HCV CURE WITH DIRECT-ACTING ANTIVIRALS IN HIV/HCV COINFECTED PATIENTS BELONGING TO KEY POPULATIONS (HepCURE study)

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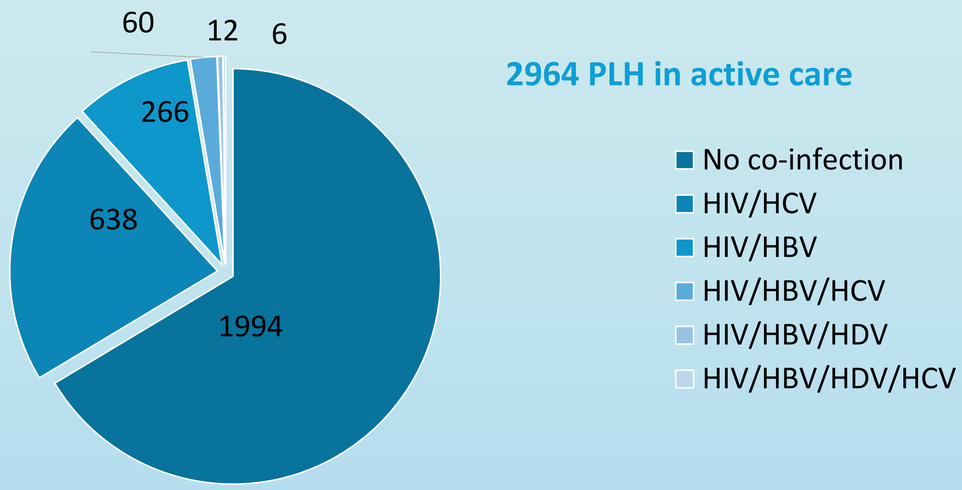
Background

Direct-acting antiviral (DAA) treatment is a priority as HIV/HCV co-infection accelerates liver disease progression. This study aimed to assess the response to DAA treatment in HIV/HCV coinfected patients belonging to key populations.

Figure 1 - Markers of coinfection in patients from SVB



Results

In total, 122 HIV/HCV coinfected patients started treatment with DAAs. Results on socio-demographic and clinical characteristics are presented in Table 1 and Figure 3. Socio-economic barriers and the lack of pan-genotypic DAAs limited outcomes in the first years of the study. HCV reinfection was diagnosed in one case. There was a marked increase in the use of DAAs during the years, from 4.5% in 2017 to 100% of the newly diagnosed cases in 2023.

Figure 2 – Modes of HCV acquisition in patients from key populations

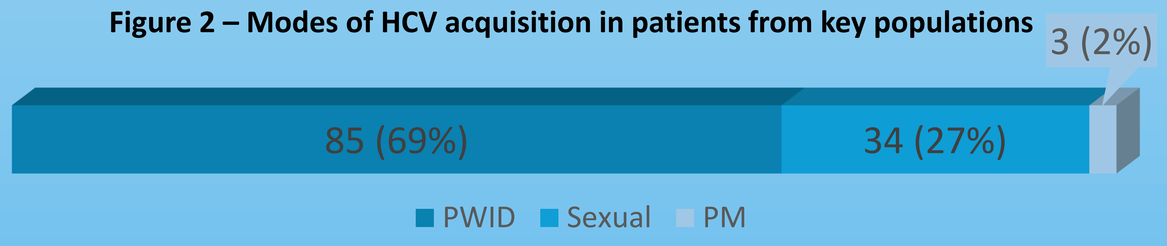
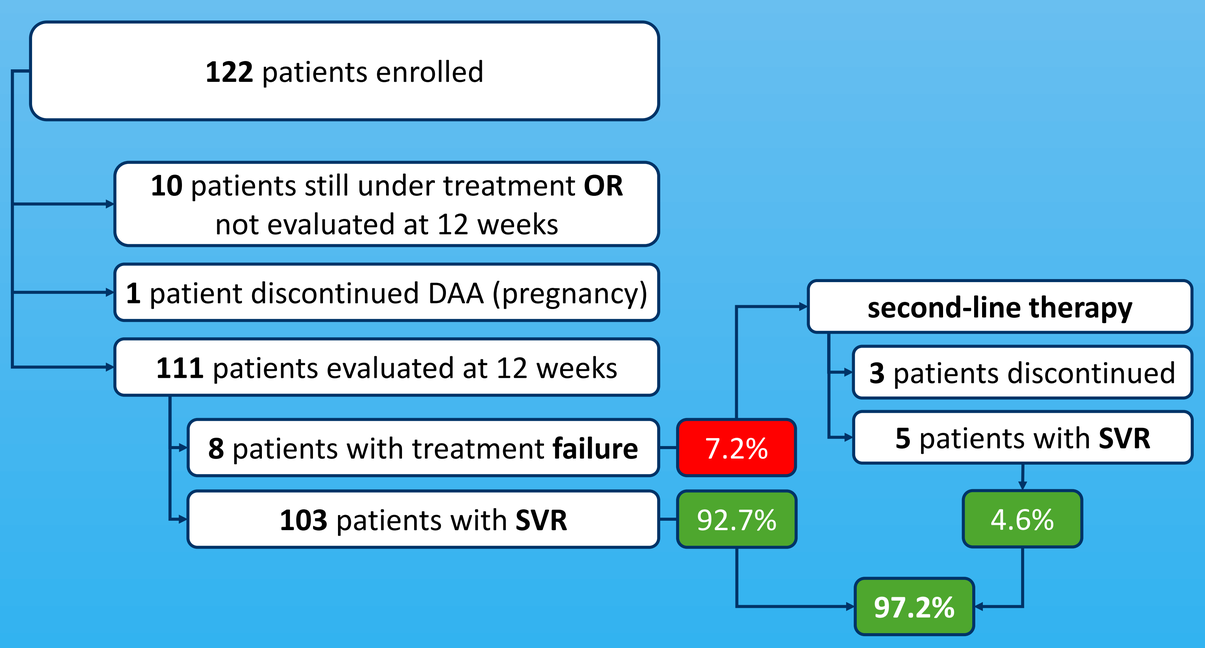


Figure 3 – Patients enrolled in HepCURE study



Methods

Prospective study performed on PLH, with confirmed HCV infection, in active care at "Victor Babes" Hospital for Infectious and Tropical Diseases (SVB), Bucharest, between 1 January 2017 and 31 October 2023. Patients were stratified by modes of HCV acquisition in: injecting drug use (PWIDs), sexual transmission, and parenteral mode, during early childhood (Figure 2).

Table 1 - Demographic and clinical characteristics – comparison by modes of HCV acquisition

Characteristics		Total n=122	PWIDs n=85	Non-PWIDs n=37	P value
Gender (male)	n (%)	88 (**72.7**)	67 (79.7)	21 (56.7)	**0.007**
Age (years)	median (IQR)	**41** (35, 48)	40 (35, 43)	42 (34, 52)	**0.005**
CD4 cell count/µL	median (IQR)	663 (385, 882)	660 (423, 867)	665 (336, 955)	0.764
HIV-RNA < 50 c/mL	n (%)	95 (**80.5**)*	65 (76.4)**	31 (88.5)***	**0.044**
Prior IFN α	n (%)	8 (6.5)	3 (3.5)	5 (**13.5**)	**0.039**
Fibrosis stage					
F0-F1	n (%)	55 (46.6)	38 (41.1)	17 (45.9)	0.886
F1-F2		43 (36.4)	29 (34.1)	15 (40.5)	
F3-F4		20 (16.9)	14 (16.4)	5 (13.5)	
out of 118 available; **out of 85 available; out of 35 available**					

Figure 4 – Cascade of care in HIV/HCV coinfected patients treated with DAA in HepCURE study

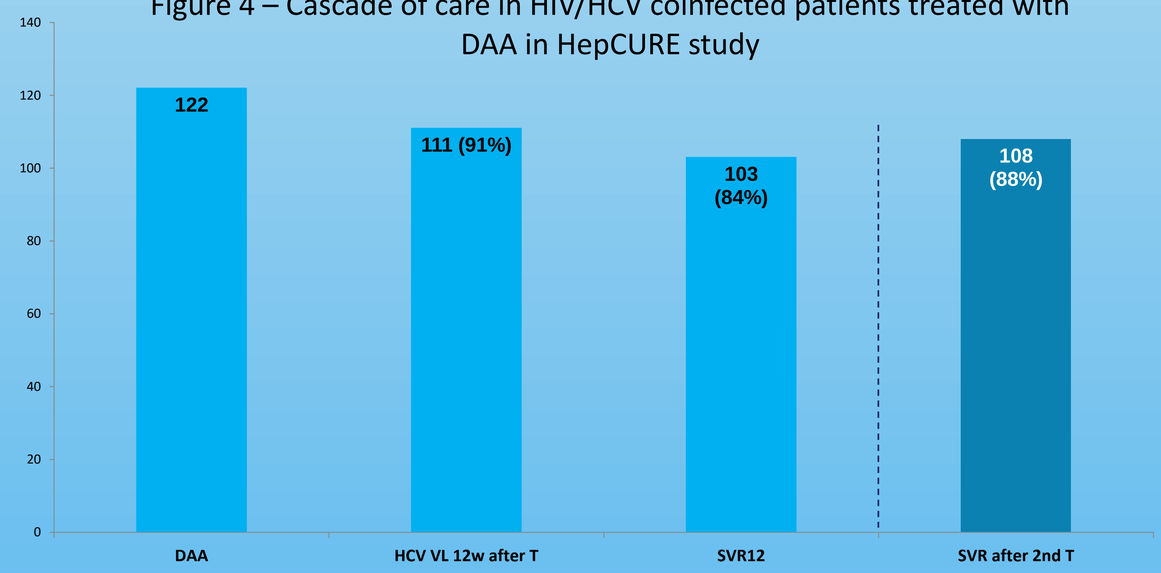
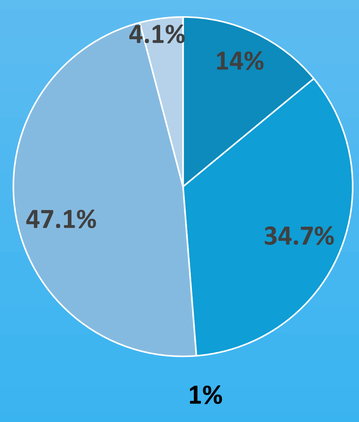


Table 2 Availability of DAA during the study years

Period	Drug		Fibrosis stage
2017	Ombitasvir/paritaprevir /ritonavir	1%	F2, F3, F4
2018 - 2019	Grazoprevir/elbasvir Sofosbuvir/ledipasvir		F1, F2, F3, F4
2020	Sofosbuvir/velpatasvir Sofosbuvir/ledipasvir		F0, F1, F2, F3, F4
2022 - 2024	Sofosbuvir/velpatasvir Sofosbuvir/velpatasvir/ voxilaprevir		F0, F1, F2, F3, F4 for those with treatment failure



Conclusions

DAA treatment **success rate** in HIV/HCV coinfected patients from key population was **high and comparable** to those monoinfected. The **SVR rates were similar** in PLH infected by sexual mode or in PWIDs, irrespective of the CD4 cell count or HIV-VL. Elimination of HCV requires a targeted scale-up of DAA treatment and behavioral interventions in particular among high-risk populations. This study underlines the need for **strong interventions** meant to improve **linkage** and **care retention** in HIV/HCV coinfected patients.