INTERNATIONAL STANDARD

ISO 5741

First edition
2023-05

Healthcare organization management — Pandemic response — Temporary medical facility

Management des organisations de soins de santé — Réponse en cas de pandémie — Centre médical temporaire

Reference number
ISO 5741:2023(E)

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Published in Switzerland

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by 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.

Introduction

Governments undertook various initiatives to liberate, to expand, or to build capacity to treat COVID-19 patients, to isolate infected individuals, to quarantine contacts, and to protect workers and vulnerable populations, such as homeless people. These structures may have taken a variety of forms including purpose-built (e.g. hospitals), requisitioned (e.g. hotels), and temporary (tents). Some of these facilities were used extensively, some saw little use, and some were not needed.

This document focuses on the operation of temporary isolation and quarantine facilities. They may be operated separately or as a combination facility; some may also be used to treat mild cases while serious cases are transferred to hospitals. This document does not address collateral interventions necessary to mobilize the personnel needed to staff them, nor the equipment, supplies, and other resources needed to operate them. The success of all such initiatives, when needed, hinges on the availability of qualified personnel and other resources. Further, this document does not address aspects of pandemic preparedness planning pertaining to policies and preparations to cope with a possible rapid increase in the number of pandemic cases, contacts, etc. Pertinent policies, which may vary by jurisdiction, include:

a) design of facilities, including construction or conversion plans;

b) empowerment to requisition land, facilities, etc.;

c) ability to contract for or to arrange construction or conversion;

d) rapid licensing of facilities to operate.

Similarly excluded is decommissioning, including facilities' re-purposing, re-conversion, deactivation, or demolition. Appropriate pandemic response management depends, in part, on the characteristics of the infectious agent. Necessarily, this document assumes a future pandemic agent with COVID-19-like characteristics in a similar contextual background to that which existed during the COVID-19 pandemic.

Healthcare organization management — Pandemic response — Temporary medical facility

1 Scope

This document describes the requirements, operational principles, and procedures of the temporary medical facility (TMF) regarding:

a) planning;

b) staffing;

c) patient management;

d) discharge and termination of isolation for patients with infectious diseases in the context of ongoing widespread community transmission.

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
confirmed case
person confirmed to be infected with the pathogen of the infectious disease according to the testing criteria for diagnosis, irrespective of clinical signs and symptoms

[SOURCE: ISO 5472:2022, 3.2]

3.2
information technology
IT
resources (especially computers and telecommunication) used to acquire, process, store, and disseminate information

[SOURCE: ISO/IEC 38500:2015, 2.12, modified — "(especially computers and telecommunication)" has been added.]

3.3
pandemic
worldwide spread of an infectious disease

[SOURCE: ISO/PAS 45005:2020, 3.5, modified — "a disease" has been changed to "an infectious disease".]

3.4
personal protective equipment
PPE
device or appliance designed to be worn by an individual for protection against one or more health and safety hazards

Note 1 to entry: PPE includes, but is not limited to, gowns, gloves, respirators, safety glasses, helmets and goggles.

Note 2 to entry: While generally not considered PPE, masks (and other face coverings) can provide a level of protection for the user, in addition to their primary purpose as a public health measure to control the spread of transmission and infection.

Note 3 to entry: In many countries PPE is required to conform to national regulations.

[SOURCE: ISO/PAS 45005:2020, 3.8]

3.5
temporary medical facility
TMF
isolation facility with defined infrastructure also known as temporary hospital for mild or asymptomatic *confirmed cases* (3.1) which guarantees medical basic support

Note 1 to entry: Mild or asymptomatic confirmed cases are often transferred to the TMF for the purpose of isolation and prevention of widespread community transmission.

Note 2 to entry: The TMF is made for those who find it difficult to gain medical support and care at home.

3.6
shared patient information system
system with a standardized information model, accessible by authorized users, that provides patient information

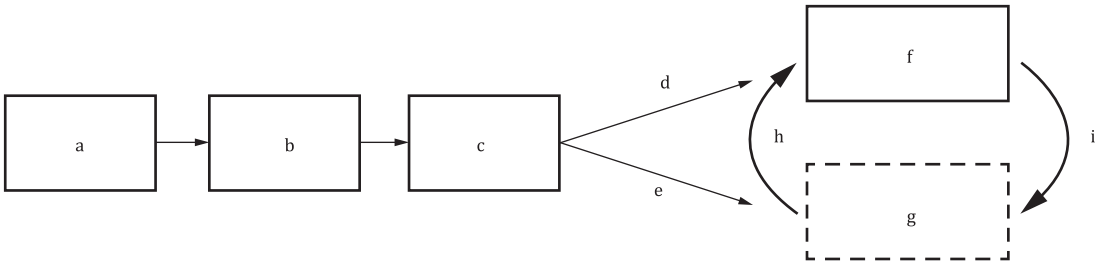
3.7
working area
area defined for use by medical or operational personnel, separated from the *infection area* (3.8)

3.8
infection area
infection zone
area, space, or building separated physically from the *working area* (3.7)

4 Utilization of temporary medical facility

4.1 General

The TMF may temporarily act as hospitals to alleviate burdens imposed on hospital resources better reserved for severe cases, to prevent disease spreading and to isolate confirmed cases. Patients in the TMF are cared by medical professionals and transferred immediately to a hospital if the symptoms/signs are aggravated (Figure 1). When a patient's symptoms/signs improve, he or she is discharged in accordance with the criteria set in place for lifting isolation. The main function of the TMF focuses on monitoring rather than intensive treatment. Existing facilities can be utilized as TMFs, such as idle public centres, training centres, religious educational centres and resorts, provided that they are inspected and approved by the designated authority according to 4.3 list items a) to d). After opening for operations, TMFs should be inspected regularly, throughout their lifetime, by the designated authority. Non-conformity with requirements laid down in 4.4 to 4.18 may result in request of adjustments/modifications in the TMF for conformity, temporary or permanent closure of the TMF.



Key

a screening station (testing)
b confirmed case
c triage
d severe symptoms/signs
e mild/asymptomatic
f hospital
g temporary medical facility
h severe case
i mild case

Figure 1 — Admission route to TMF

4.2 Purpose of operation

The TMF provides temporary medical care and resources in lieu of the regular health system in a massive disease outbreak for the following purposes:

a) prevention of transmission of highly contagious pathogens within the community by providing isolation facilities;

b) securing hospital beds for the treatment of patients with severe symptoms/signs by offering an isolation place for mild cases when the caseload overwhelms in the community;

c) offering patients with the opportunity for timely transfers to hospitals in case of aggravation or medical deterioration of symptoms/signs.

4.3 Designation and operation

The TMF shall be designated by authorities and be operated with resources to meet the needs.

a) Adequate human resources and expenses should be in place to designate and operate a TMF by the appropriate authority or jurisdiction (city mayor/provincial governor/private organization's CEO).

b) The TMF designated within a jurisdiction should be inspected to ensure that it is immediately available; and detailed operating plans should be developed.

c) The TMF should be provided with human resources, including medical professionals and operational/support personnel necessary for operating the TMF.

d) The TMF should support medical devices, healthcare products and other basic materials, such as PPE when necessary. PPE shall be assigned depending on risk analysis and evaluation.

4.4 Public notice and communication

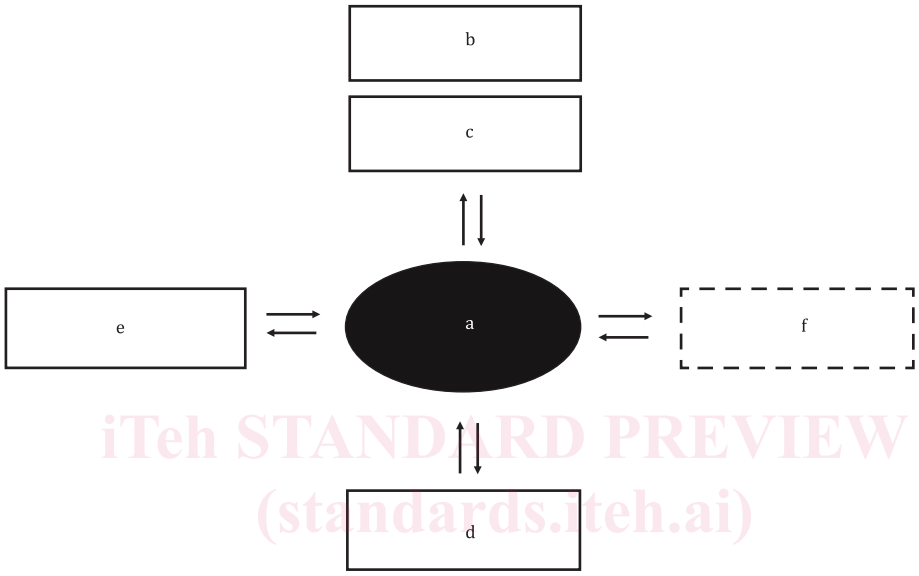
Rapid and accurate sharing of information in times of emergency is indispensable for infection prevention and control. This is the reason why IT shall be utilized in sharing medical resources quickly

and accurately among all the parties involved. In this context, the location and operation of the TMF should be announced promptly to screening stations, hospitals, public health centres and related organizations using shared communication channels (Figure 2).

The availability of the TMF shall be shared with the stakeholders.

a) Patient information sharing programs shall be operated at national and regional levels, including national public health agencies, local governments and hospitals.

b) If the available IT infrastructure is not sufficient, one may resort to fax and telephone communications.



Key

a shared patient information system
b central government
c local government
d hospital/public health centre
e screening station
f temporary medical facility

Figure 2 — Public communication schemes for TMF

4.5 Operational principles

The principles enable the TMF to abide by the core operational mandates.

a) A TMF should be a dedicated, shared or exclusive facility that ensures facilitated patient transfer to a healthcare organization.

b) The working area for medical and operation personnel shall be completely isolated from the infection area (Annex A).

c) The working area for medical and operation personnel should have a separate entrance that cuts off any overlap with the path designated for patients.

d) In case that the minimum level of protection must be used, as in a pandemic or endemic, donning and doffing room for PPE shall be separated.

e) The air from the infection area shall be blocked off from entering the working area.

f) Ventilate the air in the infection area by opening the windows.

g) One room should accommodate one patient, equipped with a separate washroom, in principle; however, one room may accommodate two or three patients if there are no available single rooms. The precise implementation of such rooms depends upon the nature of the disease and follows the guidelines from the WHO or the national public health agency of each country.

h) Each sectioned area or room shall have a shower facility.

i) The TMF shall have an examination room or space and nurse station, which shall be installed in the infection area.

NOTE 1 An examination room is a space with external ventilation where the physician routinely examines patients.

NOTE 2 A treatment room is a room equipped with an emergency kit (CPR), a portable oxygen concentrator and other equipment, and is used for oxygen saturation checking, and oxygen supply in an emergency.

NOTE 3 A nurse station is a room equipped with intercom equipment, call system, information system, video monitoring system, etc.

j) A dedicated and physical separation area shall be assigned to specimen collection and X-ray imaging.

NOTE 4 ISO 15189 specifies quality requirements for point-of-care testing.

k) The TMF shall have water supply and drainage systems.

l) The TMF shall have an area and means for waste disposal.

m) The TMF shall have laundry facilities.

n) The TMF shall have disaster preparedness facilities.

o) The TMF shall install a fire-fighting system with necessary equipment and emergency exits.

4.6 Admission criteria

To assist the effective management of the TMF, admission criteria should be developed.

a) Severity classifications applied to infectious diseases can evolve over time and differ among jurisdictions. Therefore, each jurisdiction exercises discretion in implementing admission criteria and the most likely references used are the guidelines from the WHO or the national public health agency. A mild case requires continual monitoring and is decided to be the case in patient triage.

b) Admit a patient with difficulties in practicing appropriate home isolation(a patient having trouble living in isolation at home, without proper residence or living together with others who fall under the high-risk group, etc.).

c) Admit a patient who meets the requirements for discharge, and for whom the physician determines that he/she needs to be admitted to a TMF for further observation.

d) Take into account any other cases determined by the local government that admission to a TMF is required.

4.7 Discharge criteria

In principle, one should be lifted from isolation if either the clinical criteria or test criteria are satisfied.

a) Clinical criteria: The clinician or medical doctor determines that the symptoms/signs of the patient have improved or disappeared or alleviated.