


Which Strategies Should Be Implemented in Latin America to Eradicate Hepatitis C Virus by 2030?

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Hepatitis C virus (HCV) infection is a global health concern with an estimated worldwide disease prevalence rate of 1%, meaning 71 million individuals are infected.¹ In the United States, the estimated prevalence rate is 0.7%, or 7 million individuals.¹ Specifically in Latin America, estimations suggest that only 25% of individuals with suspected HCV infection have been diagnosed, and only 4% received treatment.² Recent availability in this region of direct-acting antivirals (DAAs), which are safer and more effective than the interferon-based therapies, may influence treatment paradigms at country levels.

In 2016, the World Health Organization (WHO) approved the Global Health Sector Strategy on viral hepatitis.³ This strategy aims to eliminate HCV through a diagnosis rate

increase of up to 90% of total infections and a 90% decrease of new infections, leading together to a final 65% decrease in liver-related mortality by 2030.³ This strategy appears attractive at a global level, but it would be necessary to consider its varying viability for different world regions, and especially its applicability in Latin America.

What barriers could prevent the Latin American region from achieving this goal? What strategies would better overcome these barriers? We propose considering the following issues regarding barriers to HCV diagnosis and access to care and treatment:

1. Lack of diagnosis appears to be the most important barrier because, without diagnosis, there is no possible

Abbreviations: DAA, direct-acting antiviral; HCV, hepatitis C virus; PCP, primary care physician; WHO, World Health Organization.

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control of the disease. Globally, in 2016, approximately one in five people living with HCV were diagnosed. In low-income countries, only approximately 8% of people infected with HCV have been diagnosed, compared with 43% in high-income countries.⁴ We must work hard to close this gap in Latin America if we want to accomplish the WHO strategy. This can be achieved through massive education and awareness campaigns oriented to the general population and to the first line of medical care, the primary care physicians (PCPs). Also, easy and cheap access to rapid diagnostic tests and/or one-step point of care could help meet this goal. Screening programs must be developed in each Latin American country according to local epidemiological data because their statuses are very heterogeneous and there are substantive differences between them. Some specific alternatives to increase diagnosis are universal HCV screening by age or birth cohort, massive screening in high-prevalence populations (immigrants and prisoners, among others), and HCV screening linked to other health actions (e.g., colonoscopy or emergency visits).

2. Once HCV infection diagnosis is achieved, access to specialty care is the next barrier to overcome. Specialists in liver diseases are the most qualified professionals to perform this task. However, some gastroenterology and infectious diseases specialists can also adequately manage this disease, although it seems unlikely that PCPs, who have not received any specific training, can handle care of HCV-infected patients. Specialized care includes performance of specific viral tests, staging of liver fibrosis, and assessment of liver disease severity; its availability varies between each Latin American country.
3. When diagnostic evaluation is completed, treatment should be implemented in all patients, as it has been recently recommended by the WHO and other international and local guidelines.⁵⁻⁷ Selection of treatment depends on each patient's clinical characteristics and availability of DAAs in a given Latin American country. The percentage of patients with HCV diagnosis who have access to DAA treatment is variable between countries. Also, DAA availability varies. In Latin America, only Brazil and Argentina have national health care programs that guarantee access to treatment for as many patients as possible.⁴ However, the success of these programs still needs demonstration.
4. Treatment cost is the main global barrier to DAA access, and it is more important in countries that lack the economic resources to face it. Cost of care for HCV-infected

patients varies between each country, but in the United States, treatment cost represents 78% of the total HCV care cost.⁸ Therefore, reduction of treatment costs appears as a key issue in Latin America to achieve the goal of HCV elimination proposed by the WHO. But how would we be able to reduce it?

5. Another Latin American issue is funding of HCV diagnosis and treatment. The health insurance system in this region is very different from Europe or the United States; it is fragmented, and its organization varies between countries. In general, Latin American countries have a public system that depends on state funds, a private system paid by individuals, and a possible third option, which is the insurance paid by the workers' employers. Health coverage is supplied by one of each of the mentioned systems in different proportions that greatly vary between countries in this region. Each system has different rules regarding HCV diagnostic studies and treatment coverage. Also, country Health Ministry rules are not uniform across the region and do not guarantee universal access to HCV diagnosis and treatment. Moreover, access to specialized care also varies according to the insurance coverage, and some countries lack the necessary trained physicians to deal with this disease.
6. Treatment of HCV infection in the early phases of the disease may reduce costs because future cirrhosis, hepatocellular carcinoma, liver transplantation, and clinical decompensation can be prevented. Furthermore, most patients with fibrosis stages 0 to 2 can be treated for 8 weeks, resulting in a treatment cost reduction.⁹ Nevertheless, the bottleneck for universal HCV infection treatment is the cost of medicines in the economic context of the Latin American region. How could it be modified? The following options could help to improve this situation: (1) Increasing the proportion of treated HCV-infected patients can result in a reduction of total HCV infection care cost; (2) availability of generic drugs meeting the WHO standards could also help reduce treatment cost; (3) centralized large-volume drug purchases would allow achievement of the goal of reducing treatment cost; and (4) regional purchases through the Pan-American Health Organization could result in even lower costs. In Argentina, for example, there are several generic drugs for sofosbuvir replacement, although this availability has not resulted in a large reduction of treatment costs as has been observed in other regions; Brazil also has implemented a large-scale drug purchase centralized by the Health Ministry.

The economic cost of HCV infection and the implemented strategies to deal with it at a regional level are difficult to evaluate because there are many differences between Latin American countries. However, benefit beyond cost must be highlighted. Much focus has been placed on HCV treatment cost, but this tool should be considered as an investment. The adequate management and control of HCV infection will result in a reduction of the burden of the disease and in its impact on the health system in the medium and long term. The economic impact of DAA treatment has been analyzed based on Latin American data. Obtained results demonstrate that DAA therapies are cost-effective at any of the studied price ranges.¹⁰ Therefore, it is likely that investing in DAA therapies will result in substantial benefits for both individual patients and health systems.

Many challenges remain for reaching the goal of HCV elimination in our region by 2030. It is time to promote the diagnosis, highlight the burden of the disease, and make the authorities aware of the situation as we look forward to working collectively to achieve the proposed objective.

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