



Extending a Helping Hand: Addressing Hepatitis C in Economic Migrants and Refugees

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Despite remarkable progress in the development of new antiviral therapies, hepatitis C virus (HCV) remains an enormous global public health problem.¹ Although cure is the new norm with direct-acting antivirals (DAAs) and treatment uptake hit record highs in 2016, the global burden of disease has inched very modestly downwards. Looking at global data, projections for 2017 are disheartening. Although an estimated 1.5 million people will be cured and another 350,000 will die from HCV while another 1.04 million HCV-infected individuals die of other causes, a staggering 1.6 million new infections are expected to occur, meaning that even in the year with the highest treatment rates ever recorded for HCV, the global prevalence is expected to dip by just 1.8%, from 71 to 68.8 million infected individuals (Andrew Hill, World Hepatitis Summit, São Paulo 2017). To achieve the ambitious elimination targets set out by the World Health Organization (WHO) of a 90% reduction in new infections and a 65% reduction in mortality from viral hepatitis by 2030, significant scale up of our current efforts will be required. Effective therapy was critical to even consider elimination but it is important to recognize that therapy is necessary but entirely insufficient on its own to achieve elimination.

The article by Sagnelli, *et al.* in this issue of the journal highlights an important struggle in the challenge to address HCV globally. As with many infectious diseases, HCV disproportionately affects marginalized populations. While in high, and many middle income countries, marginalized often focuses on people who use drugs; on a global scale, particularly in low and middle income countries, marginalized may also reflect drug use but often has more to do with poverty and political instability.^{2,3} Sagnelli, *et al.* describe a program to screen for HCV along

with hepatitis B virus and HIV in economic migrants and refugees in Southern Italy.

Screening was offered to 2,032 immigrants of whom 1727 (85%) agreed to be screened. Importantly screening was offered in the context of primary healthcare delivery and involved not only a physician but also a cultural mediator to help with pre and post-test counseling. Of those screened, 70 (4.1%) tested anti-HCV positive, considerably higher than the rate of 1.8% reported in the Southern Italian population. A small percentage were HIV and/or HBV co-infected and over half (51%) were anti-HBc positive, indicating past HBV infection. Importantly, all 70 had follow-up HCV RNA testing and interestingly, only 39 (56%) proved to be viremic. This may reflect the high rate of past HBV-exposure, which usually predates HCV and increases the rate of spontaneous HCV clearance.⁴ This is borne out by the fact that HCV viremic patients were more likely to come from North Africa, which has a lower prevalence of HBV than Sub-Saharan regions of Africa.

Of those with chronic HCV, 2 already had cirrhosis and 18 had active hepatitis, while 11 were thought to have relatively mild disease given persistently normal ALT levels. Notably none of the individuals was aware of their diagnosis, highlighting yet again the low diagnosis rates globally, even in those with advanced liver disease.⁵ Patients with cirrhosis were treated with DAA regimens while those with concern for progression with active hepatitis received peginterferon and ribavirin and the others were followed with no treatment. It is reassuring to see that the cascade of care worked well in this program with all those diagnosed as anti-HCV-positive going on to receive HCV RNA testing with subsequent treatment or continued

monitoring. This clearly speaks to the positive environment provided by these primary care and referral clinics, as in most series, drop-off occurs at every point in the cascade of care, particularly when marginalized individuals and those who may have concerns about legal status are considered.⁶⁻⁸

This report highlights a number of key issues in the struggle to address HCV at a global level. Firstly, it is important to recognize that HCV is likely over-represented in migrant and refugee populations but the reality is that high quality data from such populations are very limited. Such individuals often have very limited or no access to primary health care and providers may be reluctant to screen for chronic and reportable conditions in people they may not see again. Additionally, many individuals in precarious living conditions are reluctant to receive testing for fear of how results may affect their immigration or employment opportunities.⁹ The fact that the majority of those offered testing accepted to be tested suggests that the environment was welcoming and adequate pre-test counseling was provided, a key factor that must be considered when developing similar programs. It would be nice to examine in a little more detail how the prevalence in the migrant populations reflected the prevalence in their countries of origin. Although one might assume that prevalence would be higher in refugees and economic migrants than in the general population, in many countries the primary risk for HCV acquisition is interaction with the healthcare system, which may actually occur less frequently in the marginalized populations who are forced to leave.

Although it is reassuring that tested individuals remained in care, it is notable that the majority were not able to access therapy or were given suboptimal therapy with peginterferon. This reflects the reality in most parts of the world in which major barriers persist in accessing optimal HCV treatment. Cost remains the biggest barrier and seems to be the primary issue in Italy, but other concerns are access to providers as well as fibrosis and drug and alcohol restrictions.^{10,11} While the decision to observe those with apparently milder disease may be reasonable in the short-term, it is important to recognize that there are not really 'inactive carriers' with HCV, as even those with persistently normal liver enzymes may already have advanced fibrosis and certainly have a significant risk of progressive fibrosis over time.¹² It is not clear how fibrosis was assessed, as no specific mention of tools aside from histology is mentioned. Useful tools like transient elastography may not be widely available but even simple measures such as the AST to platelet ratio index (APRI) or the FIB-4 score can be used with a high negative predictive value for ruling out cirrhosis.¹³ Rationing treatment to those with more advanced fibrosis seems intuitive but particu-

larly in a potentially unstable and transient population like refugees, it is important to consider the risk of loss to follow-up if treatment is not offered immediately after diagnosis. Immediate treatment not only has the benefit of curing the individual but also may prevent onward transmission, particularly in high endemic countries where transmission occurs in healthcare settings and to household contacts. Although prices have fallen and generics are becoming more widely available, continued efforts to make therapy more affordable to all will be absolutely critical to achieve elimination goals.

Sagnelli, *et al.* should be congratulated for their efforts to address HCV in a key but often overlooked population. They have clearly developed a program with many elements needed for success but they are still lacking the open access to treatment that is necessary to make major impact. As efforts continue on the road to elimination, we will need more programs like the one described here; programs that reach out into the community to find those living with HCV and offer them ongoing care and support. Offering a helping hand is clearly the first but far from the last step on the long road to elimination.

DISCLOSURES

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