



Availability of vaccines

Parenteral vaccine

The parenteral whole-cell (WC) cholera vaccine has never been recommended by WHO, because of its low protective efficacy of short duration (43% for 3 months). Furthermore, frequent severe adverse reactions associated with its use have been reported. The disadvantages of using this product clearly outweighs its advantages.

Therefore, WHO does not recommend the use of the parenteral vaccine in any situation.

Oral cholera vaccines (OCV)

I/ the one-dose live attenuated OCV (CVD 103-HgR) has been licensed, but the manufacturer ceased its production in 2004. In consequence, this vaccine is currently not available.

II/ the only internationally licensed vaccine currently available is an OCV that consists of killed whole-cell *Vibrio cholerae* O1 with purified recombinant B-subunit of cholera toxin (WC/rBS). It is administered in two doses, with an interval of 10–14 days between doses. A large volume of safe water (75–150 ml) is needed for the administration of each dose. The vaccine cannot be given to children under two years of age. Protection starts 10 days after ingestion of the second dose and has been shown to reach 85–90% after six months in all age groups, declining to 62% at one year among adults.

Only limited stocks (200 000 doses) of the 2-dose oral cholera vaccine WC/rBC are available.

Potential use of OCV in Iraq

WHO recommendations on the use of OCV in complex emergencies have been issued in 2006, and state that the current internationally available prequalified vaccine is not recommended once a cholera outbreak has started due to its 2-dose regimen and the time required to reach protective efficacy, high cost and the heavy logistics associated with its use. Consequently, engaging into a mass vaccination campaign today in Iraq appears unrealistic for the following reasons:

- Only very limited number of doses (200 000) are available.
- A strict cold chain is required.

Reference documents

Oral cholera vaccine use in complex emergencies. Report of a WHO meeting

http://www.who.int/cholera/publications/cholera_vaccines_emergencies_2005.pdf

Prevention and control of cholera outbreaks: WHO policy and recommendations

http://www.emro.who.int/CSR/Media/PDF/cholera_whopolicy.pdf

WHO fact sheet on cholera. <http://www.who.int/mediacentre/factsheets/fs107/en/>

- The product is very voluminous - 30 times more than other usual vaccines - and needs to be administered in a large quantity of safe water.
- The vaccine needs to be given in two doses ten days apart in order to reach protective efficacy.
- Protection starts only 3 weeks after the ingestion of the first dose. Furthermore, previous experience showed that a large-scale immunization needs to be planned and prepared several weeks in advance.
- Cholera is a disease that affects all age groups. Selecting sub-groups of populations to receive the vaccine is unethical.
- Such mass vaccination campaigns can only be undertaken when the security situation allows medical teams to freely access populations to administer the two doses of vaccines to guarantee protection.

Therefore, WHO does not recommend the use of OCV in the current situation in Iraq

Potential use of OCV by neighbouring countries

The International Health Regulations do not provide a legal basis for States to require travellers to have proof of cholera vaccination as reference to such requirements was removed from the Regulations in 1973. WHO does not consider that proof of vaccination plays any useful role in preventing the international spread of cholera and therefore represents an unnecessary interference with international travel. Furthermore, the administration mode of the available vaccine is not adapted to vaccination at borders of individuals arriving from infected areas.

To contain the outbreak, WHO recommends to countries neighbouring Iraq to reinforce their active surveillance and preparedness systems, and to enhance health and hygiene education.

Conclusion

In the current context, WHO does not recommend use of cholera vaccines to contain the present outbreak in Iraq. However, WHO strongly recommends to strengthen control measures such as enhanced surveillance, improved water supplies and adequate sanitation, as well as health education and social mobilization..