

# Eliminating viral hepatitis B and C in times of war and increasing global refugee crisis

Philip Bruggmann<sup>abc</sup>

<sup>a</sup> Arud, Centre for Addiction Medicine, Zurich, Switzerland

<sup>b</sup> Institute of Primary Care, University and University Hospital of Zurich, Switzerland

<sup>c</sup> Swiss Hepatitis, Zurich, Switzerland

The extent of the hepatitis B and C epidemic and its consequences were not recorded for a long time. Viral hepatitis was, and to some extent still is, overshadowed by HIV, even though hepatitis B and C cause more deaths annually than HIV [1]. It was not until 2016 that the first global strategy to combat hepatitis B and C was launched by the WHO [2]. This strategy aims to eliminate viral hepatitis as a public health threat by 2030. Unsurprisingly, today most countries in the world are not on track to achieve this goal [3].

Migrants and people affected by conflict and civil unrest are defined as a priority population in the Global health sector strategies on HIV, viral hepatitis and sexually transmitted infections for the period 2022-2030 [4]. In addition, the prevalence of hepatitis B and C is highest in many low- and middle-income countries, which, together with the often-accompanying poor supply situation, means that the burden of disease in these countries is very high.

The highest hepatitis C prevalences were in Egypt (6.7% HCV-RNA- prevalence), Gabon (7%), Mongolia (6.4%), Pakistan (4.3%), Uzbekistan (4.3%), Georgia (4.2%), Russia (3.3%), and Syria (3%) [5]. For Hepatitis B it is Zimbabwe (25% HBsAg-prevalence), Mali (15.5%), Burkina Faso (14.5%), Senegal (13.8%), Nigeria (13.6%), Albania (9%) and China (7.2%) [6].

At the same time, migration and displacement from these countries and regions mean that in rich countries the epidemiology of these chronic infectious diseases is dominated by migratory movements [7]. In the past 50 years, the number of migrants worldwide has increased by 300% [8, 9]. Moreover, in 2022 globally, the number of forced displacements exceeded 100 million for the first time since World War 2 [9, 10].

Despite this, many of these rich countries do not have specific measures in place to address viral hepatitis in migrants that are adapted to their needs. And inadequate access to health care and prevention measures puts people with a migrant background in those countries at increased risk of contracting blood-borne and sexually transmitted diseases after migration. Well-functioning hepatitis care for people with an immigrant background and displaced persons is thus essential to eliminate viral hepatitis. The provision of viral hepatitis care for this key population offers an opportunity to support the health status in their

countries of origin if these people have the chance to return home one day.

The biggest hurdles to adequate hepatitis care are structural, but also financial and societal. Insufficient access to health care (especially for undocumented migrants and asylum seekers), lack of funding for health care services, but also stigmatization and xenophobia, as well as fear of arrest and deportation are cited as the main reasons why many people with a migration background are not tested, treated or vaccinated [7]. Further barriers include language and lack of knowledge among health care providers and which migrants should be screened [9].

Specific need-adapted and culturally sensitive services for people with migration backgrounds are required to reach these populations with elevated prevalence being at risk of falling through the existing hepatitis-care-network [7]. Lessons can be learned from research on hepatitis care among people who use drugs for improved prevention, diagnosis, and treatment of migrants [11]. Hepatitis care must be brought to these populations to the extent possible, rather than trying to steer these groups to existing, often high-threshold, care settings. This lowers the threshold of access.

The current possibilities in the diagnosis and treatment of hepatitis allow decentralized, comparatively simple care with only a few consultations. A point-of-care diagnosis and, if the infection is detected, immediate initiation of therapy during one consultation is feasible in a decentralized setting for hepatitis C [12]. Such a simplification of the care pathway provides the basis for bringing care closer to vulnerable populations.

Engaging and training linguistically and culturally matched health system navigators as well as integrating care into community structures, have the potential to increase the reach of medical services for migrants. Different migrant populations have different needs, services and measures must be adapted to each target-population. Ideally, such offerings combine a broad range of medical services, in line with a patient-centered, integrated approach to care as outlined in the new WHO strategy [4]. Because of the similar routes of infection, hepatitis services should always at least cover HIV and sexually transmitted infections as well, and vice-versa.

Prof. Dr. med. Philip Bruggmann  
Arud, Centre for Addiction  
Medicine  
Schützengasse 31  
CH-8001 Zurich  
[p.bruggmann\[at\]arud.ch](mailto:p.bruggmann[at]arud.ch)

Figure 1: Notices in Ukrainian and Russian for the federal asylum centers and refugee shelters.

**Информация щодо ВІЛ гепатитом**

Ми надаємо консультації, інформацію та допомогу біженцям з України, які живуть з ВІЛ та/або гепатитом. Також ми надаємо допомогу людям, що потребують опіоїдної замісної терапії (ОЗТ).

**Информация о ВИЧ гепатите**

Мы консультируем, информируем и предоставляем медицинский уход беженцам из Украины, живущим с ВИЧ/или гепатитом. Также мы предоставляем людям опиоидную заместительную терапию (ОЗТ).

**Infos zu HIV Hepatitis**

Wir beraten, informieren und versorgen Flüchtlinge aus der Ukraine, die mit HIV und/oder Hepatitis leben. Außerdem versorgen wir Menschen in Opioid-Substitutionstherapie (OST).

Додаткова інформація українською та російською мовами доступна за посиланням:  
Weitere Informationen in Ukrainischer und Russischer Sprache gibt es auf:  
[aids.ch/ukraine](https://aids.ch/ukraine)

**Infos sur le VIH l'hépatite**

Nous conseillons, informons et prenons en charge les personnes ayant fui l'Ukraine et vivant avec le VIH et/ou une hépatite. Nous prenons aussi en charge les personnes sous traitement de substitution aux opiacés (TSO).

Дополнительная информация на украинском и русском языках доступна на сайте:  
D'autres informations en ukrainien et en russe sont disponibles sur:  
[aids.ch/ukraine](https://aids.ch/ukraine)

For viral hepatitis, the European Centre for Disease Prevention and Control (ECDC) recommends the use of a screening strategy in populations where the prevalence is 2% or more. For HIV, screening is recommended in refugee populations from countries where the prevalence is 1% or more [13].

The Russian war of aggression on Ukraine and the subsequent large refugee flows exemplify how quickly adequate hepatitis and HIV care had to be provided for these fleeing people. HCV-RNA-prevalence in Ukraine is estimated at 3%, and HIV and HBsAg-prevalence at about 1%. Both HIV and hepatitis carry a significant stigma in Ukraine. In

Switzerland, the Ukrainian refugees received the so-called "protection status S", which, among other things, comes with free health insurance.

As a first measure, NGOs from the HIV and hepatitis field created notices in Ukrainian and Russian for the federal asylum centers and refugee shelters. With a QR code on these posters, which can be scanned discreetly, Ukrainians were directed to a website that provided them with addresses of testing and treatment centers as well as patient navigators, among others, in their language (fig. 1).

At the same time, the professional societies involved published a screening recommendation for HIV, hepatitis B and C among refugees from Ukraine [14]. These immediate measures helped numerous affected Ukrainians to continue their ongoing therapies or to start a therapy. Language barriers were overcome with translators or translation apps. As the war continues, further measures are needed, especially community-integrated services, to ensure adequate hepatitis care for these people.

In the case of the Ukraine refugees, measures were and are facilitated by the great solidarity with the refugees among the Swiss population. Unfortunately, this is not the case for all people with a migration background. And yet, if we are to eliminate hepatitis B and C, we must also succeed in offering these migrant populations care that is adapted to their needs and cultural backgrounds.

#### Potential competing interests

The author has completed and submitted the International Committee of Medical Journal Editors form for disclosure of potential conflicts of interest. No potential conflict of interest was disclosed.

#### References

- Roth GA, Abate D, Abate KH, Abay SM, Abbafati C, Abbasi N, et al.; GBD 2017 Causes of Death Collaborators. Global, regional, and national age-sex-specific mortality for 282 causes of death in 195 countries and territories, 1980-2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*. 2018 Nov;392(10159):1736-88. [http://dx.doi.org/10.1016/S0140-6736\(18\)32203-7](http://dx.doi.org/10.1016/S0140-6736(18)32203-7).
- World Health Organisation. Global Health Sector Strategy on Viral Hepatitis 2016-2021. Geneva: World Health Organization; 2016. Contract No.: WHO/HIV/2016.06.
- Blach S, Razavi-Shaer D, Mooneyhan E, Estes C, Razavi-Shaer K, Gankrelidze I, et al. Updated evaluation of global progress towards HBV and HCV elimination, preliminary data through 2021. AASLD Liver Meeting; Washington 2022.
- World Health Organisation. Global health sector strategies on, respectively, HIV, viral hepatitis and sexually transmitted infections for the period 2022-2030. Geneva: World Health Organization; 2022.
- Blach S, Zeuzem S, Manns M, Altraif I, Duberg AS, Muljono DH, et al.; Polaris Observatory HCV Collaborators. Global prevalence and genotype distribution of hepatitis C virus infection in 2015: a modelling study. *Lancet Gastroenterol Hepatol*. 2017 Mar;2(3):161-76. [http://dx.doi.org/10.1016/S2468-1253\(16\)30181-9](http://dx.doi.org/10.1016/S2468-1253(16)30181-9).
- Zampino R, Boemio A, Sagnelli C, Alessio L, Adinolfi LE, Sagnelli E, et al. Hepatitis B virus burden in developing countries. *World J Gastroenterol*. 2015 Nov;21(42):11941-53. <http://dx.doi.org/10.3748/wjg.v21.i42.11941>.
- Kim JU, Ingiliz P, Shimakawa Y, Lemoine M. Improving care of migrants is key for viral hepatitis elimination in Europe. *Bull World Health Organ*. 2021 Apr;99(4):280-6. <http://dx.doi.org/10.2471/BLT.20.260919>.
- McAuliffe M, Triandafyllidou, A. World Migration Report 2022. Geneva; 2012.
- Greenaway C. Migrant Health - Why and Who should we screen for viral hepatitis and other chronic infectious diseases. Swiss Hepatitis Symposium, Berne, 2022.
- UNHCR. Global Report 2021. Geneva; 2021.
- Bruggmann P, Litwin AH. Models of care for the management of hepatitis C virus among people who inject drugs: one size does not fit all. *Clin Infect Dis*. 2013 Aug;57(Suppl 2 Suppl 2):S56-61. <http://dx.doi.org/10.1093/cid/cit271>.
- Draper BL, Htay H, Pedrana A, Yee WL, Howell J, Pyone Kyi K, et al. Outcomes of the CT2 study: A 'one-stop-shop' for community-based hepatitis C testing and treatment in Yangon, Myanmar. *Liver Int*. 2021 Nov;41(11):2578-89. <http://dx.doi.org/10.1111/liv.14983>.
- ECDC. Public health guidance on screening and vaccination for infectious diseases in newly arrived migrants within the EU/EEA. Stockholm; 2018.
- Bruggmann P, Scheidegger C, Semela D. Empfehlungen von SGINF, SASL und Hepatitis Schweiz: Screening auf Hepatitis B und C sowie HIV bei Erwachsenen aus der Ukraine. *Swiss Med Forum*. 2022;37(22):42-3.