

Controlling HCV in Switzerland: running against the clock

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A quarter of a century after the discovery of hepatitis C virus (HCV) as the causative agent of non-A non-B hepatitis in 1989, highly effective direct-acting antivirals (DAAs) against HCV finally became available in 2014. Physicians in Switzerland, in particular hepatologists, infectious disease and addiction medicine specialists, started to use them first for those in most urgent need (with cirrhosis or advanced fibrosis) and subsequently for those with less advanced disease, with their use and reimbursement by universal health coverage permitted since November 2017 for all infected patients. Given the relatively low prevalence and expanded access to DAA therapy, the ability to cure and eliminate HCV became possible. As a consequence, a multi-stakeholder network launched the Swiss Hepatitis Strategy [1], with the aim to reduce morbidity and mortality caused by HCV and eliminate it by 2030. The strategy outlined a reduction of the number of new infections, a reduction of chronic HCV infections, liver transplantations and hepatocellular carcinoma (HCC) cases caused by HCV. Through a recent situational analysis estimated an overall anti-HCV prevalence of 0.7% and after adjustment reported 36,000–43,000 viremic cases in 2015 – an estimated prevalence of 0.49% [2]. Although at the outset treatment rates were high, reaching up to 500 treatments per month, they recently show a dramatic reduction to about half of this number.

A paper now published in *Swiss Medical Weekly* [3] tries to provide answers and intends to give us guidance towards the ultimate goal of HCV eradication by 2030 [4]. The authors used the Markov disease burden model, which can predict potential outcomes of a disease process, defined as specific health states, transitions among which they modeled iteratively. The precision of the prediction is as good and reliable as the data used to generate it [5]. The lack of HCV prevalence data is the most important source of uncertainty.

Rusch et al. [6] developed two scenarios in order to evaluate the disease burden in St Gallen, Geneva and Zurich: a base 2016 scenario, representing the current standard of care in each canton, and a second, potential scenario to achieve the Swiss Hepatitis Strategy goals. In order to achieve the goals of a 30% reduction in new infections, total viraemic infections, liver transplant, and HCC cases by 2020 and a 90% reduction by 2030, all regions will need to increase the annual number of diagnosed and treated pa-

tients until 2030. The effort required needs to be particularly intense in the years up until 2020: for St Gallen, an up-front investment to treat 430 patients annually by 2020 would be necessary to achieve the 2020 goals. After 2020, treatment could be reduced to approximately 150 patients annually until 2030. The number of patients diagnosed, however, would need to be sustained at 130 annually after 2020. In Geneva, 235 patients need to be treated with 140 diagnosed annually between 2019 and 2030 to achieve both the 2020 and 2030 goals. In Zurich, 850 patients will need to be treated annually in 2019 and 2020, and the number diagnosed will need expand to 350 individuals annually by 2022. At the current pace these objectives cannot be reached.

The paper offers clear and measurable diagnosis and treatment rates, but the real message is that urgent action is needed. Awareness needs to be increased both among healthcare workers and in the general population. The pool of healthcare workers entitled to deliver DAA treatment needs to be expanded and an investment in health workers' education is needed. The models of care delivery need to be optimised, as different models of care have been described and are known to be effective in this field. Centralised versus decentralised (“hub and spoke”) care needs to be studied [7] and locally adapted. The threshold to access to treatment should be as low as possible especially in vulnerable populations. Effective solutions need to be found to link to care special populations such as men who have sex with men (MSM), sex workers, injection drug users, prison inmates, migrants including those without papers and others. This includes the involvement of healthcare workers with different professional profiles in the HCV elimination strategy. The cantons are called to join forces and harmonise their public health agenda. The Swiss screening guidelines are based on a series of well characterised risk factors for virus acquisition; they are scientifically sound but difficult to implement in a busy primary care setting [6]. Alternative approaches, such as universal testing or birth cohort testing, need to be evaluated in the Swiss setting. Lastly, monitoring tools need to be implemented, possibly in collaboration with already existing national cohorts.

The Swiss Hepatitis Strategy is a unique effort built around a multi-stakeholder network that emerged from the former SEVHep network in 2014. The way this network interacted

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and worked was novel, an adaptation of a conceptual framework developed for complex political processes at the World Bank termed the “Governmental Learning Spiral” [8]. This time, as it was not intended to solve complex political issues, the method was adapted to the problem of how our healthcare system can cope most effectively with the problem of chronic viral hepatitis. A first and formidable challenge was the “pricing battle” that ensued as soon as the long awaited DAAs came on the Swiss market. The battle is unfortunately not over and we must not fail to face the next challenges. All this has its cost. At the end of the day, the money spent well today will save healthcare costs and human suffering in the future.

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