

# Outcomes of treatment for hepatitis C virus infection in the prison setting in the TrapHepC (Treatment as prevention for Hepatitis C) program in Iceland

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## Background:

- Hepatitis C virus (HCV) infection is common among prisoners due to high rates of incarceration of people who inject drugs (PWID). Risk of infection is high due to ongoing high risk behaviour during incarceration and limited access to clean needles and other drug paraphernalia.
- In Iceland (population 340.000) the estimated viremic prevalence of HCV is 0.3% for a total of 800-1000 patients.
- The penitentiary system in Iceland consists of 5 prisons, three conventional closed prisons and two open. The two main prisons, Litla Hraun and Holmsheidi (opened in November 2016) have a maximal capacity of 134 inmates (table 1). The majority of prisoners with a history of iv drug use (IVDU) commence and/or serve their sentences in either of these two prisons. Rates of incarceration in Iceland are low.
- In January 2016 a nationwide treatment effort was launched, where all HCV patients are offered treatment, including an outreach nurse-led program within the penitentiary system.

## Methods:

- TrapHepC nurses regularly visit the two main prisons, organize blood tests, conduct brief interviews and measure liver stiffness. Prior to treatment initiation the prisoners are interviewed once by a supervising physician.
- Starting in June 2016, all inmates at the main prison Litla Hraun were offered testing and subsequent treatment for HCV with the goal of initiating treatment for all HCV positive inmates at the same time to minimize the risk of infection. Testing and treatment was subsequently offered to inmates at the other main prisons as well as to new inmates in all prison locations. Inmates who are moved to open prison or released continue treatment and follow up outside the penitentiary system.
- Treatment regimen with SOF/LDV+/-RBV through October 2016 and SOF/VEL thereafter.

## Results:

- Baseline characteristics of the patient population is shown in table 2. At the initiation of the program, 59 (84%) out of a total of 68 inmates at Litla Hraun were tested for HCV. Of tested inmates, 17 (29%) were PCR positive, of which 16 accepted treatment.
- During subsequent screening in Sogn and Holmsheidi prisons and of new inmates at Litla Hraun, 16 additional patients have been identified and initiated on treatment, for a total of 32.
- Of the 32, 14 were released and continued treatment and/or follow up outside prison.
- 30 patients have completed treatment and all are PCR negative at end of treatment.
- Of the 28 patients who have reached post-treatment week 12, data is available for 25. Of those 25 patients, 23 (82%) have achieved SVR12. Relapse or reinfection has occurred in 2 subjects (7%). Three patients (11%), who were released and have now reached post treatment week 12, have not been tested yet.

## Conclusion:

Treatment for HCV is well accepted and can be delivered safely and effectively in the prison setting. The penitentiary system provides an important opportunity to engage and treat high-risk individuals, and should be an integral part of any national HCV elimination program



Table 1. Penitentiary system statistics

Official capacity of prison system*	198
Occupancy level (1.9.2016) (%)	88
Prison population rate (per 100.000 inhabitants)	37

\* Including pre-trial detainees/remand prisoners

Table 2. Baseline characteristics

	Patients N=32
Median Age	32
Male (%)	30 (94)
History of IVDU (%)	30 (94)
within 6 months (%)	22 (69)
Genotype (%):	
1a	10 (31)
3a	22 (69)
Cirrhotic	0
Treatment Naive (%)	28 (88)

Table 3. HCV RNA levels 0 IU/ml

	Patients
End of Treatment (%) N=32	32 (100)
12+ weeks after Treatment (%) N=28	23 (82)



## Disclosure of interests:

Gilead Sciences provides DAAs for the TrapHepC program in support of an epidemiological study.