Use of single dose OCV: New strategies for cholera control

Recent evidence has emerged on the effectiveness of single dose of oral cholera vaccine for outbreak response. This finding has generated interest in the control of cholera outbreaks in the epidemic belt of the Eastern Mediterranean Region.

Editorial note

Cholera remains a serious public health problem globally as well as in the Eastern Mediterranean Region (EMR) of WHO (Please see the graph). At least 8 out of the 22 countries in the Region are endemic for cholera with repeated outbreaks resulting in disproportionate morbidity and mortality amongst the poor and marginalized populations.

In the year 2016, cholera outbreaks have been reported from Somalia and Yemen while a number of other countries have also reported sporadic laboratory-confirmed cases. In recent time, the use of oral cholera vaccines (OCV) has proved to be an effective and complimentary public health intervention along with other traditional intervention such as improving access of the at-risk population to safe water and sanitation including hygiene promotion. Typically, the OCV is given in two doses 14 days apart and studies have shown its efficacy and effectiveness with this dosing schedule. A recent study conducted in Juba, South Sudan has shown that use of one dose of OCV can be equally effective (adjusted single-dose vaccine effectiveness was 87.3%) for reducing medically attended cholera for up to 2 months.

The present study findings on the use of single dose OCV provides a renewed push for cholera control in the Region. The use of one dose of vaccine for an outbreak response would reduce costs and double the number of people that could be served considering the global shortage of vaccines that is expected to last for the next few years. Its use during an ongoing epidemic has also provided evidence that OCV can thwart an ongoing epidemic contrary to earlier beliefs that the use of OCV during an ongoing outbreak may not be a useful intervention owing to the time needed to develop optimal immunity amongst the at-risk population following completion of the second dose of the vaccine.

In the Eastern Mediterranean Region of WHO, the OCV has been introduced in two countries so far – Iraq in 2015 and Sudan in 2016. Its use may potentially be considered in some other countries where cholera is endemic with repeated outbreaks. The health authorities of these countries may consider the option of using a single-dose vaccination campaign as part of an emergency outbreak response.

In view of the need to scale up strategies for cholera control, the goal of universal access of populations to water and sanitation is important. It is equally urgent to consider innovative approaches for cholera control such as the use of OCV. The growing evidence of the effectiveness of the use of OCV should play a central part in the new strategies for cholera control in the Region.