Interim results of an Austrian HCV-microelimination project to increase screening and linkage to care in PWID in Vienna

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Objective

In Vienna there are about 6.500 PWIDs on opioid substitution therapy (OST). Our aim was to eliminate HCV in this population by a combined screen-and-treat strategy.

Patients and Methods

Study part 1 (Treatment project):
A considerable subgroup of PWIDs with HCV are reluctant to attend tertiary care centers. Next to poor adherence, they are unlikely to maintain a regular drug intake if provided with DAAs for self-administration. Therefore, HCV treatment was performed as “directly observed therapy” (DOT) since 2014: patients received DAA together with OST under supervision of medical staff at a pharmacy or low-threshold facility.
359 PWIDs on stable OST with chronic hepatitis C and high risk for non-adherence to DAA-therapy (male/female: 274/85; mean age: 38.0 ± 8.3 years; genotype (GT) 1/2/3/4: 217/3/126/9 (unknown: n=4); HIV-coinfection: n=20; liver cirrhosis: n=68) started antiviral treatment *(Table 1)*. Patients received antiviral therapy together with OST under direct observation of a pharmacist, physician or nurse at a pharmacy or low-threshold facility. The DAA-regimen was selected according to GT, fibrosis stage, pretreatment and current reimbursement policy of insurances.
Study part 2 (Screening project): In Vienna, every PWID on OST has to renew her/his long-term OST prescription at one of nine health authority centers once a month. At these centers all PWIDs on OST are offered saliva-based testing for anti-HCV antibodies (OraQuick®) - followed by HCV-RNA PCR in case of a positive anti-HCV(+) result. HCV-RNA(+) PWIDs are then referred to a low-threshold facility for initiation of DAA therapy.

Variable	Value
Age ± SD (years)	38.0 ± 8.3
Male/female (n)	274/85
Genotype (n) 1/2/3/4 unknown	 217/3/126/9 4
Liver cirrhosis (n, %)	68 (19%)
HIV-coinfection	20 (6%)
Living in stable relationship yes no	 33% 68%
Own housing yes no	 48% 53%
Employment status employed unemployed	 15% 85%
Criminal record imprisoned before not imprisoned before no information	 68% 25% 8%

Table 1: Baseline characteristics.
SD, standard deviation.

Results

Study part 1 (Treatment project):
Following this concept, adherence to therapy was excellent: Only 0.15% of scheduled dates for ingestion of the antiviral therapy in combination with OST were missed by the 359 patients. Till now, 236 patients have completed treatment and a 12-week follow-up period *(Figure 1)*. Virological cure of hepatitis C infection (sustained virologic response, SVR12) could be confirmed in 235/236 patients (SVR12 rate: 99.6%; 95% CI: 97.4-99.9). One patient died 8 weeks after end of therapy for reasons not related to treatment. During follow-up, reinfections occured in 16/235 (6.8%) patients. The cumulative rate of reinfection 24 and 48 weeks after end of therapy was 5.3% and 9.5%, respectively.

Fig.1: SVR12-rate according to genotype

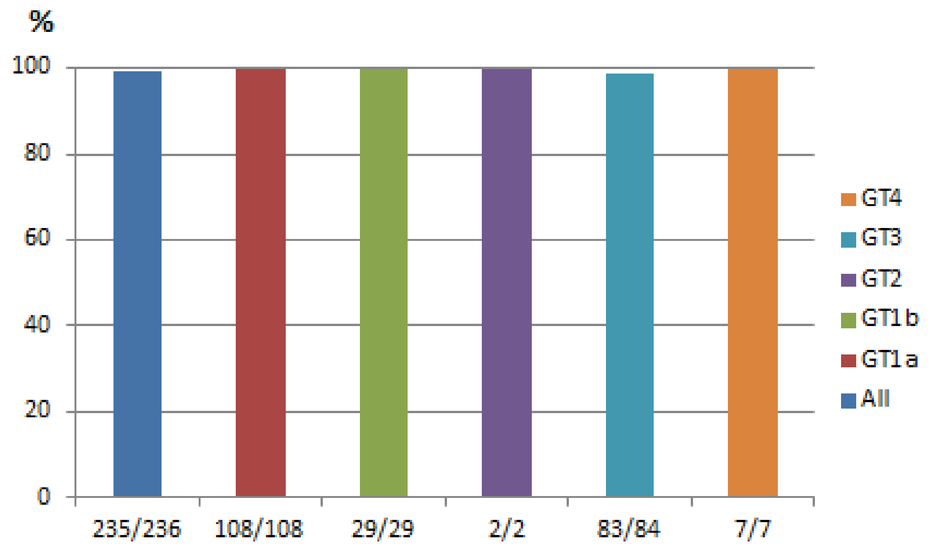

Figure 1: SVR12-rate according to HCV-genotype.
SVR, sustained virologic response; HCV, hepatitis C virus; GT, genotype.
6 patients with SVR12 are not included in this analysis – in 5 patients with HCV-genotype 1 infection subtype could not be determined and in 1 patient HCV-genotype could not be determined.

Study part 2 (Screening project): The screening project started in March 2019 at a district health department in Vienna. After the first 8 weeks, 760 patients got in contact with the team. 201 patients got an HCV-antibody saliva-test (40 positiv/ 161 negativ). 182 patients knew about their HCV-status (152 known positive/ 30 known negative). 102 Patients got an HCV-fingerstick blood test (35 positiv/60 negativ/ 7 errors). 49 patients had already been treated by a modern DAA-regimen and 46 are getting tested on a regular basis. 180 patients didn’t want any action taken by the team.

Conclusion

The concept of DOT is highly effective in PWIDs on OST with a high risk of non-adherence to DAA therapy. HCV-Screening of PWIDs at public institutions is well accepted and has the potential to identify a considerable number of unknown HCV cases.

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