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## INTERNAL MEMO

Date:	12 June 2023		
To:	<b>Minister Dr J Phaahla Honourable Minister of Health</b>	From:	<b>National Advisory Group on Immunisation</b>

### ADVISORY 1 2023:

Recommendations for oral cholera vaccine (OCV) to be implemented in reactive vaccination campaigns during current outbreaks in South Africa

### Problem Statement

South Africa is currently responding to cholera outbreaks in several provinces. The country will continue to be at risk of importation of cholera from neighbouring African countries noting that there are a number of ongoing outbreaks of cholera in the region, and that there is high mobility of citizens from neighbouring countries.

As part of the response to the cholera outbreaks in the Hammanskraal (Tshwane District, Gauteng) and Ngwathe (Fezile Dabi District, Free State), South Africa has been offered the option of procuring oral cholera vaccine (OCV) from the global stockpile to use for reactive vaccination campaigns in the two areas.

- The vaccine on offer is likely to be the Euvichol-Plus vaccine. The vaccine is WHO prequalified but is not registered for use in South Africa, and the vaccines would need to be imported under a Section 21 exemption approved by SAHPRA.
- A total of 230 000 doses would be offered to South Africa. This would be sufficient to provide one dose of OCV to all persons aged one year and older in Hammanskraal and Ngwathe.
- Vaccines are provided as a donation to GAVI-eligible countries. However, South Africa would need to procure the vaccine from UNICEF – this process involves an upfront payment, which in turn requires permission from National Treasury.

- For the above reasons, it is likely that it would take a minimum of 6 – 8 weeks before the vaccines would be available.

### Points considered

- At the beginning of February, three imported cases were seen in the City of Johannesburg. A number of cases were seen throughout February and March in the City of Johannesburg and in Ekurhuleni. These cases were classified as being indigenous (locally-acquired infection) meaning that there was local transmission within those communities.
- There was a lull for over 6 weeks followed by a small number of cases diagnosed in Gauteng and shortly after that in the Fezile Dabi district of Free State.
- The current outbreak in City of Tshwane, centred around the Hammanskraal area, has been well publicised.
- There have also been a few cases in the last few weeks from other provinces. There have been three cases from North West, one from Limpopo and one from Mpumalanga. These cases are epidemiologically linked to the Hammanskraal outbreak.
- However, there is now also one case from Limpopo which is not part of the current Hammanskraal outbreak. The case in Limpopo that was confirmed on the afternoon of the meeting is an adult female in Musina who travelled to and then returned from Zimbabwe. She was already ill when she returned to South Africa, so this likely represents an imported case.
- Most of the cases in the current outbreak in Hammanskraal have been seen at Jubilee Hospital and Temba Health Centre. Around 10% of our cases to date have been diagnosed in the private sector. The exact number of clinically suspected cases in the community, compared to those presenting to the hospital/healthcare centre were not presented, and make it difficult to interpret numbers of laboratory-confirmed cases, and known deaths among all these groups.

### Evolution of the outbreaks:

- o The last case from the Ngwathe areas in Fezile Dabi was on the 19th of May.
- o Although ongoing cases are being identified in Hammanskraal, overall there has been a dramatic decline in the number of suspected cases being seen both at the hospital as well as at the Kanana temporary treatment facility, and a dramatic decline in the number of new laboratory-confirmed cases.

### Challenges in responding to the outbreak include:

- o Inadequate water supply and sanitation
- o Lack of healthcare worker awareness with regards to notification of suspected cases and collection of faecal specimens.

- o Issues related to case management. There is now greater awareness on issues around fluid management in patients with severe dehydration.
- o Risk communication and community engagement for health-seeking behaviour and also for behavioural change around personal hygiene, use of untreated water and storage of water in the home.
- o Mistrust between the community and local governments over service provision issues.
- o Politicisation around the identification of the source of the outbreak and intervention measures.
- o High mobility of the of the population (both within South Africa and across neighbouring countries).

**The decline in cases could be attributed to:**

- o Water quality testing as well as issues around the water tankers and storage in JoJo tanks (regular cleaning and disinfection of the tankers and the JoJo tanks) have been addressed.
- o Health communication has been extremely important with a focus on hygiene aimed at reducing person-to-person transmission.
- o Attention has been paid to reducing contamination of food through targeting informal food vendors.

Reactive vaccination is recommended early in ongoing outbreaks in order to limit spread. Issues that need to be considered include:

- o the size of population that would need to be vaccinated
  - o the morbidity and mortality of the population
  - o the feasibility of rapidly implementing a campaign including cold chain infrastructure, vaccinators, need and capacity for social mobilisation.
- OCV is considered a relatively easy vaccine to provide through mass administration.
  - Reactive vaccination campaigns are prioritised over preventive campaigns
  - There are two vaccines currently in the global emergency stockpile, with the majority being Euvichol-Plus.
  - Euvichol-Plus is a bivalent (*Vibrio cholerae* O1 and O139) inactivated vaccine
  - Although the recommend schedule is two doses given  $\geq 2$  weeks apart, due to vaccine shortages, WHO currently recommends one dose in reactive vaccination campaigns.
  - One dose has been demonstrated to provide good short-term protection (at least 6 months): effectiveness of approximately 85%
  - The vaccine is safe with few side effects.



- South Africa is only able to acquire vaccines from the stockpile for immediate reactive use. South Africa would not be able to acquire vaccines now and create its own stockpile so that it could rapidly respond to future outbreaks.

### Recommendations

- Cholera is a sign that the water supply, hygiene and sanitation are inadequate, and this often requires long-term intervention. Prevention of cholera lies outside of the direct responsibility of the health sector. A multi-sectoral response with effective coordination is therefore critical.
- Given that the outbreak in Ngwathe is over (no cases since 19<sup>th</sup> May) and that the number of suspected and confirmed cholera cases in Hammanskraal appears to be declining (this should be confirmed, and data presented at future meetings), NAGI recommends against immediate implementation of reactive vaccination campaigns in these two areas.
- The need for better data should be communicated to the NDOH and other role-players. This includes better collection of data on the current outbreak as well as regular and transparent release of these data. More effort should be put into geolocating cases and establishing linkages and risk factors.
- There is a need for better data on OCV) acceptability in these communities and other communities at risk.
- However, any planning that can be done to respond more quickly in future should be undertaken, for example.
  - This includes ensuring that the Euvichol plus vaccine is registered with SAHPRA.
  - There is a need to strengthen the monitoring and reporting of adverse events following immunisation with OCV, especially amongst the people living with HIV and pregnant populations.

NAGI would like to reconsider the issue after approximately two weeks with more and better data. It would also be useful to understand other countries experience with reactive vaccination. In addition, there may be a need for a rapid evidence review related to the specific vaccine and use of one dose, to assist in decision making.

Thank you for consideration of this request.

Kind regards,

**PROFESSOR ANNE VON GOTTBURG**  
**ACTING CHAIRPERSON: NATIONAL ADVISORY GROUP ON IMMUNISATION**  
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