>
</tbody>
</table>
Full-scale exercise check-list.

**Who will be the controller?**

<table>
<thead>
<tr>
<th>Controller</th>
<th>Site</th>
</tr>
</thead>
</table>

(*You may choose to add more spaces as necessary.)

**Who will be the controller(s) and to which site(s) will they be deployed? (List as many as needed.)**

<table>
<thead>
<tr>
<th>Recorder</th>
<th>Site</th>
</tr>
</thead>
</table>

(*You may choose to add more spaces as necessary.)

**Who will be the recorder(s) and to which site(s) will they be deployed? (List as many as needed.)**

<table>
<thead>
<tr>
<th>Evaluator</th>
<th>Site</th>
</tr>
</thead>
</table>

(*You may choose to add more spaces as necessary.)

**Who is the safety officer?**

**Exercise logistics**

<table>
<thead>
<tr>
<th>Time</th>
<th>Message/Event</th>
<th>Expected Actions</th>
</tr>
</thead>
</table>

Exercise sites: Site enhancements

(*You may choose to add more spaces as necessary.*)
### Full-scale exercise check-list.

#### Full-scale exercise narrative

**Narrative:**

(*You may extend beyond the space provided.*)

#### EVENTS

**Major event 1**

Detailed events:

(1)

(2)

**Major event 2**

Detailed events:

(1)

(2)

(*You may choose add more major and detailed events as necessary.*)

#### Expected Actions Planning Sheet

<table>
<thead>
<tr>
<th>Detailed Event</th>
<th>Expected Action</th>
<th>Participant/Department</th>
<th>Objective Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(*You may choose add more spaces as necessary.*)

#### MASTER SCENARIO EVENTS LIST

<table>
<thead>
<tr>
<th>Time</th>
<th>Message/Event</th>
<th>Expected Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

(*You may choose to add more spaces as necessary.*)
### Full-scale exercise check-list.

**MESSAGES**

<table>
<thead>
<tr>
<th>Message No.:</th>
<th>Time:</th>
<th>Message No.:</th>
<th>Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>To:</td>
<td>From:</td>
<td>To:</td>
<td>From:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Message No.:</th>
<th>Time:</th>
<th>Message No.:</th>
<th>Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>To:</td>
<td>From:</td>
<td>To:</td>
<td>From:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Message No.:</th>
<th>Time:</th>
<th>Message No.:</th>
<th>Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>To:</td>
<td>From:</td>
<td>To:</td>
<td>From:</td>
</tr>
</tbody>
</table>

(*You make as many messages as necessary.*)

**Full-scale exercise special considerations check-list**

<table>
<thead>
<tr>
<th><strong>Participants</strong></th>
<th><strong>Resource capability</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Controller(s) sufficient to manage all event sites</td>
<td>□ Sufficient personnel kept in reserve to handle routine non-exercise events</td>
</tr>
<tr>
<td>□ Victim actors composed of different age groups, body types, physical characteristics</td>
<td></td>
</tr>
<tr>
<td>□ Players (most functions, all levels – policy coordination, operations, field)</td>
<td></td>
</tr>
<tr>
<td>□ Evaluators</td>
<td></td>
</tr>
<tr>
<td>□ Safety officer</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Site selection</strong></th>
<th><strong>Safety</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Adequate space for number of victims, responders and observers</td>
<td>□ Safety addressed through development</td>
</tr>
<tr>
<td>□ Space for vehicles and equipment</td>
<td>□ Each design team member responsible for safety in own discipline</td>
</tr>
<tr>
<td>□ As realistic as possible without interfering with normal traffic or safety</td>
<td>□ Hazards identified and resolved</td>
</tr>
<tr>
<td>□ Credible scenario and location</td>
<td>□ Safety addressed in pre-exercise briefing, simulator and evaluator packets</td>
</tr>
<tr>
<td>□ Realistic victims</td>
<td>□ Each field location examined for safety issues</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Legal liability</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Legal questions of liability researched by local attorney</td>
</tr>
</tbody>
</table>
Emergency exercise process

Full-scale exercise check-list.

- Preparation of simulators to portray roles realistically
- Number of victims consistent with type of emergency, history of past events
- Types of injuries consistent type of emergency, history of past events
- Victim load compatible with local capacity to handle
- Props and materials to simulate injuries, damage, other effects

**Personnel resources**
- Number or participants
- Number of volunteers for scene set-up, victims, etc.
- Types and numbers of equipment
- Communications equipment
- Fuel for vehicles and equipment
- Materials and supplies
- Expenses identified (wages, overtime, fuel, materials and supplies)

**Emergency call-off**
- Call-off procedure in place, including code word or phrase
- Call-off procedure tested

**Media**
- Role of media addressed in planning, used as a resource to gain favourable exposure
- Media and observers considered in logistical planning.

**Documentation and evaluation**
- Get oral and written feedback regarding the activity
- Organize documentation and evaluation forms
- Prepare evaluation report
- Disseminate findings to relevant groups
- Implement necessary changes

---

### Emergency exercise process

<table>
<thead>
<tr>
<th>Full-scale exercise check-list.</th>
<th>Emergency call-off</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Preparation of simulators to portray roles realistically</td>
<td>- Call-off procedure in place, including code word or phrase</td>
</tr>
<tr>
<td>- Number of victims consistent with type of emergency, history of past events</td>
<td>- Call-off procedure tested</td>
</tr>
<tr>
<td>- Types of injuries consistent type of emergency, history of past events</td>
<td></td>
</tr>
<tr>
<td>- Victim load compatible with local capacity to handle</td>
<td></td>
</tr>
<tr>
<td>- Props and materials to simulate injuries, damage, other effects</td>
<td></td>
</tr>
</tbody>
</table>

**Personnel resources**
- Number or participants
- Number of volunteers for scene set-up, victims, etc.
- Types and numbers of equipment
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- Role of media addressed in planning, used as a resource to gain favourable exposure
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- Get oral and written feedback regarding the activity
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- Prepare evaluation report
- Disseminate findings to relevant groups
- Implement necessary changes
Guidance Materials: Hospital and Health Facility Emergency Exercises

The Comprehensive Exercise Programme

Exercises can be conducted as stand-alone activities to address individual specific needs and objectives. However, they may also be better utilized in the context of a comprehensive exercise programme.

What is it?

A comprehensive exercise programme is a process that uses the five exercise types (orientation, drill, tabletop, functional and full-scale) in progressively complex fashion, each one building on the previous until mastery of emergency response is achieved.

Who is involved?

- A comprehensive exercise programme is built by the combined efforts of representatives from every major department in the hospital and the surrounding community involved in emergency response and recovery.
- This group is spearheaded by the emergency management committee and programme manager.

Why is it done?

The comprehensive exercise programme approach is valuable for the purposes of hospital and health facility emergency programme committees, particularly those with no prior training or experience.

The incremental approach may seem slow, but it allows for individual as well as organizational enhancement as the gradual steps in forming a comprehensive exercise programme are realized.

The organizational systems grow with the development of its personnel.

It permits incremental training and information dissemination of the emergency response plan and emergency management programme to key authorities and the rest of the staff.

It also allows gradual development of the required skills.

- Emergency systems are developed.
- Coordination is improved.
- Roles and procedures are refined.
- Officials and stakeholders are more willing to commit resources.
- Personnel become more motivated and look forward to the next exercise.
- Confidence increases, and operating skills improve.

This leads to reduced, unnecessary expenditure often seen in prematurely utilized higher-level exercises.

How is it done?

A comprehensive exercise programme requires careful planning to accomplish
identified goals. It also needs broad commitment from a wide range of individuals involved in emergency response and recovery to contribute to its planning and execution.

Since the comprehensive exercise programme usually extends over several months, a unified long-term goal or mission statement must be developed to ensure focus and continuity.

After the team has been formed, and the goals have been established, the comprehensive exercise programme can then be planned by laying out a series of exercises that meet the needs of various participating entities, and organizing these activities into a workable sequence and time schedule.

The comprehensive exercise programme can be written in any format but is recommended to specify several elements: (1) a time-frame; (2) problem statement; (3) long-range goal(s); (4) functional objectives; (5) schedule; and (6) exercise descriptions of type, participants, purpose and rationale.

**Sample comprehensive exercise programme format.**

<table>
<thead>
<tr>
<th>(Insert Institution) Comprehensive Exercise Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time-frame:</strong> (Time period of comprehensive exercise programme) e.g. 1 year and 2 months</td>
</tr>
<tr>
<td><strong>Present problems:</strong> (Identified through hazard vulnerability analysis)</td>
</tr>
<tr>
<td><strong>Long-range goal:</strong> (Goal of the comprehensive exercise programme)</td>
</tr>
<tr>
<td><strong>Functional objectives:</strong> (Breakdown of goal into functional objectives to be trained and exercised)</td>
</tr>
<tr>
<td><strong>First month:</strong> Exercise: Orientation</td>
</tr>
<tr>
<td><strong>SAMPLE</strong> Participants: Emergency management staff, key administrative officers, heads of involved departments</td>
</tr>
<tr>
<td><strong>Purpose:</strong> To review current emergency management plan and emergency response plan for dealing with hospital emergencies</td>
</tr>
<tr>
<td><strong>Rationale:</strong> To inform those unaware of the current emergency management plan and emergency response plan and to gain support and additional input from key decision-makers.</td>
</tr>
</tbody>
</table>
### (Insert Institution) Comprehensive Exercise Programme

<table>
<thead>
<tr>
<th>Month</th>
<th>Exercise</th>
<th>Participants</th>
<th>Purpose</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Month</th>
<th>Exercise</th>
<th>Participants</th>
<th>Purpose</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

(*You may continually add spaces as appropriate.*)
The emergency response plan (ERP) is the guiding document for a hospital or health facility’s emergency response. It details the organizational structure, roles, responsibilities, policies and procedures of the institution in response to emergencies. It is implemented and assessed during emergency exercises, and exercise evaluation recommendations are applied to it. As a prerequisite of emergency exercises, this segment lists some necessary elements of an ERP and emergency management programme.

Described below are several elements of an ERP. This list is neither comprehensive nor prescriptive but hopes to provide hospital and health facility emergency management committees with a starting point in creating their own ERP. Some elements listed are designed for large tertiary care hospitals and may not be suitable for smaller health facilities. However, the same guiding concepts and principles behind their use can be applied in the appropriate scale.

1. Pre-emergency readiness check-list

In the period between emergencies, there should be regular maintenance checks to ensure that emergency resources (i.e. materials, tools and personnel) are available and equipped to respond to future unforeseen events. An important tool to ensure that necessary parameters are in order is the pre-emergency readiness check-list. It provides a systematic method of assessing the emergency preparedness status of institutions and is a means for identifying gaps that need to be addressed. The check-list should be part of regular maintenance protocols and include both structural and functional indicators of hospital safety, as well as emergency response preparedness.

An example comprehensive check-list is in the Hospitals Should Be Safe from Disasters manual, available at the World Health Organization Regional Office for the Western Pacific Emergency and Humanitarian Action website (www.wpro.who.int/sites/eha/).

2. All-hazards approach emergency response plan

An all-hazards approach is recommended in the development of a basic ERP, which is then annexed with incident-specific planning. The all-hazards approach is a strategy that entails implementing plans to address the commonalities of the full range of likely risks and emergencies (i.e. natural, biological and technological). It provides a common ERP in response to all emergencies and disasters, rather than a distinct ERP for each individual hazard. Different hazards can cause similar problems in an institution, and measures such as planning, early warning, coordination, evacuation and recovery are usually implemented along the same...
model, regardless of cause. This strategy allows a unified approach to the use of resources, allows greater alignment and coordination with external agencies and creates a more efficient and cost-effective ERP.

3. Incident-specific planning

Although the common features of emergencies can be addressed using the all-hazards approach, there are unique characteristics in responding to different types of emergencies. These incident-specific plans can then be applied as appendices to the ERP to articulate how the ERP is applied to a particular response situation. A key starting point for incident-specific planning is to conduct a hazard vulnerability analysis, which focuses the preparation and response to the likely hazards to which the facility is most vulnerable. Once the hazards are identified, particular plans and procedures can then be annexed on top of the basic ERP to address these vulnerabilities. This hazard analysis must take into consideration both internal and external disasters.

4. Policy for activation of the hospital emergency response plan

A facility’s response to emergencies begins with recognition that an incident could happen (advance warning) or has happened (post-incident warning). These notifications may be classified as advisory, alert or activation. An advisory notification is given when no system response is needed but the potential for response exists. An alert notification is given when a response is likely or imminent and should prompt an elevated level of response preparedness. An activation notification is given when a response is required.

Since the activation of the ERP places strain on the institution due to intensive mobilization of resources, policies and guidelines must be in place regarding parameters for its partial or full activation. This is often a command decision by duly authorized individuals, available on-site, and dependent on the nature and extent of the emergency.

5. Personnel recall procedures

Once a decision is made regarding the appropriate hospital response level, this information must be disseminated immediately to other key hospital staff members wherever they may be. This system of timely notification must be well-designed, coordinated and rehearsed, with built-in redundant strategies to ensure that those being alerted receive the information and are able to respond accordingly.

Regardless of method and timing of incident notification, it is important
that the individuals who receive this alert know the plans and procedures on how to respond and protect themselves and their colleagues. This may include access to personal protective equipment and evacuation routes, if indicated. This information-sharing strategy should take into account incidents occurring either during or after normal business hours and should have contingencies in case of failures in normal communication infrastructure.

6. Hospital incident command system

Each emergency management programme is encouraged to use and develop its own incident command system in developing its ERP. This is a standardized, on-scene emergency management construct, combining the use of facilities, equipment, personnel, procedures and communications. The system operates within a common organizational structure, designed to aid in the management of resources during incidents.

Box A1: The CEMA hospital incident command system

A popularly adapted system is the CEMA hospital incident command system, otherwise known as the fourth revision of hospital emergency incident command system (HEICS IV Project). This is a comprehensive incident management system developed under a grant by the State of California Emergency Medical Services Authority. Since its first publication and implementation in 1993 (primarily in the United States of America, subsequently followed by other countries), several advantages were noted in hospitals that adapted the system. It has, thus, become a standard by which the medical community has found success and common ground in the area of disaster management.

At the heart of the hospital incident command system is a management system based on distinct, standardized positions. It has a chain of command, with corresponding defined job action sheets that can be selectively activated depending on the nature of the incident. It follows the same principle of management based on the identified objectives. The size and structure of the activated incident command organization reflects only what is needed to meet and support the identified incident objectives. As objectives are achieved, elements that are no longer needed are reassigned or demobilized.

The use of hospital incident command system standardized positions is designed to (1) reduce confusion within the hospital, outside agencies or other health facilities by providing a common standard for all users; (2) allow positions to be filled with the most qualified individual rather than by seniority; and (3) facilitate requests for qualified personnel, especially if they come from outside the hospital.

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It aims to (1) be usable for managing all routine or planned events of any size or type by establishing a clear chain of command, (2) allow personnel from different agencies or departments to be integrated into a common structure that can effectively address issues and delegate responsibilities, and (3) provide needed logistical and administrative support to operational personnel.

It is recommended that all hospital emergency committees be familiar with the hospital incident command system, and incorporate and adapt it as they see fit into their own hospital emergency management programme.

Further information about the hospital incident command system can be accessed on the State of California Emergency Medical Services Authority website (www.emsa.ca.gov/HICS/default.asp).

7. Job action sheets

Job action sheets are incident management tools designed to familiarize users with critical aspects of the command positions that they are assuming within the ERP. These are job descriptions whose components tell the responding personnel what they are going to do, when they are going to do it and who they will report to after they have done it—because during an emergency, it is easy to forget necessary components of a response. The job action sheet is similar to a role-specific check-list that guides the assigned personnel in assuming specific responsibilities. Ideally, this list should also be set in a prioritized manner with regards to the operational period of the incident (i.e. immediate, 0–2 hours; intermediate, 2–12 hours; extended, more than 12 hours; demobilization and recovery) so as not to overwhelm assigned personnel by all that needs to be done. It is recommended that the simpler a task can be made, the better the chances of it being completed.

A list of positions that might have day-to-day responsibilities similar to those found in the job action sheets may be of value in assigning people to particular roles in an ERP. This is because it becomes reasonable to visualize how these individuals may be a logical first choice for a particular role. However, it is not recommended that these are the only people trained since they might not be available during an actual emergency. Moreover, when it is discovered in an emergency that there are more tasks than available manpower, then it may be necessary to delegate more than one job to an individual.

Lastly, the job action sheets and other materials of the ERP must be kept in
a safe and accessible place where they can be easily utilized at the time of an emergency.

8. Mass casualty incidents and surge capacity

Special mention must be made for hospitals to prepare contingencies for mass casualty incidents. These are casualty-creating hazard incidents in which organizational and medical resources, or their management systems, are severely challenged or become inadequate to meet the medical needs of the affected population. These events are directly related to the concept of surge capacity or the ability to evaluate and care for a markedly increased volume of patients. Often, a health facility's estimate of its surge capacity is much higher than what it can actually handle. Mass casualty incidents are often compounded in hospital situations that have both internal and external disaster elements (e.g. earthquakes), which may not only reduce the facility’s capability to respond, but also increase the volume of patients who might have to be treated due to the same disaster event. Insufficient management, response, or support capability or capacity can result in increased morbidity and mortality among the affected population. Thus, these kinds of incidents must be considered in the ERP, as well as placing contingencies for increased resources and staffing requirements during an emergency, to respond to them appropriately.

9. Security policy

Security of the hospital and health facility must also be considered in the event of an emergency. Among the most important decisions will be level of access restrictions to be implemented in the institution. Considerations must be made between implementing a lock-down or a restricted visitation policy. There must also be contingencies for supplemental security staffing, traffic control, personal belongings management and chain of custody considerations. Each incident will have its own security-related issues, and the decision to restrict access must be made by the proper authorities early in the course of the emergency.

10. Plans for continuity of operations

In addition to plans for an emergency response, there must also be plans for continuity of operations in spite of the incident. These plans should include policies regarding standing orders for admitted patients, a patient tracking system, contingencies for acquisition of essential recovery resources, maintenance and safekeeping of hospital records and prioritization guidelines for the use of limited beds and resources. These may extend to infrastructure and security support for relocation to alternative sites, coordination with appropriate agencies for the restoration of functions in the affected area and provision of assistance to other affected areas in restoring and resuming operations. There must be complementing
efforts to meet the medical care needs of patients, while ensuring the safety of the staff in maintaining overall facility operations.

11. Decision to evacuate policy

The decision to evacuate is also another consideration that emergency management committees must address in the formulation of an ERP. Evacuation is the organized, phased and supervised withdrawal, dispersal or removal of civilians from dangerous or potentially dangerous areas, and their reception and care in safe areas. This deliberate kind of evacuation can be done in situations where there is adequate time and warning for an organized transfer. An out-the-door evacuation pertains to the immediate removal of all occupants from the facility because of imminent or already present danger. The development of the evacuation policy comes with the development of evacuation protocols and procedures.

Not all incidents require immediate evacuation. For example, earthquakes may require the use of the drop, cover and hold principle while an earthquake is still ongoing. In some small, isolated building fires, a stay and defend policy may be more appropriate. In certain incidents, it may be more beneficial for patients to shelter in place than to evacuate (i.e. hurricanes and typhoons). It is up to the discretion of the emergency management committee to decide on set parameters when evacuation should occur. Vital decisions and contingencies must be made especially for the evacuation of critical care and nonambulatory patients. These issues must be addressed beforehand to be prepared at the moment of disaster.

12. Plans for transfer of patients

In severe disaster events, a facility’s capability to respond may be exceeded, and it is necessary to conduct patient transfers to other institutions. Such transfer procedures need to be well-coordinated, especially in cases involving patients in critical condition. It is recommended not to wait until the moment of disaster before these kinds of systems are developed, because this can often lead to unnecessary confusion and delay.

Several strategies can be used in such instances. For example, mutual aid agreements can be made among neighbouring hospitals, or a regionwide network can be established to determine the capacities of different hospitals to absorb patients from affected areas. Also, privately owned ambulances and other potential medical evacuation vehicles (e.g. helicopters and boats) can be placed on contingency contract by the hospital to be made available during times of emergency. Local and national government units such as the police
or military can also be involved in the development of resources for these types of operations.

13. Coordination with external agencies

The need for coordination with external agencies cannot be overemphasized. An emergency situation needs support from multiple fronts, and often the health facility is only one among many sectors affected by the disaster event. Coordinated efforts with the local, national and international units, as well as the media, private sector and nongovernmental organizations need to be developed to have an effective response. Usually, the surrounding community and the national government have their own emergency preparedness systems in place. They should be considered in the development of a hospital’s ERP. An alignment of systems allows for more efficient use of resources, improving coordination and reducing unnecessary confusion during a disaster. Keys to the success of this system are clear lines of communication and predetermined agreements on areas of responsibility. The general public—through intelligent use of media channels—must be informed of the current status of the emergency. However, this message must be maintained in such a way as not to produce undue panic.

14. Policy for termination of the hospital emergency response plan

Policies on demobilization and recovery should be built into the ERP. Demobilization is the phase that begins the transition of management, operations and support function elements. It allows these elements to revert back to normal operations or to their baseline standby states as their operational objectives are attained. Criteria to implement demobilization will vary depending on each incident, but some recommended fundamental considerations include (1) the number of incoming patients is declining to a manageable level using normal staffing patterns and resources, (2) no secondary rise in patient volume is expected, (3) other responders are beginning their demobilization, and (4) other critical community infrastructures return to normal operations. Recovery follows completion of demobilization. This is the phase that encompasses the activities and programmes implemented during and after the response, which are designed to return the entity to its usual state or to a new normal, including return-to-readiness activities.

15. Evaluation/after-action report

Imbedded into the ERP must be methods of evaluating the emergency response so as not to repeat the same mistakes
in future occurrences. Standardized forms and systematic reviews post-incident, as well as debriefing of involved parties after the incident, must be done. All of these findings and subsequent recommendations are included in an after-action report. These and other methods of evaluation can be used to improve the ERP and emergency management programme, and the written record that provides venues for organization learning. The goal in a post-incident evaluation is to ensure that best practices are kept and areas of improvement are addressed to lessen negative outcomes in similar future emergencies.
A disaster is a serious disruption of the functioning of a community or a society causing widespread human material, economic or environmental losses that exceed the ability of the community or society to cope using its own resources.

Disaster risk reduction refers to actions taken to reduce the risk of disasters and the adverse impacts of natural hazards, reduce social and economic vulnerability to hazards and improve preparedness for adverse events.

An emergency is the state in which normal procedures are suspended and extraordinary measures are taken to avert the impact of a hazard on the community. Authorities should be prepared to effectively respond to an emergency. If not properly managed, emergencies will become disasters.

Emergency exercises are activities performed to practise, develop or improve capabilities as part of an intention to evaluate or validate an intended course of action such as an emergency operations plan. They can be used as an assessment as well as a training tool in emergency preparedness.

Emergency management is the organization and management of resources and responsibilities for addressing all aspects of emergencies particularly preparedness, response and rehabilitation.

An emergency management programme is a programme that implements an organization’s mission, vision, management framework, strategic goals and objectives related to emergencies and disasters. It uses a comprehensive approach to emergency management as a conceptual framework, combining mitigation, preparedness, response and recovery into a fully integrated set of activities. The term “programme” implies that regular ongoing activities are occurring. This contrasts with the term “plan”, which indicates a set of guidelines that are inactive until they are put into use.

The emergency operations centre is the physical location where coordination of information and resources to support domestic incident management activities normally takes place. It may be a temporary facility or may be located in a more central or permanently established facility. It serves as the central point for coordination of all emergency operations, information gathering and dissemination and coordination with other units and field sites. Its use is standard practice in many emergency management systems.

The emergency response plan (ERP) is the plan that an institution maintains for responding to any hazard event. It provides action guidance for management and emergency response personnel during the response phase of

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comprehensive emergency management. It is the typical object of assessment and training during the conduction of emergency exercises.

**Hazards** are natural processes or phenomena or human activities that can cause loss of life, injury, property damage, social and economic disruption or environmental degradation.

**Biological hazards** are processes or phenomena of organic origin or conveyed by biological vectors including exposure to pathogenic microorganisms, toxins and bioactive substances that may cause loss of life, injury, illness or other health impacts, property damage, loss of livelihood and services, social and economic disruption or environmental damage. Examples of biological hazards include outbreaks of epidemic diseases, plant or animal contagions, insect or other animal plagues and infestations.

**Geological hazards** are geological processes or phenomena that may cause loss of life, injury or other health impacts, property damage, loss of livelihood and services, social and economic disruption or environmental damage. Geological hazards include internal earth processes such as earthquakes, volcanic activity and emissions and related geophysical processes such as mass movements, landslides, rockslides, surface collapses and debris or mud flows.

**Hydrometeorological hazards** are processes or phenomena of atmospheric, hydrological or oceanographic nature that may cause loss of life, injury or other health impacts, property damage, loss of livelihood and services, social and economic disruption or environmental damage. Hydrometeorological hazards include tropical cyclones (also known as typhoons and hurricanes), thunderstorms, hailstorms, tornados, blizzards, heavy snowfall, avalanches, coastal storm surges, floods including flash floods, droughts, heat waves and cold spells. Hydrometeorological conditions can also be a factor in other hazards such as landslides, wild fires, locust plagues, epidemics and in the transport and dispersal of toxic substances and volcanic eruption material.

**Natural hazards** are natural processes or phenomena that may
cause loss of life, injury or other health impacts, property damage, loss of livelihood and services, social and economic disruption or environmental damage. The term is used to describe actual hazard events as well as the latent hazard conditions that may give rise to future events. Natural hazard events can be characterized by their magnitude or intensity, speed of onset, duration and area of extent. For example, earthquakes have short durations and usually affect a relatively small region, whereas droughts are slow to develop and fade away and often affect large regions. In some cases, hazards may be coupled, as in a flood caused by a hurricane or a tsunami that is created by an earthquake.

**Technological hazards** are those originating from technological or industrial conditions, including accidents, dangerous procedures, infrastructure failures or specific human activities that may cause loss of life, injury, illness or other health impacts, property damage, loss of livelihood and services, social and economic disruption or environmental damage. Examples of technological hazards include industrial pollution, nuclear radiation, toxic wastes, dam failures, transport accidents, factory explosions, fires and chemical spills. Technological hazards may also arise directly as a result of the impacts of a natural hazard event.

**Health facility** is a general term, referring to a hospital, clinic, outpost or institution that provides comprehensive medical care to a significant number of people in a given area.

**Hospital** refers to an institution where the sick or injured are given medical or surgical care. In this document, the term spans coverage from the largest urban multispecialty tertiary care centres to the smallest rural units that provide inpatient care.

**Preparedness** refers to the capacities and knowledge developed by governments, professional response organizations, communities and individuals to anticipate and respond effectively to the impact of likely, imminent or current hazard events or conditions.

**Prevention** refers to activities that provide outright avoidance of the adverse impacts of hazards and means to minimize related environmental, technological and biological disasters.

**Risk** is the likelihood of harmful consequences including loss of life, livelihood and property; injuries; disruption of economic activities; or environmental damage arising from the combination of hazards with
exposed and vulnerable people and assets. Risk can be modified by the local preparedness of the community at risk. This relationship of risk, hazard, vulnerability and level of preparedness is expressed in the following notation:

\[
\text{RISK} \propto \text{HAZARD} \times \text{VULNERABILITY} \times \text{LEVEL OF PREPAREDNESS}
\]

**Risk assessment** or analysis refers to the methodologies used to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability that could pose a potential threat or harm to exposed people, property, livelihood and the environment on which they depend.

**Vulnerability** is the degree to which a community or asset is unable to resist hazard-related damage and loss owing to its specific physical, economic and environmental circumstances.
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Guidance Materials: Hospital and Health Facility Emergency Exercises


