FISEVIER

Contents lists available at ScienceDirect

New Microbes and New Infections

journal homepage: www.journals.elsevier.com/new-microbes-and-new-infections



Letter to the Editor

Zambia's Cholera Crisis: A call for global attention and intervention against an unfolding epidemic scourge

Dear Editor,

The Republic of Zambia is currently in the throes of an unrelenting cholera outbreak, marking one of the most severe crises in its recent history. We write to urgently draw attention to this dire situation and implore all stakeholders, public health experts, and policymakers within Africa and beyond to mobilize swiftly in response. As of the latest reports, 702 persons have died, and 21,007 active cases have been recorded in the nation's healthcare system [1].

This outbreak poses a threat unparalleled since its first occurrence in the 1970s [2], requiring immediate and concerted efforts from the local, regional and global medical, humanitarian and research community. While there's an ongoing strong emergency response in the form of quarantining, enhanced sanitation techniques, increased national awareness and education interventions on cholera and its prevention, delivery of clean, processed water to the affected areas, strategic relocation of designated high-rise demographic groups and prohibition of burials and funeral attendance from the country's ministry of health [1, 2], the very urgency of this situation demands a collaborative response to better understand, address the root cause and stem the tide of this outbreak.

Cholera is an acute, watery diarrhoeal disease caused by Vibrio cholerae of the O1 or O139 serogroups [3]. The clinical features of cholera can range from asymptomatic to copious diarrhea. Common symptoms include passage of watery stools, abdominal discomfort, and vomiting [4]. Severe cholera can be distinguished clinically from other diarrheal illnesses due to the profound and rapid loss of fluid and electrolytes[3].

The experiences from this exceptional outbreak could yield invaluable insights into cholera bacteriology, control and prevention, not only for Zambia but for regions facing similar challenges globally and for the advancement of medical science.

Cholera outbreaks can be managed and treated through various interventions and strategies i.e

- Household water treatment (HWT) interventions have been shown to improve the microbiological quality of stored water and reduce the disease burden of cholera outbreaks[5].
- Appropriate training for users and community health worker followup are necessary for the effective use of HWT interventions[5].
- Interventions delivered through case-area targeted intervention, such as antibiotic chemoprophylaxis, point-of-use water treatment, and hygiene promotion, can rapidly reduce household transmission of cholera [4,5].
- Single-dose vaccination can extend the duration of protection within the radius of households during cholera outbreaks[5].

- Improving household knowledge and practices, including the use of oral rehydration salts (ORS) and regular water treatment, is crucial during cholera outbreaks[5].

There is an imperative need for intensified research initiatives aimed at unraveling the epidemiological dynamics, virulence factors, and potential mutations of the cholera strain responsible for this devastating surge. Furthermore, investigations into the environmental, socioeconomic, and public health determinants that contribute to the rapid spread of the disease are vital for designing effective corrective and preventive strategies.

It is important to note that Oral cholera vaccines have been and are being put to use currently in Zambia with magnificent coverage across districts and provinces [1]. However, collaboration between international research institutions, governmental bodies, and non-governmental organizations is essential to establish a comprehensive and interdisciplinary approach to tackling this crisis.

We therefore appeal to researchers, clinicians, and public health experts to share their knowledge, experiences, and evidence-based interventions to mitigate the impact of this cholera outbreak in Zambia. It is only through the synergy of our collective efforts that we can expedite the development of innovative solutions and contribute to the global fight against infectious diseases.

In the spirit of advocacy, we also urge the journal and like journals to prioritize and expedite the review process and publication of research articles, case studies, technical reports, and reviews related to the ongoing cholera outbreak in Zambia and implicated nations worldwide.

By disseminating timely and relevant information, we can foster a robust global response to support Zambia in overcoming this crisis and contribute to the broader understanding of cholera dynamics.

In solidarity with the affected communities in the provinces of Zambia and with a shared commitment to advancing public health, we implore the infectious diseases research community to rise to this challenge. Now, more than ever, our collective efforts can make a significant impact in alleviating the suffering caused by this devastating and fatal outbreak.

Ethical approval and consent to participate

Not applicable

Availability of data and materials

No new data was generated

Funding

Authors received no external funding for this project

Authorship contributions

Conceptualization of Ideas: Patrick Ashinze, Writing of initial draft: Patrick Ashinze, Olajuwon Tolulope Joseph, Eniola Akande, Ajao Mayowa, Aremu Sikiru Ademola, Nelson Mafua, Azeez Sakiru Adeshina, Bethrand Ozioma Chukwu, Egbunu Emmanuel, Akogwu Ocholi Edache, Nyasha Essy Nyahwai, Supervision: Toufik Abdul-Rahman, Writing - Review & Editing: Toufik Abdul-Rahman, Wireko Andrew Awuah

Author disclosure statement

Authors wish to declare no conflict of interest.

CRediT authorship contribution statement

Patrick Ashinze: Writing – original draft, Conceptualization. Olajuwon Tolulope Joseph: Writing – original draft. Eniola Akande: Writing – original draft. Ajao Mayowa: Writing – original draft. Aremu Sikiru Ademola: Writing – original draft. Nelson Mafua: Writing – original draft. Azeez Sakiru Adeshina: Writing – original draft. Bethrand Ozioma Chukwu: Writing – original draft. Egbunu Emmanuel: Writing – original draft. Akogwu Ocholi Edache: Writing – original draft. Nyasha Essy Nyahwai: Writing – original draft. Andrew Awuah Wireko: Writing – review & editing. Toufik Abdul-Rahman: Writing – review & editing, Supervision.

Declaration of competing interest

Authors wish to declare no conflict of interest

Acknowledgement

The authors would like to acknowledge Toufik's World Medical Association for providing the invaluable resources to kick start, culminate and leverage this research project.

References

UNICEF Zambia flash update (cholera) - 07 march 2024 - Zambia. ReliefWeb; 2024.
Available from: https://reliefweb.int/report/zambia/unicef-zambia-flash-update-cholera-07-march-2024.

- [2] Sichalwe N. A cholera outbreak in Zambia has caused more than 400 deaths and infected 10,000 | AP News. AP News [Internet]; 2024 Jan 18. Available from: https://apnews.com/article/zambia-cholera-outbreak-health-climate-6333 109a9e996d81e8dc1b9a946da972.
- [3] Clemens JD, Nair GB, Ahmed T, Qadri F, Holmgren J. Cholera. Lancet (London, England) 2017;390(10101):1539–49. https://doi.org/10.1016/S0140-6736(17) 30559-7
- [4] Fanous M, King KC. Cholera [Updated 2023 May 23]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan. Available from: https://www.ncbi.nlm.nih.gov/books/NBK470232/.
- [5] Lantagne D, Yates T. Household water treatment and cholera control. J Infect Dis 2018;218(suppl_3):S147–53. https://doi.org/10.1093/infdis/jiy488.

Patrick Ashinze

82 Division Medical Service Hospital, Enugu, Nigeria Faculty of Clinical Sciences, University of Ilorin, Ilorin, Nigeria Division of Research, Toufik's World Medical Association, Sumy, Ukraine

Olajuwon Tolulope Joseph RMO International, United Kingdom

Eniola Akande, Ajao Mayowa, Aremu Sikiru Ademola Faculty of Clinical Sciences, University of Ilorin, Ilorin, Nigeria

Nelson Mafua

Faculty of Clinical Sciences, Madonna University, Nigeria

Azeez Sakiru Adeshina, Bethrand Ozioma Chukwu Faculty of Clinical Sciences, University of Ilorin, Ilorin, Nigeria

Egbunu Emmanuel

Faculty of Clinical Sciences, University of Ilorin, Ilorin, Nigeria Federal Medical Centre, Bida, Niger state, Nigeria

Akogwu Ocholi Edache

Faculty of Clinical Sciences, University of Ilorin, Ilorin, Nigeria Wesley Guild Hospital, Obafemi Awolowo University Teaching Hospital, Ile-Ife, Osun State, Nigeria

Nyasha Essy Nyahwai School of Medicine and Health Science, University of Lusaka, Lusaka, Zambia

> Andrew Awuah Wireko, Toufik Abdul-Rahman* Medical Institute, Sumy State University, Sumy, Ukraine

* Corresponding author. Antonova 10, 40007, Sumy, Ukraine. Handling Editor: Patricia Schlagenhauf