CHOLERA PREPAREDNESS AND RESPONSE: RECENT UPDATES ON TECHNICAL GUIDANCE AND TOOLS

Kate Alberti WHO/GTFCC
CHOLERA PREPAREDNESS AND RESPONSE

Introduction to the GTFCC and the GTFCC Working Groups

Ending Cholera: A Global Roadmap to 2030

Presentation of Cholera Kits and Kit Calculation Tool

Some recent developments in cholera control

Technical documents and training materials

Ongoing projects and areas for further research

Cholera preparedness and response in the field
## The Global Task Force on Cholera Control

**Common vision that collective action can stop cholera transmission and end cholera deaths**

<table>
<thead>
<tr>
<th>Support global strategies for cholera prevention and control</th>
<th>Provide a forum for technical exchange, coordination, and cooperation on cholera-related activities to strengthen countries’ capacity to prevent and control cholera</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support the development of a research agenda with special emphasis on monitoring and evaluating innovative approaches to cholera prevention and control</td>
<td>Increase the visibility of cholera as an important global public health problem</td>
</tr>
</tbody>
</table>
GTFCC CURRENT STRUCTURE

GTFCC

GTFCC SECRETARIAT - Hosted at WHO
Coordination of Technical Working Groups, oversight of technical guidance development

WORKING GROUPS
Provide technical expertise on cholera specific topics to develop evidence based guidance on cholera control.

• WASH WG – UNICEF
• OCV WG – CDC
• Case Management WG – icddr’b
• Surveillance Lab – Institut Pasteur
• Surveillance Epi – Epicentre

SUPPORT TO COUNTRIES
# Ending Cholera: A Global Roadmap to 2030

<table>
<thead>
<tr>
<th>Axis 1</th>
<th>Axis 2</th>
<th>Axis 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early detection and response to contain outbreaks</td>
<td>Multi-sectoral interventions in cholera hotspots</td>
<td>Effective coordination at country, regional and global levels</td>
</tr>
</tbody>
</table>

By 2030
20 countries will eliminate cholera
No more catastrophic outbreaks in fragile settings

90% Reduction in cholera deaths
A CALL TO ACTION TO ALL GTFCC PARTNERS
CHOLERA KITS
REVISED CHOLERA KITS

Following feedback from the field, a review process of Interagency Diarrhoeal Disease Kits (IDDK) carried out

IDDK was one large kit for 500 patients with cholera or shigella and little logistics material

Revised kits are more flexible and better adapted to field needs

IDDK are no longer available both WHO and UNICEF only have Revised Cholera Kits in their catalogues

To help guide orders, a kit calculation tool was developed and is available to help estimate needs using field scenarios and data
REVISED CHOLERA KITS

Objective: to facilitate preparedness and initial response to cholera outbreaks

Structure

- 1 Central Kit (CTC)
- 1 Periphery Kit (CTU)
- 1 Community Kit (ORP)
- 1 Investigation Kit
- 1 Hardware Kit
- Laboratory supplies

<table>
<thead>
<tr>
<th>Kit</th>
<th># cases</th>
<th># Severe dehydration</th>
<th># Some dehydration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>100</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>Periphery</td>
<td>100</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>Community</td>
<td>100</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

http://www.who.int/cholera/kit/en/
CHOLERA TECHNICAL BACKGROUND (FULL CONTENT LIST AVAILABLE ON THE WEBSITE)

Addition only in central Reference kit of Glucose 50%, injection and Potassium chloride 100 mg/ml, => to be handled by trained medical doctors!

Contain also supply to take samples => regular sampling to make sure your are treating cholera.

Depending on your needs you could also request ONLY one module of the different treatment kits: e.g (Central peripheral kit) central drug module 1.1 on the WHO catalogue.
Addition only in the community kit of one Plastic casing ceramic filter (fairey) to make sure the water is safe.

A single module with enough material to carry out 10 rapid tests and take 10 samples.

The module does NOT contain the triple box for shipment!
### Laboratory kit/ checklist

Laboratory supplies for 100 samples

This kit/checklist lists the items needed to culture samples.

The antisera and antibiotic disks have a shelf life of 18 months and require cold chain. (2-8°C)

<table>
<thead>
<tr>
<th>Hardware kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Shelter module</td>
</tr>
<tr>
<td>2) Water module</td>
</tr>
<tr>
<td>3) Sanitation module</td>
</tr>
<tr>
<td>4) Support module</td>
</tr>
<tr>
<td>5) Fencing module</td>
</tr>
</tbody>
</table>

This kit contains equipment to set up a new cholera treatment structure when there is none existing in the area.

This module is bulky and expensive, check first availability of materials on site such as tents and plastic sheeting.
KIT CALCULATION TOOL

Scenario based tool to help estimate Cholera Kit needs
Can calculate by Attack Rate (AR) and setting (open/closed) or by number of structures
Includes volumes and estimated shipping costs
CHOLERA STOCKPILE CALCULATOR

Defining the type of cholera kit or module and how much of each kit or module to order

Version 2.0

START

Last updated: 21-June-2017
KIT CALCULATION TOOL
One full periphery and one community kit
REVISED CHOLERA KITS

All Kits and modules can and should be ordered independently
Orders should be adapted to context
The Cholera Kit calculation tool can help guide ordering

The Kit Packing List and the Tool: www.who.int/cholera/kit/en/
Intro to the tool: https://openwho.org/courses/cholera-kits
SOME RECENT DEVELOPMENTS IN CHOLERA CONTROL
**Indication:**
- Suspected cholera patients hospitalized with severe dehydration or
- High purging or failure of first 4 hour course of therapy or coexisting conditions (e.g., pregnancy) or co-morbidities (e.g., SAM) that pose elevated risk in cholera illness, regardless of degree of dehydration

<table>
<thead>
<tr>
<th>Adults, including pregnant women</th>
<th>First-line drug choice and dose (if local strain sensitive)</th>
<th>Alternative drug choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doxycycline</td>
<td>Single dose: 300 mg</td>
<td>Azithromycin: 1 g orally as single dose or Ciprofloxacin: 1 g orally as single dose</td>
</tr>
</tbody>
</table>

| Children <12 years old          | Doxycycline: Single dose: 2-4 mg/kg                       | Azithromycin: 20 mg/kg (max 1 g) orally as single dose or Ciprofloxacin: 20 mg/kg (max 1 g) orally as single dose |
ORAL CHOLERA VACCINE

New dosette packaging for Euvichol Plus

Lighter, smaller packed volume and easier to open and administer

Control Temperature Chain use of Shanchol

In February 2018 WHO approved Controlled Temperature Chain use of Shanchol — this allows for up to 14 days of storage at ambient temperature immediately prior to use (temperatures up to not exceed 40°C)

Improving OCV strategies including single dose use
TECHNICAL RECOMMENDATIONS AND TRAINING
CURRENT TECHNICAL NOTES AND POSITION PAPERS

Surveillance
- The use of cholera rapid diagnostic tests (RDTs)
- Guidance on cholera surveillance
- Laboratory support for public health surveillance

Case Management
- Organization of case management during a cholera outbreak
CURRENT TECHNICAL NOTES AND POSITION PAPERS

Oral Cholera Vaccine (OCV)
  • OCV and travellers
  • OCV and pregnant women
  • 2017 WHO Position Paper on Oral Cholera Vaccine
TECHNICAL NOTES IN PREPARATION

Surveillance
- Environmental Surveillance
- Taking and preparing samples for transport

Case Management
- Use of antibiotics
- Treatment of cholera in children with Severe Acute Malnutrition

Water, Hygiene and Sanitation
- Infection prevention and control (IPC) in cholera treatment centres (CTCs)
The Global Task Force on Cholera Control

The 2011 WHA 64.16 resolution "Cholera: mechanisms for control and prevention" requested the WHO Director-General to reinvigorate the Global Task Force for Cholera Control (GTFCC) and to strengthen WHO's work in this area, including improved collaboration and coordination among relevant WHO departments and other relevant stakeholders. A reinvigoration process has been initiated in December 2012 and completed in early 2014. Terms of Reference have been agreed and are accessible below. The first meeting of the reinvigorated GTFCC has taken place in June 2014 to finalize membership and priorities.

Declaration on Ending Cholera

In October 2017, 35 GTFCC partners endorsed a call to action on ending cholera, an unprecedented engagement to fight cholera through implementation of the Global Roadmap.

Ending Cholera – A Global Roadmap to 2030

Through the declaration, the GTFCC partners call for a commitment from all stakeholders to support cholera-affected countries and align our energies, efforts and resources to end cholera transmission.

Vision for the reinvigorated Global Task Force on Cholera Control

- GTFCC members share a vision that collective action can stop cholera transmission and end cholera deaths. The purpose of the GTFCC is to support increased implementation of evidence-based strategies to control cholera.
- The GTFCC aims to achieve this through strengthened international collaboration and improved coordination amongst stakeholders active in cholera-related activities.
- GTFCC activities will aim to raise the visibility of cholera as a public health issue, facilitate sharing of evidence-based practices, and contribute to capacity development in all areas of cholera control.
- The GTFCC shall not be responsible for developing any technical norms or standards.

Objectives

1. To support the design and implementation of global strategies to contribute to capacity development for cholera prevention and control globally.
2. To provide a forum for technical exchange, coordination, and cooperation on cholera-related activities to strengthen countries' capacity to prevent and control cholera, especially those related to implementation of proven effective...
The booklet Cholera Outbreak - Assessing the Outbreak Response and Improving Preparedness is being revised. A draft has been completed and is being circulated for review by the GTFCC. A completed version is expected by June 2018.

Companion phone based app also in development – Case Management to be first module, including associated job aids.
GTFCC has a site for cholera related training material from partners

The objective was to centralise materials that were otherwise difficult to find

The materials – courses, case studies, exercises – can be modified by users

The materials are **not** validated, but are provided by partners

Materials available in English and French
Search
You are invited to search for training materials on this page. You can refine your search using different criteria:

1. Language: you can select the language of the training material (English, French, Portuguese ...)
2. Search: you can enter one or several key words (ex: outbreak investigation, WASH, vaccination). A list of all training materials with those key words will appear
3. Type of training material: you can search by type of material: "case studies", or "exercises", or "courses" (power point presentations), or "training packages" (e-briefing content or complete trainings), or "videos".

You can also access background and useful information on how to use different training techniques used in the case studies in "training methods"

When you have an initial list of training materials on your screen, you can get more information by placing the cursor on the title. A pop-up summary will appear with the following information: the organization that wrote the material, the domains covered, the context, the target audience and language.

If you are interested in more information, click on the title and a summary sheet will open. The summary sheet includes: a complete description of the material, links to download the training materials (often participant and facilitator versions) and a space to send feedback on the material.

Please send feedback and any adapted versions of materials you use. It will help keep materials updated and relevant.

Search ...

Any language

- Courses
- Case Studies
- Exercises
- Training Packages
- Training methods
- Videos

Search
Search
You are invited to search for training materials on this page. You can refine your search using different criteria:
1. Language: you can select the language of the training material (English, French, Portuguese ...)
2. Search: you can enter one or several key words (e.g. outbreak investigation, WASH, vaccination). A list of all training materials with those key words will appear
3. Type of training material: you can search by type of material: "case studies", or "exercises", or "courses" (power point presentations), or "training packages" (e-briefing content or complete trainings), or "videos".
You can also access background and useful information on how to use different training techniques used in the case studies in "training methods"

When you have an initial list of training materials on your screen, you can get more information by placing the cursor on the title. A pop-up summary will appear with the following information: the organization that wrote the material, the domains covered, the context, the target audience and language.

If you are interested in more information, click on the title and a summary sheet will open. The summary sheet includes: a complete description of the material, links to download the training materials (often participant and facilitator versions) and a space to send feedback on the material.

Please send feedback and any adapted versions of materials you use. It will help keep materials updated and relevant.

CTC
English

- Courses
- Case Studies
- Exercises
- Videos

- Training Packages
- Training methods

Search
### Management of cholera

#### Courses

<table>
<thead>
<tr>
<th>#</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization:</td>
<td>Center for Disease Control and Prevention (CDC)</td>
</tr>
<tr>
<td>Domain:</td>
<td>Disease, treatment, case management malnourished children, Haiti, surveillance, CTC</td>
</tr>
<tr>
<td>Authors:</td>
<td>Not specified</td>
</tr>
<tr>
<td>Date:</td>
<td>2010</td>
</tr>
<tr>
<td>Target audience:</td>
<td>Health workers</td>
</tr>
<tr>
<td>Language:</td>
<td>English</td>
</tr>
</tbody>
</table>

#### Learning objectives:

- Describe cholera disease, diagnosis and treatment
- Explain the key principles of cholera in severely malnourished children
- Describe the cholera outbreaks in the Americas and in Haiti

#### Content:

**Cholera: disease and treatment**

- *Vibrio cholerae*
- Clinical presentation
- Dehydration
- Treatment according to dehydration status (oral and intravenous rehydration therapy)
- Antimicrobial therapy
- Zinc supplementation in children
- Cholera in severely malnourished children

#### History: Cholera in the Americas

#### Experience in Haiti (outbreak)

- Laboratory testing
- Surveillance: case identification, definition, data collection and reporting, flow of information
- CTC organization
- Cholera kit

#### Comments:

*Short version of a longer course “Cholera epidemic”.

#### Number of slides:

64

#### Content

**Course: management of cholera, CDC**

English | Documents pdf

Slides: management of cholera CDC

ONGOING INITIATIVES AND PLANNED RESEARCH
ONGOING INITIATIVES AND PLANNED RESEARCH

Ending Cholera: A Global Roadmap to 2030 – work on building guidance and support for country led implementation

Improving mapping of cholera at country level

Investigation and strengthening of laboratory capacity

Prequalification of cholera RDTs

Continuing work to improve strategies and implementation of OCV

Treatment of cholera in children with severe acute malnutrition (SAM)

Best practices for infection prevention and control (facility and community)

Effectiveness of rapid response strategies
CHOLERA PREPAREDNESS AND RESPONSE DEPENDS ON THE FIELD...

Technical recommendations must be made operational

Preparedness and response plans must be coordinated and specific to the context, the resources and the actors present

We can improve the rapidity and effectiveness of response
THANK YOU FOR YOUR ATTENTION

Any questions?

# EndCholera
USEFUL LINKS

WHO Cholera page including the Ending Cholera Roadmap and the 2017 OCV Position Paper: www.who.int/cholera

Cholera Kits and Calculation Tool: who.int/cholera/kit/en

GTFCC site including technical notes: who.int/cholera/Task_force/en

Video Intro to the Cholera Kit calculation tool: openwho.org/courses/cholera-kits

Training materials: www.gtfcc.org

UNICEF Cholera Toolkit: www.unicef.org/cholera