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# HepCare Europe – HCV screening and linkage to care in key populations from the Romanian clinical site

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## Background

HepCare Europe Project aims to enrich access to HCV screening, diagnosis and treatment in patients from key populations, by offering them integrated primary and secondary care services.

**Objective:** to evaluate epidemiological and clinical characteristics of HCV-positive patients.

## Methods

Prospective study on HCV-positive patients enrolled in HepCare Project, at Victor Babes clinical site, Bucharest, between April 2016 and August 2018. HCV screening was performed using rapid oral tests (HepCheck) and those who tested positive were linked to care (HepLink).

## Results

### HepCheck flowchart

Screened patients n=518 → HCV-positive patients n=223 (43.0%)

### Distribution of HCV positivity among clinical sites

| | Screened patients | HCV Ab (+) n (%) |
|---|---|---|
| OSC* | 69 | 65 (94.2) |
| Health care facilities | 104 | 80 (76.9) |
| Prisons | 153 | 57 (37.2) |
| Night shelters | 193 | 19 (9.8) |
| *p* value | | <0.0001 |

*OSC=opioid substitution centers

### Characteristics of HCV-positive patients

| Characteristics | | Total n=223 |
|---|---|---|
| Male | n (%) | 190 (85.2) |
| Age (years) | median (IQR) | 35 (31, 39) |
| History of homelessness | n (%) | 73 (32.7) |
| History of IDU* | n (%) | 205 (91.9) |

*IDU=injecting drug use

### Drug use behavior in HCV-positive IDUs

| Characteristics | | Total n=205 |
|---|---|---|
| Alcohol use | n (%) | 154 (75.1) |
| History of imprisonment | n (%) | 97 (47.3) |
| Age (years) at drug use onset | median (IQR) | 19 (16, 22) |
| Duration (years) of drug use | median (IQR) | 14 (8, 17) |
| Needle /syringe sharing | n (%) | 92 (44.8) |
| Use of heroin<br>Use of ethnobotanicals<br>Heroin & ethnobotanicals | n (%) | 46 (22.4)<br>36 (17.5)<br>123 (60.0) |
| Current OST* | n (%) | 134 (65.3) |

*OST= opioid substitution treatment

### HepLink flowchart

Patients linked-to -care n=134/223 (60.0%)

→ Patients with Fibroscan evaluation* n=117/134 (87.3%)

→ F0-F1 n=51/117 (43.5%) | F2 n=32/117 (27.3%) | F3-F4 n=34/117 (29.0%)

* METAVIR score (kPa)

→ Patients with HCV-RNA performed n=62/134 (46.2%)

→ Patients with detectable HCV-RNA n=51/62 (82.2%)

### Sero-immunological and virological characteristics of HIV/HCV co-infected patients

| Characteristics | | Total n=134 |
|---|---|---|
| HIV-infected | n (%) | 60 (44.7) |
| Previous HIV test | n (%) | 53 (39.5) |
| CD4 cell count (/µl) | median (IQR) | 493 (322, 658) |
| HIV-RNA ($log_{10}$copies/mL ) | median (IQR) | 2.79 (1.27, 4.57) |

### DAA* treatment

Treatment initiated n=17

→ SVR*** n=4 | Non-responder** n=1 | On treatment n=12

*DAA= direct acting antiviral **IDU with genotype 3
*** SVR= sustained virological response

### Lab screen – comparison between HCV mono-infected and HCV/HIV co-infected IDUs

| Characteristics | Total n=134 | HIV (+) patients n=60 | HIV (-) patients n=74 | *p* value |
|---|---|---|---|---|
| HCV-RNA performed n (%) | 63 (46.6) | 45 (75.0) | 18 (24.3) | **<0.0001** |
| HCV-RNA ($log_{10}$UI/l) median (IQR) | 5.8 (4.9, 6.4) | 6.1 (5.4, 6.5) | 5.2 (2.8, 5.7) | 0.10 |
| HCV-RNA undetectable* n (%) | 12 (8.9) | 8/45 (17.7) | 4/18 (22.2) | 0.71 |
| ALT level (UI/l) median (IQR) | 65 (40, 109) | 68 (42, 104) | 63 (40, 116) | **0.02** |
| Advanced liver fibrosis** n (%) | 38 (28.3) | 14 (30.4) | 24 (32.4) | 0.76 |
| HBs Ag positive n (%) | 11 (8.2) | 8 (13.3) | 3 (4.0) | **<0.0001** |

* Among HCV-RNA performed
**METAVIR score > 9 kPa by Fibroscan

## Conclusions

- HCV prevalence was high among patients from key populations, especially in IDUs with HIV co-infection.
- DAA treatment was initiated only in few patients due to the fact that at the beginning of the study there were disease-based restrictions for treatment beside the socio-economic barriers.
- Strengthening the efforts for efficient HCV testing, linkage to care and treatment in Romanian patients with high risk behaviors is mandatory.

**References**

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