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Foreword

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This document was prepared by Technical Committee ISO/TC 304, *Healthcare organization management*.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

During a public health emergency (PHE), resources such as masks and gloves are extremely important for an effective and appropriate response.

The rapid spread of a disease within a municipality or in a country can incur various obstacles in an effective PHE response, especially in terms of PHE response resources. With proper management, resources can be timely produced, used and distributed to the right place at the right time.

To have proper management, the information used by the information and communication technology (ICT) system, which is essential in modern society, should be collected and managed in an appropriate manner. Effective information management enables resource management, including the collection, storage, and distribution of response resources by health facilities, facilitating better resource control and the establishment of appropriate response plans.

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Healthcare organization management — Pandemic response — Response resource information management

1 Scope

This document specifies requirements for the management of information related to response resources for a public health emergency (PHE) response, from the perspective of information and communication technology (ICT). This document provides:

— an overview of response resource information management;

— requirements for managing response resource information including:

  — information collection;

  — information storage;

  — information disposal;

  — information distribution.

The requirements in this document can only be effectively applied, if information exchange described in Clause 5 is supported at both municipal and national levels.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org

3.1
PHE response resource
public health emergency response resource
medical resource essentially used during a public health emergency

3.2
negative pressure isolation room
NPIR
room where the ventilation system is designed in such a way that the pressure in the room is below that of the surrounding areas to isolate patients with airborne diseases

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3.3
personal protective equipment
PPE
device or appliance designed to be worn or held by an individual for protection against one or more health and safety hazards

[SOURCE: ISO 15384:2018, 3.12]

3.4
heating, ventilation and air conditioning system
HVAC system
system that provides heating, ventilation or air conditioning for buildings

[SOURCE: ISO 16814:2008, 3.18, modified — the full form "heating, ventilation and air conditioning system" has been added as a preferred term.]

4 Overview

Personal protective equipment (PPE), such as masks and respirators, are used to protect against the inhalation of infectious aerosols. Hospital rooms are used to accommodate patients, and temporary accommodations are needed to accommodate a sharply increasing number of patients. A heating, ventilation, and air conditioning (HVAC) system is also needed to create negative pressure isolation rooms (NPIRs) to prevent cross-contamination between rooms. Ventilators for patients with severe respiratory failure, as well as medicines such as vaccines, drugs, and assessment tools, are also important in responding to a PHE. Figure 1 illustrates examples of PHE response resources for protection and treatment.

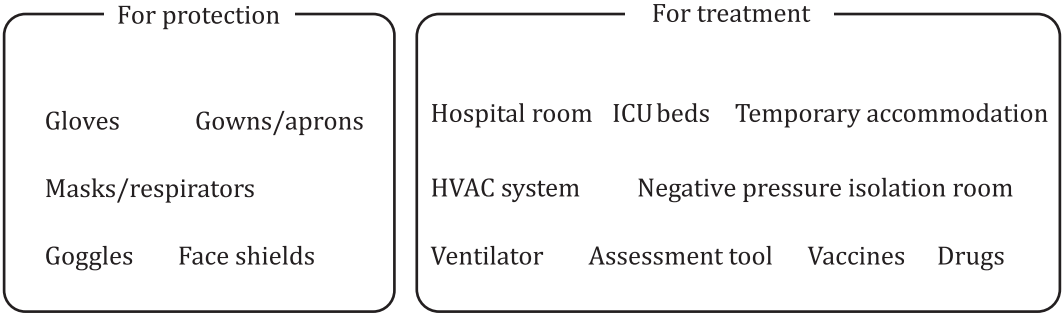


Figure 1 — Examples of resources for responding public health emergency

The rapid spread of disease within a municipality or a country can create various obstacles in PHE response. For example, there can be a shortage of PPE, which can accelerate the spread of disease. A health facility in one municipality can lack a sufficient number of rooms, assessment tools, or drugs, while another municipality can have an abundant number of resources. Local or national governments can address such obstacles by issuing Emergency Use Authorizations (EUAs), transferring patients to another health facility, or establishing emergency temporary accommodations. Therefore, effective management of response resource requires ensuring timely production of these resources in sufficient quantities and their timely distribution to the right locations for appropriate use.

5 Information management of response resource

5.1 Concept of response resource information management

In a municipality equipped with a well-planed ICT infrastructure, health facilities, suppliers, and the local government can interact with each other to manage response resources. Figure 2 illustrate the concept of response resource information management and the role of ICT system within the local government. Health facilities, such as local clinics or hospitals, provide information about their inventory to the ICT system of local government. Suppliers provide the information about their production capabilities and inventory. Based

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