

Guidelines for the prevention and control of carbapenem-resistant Enterobacteriaceae, *Acinetobacter baumannii* and *Pseudomonas aeruginosa* in health care facilities

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ABBREVIATIONS AND ACRONYMS

AMR	antimicrobial resistance
CDC	Centers for Disease Control and Prevention (Atlanta, USA)
CINAHL	Cumulative Index to Nursing and Allied Health Literature
СР	carbapenemase-producing
CPE	carbapenemase-producing Enterobacteriaceae
CRAB	carbapenem-resistant Acinetobacter baumannii
CRE	carbapenem-resistant Enterobacteriaceae
CRPsA	carbapenem-resistant Pseudomonas aeruginosa
DNA	deoxyribonucleic acid
EMBASE	Excerpta Medica Database
EPOC	Effective Practice and Organisation of Care (group)
ESBL	extended-spectrum beta-lactamases
GDG	Guidelines Development Group
GLASS	Global Antimicrobial Resistance Surveillance System
GRADE	Grading of Recommendations Assessment, Development and Evaluation
HAI	health care-associated infection
ICU	intensive care unit
IHR	International Health Regulations
IPC	infection prevention and control
ITS	interrupted time series
LMICs	low- and middle-income countries
LTCFs	long-term care facilities
PCR	polymerase chain reaction
PICO	Population (P), intervention (I), comparator (C) and outcome(s) (O)
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
SDG	Sustainable Development Goals
USA	United States of America
WASH	water, sanitation and hygiene
WHO	World Health Organization

GLOSSARY OF TERMS

Acute health care facility: A setting used to treat sudden, often unexpected, urgent or emergent episodes of injury and illness that can lead to death or disability without rapid intervention. The term *acute care* encompasses a range of clinical health care functions, including emergency medicine, trauma care, pre-hospital emergency care, acute care surgery, critical care, urgent care, and short-term inpatient stabilization.

Alcohol-based handrub: An alcohol-based preparation designed for application to the hands to inactivate microorganisms and/or temporarily suppress their growth. Such preparations may contain one or more types of alcohol and other active ingredients with excipients and humectants.

Antimicrobial resistance surveillance of invasive isolates: Major antimicrobial resistance surveillance systems focus on data from invasive isolates. According to the European Antimicrobial Resistance Surveillance Network (https://ecdc.europa.eu/en/publications-data/earsnet-reporting-protocol-2017) and the USA National Healthcare Safety Network (https://www.cdc.gov/nhsn/pdfs/pscmanual/11pscau rcurrent.pdf). eligible specimens to identify invasive co-located with other resistance genes, which can result in cross-resistance to many other antibiotic drug classes (1-3). Thus, while carbapenem-resistant strains of these pathogens are frequently CP (CP-Enterobacteriaceae [CPE], CP-A. baumannii, CP-P. aeruginosa), they may have other carbapenem resistance mechanisms that make them equally difficult to treat and manage clinically. Thus, the term "carbapenem-resistant Enterobacteriaceae" includes all strains that are carbapenem-resistant, including CPE. For this reason, infection and prevention control actions should focus on all strains of carbapenem-resistant Enterobacteriaceae, A. baumannii and P. aeruginosa, regardless of their resistance mechanism. Adequate infection prevention and control measures are essential in both outbreak and endemic settings (4).

Cohorting: The practice of grouping together patients who are colonized or infected with the same organism in order to confine their care to one area and prevent contact with other susceptible patients. Cohorts are created based on clinical diagnosis, microbiological confirmation with available epidemiology and the mode of transmission of the infectious agent. Cohorting is defined according to the United States Centers

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