

## Hepatitis C virus infection in Ghana: time for action is now

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### Introduction

Chronic hepatitis C virus (HCV) infection is a blood borne infection just like hepatitis B virus (HBV) and Human Immunodeficiency Virus (HIV) with a significant global health impact. Since the discovery of the HCV, several developments including a better understanding of the clinical epidemiology, availability of diagnostics and approval of newer therapies over the last decade have occurred and changed the frontiers of HCV management. Many nations now place HCV infection as a priority public health issue. In Ghana however, awareness, advocacy and treatment of HCV still plays a second fiddle to HBV and HIV. This must change and the time to act is now.

The WHO estimates there has been a decline in the number of persons living with chronic HCV infections from about 130-150million to about 80million currently.<sup>1</sup>This decline is due partly to the fall in new infections since the discovery of the HCV virus in 1989. Ironically, deaths from HCV are on the increase.<sup>2</sup> A large number of persons infected 30–60 years ago are now dying from HCV-related cirrhosis and hepatocellular carcinoma (HCC), as these complications often take decades to develop.<sup>2</sup> This mortality trend is projected to continue for several more decades unless treatment is scaled up considerably.

In Ghana, the most recent estimates of HCV infection from a systematic review by Agyeman *et al* is 3%.<sup>3</sup> Given that HCV transmission is highest amongst intravenous drug users, HIV infected individuals and homosexuals and that majority of the studies in that review were in low risk individuals; blood donors and pregnant women, this is likely an underestimation. Since HCV infection is clinically silent in majority of carriers until late, the true prevalence and the burden it imposes on the Ghanaian health care system is likely to remain unknown unless a comprehensive national screening policy is implemented.

Blankson *et al* reports that 1 in14 cases of cirrhosis is caused by HCV in Ghana.<sup>4</sup> Also, Yang *et al*, reports that HCC occurs at an early age in Sub-Saharan Africa including Ghana and HCV is an important cause.<sup>5</sup> Therefore, it is most likely that HCV is afflicting mainly the workforce of Ghana. This should be a concern to all, and for stakeholders to commit to interventions that will tackle this disease.

In the absence of an HCV vaccine, treatment of infected individuals is a major intervention to control this menace. Pre-treatment evaluation includes determination of HCV viral load, HCV genotype and degree of liver fibrosis either via liver biopsy or fibroscan. These evaluations are expensive and often limit the initiation of treatment in Ghanaians.

### Treatment options

Until 2011, pegylated interferon and ribavirin for 24-72 weeks depending on genotype and response was the standard of care for HCV. This treatment was complex with a lot of side effects and cure rates also known as sustained virological response (SVR) rates were poor.

The discovery of direct acting antivirals (DAAs) from 2011 revolutionized the treatment of HCV. Several combinations of DAAs provide SVR rates of more than 90%.<sup>6</sup> These DAAs have fewer side effects and shorter durations of treatment. Some DAAs are effective against all HCV genotypes, obviating the cost for HCV genotyping and simplifying treatment for clinicians. These medicines are however very expensive and beyond the means of many Ghanaians. When DAA therapy was introduced in the United States in 2013, the wholesale acquisition drug price to treat one person was US\$ 84 000. This has since come down as a result of negotiated discounts, but still exceed US\$ 50 000 per patient.<sup>6</sup> Some governments through negotiations with manufactures and registration of generics have obtained access to these DAAs at much lower prices. This offers a window of opportunity to access treatment for the Ghanaian HCV patient.

Steps have been taken in the past few years to improve care to the Ghanaian HCV patient. Notable amongst these is the publication in March 2017, of the first ever guidelines for the care and treatment of persons with hepatitis including HCV.<sup>7</sup>

Several obstacles, however, remain against the successful management of chronic HCV infections. Several infected persons are likely to remain unidentified as there are no defined criteria for HCV screening in Ghana. Voluntary testing for HCV is low because of low awareness. Diagnosis of chronic HCV requires both a positive HCV antibody test and a positive RNA test.

While several health facilities are equipped to perform the screening anti-HCV antibody test, no public hospitals or laboratories offer reliable HCV RNA or viral load and genotype testing. These have to be sourced from private laboratories that often send samples abroad at costs beyond the means of most Ghanaians. Other evaluations tools like the fibroscan are also lacking. Furthermore, only a few health care providers are well informed about the rapidly changing world of HCV infection management and so provision of treatment is restricted to only a few centres manned by hepatologists and other specialists. Access to these specialists for further evaluation and treatment of the infected persons is a challenge in most parts of the country.

### Recommendations

To improve the care for HCV in Ghana, the following strategies are recommended.

- Improved awareness education and advocacy on HCV. This will encourage voluntary testing especially in the high-risk population. The national guidelines must also include recommendations on who to test for HCV.
- Tooling of public laboratories to test for HCV RNA or viral load and genotype. Government investment will be required to procure fibroscans at least for the teaching hospitals to use in assessing liver fibrosis.
- Capacity building of clinicians at all levels to treat HCV. This should be a less daunting task as DAAs have simplified treatment for the non-hepatologist
- Government must negotiate with manufactures for reduced pricing of originator brands or actively promote and encourage the registration and licencing of generics. These drugs can then be made available on the National Health Insurance Scheme (NHIS) Medicines List.
- Encourage and fund research to gather reliable data on all aspects of HCV infection. This will guide appropriate health policies and public health decision making.

More commitment is required from government and all stakeholders to meet these recommendations. Thankfully, lessons from how Ghana tackled the HIV/AIDS epidemic are there to guide us. Time for action is now. All hands on deck.

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