ORAL CHOLERA VACCINE USE IN COMPLEX EMERGENCIES: WHAT NEXT?

REPORT

WHO MEETING, 14–16 DECEMBER 2005 CAIRO, EGYPT



GLOBAL TASK FORCE ON CHOLERA CONTROL

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Summary

Two WHO meetings – in 1999 and 2002 – had examined the potential use of oral cholera vaccines (OCV) as an additional public health tool. In the light of the work accomplished since 2002, the Global Task Force on Cholera Control decided to convene a third meeting to re-examine with a group of experts the role that OCV might play in preventing potential cholera outbreaks in crisis situations and to discuss the use of OCV in endemic settings. The aim of the meeting was to agree a framework for WHO recommendations on these subjects and to consider the pertinence of further demonstration projects in endemic settings or of scaling up vaccination campaigns to intervention projects.

The meeting was convened by the Global Task Force on Cholera Control and hosted by the WHO Regional Office for the Eastern Mediterranean; more than 40 participants were present, representing cholera-prone countries that had already used or expressed interest in using OCV, humanitarian organizations, scientific institutions, United Nations agencies and WHO headquarters and regional and country offices. An OCV manufacturer, granted observer status, attended sessions 1 to 6 but not the two working group sessions aimed at developing recommendations on the use of OCV in complex emergencies and endemic settings.

The six sessions of the meeting addressed key issues, including currently available vaccines, crisis situations, and the cholera control measures usually recommended. Working group sessions elaborated the recommendations relating to use of OCV (1) in complex emergencies and (2) in endemic settings.

With respect to OCV use in emergency settings, the need for a multidisciplinary approach was stressed, as was the need to consider cholera and its prevention and control within the larger context of public health priorities in times of crisis.

In considering OCV use in endemic settings, all participants agreed that further data need to be collected before a clear definition of endemicity and potential vaccination strategies can be established. Results of further studies on the vaccines per se are also awaited.

Finally, a decision-making tool for assessing the pertinence of OCV use in emergency settings was drafted; it was finalized by an ad-hoc working group convened in Geneva on 1 March 2006. The document is now ready for field testing and can be found in Annex 1 of this report.

Introduction

Although well known since the nineteenth century, cholera still remains the most feared and stigmatized diarrhoeal disease. Linked to inadequate environmental health, it affects the poorest and most vulnerable populations. The burden it imposes on health care systems is enormous, as is the financial cost for its victims. Moreover, fearful of possible commercial sanctions that would prevent the export of food products, countries are often reluctant to report cases and seek support. Heavy death tolls are regularly reported when outbreaks occur, either in crisis situations, when people are displaced to overcrowded settlements, or in endemic settings, among the inhabitants of urban slums or in poor rural areas. In disaster situations, whether man-made or natural, the possibility of cholera frequently triggers panic – even when the risk of outbreak appears extremely limited.

The following is the WHO standard case definition of cholera:

- In an area where the disease is not known to be present, a patient aged five years or more develops severe dehydration or dies from acute watery diarrhoea.
- In an area where there is a cholera epidemic, a patient aged five years or more develops acute watery diarrhoea, with or without vomiting.¹

Implementation of the prevention and control measures usually recommended, including improvement of water and sanitation, remains a challenge, both in urban slums and in crisis situations. To date, there has been no concrete global improvement, despite efforts made at country level; indeed, disease incidence has even increased in recent years. Notification of cholera is compulsory, yet cases are commonly under-reported. Predicting potential outbreaks remains difficult and is often complicated by the lack of data on trends and patterns over time.

It is clear that additional public health tools – such as vaccines – can play a critical role in the control of cholera. Pre-emptive use of oral cholera vaccines (OCV) in emergency situations was recommended by WHO in 1999, and this general recommendation remains valid (1, 2). However, vaccines must be used in appropriate circumstances, where they can provide a definite benefit compared with the recommended control measures alone and will not jeopardize the response to other health priorities. Identifying the population at risk of epidemic cholera is therefore a key element in considering the use of OCV, as is the cost-effectiveness of such an intervention. Several mass vaccination campaigns have already been carried out in crisis situations, and the evidence provided by these interventions can be used as the basis for developing recommendations for appropriate use of OCV.

The WHO meeting held in Cairo on 14–16 December 2005 was intended to establish a framework for recommendations on OCV use in complex emergencies and natural disasters, as well as in endemic settings. Experience gained over the previous three years from intervention projects in complex emergencies in Darfur, Sudan, and Aceh, Indonesia, and from a demonstration project in the endemic setting of Beira, Mozambique, provided the basis for discussion of the pertinence of developing assessment tools for cholera outbreaks and for identification of opportunities for – as well as possible constraints and limitations to – OCV use for mass vaccination campaigns. While a pragmatic public health approach was adopted, the scientific bases of different vaccines were also

¹ Cholera is known to occur in children under five years of age but cannot be differentiated on clinical grounds.

reviewed and updates on recent research were reported.

The aims of the meeting were:

- to review the recent use of cholera vaccines in crisis situations;
- to develop WHO recommendations for OCV use in crisis situations, in order to make efficient and timely use of limited resources;
- to revisit the pertinence of demonstration projects in endemic settings, asking whether the evidence on feasibility and effectiveness gathered during the Beira project is sufficient for scaling up the interventions in endemic settings.

The following issues were discussed:

- Will cholera remain a public health problem in the future?
- Based on country examples, what are the main challenges to improving environmental management in crisis situations?
- Are tools for risk assessments needed?
- What role can vaccines play in cholera control in complex emergencies and natural disasters?
- What role should vaccines play in cholera control in endemic settings?
- Are new vaccines/formulations needed or are the available vaccines sufficient?
- Should a vaccine stockpile be developed and, if so, under what conditions?





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