COVID-19 case management capacities: diagnostics, therapeutics, vaccine readiness, and other health products – facility assessment tool

A module from the suite of health service capacity assessments in the context of the COVID-19 pandemic

World Health Organization

7 July 2021

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WHO continues to monitor the situation closely for any changes that may affect this document. Should any factors change, WHO will issue a further update. Otherwise, this document will expire 2 years after the date of publication.

WHO reference number: WHO/2019-nCoV/HCF_assessment/Products/2021.1

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Acknowledgements

This tool for assessing *COVID-19 case management capacities: diagnostics, therapeutics, vaccine readiness, and other health products* was developed under the leadership of the World Health Organization (WHO) Health Services Performance Assessment Unit, in collaboration with WHO colleagues from the cross-programmatic working group on monitoring essential health services in the context of the COVID-19 pandemic and under the incident management support team (IMST) pillar 9: Maintaining essential health services and systems.

The assessment tool was developed under the technical leadership and coordination of the WHO Integrated Health Services team: Kathryn O'Neill, Dirk Horemans, Briana Rivas-Morello, Yoonjoung Choi, Chelsea Taylor, Teri Reynolds and Ed Kelley, in close collaboration with the technical leads of the Access to COVID-19 Tools Accelerator Diagnostics, Therapeutics, and Vaccines connectors.

WHO wishes to thank the external experts who contributed to the different stages of development of this assessment tool, including: Adama Sawadogo, United Nations Children's Fund.

Thanks are also due to the following WHO staff who contributed to the development of the tool: WHO headquarters – Luke Allen, , Diana Chang Blanc, Allison Colbert, Carolina Danovaro, Janet Diaz, Marta Gacic-Dobo, Lisa Hedman, Ann Moen, Samir Sodha, Bernadette Cappello, Albert Figueras, Swathi Iyengar, Claudia Nannei, Offeibea Obubah, , Jacobus Preller, Klara Tisocki, Anthony Twyman, Adriana Velazquez Berumen, Alejandra Velez, Lara Vojnov and Victoria Willet; WHO Regional Office for Africa – Benson Droti, Nonso Ejiofor, Lokombe Elongo, Aissatou Sarassa Sougou, Hyppolite Kalambay, Humphrey Karamagi, Jean Baptiste Nikiema, Francesco Ribolzi, Aissatou Sougou and Regina Titi-Ofei; WHO Regional Office for the Americas/Pan American Health Organization – Amalia del Riego, Jonas Gonseth-Garcia and Hernan Luque; WHO Regional Office for Europe – Ayesha De Lorenzo, Tifenn Lucile Marie Humbert, Kotoji Iwamoto, Melitta Jakab and Anne Johansen; WHO Regional Office for South-East Asia – Nima Asgari, Anjana Bhushan, Manoj Jhalani, Alaka Singh and Masahiro Zakoji; WHO Regional Office for the Eastern Mediterranean – Abdinasir Abubakar, Ali Ardalan, Henry Doctor, Aqsa Durrani, Fethiye Gedik, Faraz Khalid, Awad Mataria, Pierre Nabeth and Arash Rashidian; WHO Regional Office for the Western Pacific – Ogochukwu Chukwujekwu, Peter Cowley, Mengjuan Duan, Jun Gao, Tomas Roubal and Martin Taylor; and the WHO Access to Medicines and Health Products Division.

The development of this instrument was made possible thanks to contributions from ACT-A partners, the Norwegian Agency for Development Cooperation, and the Rockefeller Foundation.

Introduction

Context

On 30 January 2020, the Director-General of the World Health Organization (WHO), declared the COVID-19 outbreak to be a public health emergency of international concern under the International Health Regulations.

The COVID-19 pandemic has continued to shine a light on the fragility of health services and public health systems globally. It has revealed that even robust health systems can be rapidly overwhelmed and compromised by an outbreak. Against this rapidly evolving situation, many countries are facing challenges in the availability of accurate and up-to-date data on capacities to respond to COVID-19 while maintaining the provision of essential health services. Few countries have reliable and timely data on existing and surge health workforce and service capacities.

In response to this situation WHO has developed the “COVID-19 case management capacities: diagnostics, therapeutics, vaccine readiness, and other health products - facility assessment tool” monitoring tool. This tool has been designed to assess present and surge capacities for the treatment of COVID-19 in health facilities, with a focus on the human resources situation, the availability of diagnostics, therapeutics and other health products, vaccine readiness, availability of beds and space capacities and the IPC measures and PPE availability. This tool replaces the previous version published on 20 October 2020, updates include additional questions on facility staffing in section 2 ”Staffing and incident management support team”, additional questions on infection prevention and control measures in section 5 “Personal protective equipment and infection prevention and control” and a new section 9 “COVID-19 Vaccine readiness”. The tool forms part of a wider Suite of health service capacity assessments in the context of the COVID-19 pandemic. These different monitoring tools focus on different aspects of the dual-track of maintaining essential health services while continuing to manage COVID-19 cases. The suite and the different modules are described in annex 1.

Objectives of this module: COVID-19 case management capacities: diagnostics, therapeutics, vaccine readiness, and other health products

The *COVID-19 case management capacities: diagnostics, therapeutics, vaccine readiness, and other health products - facility assessment tool* can be used by countries to rapidly assess the capacity of health facilities to assure the provision of COVID-19 case management. This tool was developed to ensure the provision of health services for COVID-19 patients in designated COVID-19 facilities. It collects information on health workforce capacities, health workforce COVID-19 infections, IPC measures, the availability and status of stockout of critical COVID-19 medicines, equipment and supplies on site and to identify areas that need further attention to enable the facility to respond effectively to the pandemic.

The tool aims to help alert the authorities and other stakeholders about where provision and utilization of COVID-19 health services may require modification and/or investment. It can be used once to provide a rapid snapshot of current COVID-19 case management capacity, or on a regular basis for tracking and monitoring the COVID-19 health services during the different phases of the pandemic. This assessment tool is informed by relevant WHO tools and guidance on the continuity of essential health services and readiness planning for COVID-19 *(2–12)*.

The proposed approach for measuring the availability of the above-mentioned health products is based on the presence of selected medicines, equipment or supplies on the day that the assessment is conducted

and does not take into account expected stockouts. The products identified using this tool should always be available in the facilities. Tracer medicine and medical supplies considered. The tool has been designed to be user-friendly, taking into consideration the limited human resources available during the pandemic to conduct and complete the assessment. It can be used as a general reference for assessing COVID-19 case management and capacities in conjunction with other more detailed suite of health service capacity assessment modules produced by WHO. The module can be used periodically (at least at 2- to 4-month intervals) from the early stages of the emergency to early recovery to assess the availability of diagnostics and therapeutics, and vaccine readiness for COVID-19.

The proposed list of medicines should be adapted to national and local contexts by taking into account the country's essential medicines list. Depending on the country, similar adaptations might be required for subsection 1.5 "type of facility" and 4.3 "Solidarity" clinical trial drugs. Please note questions for country adaptation are shaded in blue. Interviewer instructions are shaded in grey.

Content areas

The tool encompasses key components that are essential to managing COVID-19 in a hospital setting. They include:

- health workforce (numbers, absences, COVID-19 infections, health workforce management, training and support);
- facility incident management team;
- medicines for management of COVID-19 (including the Solidarity clinical trial);
- personal protective equipment;
- infection, prevention and control (IPC) supplies;
- diagnostic testing, imaging and patient monitoring devices and supplies;
- medical equipment for management of COVID-19;
- COVID-19 vaccine readiness; and
- beds and space capacity.

Target audience

The tool is intended to be used by:

- national and subnational health authorities;
- national and subnational COVID-19 incident management teams;
- facility managers; and
- WHO and other partners.

Key questions that this tool can help to answer

The assessment tool is intended to answer the following key questions:

- How many staff are available in each facility? How many staff have been diagnosed with COVID-19? What adjustments to health workforce management have been made? Is additional training and support being provided to health-care workers?
- Do facilities have the necessary diagnostic equipment and supplies for COVID-19 testing?
- Do facilities have the necessary medicines and medical supplies for the management of COVID-19 patients, with a particular focus on oxygen administration?

- Do facilities have the necessary personal protective equipment for health-care workers?
- Do facilities have the necessary IPC measures in place and functioning? Do they have the necessary IPC supplies?
- Do facilities have functioning cold chain capacity?
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- Do facilities provide COVID-19 vaccinations (which vaccines, registration, adverse events management and reporting, etc.)
- What is the bed and space capacity of the facilities to manage patients affected by COVID-19?

When to use this module

The tool is designed for use from the early stages of the emergency to early recovery.

Mode of data collection

Paper-based and electronic collection of data is used.

Methodology

Owing to its clinical characteristics and the way in which it is evolving, COVID-19 is challenging the health systems of many countries. Patients with severe infections may need to be transferred to an intensive care unit (ICU) and require access to mechanical ventilation, intubation and sedation as well as treatment of potential coinfections. The lists of selected tracer items for medicines, supplies and devices for protection against infection, diagnostics and treatment for COVID-19 were developed in accordance with the latest available versions of:

- Clinical management of COVID-19 *(2)*
- Clinical care of severe acute respiratory infections – Tool kit *(3)*
- Use of chest imaging in COVID-19 *(4)*
- List of priority medical devices for COVID-19 case management *(5)*
- COVID-19 essential supplies forecasting Tool *(6)*
- Biomedical equipment for COVID-19 case management – inventory tool: Interim guidance *(7)*
- Technical specifications for invasive and non-invasive ventilators for COVID-19 87) *(8)*
- Diagnostic testing for SARS-CoV-2 *(9)*
- Rational use of personal protective equipment for coronavirus disease (COVID-19) and considerations during severe shortages *(10)*.

Oxygen sources and related equipment used for oxygen uptake are covered in the *Biomedical equipment for COVID-19 case management – inventory tool*, another module in the suite of health service capacity assessments in the context of the COVID-19 pandemic *(6).*

Ethical considerations

The guidance provided is not considered research, therefore, there is no need to submit it to the WHO Research Ethics Review Committee (ERC). Individual countries may need local ethics committee approval, depending on local law and guidelines and exactly what is done. They should ensure that they fulfil their ethical obligations submitting the document to the pertinent local ethics boards.

Respondents are asked upfront for their informed consent. The WHO data sharing agreement “Policy on use and sharing of data collected in Member States by the World Health Organization (WHO) outside the

context of public health emergencies" specifies arrangement with regards to usage, and dissemination of the data gathered. The agreement is attached as annex 2.

Note for country adaptation

There are four types of adaptation need to be made at the country-level and highlighted in the tool.

- Country-specific question adaptation: A word or phrase in the question must be adapted based on the country context.
- Country-specific response adaptation: Response options must be adapted based on the country context.
- Country-specific ***optional*** question: Exclude it unless both the context and sample design allow intended analysis possible.
- Country-specific ***optional*** response: Exclude it unless the response is relevant for the context and significant for analysis.

Questions in grey background will be recorded by interviewers or will be prefilled based on the sample list.

Questions ending with "i" are for skip patterns. In the electronic tool, these questions will be programmed and will not show on a screen.