HCV Micro-Elimination in a Real World Setting at OKANA Substitution Programs in Greece

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Background: Micro-elimination is a recommended approach for selected populations (eg people who use drugs, prisoners) within the framework of the HCV elimination strategy. Our aim was to present the results of our effort in people receiving opioid substitution treatment (OST) in OKANA which is a public sector organization, the only one authorized to offer substitution treatment in Greece.

Methods: We conducted a retrospective analysis of 395 individuals enrolled in 1 Methadone and 1 Buprenorphine Unit in Athens by December 2018.
The HCV micro-elimination project was incorporated into a preexisting multidisciplinary initiative involving the OST physician and a General Hospital Liver Unit.
Our main effort was to create a patient-friendly environment that could resembles a "one-stop center" although not located at the same place. Health Care System gaps (ie. not coverage of genotyping and elastography) should overcome with the support of NGO and the pharma industry. The schedule is presented at Table 1.

Table 1

	OKANA SUBSTITTUTION UNIT	LIVER UNIT AT GENERAL HOSPITAL
PERSONNEL INVOLVED	MD experienced in Addiction and Hepatology (Part time: two days per week at each clinic) Note: staff at OST includes 1 psychiatrist, 2 therapists and 2-4 nurses	Hepatologist plus the MD from OKANA unit (One fixed day per week) 1 Social worker, 1 Nurse
ACTIONS IMPLEMENTED		
Pre-treatment	Medical history, Clinical evaluation, Blood sampling at entry Baseline laboratory evaluation, including antiHCV and LFts but not PCR (Cost covered by OKANA) Fibroscan (Cost not covered by National public Insurance) • 5 prescheduled visits of the NGO "PROMITHEAS" team to the OKANA OST	Blood Sampling PCR (Cost covered by National public insurance), Genotyping (Cost covered by pharma industry) • 5 prescheduled visits of the Liver Unit team to the OKANA OST
Treatment	Close follow up for adherence Close follow up for any medical problem Motivation for continuing of treatment and follow up care	Application to get treatment approval by National public Insurance Drug Prescription (monthly) SVR
Post-treatment	Counseling on prevention of reinfection Testing- Retesting HCC Surveillance of chirrotics	Reference for advanced disease Retreat reinfection cases

Results: Data of 395 subjects were studied, the majority of them men (79.7%), receiving methadone (methadone/buprenorphine: 69.6%/30.4%). (Figures 1-2).
AntiHCV result was available for 97.7% of the patients. (Note: Voluntary testing for blood borne viruses represents part of the admission procedure).

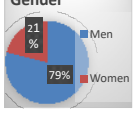
Figure1.


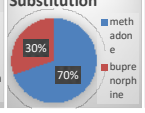
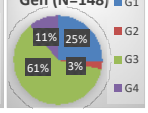
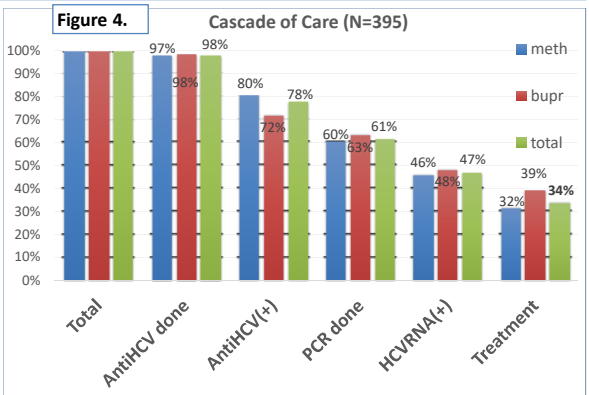
Figure 2.


Figure 3.


The cascade of care for the total number of 395 persons is presented at Figure 4.
- AntiHCV was found positive in 307 out of 386 (79,5%) subjects.
- PCR testing result was available for 78.8% of anti-HCV(+) patients and 76.4% of those tested found HCV RNA positive.
- Genotype 3a was the most frequent detected, followed by genotype 1a. (Figure 3)
- Any antiviral treatment (including IFNa regimens) was initiated in 134/185 (72.4%), of them 103 (76.9%) received DAAs.

Three cases of DAA treatment failure were recorded, whereas 2 reinfection cases were detected during post DAA treatment follow up (both of them at antiHIV(+) patients).

Figure 4.


Differences between patients on methadone and buprenorphine regarding antiHCV, HCVRNA test and treatment initiation are presented at Table 2.

If we restrict the study to those with confirmed by PCR Chronic Hepatitis C then the final treatment rate exceeds 72%. (Figure 5).

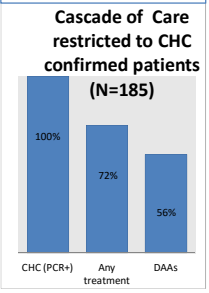
Figure5.


Table 2.

	bupr	meth	p
AntiHCV(+)	72.9	82.5	0.006
PCR(+)	76.5	76.3	NS
Treatment	81.0	68.5	0.002

Conclusion Micro-elimination is a feasible approach when multidisciplinary cooperation has been achieved. In Greece, patients receiving buprenorphine seems to have lower anti HCV(+) prevalence, but increased rates of treatment initiation. The role of substitution type needs further investigation in order to identify factors which may increase treatment receptiveness.

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