Interim results of an ongoing project to eliminate chronic hepatitis C in people who inject drugs (PWID) with ongoing intravenous drug use and a high risk of non-adherence to direct-acting antivirals (DAA) in Vienna

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Objective

A subgroup of people who inject drugs (PWID) receiving opioid substitution therapy (OST) cannot be treated at hepatological centers and would not regularly ingest their medication based on self-administration. In these patients, chronic hepatitis C might ideally be managed at low-threshold facilities and if direct-acting antivirals (DAA) were administered together with OST under direct observation of medical staff.

Patients and Methods

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.

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

Table 1: Baseline characteristics.
SD, standard deviation.

Results

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

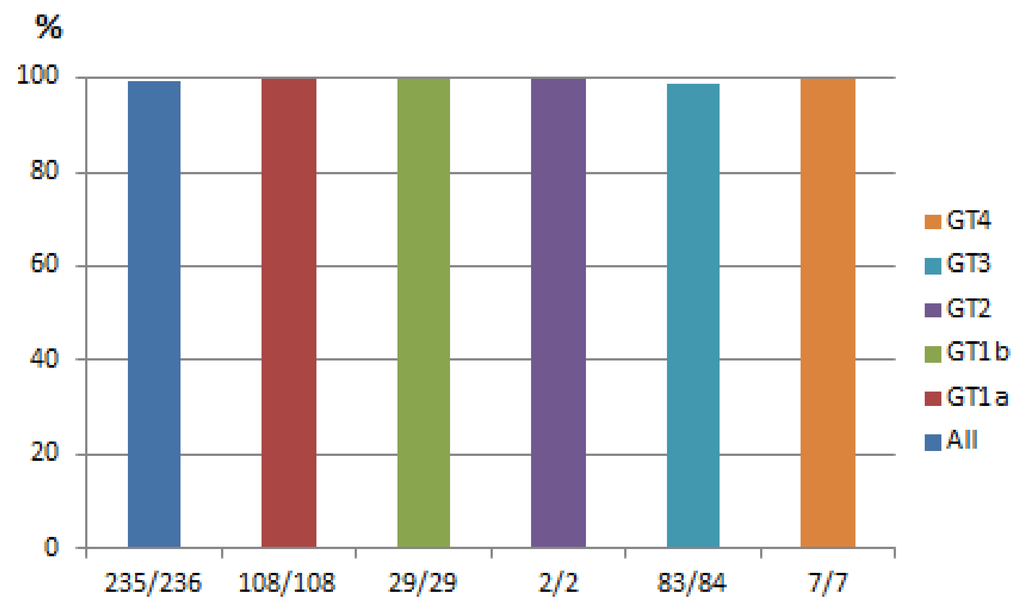

Figure 1: SVR12-rate according to HCV-genotype.
SVR, sustained virologic response; HCV, hepatitis C virus; GT, genotype.
6 patients with SVR12 are not included in this analysis – in 5 patients with HCV-genotype 1 infection subtype could not be determined and in 1 patient HCV-genotype could not be determined.

Conclusion

Directly observed therapy of chronic hepatitis C at a pharmacy or a low-threshold facility is highly effective in PWIDs with ongoing intravenous drug use and a high risk for non-adherence to DAA. By this concept, a group of difficult-to-treat patients can be cured, who could not have been treated in settings of studies published so far.

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