

OCV impact in cholera control

Epicentre studies

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Two main studies

- Impact evaluation of OCV preventive campaigns in endemic areas, Democratic Republic of the Congo
- Impact of case-area targeted interventions (CATI) including OCV



Main objective

Evaluate whether a large OCV vaccination campaign in cholera endemic African hotspot allows efficient control of the disease for at least two years.

Methods

- Three pillars:
 - **Clinical Surveillance**
 - **Repeated seroprevalence surveys**
 - **Home follow-up**
- Study in **two sites** in DRC (urban / rural)
 - Urban site in Goma
 - Rural site in Haut-Lomami (Bukama Health Zone)

Methods – Surveillance

- Set up **clinical surveillance in active Cholera Treatment Centers/Units**

- Baseline permanent activity, inclusion of all CTC/CTU patients
- Systematic RDT test
- Culture, antibiograms, quantitative PCR
- Questionnaire

➡ Determine cholera **real epidemic curve** over the years

➡ Monitor **evolutions** following vaccination

Methods – Seroprevalence surveys

- **Repeated seroprevalence surveys** over two years
 - 3 in Bukama (Haut-Lomami), 6 in Goma
 - Collection of blood samples (+ stools in some surveys in Goma)
 - Full questionnaire
 - Lab strategy combining vibriocidal, ELISA and Luminex
- ➔ **Monitor population's immunity level** over the years and seasons
- ➔ **Better estimate level of asymptomatic infections**

Methods – Follow-up in households

- **Follow-up over time of households with a positive case**

- Sampling among cholera positive cases in CTC/CTU, and among seroprevalence surveys participants
- Household visit and testing of the whole family for *V. cholerae* shedding + questionnaire
- Environmental sampling (water, latrines, food)
- Follow-up up to 6 months

➔ Determine **vibrio shedding duration**

➔ Determine the extent and patterns of **bacteria circulation in the household**, and according to vaccination status

Partners



- Ministry of Health, RDC
 - PNECHOL: Plan National d'Élimination du Choléra
 - Division Provinciale de la Santé
 - Zones de santé, and structures
- MSF
 - Integrated in MSF France operational activities
- Institut National de la Recherche Biomédicale (INRB)





Current stage

• **Goma site**

- Surveillance started May 2021
- First seroprevalence survey in January 2022

• **Bukama site (Haut-Lomami)**

- First seroprevalence survey in October 2021 (before OCV vaccination)
- Surveillance started October 2021



Two main studies

- Impact evaluation of OCV preventive campaigns in endemic areas, Democratic Republic of the Congo

- Impact of case-area targeted interventions (CATI) including OCV



Case-Area Targeted Interventions (CATI) including OCV – an update

- CATI – rapid and locally targeted response
- MSF is planning to implement CATI with OCV in several countries
- Combining single-dose OCV with household WaSH and selective chemoprophylaxis (possible to complete with a second dose after CATI)
- **Observational study of CATI effectiveness** using a research protocol developed by Epicentre in collaboration with LSHTM
- DRC
 - Ethical & administrative approvals obtained
 - MSF has obtained 100K doses of OCV for CATI
 - Operational preparations ongoing in different provinces
- Cameroon, Zimbabwe, Niger: ethical approvals and discussions with MoH ongoing



Thank you for your attention !

