

Cholera surveillance for health care workers

Transcript of online course

MODULE 2

Key principles cholera surveillance

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Welcome to Module 2 of the GTFCC online course on cholera surveillance for health care workers.

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This module focuses on principles that always apply to implement surveillance for cholera, independent of the cholera situation.

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After completing this module, you will know how to:

- identify patients with suspected cholera;
- collect standard information on patients with suspected cholera;
- and, how to test patients with suspected cholera.

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Let's start with the signs and symptoms of cholera.

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A key sign to suspect cholera is Acute Watery Diarrhoea, also referred to as AWD.

AWD is not any type of diarrhoea.

It is acute if it lasts for less than 7 days.

It is watery if stools are non-bloody and liquid and may contain mucous.

It is diarrhoea if there are 3 loose stools or more within a 24-hour period.

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Acute Watery Diarrhoea can cause dehydration.

It is important to assess the level of dehydration of patients with AWD in order to determine the appropriate rehydration plan.

In particular, a patient has severe dehydration if one danger sign or more is present, namely being lethargic or unconscious, or having an absent or weak pulse, or having a respiratory distress.

If no danger sign is present, a patient has severe dehydration if at least two of the following signs are present: having sunken eyes, or not being able to drink or drinking poorly, or having a skin pinch which goes back very slowly.

Patients who have severe dehydration need intravenous rehydration.

Other patients are usually treated with oral rehydration.

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Let's look into how to identify patients with suspected cholera.

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To identify patients with suspected cholera, surveillance case definitions are applied. Importantly, depending on the local cholera situation, there are different definitions of suspected cholera cases.

In geographic areas where there is no ongoing cholera outbreak, suspected cholera cases are patients aged 2 years or older with AWD and severe dehydration, or patients aged 2 years or older who died from AWD.

In geographic areas where there is an ongoing cholera outbreak, suspected cholera cases are any patients with AWD or who died from AWD.

The key difference between these case definitions is that in geographic areas where there is no ongoing cholera outbreak, age and severe dehydration are taken into account to identify patients with suspected cholera. These criteria limit the number of false suspected cholera outbreaks. This avoids overwhelming the surveillance system with false alarms which would decrease the effectiveness of early detection.

On the other hand, in geographic areas where there is a cholera outbreak, age and severe dehydration are not considered to identify patients with suspected cholera. This is to ensure a sensitive monitoring of an outbreak.

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It is important to collect standard information on all patients with suspected cholera. Let's look into this.

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Health care workers collect standard information on any patient meeting the definitions of a suspected cholera case. Standard information means that the same information is always collected regardless of whether or not there is a cholera outbreak.

This information is collected by filling a cholera case report form or a cholera linelist.

You will learn where to find standard data collection tools in Module 6.

The information collected includes some information on the patients such as age, sex, and place of residence.

Some clinical information is also collected such as the date of symptom onset, whether the patient has been hospitalized for treatment, the dehydration level of the patient, and the outcome of the disease.

Lastly, some information on the tests performed and their results are also recorded.

The standard information collected on suspected cholera cases is then reported to the health authority.

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We will now look into key principles for testing patients with suspected cholera.

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Because AWD can be caused by different diseases, testing for cholera is important for surveillance in order to characterize the cholera situation.

However, for case management, testing is not as critical. Indeed, the treatment of patients with suspected cholera depends on their dehydration level and is not influenced by cholera test results.

Cholera tests are performed on patients who meet the definition of a suspected cholera case.

Among those, which suspected cholera cases should be tested depends on the cholera situation.

You will learn about testing strategies applicable in different cholera situations in the next modules of this course.

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Rapid Diagnostic Tests for cholera, RDT, may be available at your facility. If so, they are useful screening tools. However, they cannot be used to confirm cholera.

RDT can be performed at the health facility; they are rapid and easy to use.

They are performed on stool samples from patients who meet the definition of a suspected cholera case.

RDT are used to triage samples to be sent for laboratory confirmation, namely those tested positive by RDT.

If a cholera RDT is negative, cholera can be ruled out and there is no need to send the sample for laboratory confirmation.

All RDT results, positive or negative, are recorded as part of the standard information collected on patients with suspected cholera, and should be reported.

You will learn where to access information on how to perform RDT in Module 6.

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For cholera to be confirmed, samples collected on patients who meet the definition of a suspected cholera case are sent to a laboratory for confirmatory testing by culture or PCR.

Tests are performed on fresh stools or rectal swabs.

Samples for laboratory confirmation should be collected within the first four days of illness and before initiating antibiotic therapy.

Importantly, do not wait for the test results to treat the patient. Treatment depends on the dehydration level, not on test results.

You will learn where to access information on how to handle samples for laboratory confirmation in Module 6.

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As we wrap up this module, here are the important points to remember.

Cholera causes Acute Watery Diarrhoea (AWD) which may lead to severe dehydration.

Health care workers record standard information on any patient with suspected cholera. This can be in a case report form or in a line list.

To confirm cholera, stool samples are sent to a laboratory for testing.

If RDT are available, they are useful screening tools to triage samples for laboratory confirmation. Only samples tested positive by RDT are sent for confirmatory testing.

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Before moving on to the next module, we encourage you to take a short quiz. There are three questions in this quiz.

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Question 1. Select all that apply. What is Acute Watery Diarrhoea?

- a) It is acute if it lasts for less than 14 days
- b) It is acute if it lasts for less than 7 days
- c) It is watery if stools are non-bloody and liquid (and may contain mucous)
- d) It is watery if stools don't contain mucous
- e) It is diarrhoea if there are 3 loose stools or more within a 48-hour period
- f) It is diarrhoea if there are 3 loose stools or more within a 24-hour period

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The correct answers are b, c, and f. It is acute if it lasts for less than 7 days. It is watery if stools are non-bloody and liquid and may contain mucous. It is diarrhoea if there are 3 loose stools or more within a 24-hour period.

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Question 2. How is standard information on suspected cholera cases tested by Rapid Diagnostic Test (RDT) recorded?

- a) Standard information on suspected cholera cases is only recorded on patients tested positive by RDT
- b) Standard information on suspected cholera cases is always recorded regardless of the RDT result

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The correct answer is b. Standard information on suspected cholera cases is always recorded regardless of the RDT result.

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Question 3. This is the last question. What is the recommended approach for samples tested negative by RDT?

- a) RDTs are screening tests therefore samples tested negative by RDT should be retested by culture and/or PCR
- b) RDTs can be used to rule out cholera therefore it is not necessary to retest by culture and/PCR samples tested negative by RDT

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The correct answer is b. RDT can be used to rule out cholera therefore it is not necessary to retest by culture or PCR samples tested negative by RDT.

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We have now completed this module.