

Background

In the last decade, the prevalence of hepatitis C (HCV) increased dramatically among Romanian injecting drug users (IDUs). In this context, Bucharest was included in HepCare Europe project, co-funded by the European Commission, whose aim is to improve access to HCV testing, diagnosis and treatment among key risk population, through outreach to the community and integration of primary and secondary care services.

The aim of the study was to analyze the socio-demographic, clinical, immunological and virological characteristics in HIV/HCV co-infected patients enrolled in HepCare Europe Project and to emphasize the role of educational and peer support programs for health care providers and/or key populations.

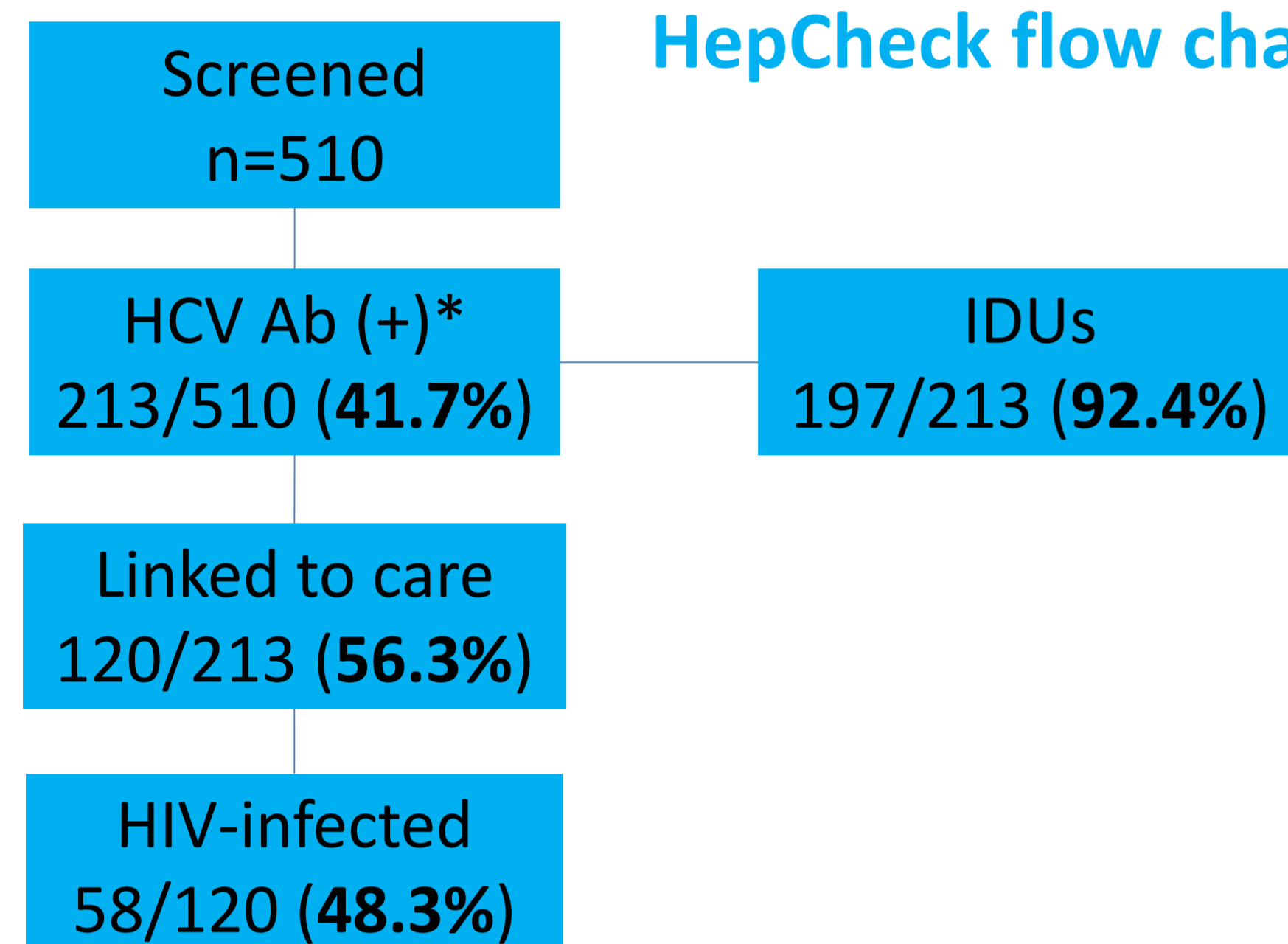
Methods

Prospective study on HIV-infected patients who tested positive for HCV antibodies during the enrolment in HepCare project at Victor Babes clinical site, Bucharest, between April 2016 and April 2018.

Five work packages were developed to enrich management of HCV in key risk populations: **HepCheck** (HCV screening with rapid oral tests - Oraquick); **HepLink** (linkage to care), **HepEd** (inter-professional education), **HepFriend** (peer support programs), **HepCost** (estimation of the cost-efficiency of the model and evaluation of the socio-economic impact)

Results

HepCheck flow chart



*HCV positive antibody test

Distribution of HIV/ HCV positivity among screening sites

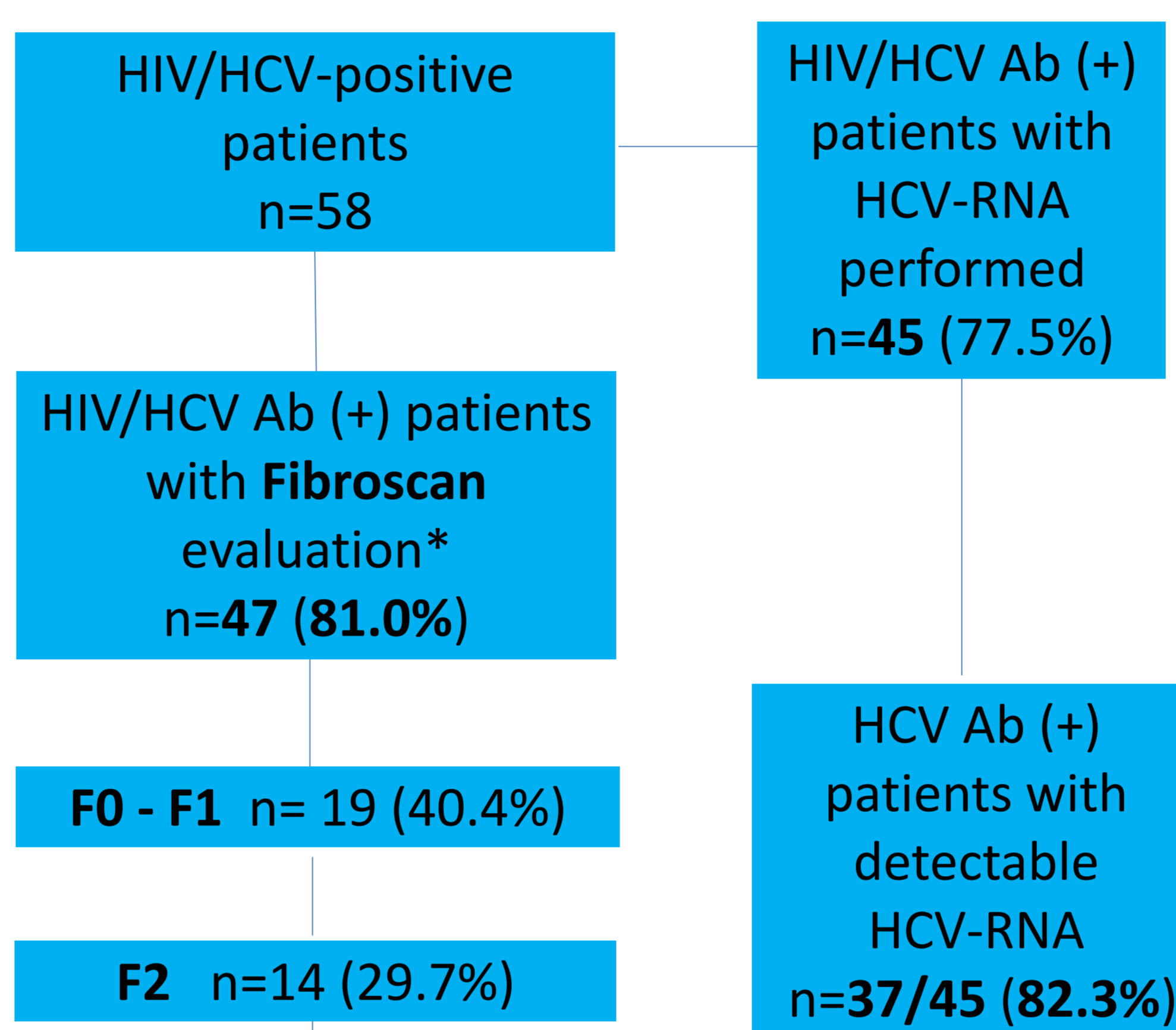
	Screened patients	HCV Ab (+) n (%)	HIV/HCV (+) n (%)
Drug support/opioid substitution centers	61	58 (95.0)	10 (16.3)
Prisons	153	57 (37.2)	ND
Night shelters	193	19 (9.8)	0 (0.0)
Other health care facilities (mainly IDUs from infectious diseases hospital)	103	79 (76.6)	48 (46.6)
<i>p</i> value		<0.0001	

Socio-demographic characteristics, risk factors and drug use behavior in HIV/HCV co-infected IDUs

Characteristics	Total IDUs n=58
Males	n (%) 48 (82.7)
Age (years)	median (IQR) 34 (30, 37)
History of homelessness	n (%) 27 (46.5)
History of imprisonment	n (%) 36 (62.0)
Alcohol use	n (%) 37 (63.7)
Tattoos	n (%) 43 (74.1)
Piercing	n (%) 21 (36.2)
Needle/syringe sharing	n (%) 40 (68.9)
Use of heroin	6 (10.3)
Use of ethnobotanicals	n (%) 37 (63.7)
Heroin & ethnobotanicals	15 (25.8)
Current OST*	n (%) 21 (36.2)

*OST=opioid substitution treatment

HepLink flow chart for HIV/HCV co-infected patients

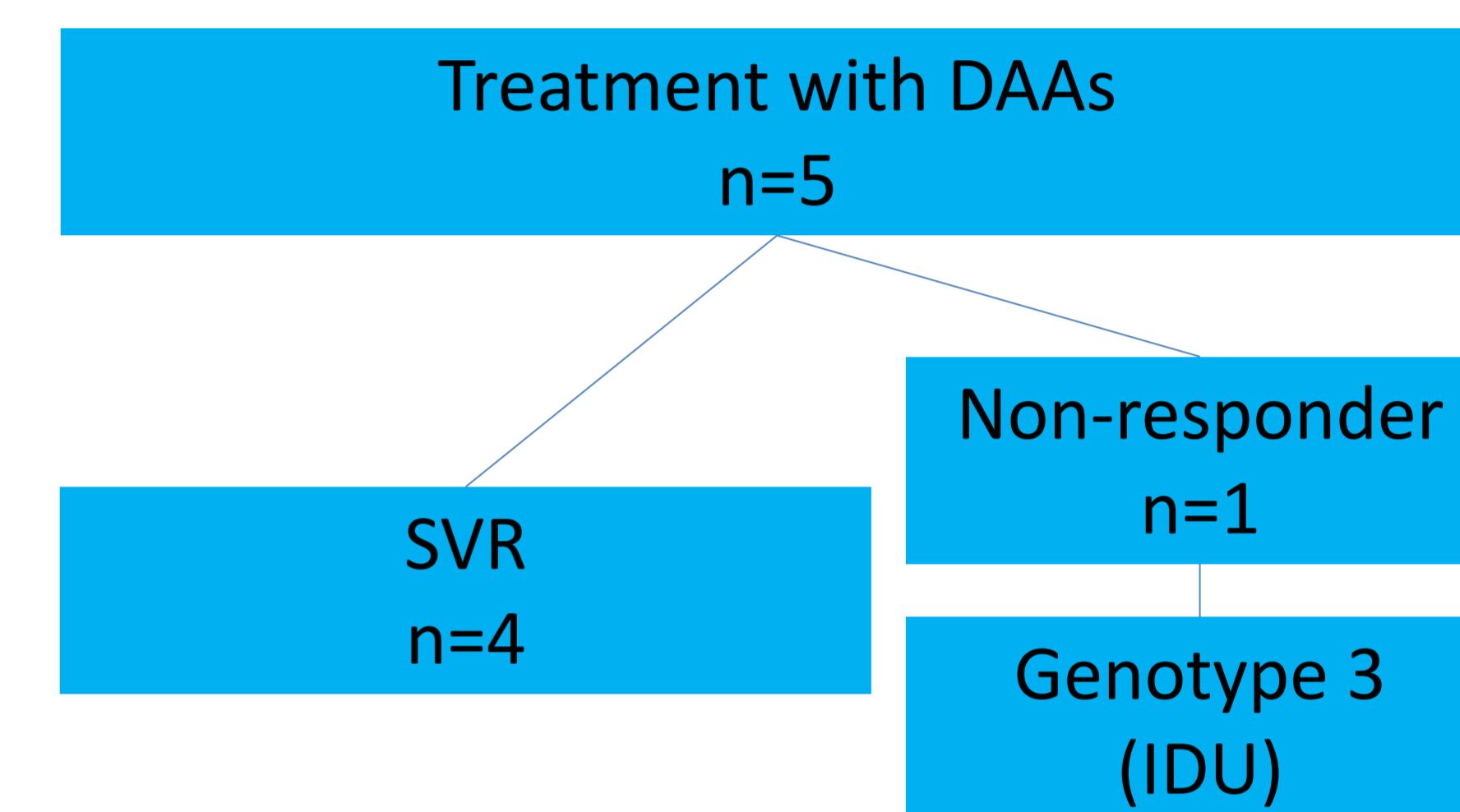


*METAVIR score (kPa)

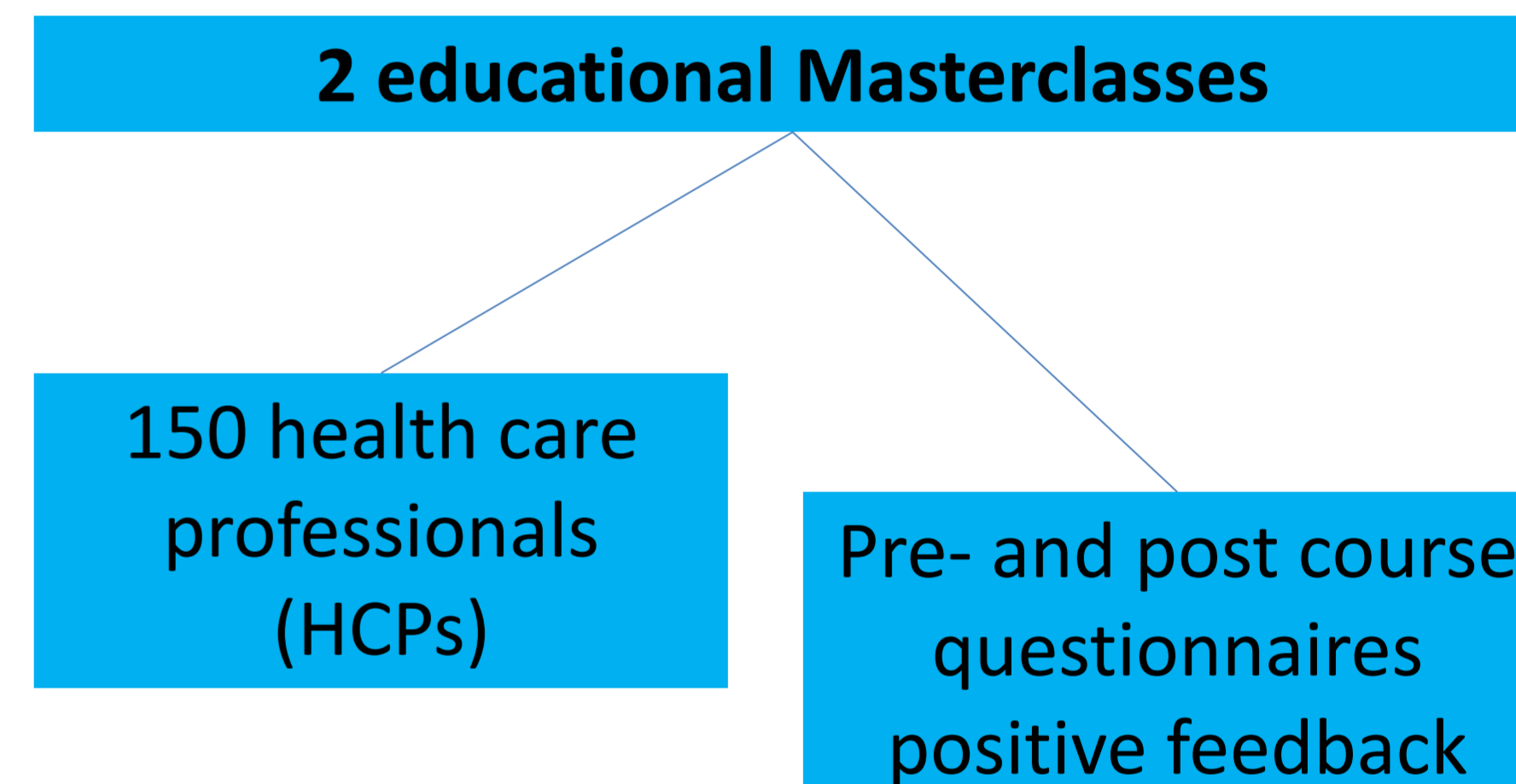
Lab screen in HIV/HCV co-infected IDUs

Characteristics	HIV/HCV-co-infected IDUs n=58
CD4 cell count/ μ l	510 (327, 659) median (IQR)
HIV -RNA (log ₁₀ copies/mL)	2.68 (1.27, 4.57) median (IQR)
cART*	n (%) 22 (37.9)
HIV-RNA undetectable	15/22** (68.1) n (%)
ALT (IU/L)	66 (44, 111) median (IQR)
HCV -RNA(log ₁₀ IU/mL)	6.27 (5.66, 6.59) median (IQR)
METAVIR score \geq 9 kPa***	14 (29.7) n (%)
HBs Ag positive	7 (12.0) n (%)

*combined antiretroviral treatment ** 22 IDUs on cART ***Fibroscan evaluation



HepEd activities



Video HepEd

Printed educational materials for medical personnel, peers, psychologists and social workers

Flyers

Booklets

HepFriend activities

Number of peers trained in	
Total	3
HCV awareness	3
HCV/HIV testing	3
Fibroscan use	2
Peer relapse	1
Patients with peer support	9
Participants	45
Screened for HCV	45

Conclusions

- HIV/HCV co-infection among subjects from key populations was high, especially among IDUs from drug support centers. Socio-economic and structural barriers limited the treatment with DAAs in this group.
- There is an urgent need to improve the HIV/HCV screening and linkage to care for patients from key populations (in particular for incarcerated patients), to actively involve HCPs in HIV/HCV management and to find the best modalities to overcome the barriers to treatment.
- Scale up of HepEd and HepFriend activities may improve linkage to care and adherence to treatment.