Biomedical equipment for COVID-19 case management – inventory tool

Harmonized health service capacity assessments in the context of the COVID-19 pandemic

INTERIM GUIDANCE

25 JUNE 2020

World Health Organization

Biomedical equipment for COVID-19 case management – inventory tool

Harmonized health service capacity assessments in the context of the COVID-19 pandemic

INTERIM GUIDANCE

25 JUNE 2020

World Health Organization

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

WHO reference number: WHO/2019-nCov/biomedical_equipment_inventory/2020.1

Summary

Harmonized modules for health facility assessment in the context of the COVID-19 pandemic

The *Harmonized modules for health facility assessment in the context of the COVID-19 pandemic* is a suite of health facility assessment tools to support rapid and accurate assessments of the current, surge and future capacities of health facilities throughout the different phases of COVID-19 preparedness, response and recovery. The suite comprises of modules related to facility preparedness and response planning and COVID-19 case management, as well as in-depth modules on the availability of essential medicines, diagnostics, supplies, and essential biomedical equipment for COVID-19, infection prevention and control capacities, and treatment centre design. Additionally, it includes a module on the continuity of essential health services during the COVID-19 outbreak to help assess changes in service utilization, service delivery modifications, and required capacities to ensure the maintained delivery of non-COVID-19 essential health services.

The modules can be used to inform the prioritization of actions and decision-making at health facility, subnational and national levels. Countries may select different combinations of modules according to context and need for one-time or recurrent use throughout the pandemic.

Biomedical equipment for COVID-19 case management – inventory tool for facility readiness and equipment re-allocation

The *Biomedical equipment for COVID-19 case management – inventory tool for facility readiness and equipment re-allocation* collects in-depth facility inventories of biomedical equipment re-allocation, procurement and planning for COVID-19 case management. The tool helps to assess the quantified availability and the causes for non-functioning of different sources of oxygen delivery and supply systems to the patient in order to determine priorities and re-allocation requirements in accordance with needs.

Content areas include:

- Oxygen supplies and equipment
- Respiratory instruments and equipment
- Suction devices
- Ventilators
- Autoclaves/sterilizers

Target audiences:

- Facility managers
- Clinical decision-makers
- Procurement officers
- Planning officers
- Biomedical engineers
- Infrastructure engineers

Key questions:

- Do facilities have adequate supplies to administer oxygen and ventilation to severe and critical COVID-19 patients?
- What is the current capacity for production of biomedical equipment?
- What are the causes of equipment malfunctioning?
- What resources need to be procured, reassigned, or redistributed?

When to use:

From early stages of emergency to early recovery

Mode of data collection:

Paper-based and electronic

Contents

Acknowledgements

The inventory tool survey has been adapted from baseline survey tools developed and used by multiple partners across various countries globally. This package was developed in consultation with the WHO Operations Support and Logistics Unit, and WHO Medical Devices and In Vitro Diagnostics Technical Unit. WHO thanks those who have been involved in its adaptation to support the current COVID-19 response. For any technical support, please contact: COVID-MED-DEVICES@WHO.INT

Introduction

Oxygen is an essential medicine for COVID-19, it is therefore very important to assess availability of different sources of oxygen, as well as the delivery and supply systems to the patient, in order to prioritize, re-allocate and compare with calculated numbers to define the needs. As of April 4, 2020, global supply-chain issues remain extremely disrupted as a result of the COVID-19 pandemic. It is strongly recommended that Ministries of Health leverage existing supplies and resources, where possible, in order to enable an immediate response.

This is the first edition of guidance on conducting a rapid inventory assessment to determine readiness of a health facility, as well as capacity to re-allocate biomedical equipment, for COVID-19 case management. This tool will comprise a survey (paper or digital) along with a set of product/device showcards. This tool is to be used in-line with WHO's emergency disease commodities package (DCP) for COVID-19 (1), the WHO Priority List of medical devices for COVID, as well as Technical specifications for oxygen delivery systems (2), Resuscitation devices (3) and Oxygen concentrators (4). This tool is intended for health facility administrators, clinical decision-makers, procurement officers, planning officers, biomedical engineers, or infrastructure engineers to identify readily available biomedical equipment for immediate use and/or re-allocation.

Please note that WHO will update these recommendations as new evidence and information becomes available.

Instructions

The tool has been developed to facilitate a rapid assessment of facility readiness and existing device availability to accelerate decision making with response-plan roll-out. It will be available for use in both digital and paper format at this time.

1. Paper format

A word document follows this introduction sheet, which requires customization of a few fields prior to printing and completing by hand. An excel file is to be used as part of this package to help support with data "roll-up" or help to aggregate findings from paper surveys after data entry. Another component of carrying out this survey are "showcards", which are images to help data collectors by facilitating correct identification of equipment under assessment that is appropriate for use for COVID-19 case