

Impact of COVID-19 pandemic on viral hepatitis in Africa: Challenges and way forward

1 | CURRENT STATUS OF HEPATITIS VIRUSES AND THE COVID-19 PANDEMIC IN AFRICA

In Africa, viral hepatitis patients have exceeded 70 million cases, with 200,000 deaths annually.¹ With more than 90% of hepatitis patients lacking proper health care, limited access to tests and treatment, and delayed diagnosis, Africa has the highest global death rate of liver cirrhosis.² The most common type of viral hepatitis is hepatitis B and hepatitis C. These two common types of hepatitis transmit through sexual contact, prenatal transmission and sharing contaminated needles. Viral hepatitis has affected approximately 71 million individuals in sub-Saharan Africa, which is more than three-folds of the number of HIV patients in the region.³ Moreover, 75% of the global hepatitis is shared among countries in Asia and sub-Saharan Africa.⁴ However, the hepatitis D virus infection is ubiquitous in West Africa compared to other regions in Africa, especially in East Africa. Hepatitis D virus is concomitant with hepatitis B virus, as it depends on active duplication and treatment of hepatitis B virus.⁵

In March 2020, the World Health Organisation (WHO) announced the COVID-19 infection as a pandemic.⁶ Therefore, the healthcare facilities and professionals directed their attention and resources to contain and respond effectively to the novel disease. However, COVID-19 in Africa has more than 95,000 cases of infected patients, which is greater than 3000 mortalities in ascending order; Egypt (14,000), South Africa (18,000).⁷ Moreover, in 2016, WHO create an elimination program for viral hepatitis to be achieved before 2030 as part of sustainable development goal 3 (Quality Health and Well-being Indicators). This seemed achievable in terms of the availability of tests and treatment.⁸ However, with less than 10 years away from achieving the goal, we still have more to achieve as the public healthcare professionals and governments need to pay serious attention to maintain steady progress in the eradication.

2 | CHALLENGES OF VIRAL HEPATITIS AMIDST COVID-19

Africa's healthcare workforce and testing capabilities are insufficient to integrate the COVID-19 pandemic and other viral infection surveillance.⁹⁻¹³ Particularly, in low-and middle-income countries, the inability of researchers and health authorities to predict the evolution of the COVID-19 pandemic in the long-term has escalated a chain reaction of crises in the healthcare system.^{14,15} Moreover, Individuals with chronic liver disease have been added to those at risk with increased danger for critical expression of COVID-19 as recommended by the US Centres for Disease Control and Prevention.³

However, the existence of viral hepatitis does not directly escalate vulnerability in comparison to the SARS-CoV-2. The high occurrence of poor medical diagnosis among individual living with viral hepatitis in sub-Saharan Africa could be linked to the lack of SARS-CoV-2 infection restriction guidelines.³ Late presentation or under-diagnosis of viral hepatitis disease in sub-Saharan Africa can be traced to the unrest in the health care delivery system during COVID-19, where the channelling of laboratory equipment, infrastructure and manpower is relocated for the sole purpose of COVID-19.³ Consequently, study reports have disclosed the highest mortality rate (32.2 mortalities per 100,000

population) among individuals in sub-Saharan Africa by viral hepatitis-associated liver disease (liver cirrhosis) due to the late diagnosis of hepatitis during the COVID-19 pandemic.

With most medical services directed to contain the expanding COVID-19 pandemic, viral hepatitis patients face several challenges. The pandemic affected routine health services used to detect early stage and asymptomatic viral hepatitis. This is corroborated as the report from Tanzania and Gambia revealed the pro-tem closure of hepatitis clinics at the end of March 2020, in which health workers were transferred to assist COVID-19 preparedness.¹⁶ Physicians were relocated as frontline health workers to respond to patients infected with the COVID-19 pandemic leaving the viral hepatitis centres in shortage. Patients decreased their routine follow-up visits due to the fear of getting infected with COVID-19 from the medical staff and health centres.¹⁶ Travel restrictions limited patient's accessibility to essential investigations such as ultrasonography and nucleic acid tests, which are performed at the major centres exclusively.^{3,17}

Some countries, such as Burkina Faso in the West of Africa, reported a shortage of antiviral medications due to flight suspension leading to treatment interruptions.¹⁶ Temporarily, some clinics and follow-up centres were closed due to the fear of infecting others with COVID-19.¹⁶ While telemedicine is encouraged globally as an effective alternative connection between patients and health services, Africa is affected by poor infrastructure, unstable Internet connections and limited access to smartphones and laptops making it less effective than it is in high and middle-income countries. The lockdown increased the number of home deliveries; subsequently, fewer infants got the hepatitis B virus vaccine.³

3 | IMPLICATIONS OF COVID-19 ON VIRAL HEPATITIS IN AFRICA

The COVID-19 situation had a negative impact on viral hepatitis services globally.¹⁷ This includes the decrease in patient checkups, reallocation of medical staff and travel restrictions which resulted in delayed diagnosis leading to delayed interventions and consequently more complications and costs. The interrupted treatment leaves patients liable to liver decompensation, cirrhosis and progression to hepatocellular carcinoma.³ With fewer children getting the hepatitis B virus vaccine, it risks the viral hepatitis elimination program goal and losing a good shot for a hepatitis-free world.¹⁸

The world's change of focus to COVID-19 risks adds more pressure on health services by the consequences of neglecting the viral hepatitis patients. At the time of the Ebola outbreak in 2014, non-Ebola consequences exceeded the consequences from the Ebola outbreak itself due to the same mistakes that are presently being made.¹⁹ COVID-19 has caused around 88,000 deaths to date; on the other hand, the hepatitis virus causes 200,000 deaths a year. That is why viral hepatitis should have special attention regardless of the pandemic.

The prevalence usage of herbal preparations to treat disease in Africa is due to inadequate access to healthcare services and cultural components amplified during the COVID-19 pandemic. Due to the challenges mentioned above, liver impairment (viral hepatitis and drug-induced liver injury) from hepatotoxic herbal treatment intake is predicted to be at its peak in African patients after the pandemic.²⁰

4 | EFFORTS

Despite the temporary closure of health centres against chronic diseases in Burkina Faso, hepatologists encouraged people to stick to their routine visits as best as possible. Although some crucial diagnostic tests such as polymerase chain reaction, ultrasonography and liver biopsy may not be available for everyone, primary health care units work hard to keep rapid tests for HBsAg, blood tests, and liver enzymes available.¹⁶ On a positive note, some volunteering activities such as the NoHep organisation emerged to spread awareness about viral hepatitis with the same goal: to eliminate viral hepatitis by 2030.²¹ Countries are paying more attention to the necessity of telemedicine and working to overcome its obstacles. Following the blueprint of the WHO on the eradication of viral hepatitis globally, the preliminary goals are on 90% depletion in the number of novel infections by 2030 and a 65% curtailment in the number

of mortalities is imperative.⁴ The establishment of the Africa hepatitis eradication initiatives and development of the WHO's global health sector strategy on viral hepatitis in African countries should also be strongly imposed.

5 | RECOMMENDATIONS

With the advancement of hepatitis-related mortalities, the following recommendations should be applied with the consideration of global collaboration:

1. Hepatologists should follow the recommendations of AASLD Expert Panel consensus statement in handling viral hepatitis patients during the COVID-19 pandemic.²²
2. Health authorities should support decentralised care in collaboration with hepatologists.
3. Improve the infrastructure to pave the way to efficient telemedicine services in diagnosis, management plans, drug prescription and follow-up.
4. Decease the antiviral medication interruptions by ensuring a good drug supply chain and home delivery of extra antiviral medications.
5. Support the pre-existing volunteering activities and launch campaigns to attract more volunteers in helping with the delivery of medications to rural areas and spread awareness about viral hepatitis and COVID-19.
6. Arrange essential health care visits at COVID-19-free destinations with prerecorded appointments for local testing and ensure both patients and the medical staff follow the precautious measures against COVID-19.
7. It is highly recommended to encourage hepatic patients to get the available COVID-19 vaccines as they are classified as vulnerable population.²³ There is a need for viral hepatitis patients to get free accessibility to the COVID-19 and hepatitis vaccine; separate programmes should be set for such interventions. The importance of the COVID-19 vaccine cannot be stressed enough especially for vulnerable populations with comorbidities. Low-income countries are already suffering from COVID-19 vaccine shortage and should be prioritised in eliminating vaccine nationalism.¹⁵
8. Ensure more strategic investments in hepatitis services.
9. Strengthen the disease surveillance that detects viral hepatitis and COVID-19 synonymously.
10. Educate healthcare providers and the communities in Africa on reducing the health disparities between COVID-19 and viral hepatitis.
11. Enhance infection control practice; education, oversight and enforcement, which is critical to reducing transmission of viral hepatitis in health care settings.
12. Collaborate locally with stakeholders, partners and communities disproportionately affected by viral hepatitis as well as other allies, to support observances by organising local events and awareness activities.
13. Seeking local media coverage to engage new partners in responding to viral hepatitis, particularly allies with the accessibility to reach populations most impacted by viral hepatitis.
14. In order to develop and utilise the most effective strategies and interventions for preventing, diagnosing and treating viral hepatitis amidst COVID-19, continued research on new approaches and evaluation of existing approaches are needed.
15. Creating viral hepatitis prevention partnerships with community-based providers of hepatitis care such as medical and social services that target substance abusers can help synergise efforts; improve the delivery of hepatitis prevention services; and reduce stigma against drug abusers who are in desperate need of medical and public health attention.
16. Ensuring access to sterile injecting equipment and effective drug dependence treatment can prevent and control viral hepatitis B and C epidemics amongst needle drug abusers, as part of prevention measures.
17. Effective vaccines should be available for preventing viral hepatitis infections, with a range of countries already implementing large-scale and inexpensive hepatitis B virus childhood vaccination programmes.

18. Transmission of viral hepatitis B and C in health care settings can be eliminated through rigorous application of universal precautions for all invasive medical interventions, promotion of injection safety measures and securing a safe supply of blood products.
19. Effective interventions should be combined and tailored for the specific population, location and setting to have the most significant impact. For example, in certain countries with a high prevalence of hepatitis B virus, the most significant public health benefit would be: reducing deaths by preventing early life infection through birth-dose and childhood vaccination and the consistent treatment of chronic hepatitis patients.
20. The actual public health dimension and impact of hepatitis epidemics are poorly understood in many countries. There is a need for national and regional awareness to strengthen their inadequate data and weak hepatitis surveillance programs, which will strengthen the plan for focused action and prioritise the allocation of resources.
21. Ensure that hepatitis medicines are affordable and that those in need of treatment should have access to those medicines without experiencing financial hardship.

6 | CONCLUSION

Despite the primary concern of COVID-19, viral hepatitis is still an ongoing epidemic that requires serious medical attention with routine checkups. Many lives are hanging, waiting for medical diagnosis, treatment and follow-up. Health authorities should find a way to prioritise viral hepatitis patients despite the limited medical resources. Otherwise, we risk overwhelming the health systems during their most fragile state with complicated hepatic cases.

KEYWORDS

Africa, COVID-19, pandemic, public health, viral hepatitis

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Not applicable.

CONFLICT OF INTEREST

No conflict of interest declared.

ETHICS STATEMENT

Not applicable.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analysed in this study.

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