

Oral Cholera Vaccine Highly Effective During Cholera Outbreak in Guinea

Vaccine should be used to help control and prevent deadly outbreaks

Paris/New York, May 29, 2014 – An oral cholera vaccine protected vaccinated individuals by 86 percent during a recent outbreak in Guinea, according to a study published today in the New England Journal of Medicine (NEJM).

The study, conducted by **Epicentre**, research arm of the international medical humanitarian organization Doctors Without Borders/Médecins Sans Frontières (MSF), and the Guinean Ministry of Health, is the first to show that this particular oral cholera vaccine, which is currently being stockpiled by the World Health Organization for use in emergencies, provides protection very quickly, and lends support to its use in control of future outbreaks.

“Because we’d never documented the effectiveness of this new vaccine in real-life epidemic conditions, we didn’t have enough information to understand the potential of this vaccine as a tool to control a cholera outbreak,” said **Dr. Francisco Luquero**, principal investigator of the study. “Now we know that oral cholera vaccine confers a high level of protection in outbreak settings, and that vaccinating against this highly deadly disease can and should be one thing we do when we have a cholera epidemic on our hands, in addition to other preventive and control measures.”

The Epicentre study looked at the efficacy of two complete doses of Shanchol (one of two WHO pre-qualified oral cholera vaccines currently available) in the first months after administration. Shanchol is considered the more appropriate of the two options for developing countries because it is much more affordable, easier to produce, and is less cumbersome in terms of transport and storage logistics.

This study published in NEJM was part of a large-scale Epicentre study of oral cholera vaccine in Guinea in 2012—the first one on cholera vaccines ever conducted during an outbreak in Africa. In April 2012, the Guinean Ministry of Health and MSF administered 316,250 doses of the vaccine in two vaccination rounds in the coastal districts of Boffa and Forecariah, Guinea over six weeks. The vaccination campaign achieved high coverage rates. The two dose vaccine coverage was 75.8 percent in Boffa and 75.9 percent in Forecariah..

“We showed that with proper planning and outreach in the communities, it is indeed possible to vaccinate hundreds of thousands of people in a remote area, with a highly mobile population, in a relatively short period of time, against cholera,” said Dr. Iza Ciglenecki, the MSF project manager for the vaccination campaign in Guinea.

High coverage reduced disease transmission in the vaccinated communities. Most of the confirmed cholera cases were from a small outbreak in a local community which had the lowest vaccination coverage. Suspected cholera cases were confirmed by rapid test, and then teams confirmed how many of these people had been vaccinated. Vaccination with two complete doses of Shanchol was associated with significant protection, 86 percent, against cholera.

Oral cholera vaccine was added to the WHO recommendation for cholera prevention and control in 2010, and the WHO and partners in 2013 created a stockpile of the

vaccine for emergencies. So far, the vaccine has not been commonly used as a public health tool for control of the disease. Concerns about its feasibility, timeliness and acceptability by communities, as well as fear of diverting resources from other medical programs have discouraged its use.

“The results, on both the effectiveness and feasibility of oral cholera vaccines during an actual emergency, will hopefully bolster efforts to integrate vaccines in the global response to cholera outbreaks,” said Dr. Rebecca Grais, senior author of the publication.

“Until very recently, cholera vaccines have not been considered among the tools to use in outbreak control,” said Grais. “Several deadly and large-scale cholera epidemics have shown the limits of the traditional outbreak response to contain national-scale epidemics. The use of oral cholera vaccine should greatly improve our ability to prevent and control epidemics, and ultimately, save more lives.”

MSF is one of the world's largest purchasers of oral cholera vaccine. The ability to access low-priced OCV as well as other vaccines needed in emergency settings, such as pneumococcal vaccine, is critical to ensuring that more people can benefit from these vaccines, said MSF.

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