

Awareness, Prevention and Control of Hepatitis B in Nigeria
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ABSTRACT

In Africa, Nigeria is ranked as one of the countries that is hyper-endemic for HBV infection. Approximately nine in ten Nigerians who live with chronic HBV are unaware of their infection status, and are missing from the global public health statistics due to a lack of resources, awareness, and political will for addressing Nigeria's HBV plight. Consequently, Nigeria has one of the highest rates of HBV in West Africa. The lack of affordable diagnostics—for example specialised immunoassays and nucleic acid tests, as well as the out-of-pocket cost for vulnerable populations, constitute potential barriers to eliminating viral hepatitis B in Nigeria, thus making HBV a significant threat to public health. If suitable health protective measures are in place to prevent, screen, immunise, and treat the target group, hepatitis B can be prevented. Further, clinical and epidemiological research on HBV infections in Nigeria needs to be developed.

Keywords: Awareness, Prevention, Hepatitis B and Nigeria.

INTRODUCTION

The most deadly type of viral hepatitis is hepatitis B. It is a pathogenic bacteria that can infect people and possibly kill them. It is a liver infection that can result in both acute and chronic illness [1]. Nigeria has the most people who are chronic carriers of the virus's lethal variant out of the continent's 47 member states [2]. In 2019, the World Health Organization estimated that 296 million people would have chronic hepatitis B, with 1.5 million new cases occurring each year [1]. Similarly, a projected 998,000 Nigerian children under the age of five are chronic carriers of the Hepatitis-B antigen, according to the World Health Organization's 2021 viral hepatitis scorecard. According to the report, 11,679,000 additional Nigerians are known to be chronic carriers of the viral hepatitis-B antigen. The poll found that hepatitis B affects more than 8% of the population in 19 countries, whereas hepatitis C affects more than 1% of the population in 18 countries. Nigeria has a national viral hepatitis strategy and a national hepatitis treatment program, but the country's hepatitis B immunisation rate is only 58 percent [2]. According to numerous studies, different subpopulations around the world have

varying rates of viral hepatitis B (HBV), with estimates varying according to the methodology used and the research population. Chronic HBV infection affects 3.5 percent of women of reproductive age globally, with rates ranging from 6 to 25 percent in African countries [3]. Additionally, a national assessment on HBV infection in Nigeria discovered a prevalence of 12.2% among the general population [4], whereas a systematic analysis of HBV infection among pregnant women in Nigeria revealed a prevalence of 14.1%. [4]. [5] for instance, the WHO Extended Programme for Immunization (EPI) has gradually expanded vaccination against HBV infection throughout Africa since 1995, along with intensified efforts to stop mother-to-child transmission. The overall population prevalence of HBV infection is still high (> 8%) in many Sub-Saharan African settings despite the introduction of vaccines more than 20 years ago, which had a considerable impact on reducing infections in children [1]. So, the main goal of this proposal would be to find out how much Southeast Nigerians know about HBV and to come up with more plans for preventing and dealing with the virus.

Statement of Problem

Because of a dearth of resources, public knowledge, and political will to address Nigeria's HBV problem, about nine out of ten Nigerians living with chronic HBV are uninformed of their infection status [6]. As a result, the incidence of HBV-related cancer in Nigeria is among the highest in West Africa, with an estimated 2.6 to 5.1 cases per 100,000 people, when age is taken into account [7]. HBV is a significant public health issue in Nigeria because of the unavailability of affordable diagnostic tests, such as specialised immunoassays and nucleic acid tests, as well as the out-of-pocket expenditure for vulnerable individuals. Clinical and epidemiological studies on HBV infection are also being conducted in Nigeria, but appropriate funds and dedication have yet to be secured. Over 22 million Nigerians are infected with the virus, which has a prevalence range of 2% to 20%. This has a severe economic and social impact on Nigeria's government [8]. With the disease's immediate and long-term consequences, the cost of caring for HBV-infected patients can be disastrous. Nigeria's proposed health budget for the year 2022 was 73 percent spent on salaries and operating costs, according to [9]. Although African leaders have pledged to spend 15 percent of their national budgets on health in 2021, the health ministry's annual

budget has been significantly lower than that. It's too bad that the Nigerian government has never given the health sector more than 8% of its total budget. N550 billion (or 4.1 percent) of the federal government's 2016 budget was earmarked for health care. In 2017, the health sector received N7.4 trillion, of which 308 billion (4 percent) was allocated. When Nigeria's budget was \$9.1 trillion in 2018, N356.4 billion, or 3.8% of that amount, went to health, whereas in 2021 the health ministry will receive N5.4 billion, or 3.7% of that amount. Nigeria's health care system has a lot of problems because it doesn't have enough money. This has led to a loss of skilled workers.

If suitable health protective measures are in place to prevent, screen, immunise, and treat the target group, hepatitis B can be prevented. Healthcare professionals, commercial sex workers, those who have received unscreened blood, those who use intravenous drug misuse, expectant mothers and babies of HBV-infected mothers are identified as high-risk groups for HBV infection and should be monitored more closely during surveillance in Nigeria [10]. This suggested research, therefore, aims to raise awareness of the importance of HBV prevention and control in South-Eastern Nigeria.

Literature Review

Umare and colleagues [11] discovered that Hepatitis B infection is highly contagious. Rauf et al. [12] found that Hepatitis B can cause chronic liver disease, liver cirrhosis, and liver cancer when combined with hepatitis C virus infection. Furthermore, Rauf et al. [12] found that Hepatitis B infection can cause bone marrow failure (hepatitis-related aplastic anaemia) when combined with hepatitis C virus infection. A variety of methods exist for spreading HBV infection from one person to another. They concluded that the transmission pattern is determined by the number of long-term carriers in an individual population, according to [6]. So, in endemic places like Sub-Saharan Africa, transmission is predominantly by mother-to-child transmission, perinatal exposure to blood or body fluids, blood transfusion, and unprotected sex with an

infected individual, or through the use of contaminated syringes, needles, and other sharps. 10% of transmission is in vitro. Children's later cognitive and physical development can be harmed by vertically transmitted HBV infection. During labour and delivery, vertical transmissions are most common [13]. As much as 40% of the world's endemic carriers can be traced back to chronic mother-to-child transmission. Researchers have found that 90% of children who are infected within the first year of life go on to become chronic carriers, but only 10% of adults who are infected later in life go on to become chronic carriers and are at an increased risk of developing cirrhosis and liver cancer [14].

In Nigeria, various studies on the prevalence of HBV infection focused mostly on the country's geographical

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zones and indicated an increase in the disease's frequency from eastern Nigeria (1.5 percent) to the northern region of the country (5.6 percent) [10]. In Western Nigeria, the average frequency was 7.5% [9; 15]. At present, we don't know why these disparities exist. According to research by Orji, et al. [16], the prevalence of hepatitis B virus (HBV) infection among health care workers in Enugu State, Nigeria was low. However, a cross-sectional investigation on the seroprevalence of HBV infection among health care workers in Eastern Nigeria by Nwabuko et al. [10], on the other hand, identified risk factors for contamination. A total of 1.5% (4/275) of the participants tested positive for HBV. Among women, the prevalence rate was much greater than that of men, at 1.1%, with 3/180 women reporting it ($P > 0.05$). There is a significant difference in prevalence between the younger (20-year-old) and older age groups ($P = 0.02$). The odds ratios (ORs) for HBV infection were 5.9 and 4.2, respectively, for blood transfusion and vaginal discharge (STDs). According to these studies, in Nigeria, improper blood transfusions, poor screening processes, and commercial sex are the most prominent risk factors for HBV infection. In terms of risk stratification, these are the most at-risk categories for HBV. When there is evidence of vaginal discharge or other sexually transmitted disease, HBV testing should be performed. Aside from that, people in the youngest and oldest age groups were the most vulnerable to HBV infection, so they should be screened and given vaccines to prevent infection [15]. There are many variables that can indicate whether a person is at risk for having hepatitis B virus (HBV) in the community, including education level, history of contact with a person with jaundice (yellowness of the eye), tattoo or scarification marks, genital ulcers, and geographic location (urban or rural) [2]. All of these people should be screened for HBV and treated if they test positive. For a long time, experts have only looked at deaths caused by acute hepatitis [15]. While this underestimation remained, the WHO Global Burden of Diseases data was published in 2014. Naghavi et al. Several countries, such as Nigeria, are investing in the coordinated action

required to battle hepatitis because of a lack of global attention. MDG 6 (Combat HIV/AIDS, malaria, and other diseases) was supposed to be completed by 2015, but the final report shows that Nigeria only made considerable progress against HIV/AIDS (MDG End-point Report, 2015). As a result, the report emphasised the importance of identifying solutions to the myriad issues that hindered the MDGs from being fully achieved in advance of the SDGs agenda. According to Egboboh [7], Nigeria needs \$350 billion to achieve the SDGs by 2030, which corresponds to N126 trillion, significantly more than the country's annual budget of N9 trillion, even if gathered over the next 15 years. More than 80% of the SDG goals have not improved over time, according to the current evaluation. As a result of the government's indifference, this is the case. Similarly, Nigeria's inability to meet the SDGs is hampered by a lack of efficient policy implementation, ineffectiveness, inadequate coverage, social unrest, and population displacement [8]. Hepatitis B virus (HBV) patients in Nigeria are already facing a big challenge: obtaining a correct diagnosis and reasonable estimations. Diagnoses, in some cases, are confronted with a second major obstacle in the treatment process [15]. In Nigeria's resource-constrained situation, these challenges become critical because of the financial consequences. Health product supply networks were highlighted as key in another important study by Chukwu et al. [5] to assure the accessibility of high-quality medications and immunizations. With poor policy implementation and substandard pharmaceuticals leading the pack, access to quality essential medicines in Nigeria remains an issue [4]. Together with the aforementioned, Okonkwo et al. [17] argue that the Nigerian situation shows that public treatment services are often inefficient, poor quality, underutilised and frequently lack drugs and diagnostic capabilities. They are not alone. In public facilities, inappropriate prescriptions are common, decreasing the standard of care, costing taxpayers money, and increasing the risk of drug resistance [16], cited in [18]. Many people prefer using private medical facilities because

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of the overcrowding, lengthy wait times, and cursory consultations they encounter when visiting public ones [18]. However, the quality of care, efficiency of service delivery, and low use of adequate care are limiting factors for the healthcare industries in both the public and private sectors. Hepatitis B treatment decisions will be influenced by factors such as cost, poverty, lack of

knowledge about proper treatment, and the difficulties in evaluating quality care in this setting [18]. The burden of disease falls disproportionately on the poor, who, according to some research, seek care from "low-level" providers and avoid laboratory-based official diagnosis [19; 20], cited in [18], thus increasing their disease burden [19].

CONCLUSION/RECOMMENDATION

HBV is hyper endemic in Nigeria and arguably the highest in Sub-Saharan Africa. This is coupled with the fact that it is highly transmittable at the initial stage of the infection even without clinical symptoms and signs. Hence, there should be increased awareness of HBV infection and importance of

vaccination through the television, radio, and internet media which are among the easiest means of communication to the wider population. Policy for infant vaccination against HBV should be enacted and implemented, while HBV vaccination should be made free or affordable and accessible for all.

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