FRAMEWORK AND TOOLKIT FOR INFECTION PREVENTION AND CONTROL IN OUTBREAK PREPAREDNESS, READINESS AND RESPONSE AT THE HEALTH CARE FACILITY LEVEL

World Health Organization

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ABBREVIATIONS AND ACRONYMS

ABHR	alcohol-based handrub
AMR	antimicrobial resistance
CDNA	Communicable Diseases Network Australia
CDC	(United States) Centers for Disease Control and Prevention
COVID-19	coronavirus disease
ECDC	European Centre for Disease Prevention and Control
EVD	Ebola virus disease
IPC	infection prevention and control
IPCAF	infection prevention and control assessment framework
IPCAT	infection prevention and control assessment tool
MDRO	multidrug-resistant organism
MERS-CoV	Middle East respiratory syndrome coronavirus
PAHO	Pan American Health Organization
PPE	personal protective equipment
SARS	severe acute respiratory syndrome
SARS-CoV-2	severe acute respiratory syndrome coronavirus 2
USA	United States of America
WASH	water, sanitation and hygiene
WHO	World Health Organization

GLOSSARY

Active surveillance for multidrug-resistant organism (MDRO) carriers: The process to identify patients who are colonized with a targeted MDRO with the objective to institute prompt infection control measures. This approach is based upon the observation that detection of colonization may be delayed or missed completely for some MDROs if culture results obtained in the course of routine clinical care are the primary means of identifying colonized patients.

Antimicrobial resistance (AMR): Antibiotic resistance develops when bacteria adapt and grow in the presence of antibiotics. The development of resistance is linked to how often antibiotics are used. As many antibiotics belong to the same class of medicines, resistance to one specific antibiotic agent can lead to resistance to a whole related class. Resistance that develops in one organism or location can also spread rapidly and unpredictably. For instance, exchange of genetic material between different bacteria can affect antibiotic treatment of a wide range of infections and diseases. Drug-resistant bacteria can circulate in populations of human beings and animals through food, water and the environment, and transmission is influenced by trade, travel and both human and animal migration. Some of these features also apply to medicines that are used to treat viral, parasitic and fungal diseases; hence, the broader term 'antimicrobial resistance' *(1)*.

Communicable disease: Communicable, or infectious diseases, are caused by microorganisms such as bacteria, viruses, parasites and fungi that can be spread directly or indirectly from one person to another. Some are transmitted through bites from insects, some are caused by ingesting contaminated food or water, some can be spread by coughing, sneezing and saliva or mucus on unwashed hands, and others are spread through the exposure to infective bodily fluids, such as blood, vaginal secretions and semen *(2)*.

Framework: A framework usually denotes a structure, overview, outline, system or plan consisting of various descriptive categories, for example, concepts, constructs or variables, and the relations between them *(3)*.

Health care facility: Any place where people receive health care, for example, hospitals, primary health care centres, isolation camps, burn patient units, feeding centres, ambulatory care, and others *(4)*.

Incident management system: The standardized structure and approach that the World Health Organization (WHO) has adopted to manage its response to public health events and emergencies in order to ensure that it follows best practice in emergency management. WHO's six critical functions for emergency response under the incident management system are: leadership; partner coordination; information and planning; health operations and technical expertise; operations support and logistics; and finance and administration *(4)*.

Infection: The presence of microorganisms in or on the body with clinical signs of infection (for example, fever, lesions, wound drainage) either locally or systemically *(5)*.

Infection prevention and control (IPC) minimum requirements: IPC standards that should be in place at both national and health facility level to provide minimum protection and safety to patients, health care workers and visitors, based on the WHO core components for IPC programmes. The existence of these requirements constitutes the initial starting point for building additional critical elements of the IPC core components according to a stepwise approach based on assessments of the local situation *(6)*.

Multidrug-resistant organism (MDRO): Many different definitions for multidrug-resistant, extensively drug-resistant and pandrug-resistant bacteria are being used in the medical literature to characterize the different patterns of resistance found in health care-associated, antimicrobial-resistant bacteria. Here, we refer to microorganisms, mainly bacteria, classified as multidrug-resistant by a group of international experts through a joint initiative by the European Centre for Disease Prevention and Control (ECDC) and the United States Centers for Disease Control and Prevention (CDC) to create a standardized international terminology with which to describe acquired resistance profiles *(7)*.

Multimodal strategy: A multimodal strategy comprises several elements or components (three or more) implemented in an integrated way with the aim of improving an outcome and changing behaviour. It includes tools, such as bundles and checklists, developed by multidisciplinary teams that take into account local conditions *(4)*.

Outbreak: An outbreak can be described as a group of cases that are linked by both time and place. These disease cases are usually suspected to come from a common source of infection. They can be:

- a greater than expected incidence of infection compared to the usual background rate for the particular facility or ward;
- a single case for certain rare or epidemic prone diseases;
- a suspected, anticipated or actual event involving microbial contamination of food or water (for example, sink drains, water reservoirs) *(8)*.

Preparedness phase: Generally used to refer to the development of public health emergency response plans for relevant hazards. This includes the mapping of potential hazards and hazard sites, identification of available resources, development of appropriate stockpiles of resources and the capacity to support operations at the intermediate and community/primary response levels during a public health emergency. These activities may take 6 months to 2 years in order to be fully prepared for an emerging infectious disease/public health threat *(9)*.

Personal protective equipment (PPE): Specialized clothing or equipment worn to protect the health care worker or any other person from infection. These usually consist of standard precautions: gloves, mask and gown. If bloodborne or airborne infections, these will include face protection, goggles and mask or face shield, gloves, gown or coverall, head cover and rubber boots. *(6)*.

Readiness phase: The state which links effective preparedness to efficient relief; a statement of the capacity and capability of a relief agency or service. The activities undertaken in this phase may take up to 6 months in in order to ensure readiness for a specific defined threat *(10)*.

Response phase: The setting in which emergency actions exceed the usual level of activities in response to a defined public health threat *(11)*.

Standard precautions: A set of activities designed to prevent the transmission of organisms between patients/staff for the prevention of health care-associated infection. They must be applied to ALL patients who require health care, by ALL health care workers in ALL health settings. They include: hand hygiene; use of PPE; handling and disposal of waste and sharps; handling and management of clean and used linen; environmental cleaning; and decontamination of equipment *(6)*.

Subnational: The term describes any government entity below the national level, regardless of the political, financial and administrative design of the country *(12)*.

Transmission-based precautions: Additional measures focused on the particular mode of transmission of the microorganism and always used in addition to standard precautions. They are grouped into categories