

Agagnostou O, Micha K, Tsirogianni E, Petroulaki E, Kaliva K, Detsi I, Kollitsida M, Androulakis G, Gargoulaki M, Karagounis V, Katsili A, Kollia S, Kotsalis A, Stamatopoulos K, Stavridou V, Tanis C, Tsekoura P, Topalidou Stepin Y, Tsantilas A, Chalkiadakis M, Drimousi A, Theoharis A.
Greek Organisation Against Drugs (OKANA), Greece

Background

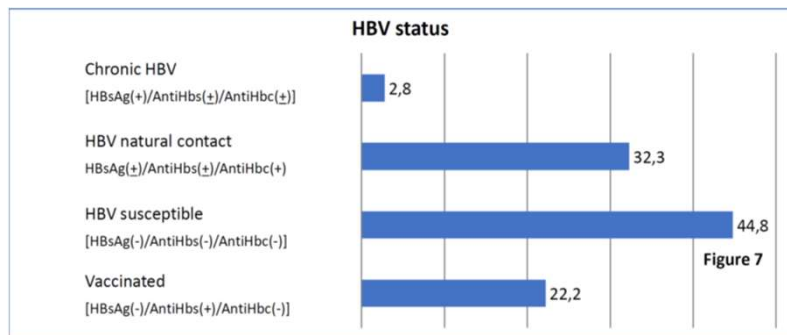
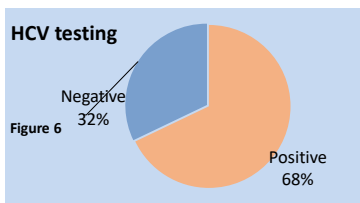
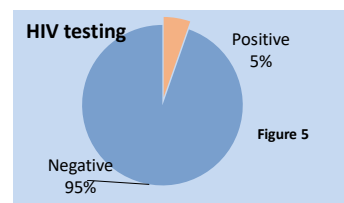
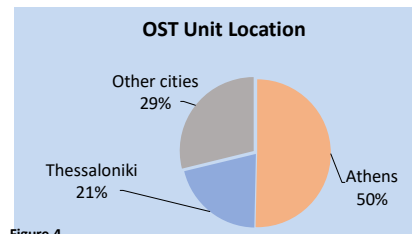
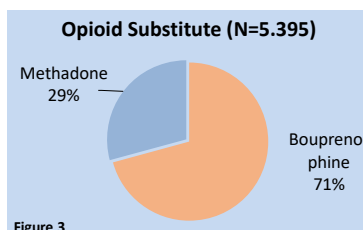
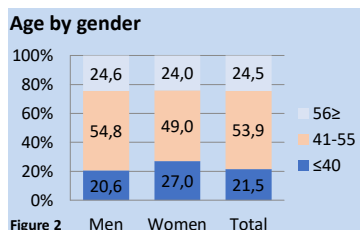
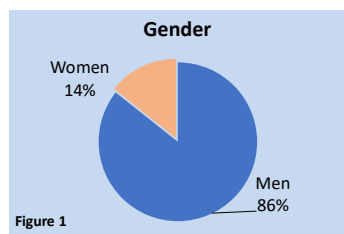
"AntiHbc(+)" only as a biomarker of HBV exposure needs proper attention due to the potential risk of HBV reactivation in several clinical conditions. People who use drugs are considered a high risk for hepatitis B infection. The proportion of them with antiHbc(+)" only as the only marker of past infection is not very well known, at least in Greece. Our aim was to study the prevalence of antiHbc(+)" alone in PWID under OST in Greece and its possible correlations with other patient characteristics.

Methods

We conducted a retrospective analysis of data collected from OKANA OST units in Greece on May 2021. Data analysed are derived from individuals with available results for HBsAg, AntiHBs, AntiHbc, AntiHCV and AntiHIV was conducted. It has to be mentioned that free of charge testing for blood borne viruses is offered to all heroin dependent patients at their entrance to OKANA OST units.

Results

In total 5,431 individuals were included in this analysis. They represent 68.7% of the total number of 7,903 under OST in Greece on May 2021. The majority of them were men (85.7%), with a mean age of 48.5±9.1 years while 14.3% were women with a mean age of 47.6±9.3 years. Gender and age distribution are presented at figures 1-2. Buprenorphine was the substitution more often used (71%) (Fig 3). The majority (67.9%) were found to be AntiHCV(+) while 5.3% were antiHIV(+) at entrance (Fig 5-6).



HBsAg(+) was detected in 2.8% while 32.3% were naturally immune [HBsAg(-)/antiHbc(+)/antiHbs(+)]. History of vaccination [AntiHbs(+)] only was confirmed in 22.2%. A very high percentage was still susceptible to HBV infection (44.8%) (All biomarkers negative). Any combination of biomarkers indicating previous HBV exposure [HBsAg(±)/antiHbc(+)/antiHbs(±)] was evident in 1754/5431 (32.3%) in total (Figure 7)

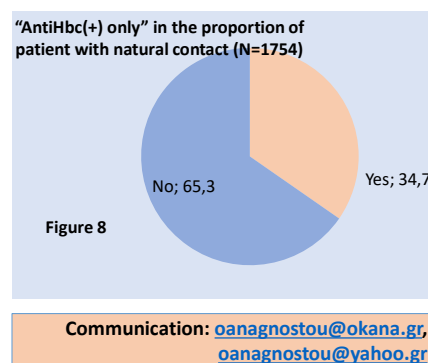
"AntiHbc(+)" only was found in 608 individuals representing a prevalence of 11.2% in the total sample of 5431 participants. If we consider only those with biomarkers indicating natural contact [HBsAg(±)/antiHbc(+)/antiHbs(±)] (N=1754) then the prevalence of "antiHbc(+)" only is rising to 34.7% (Figure 8). Prevalence of "AntiHbc(+)" only and other HBV biomarkers indicating natural contact are presented in relation to several patients characteristics at Table 1.

Table 1. "AntiHbc(+)" only and other HBV biomarkers indicating natural contact in relation with other patients characteristics

	"AntiHbc(+)" only (N=608)	Other combination of biomarkers (N=1146)	P
Gender (Men)	86,8%	85,4%	0,418
Area (Athens)	70,2%	63,3%	0,003
AntiHCV(+)	89,8	85,4%	0,010
AntiHIV(+)	12,0%	8,6%	0,024

The highest percentage of "antiHbc(+)" only marker was found at antiHIV(+) individuals [25,2% vs 10,4% for antiHIV(-), (p<0,0001)]. The lowest percentage of antiHbc(+)" only marker was found at antiHCV(-) individuals [3,6% vs 14,8% for antiHCV(+)] (p<0,0001) (Table 2).

The ratio of "AntiHbc(+)" only among the rest individuals with evidence of HBV exposure was 34.7% (608/1754). This ratio was increasing with antiHCV(+) (35.8% vs 27.1%, p=0.01), antiHIV(+) (42.4% vs 33.8%, p=0.024) and at Athens OST units (37,1 vs 30,2% for rest Greece, p=0.01). After regression analysis for "antiHCV(+)" only ratio among all natural HBV contact, only antiHCV(+) (OR 1.44, 95% CI:1.05-1.97, p=0.022) (OR 1.44, 95% CI:1.05-1.97, p=0.022) and Athens location (OR 1.34, 95%CI: 1.08-1.65, p=0.008) remained significant (Table 3).



Communication: oagnostou@okana.gr, oagnostou@yahoo.gr

Table 2. AntiHbc(+)" only and other blood borne viruses

	(+)	(-)	p
AntiHCV	14,8%	3,6%	<0,0001
AntiHIV 1,2	25,2%	10,4%	<0,0001

Table 3. Regression analysis for "AntiHbc(+)" only ratio

Increased ratio AntiHbc(+)	Exp(B)	95% CI	p
Athens vs total of other cities	1,335	1,079 1,651	0,008
AntiHCV(+) vs AntiHCV(-)	1,440	1,055 1,967	0,022

Conclusions

A significant proportion of PWID at OST programs in Greece presents antiHbc(+)" as the only HBV indicator. HCV infection significantly increases this likelihood. It is crucial to identify "antiHbc(+)" only drug users with CHC before DAAs initiation, in order to monitor for ALT flares during treatment and prevent any HBV reactivation. Vaccination efforts should fortify to prevent any future outbreaks.

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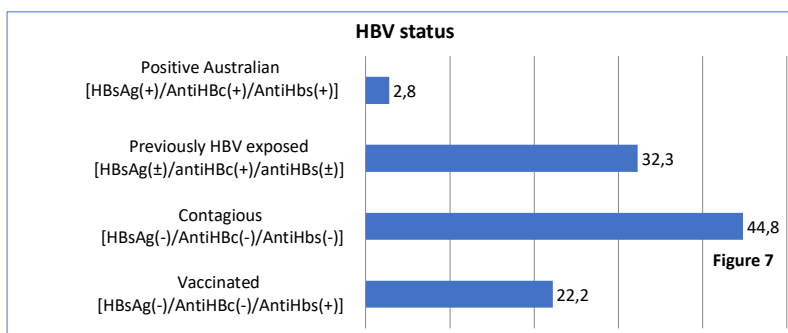
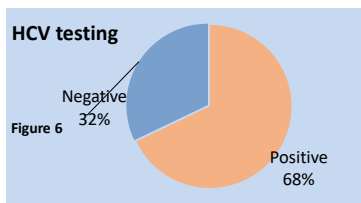
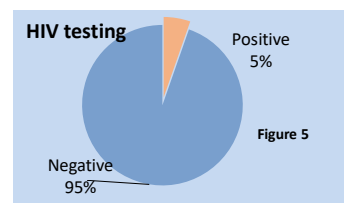
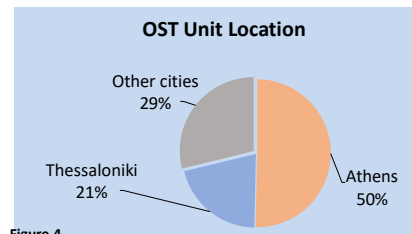
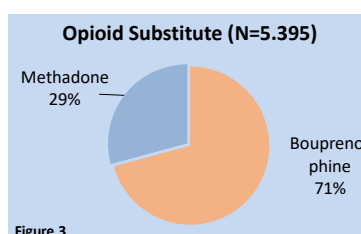
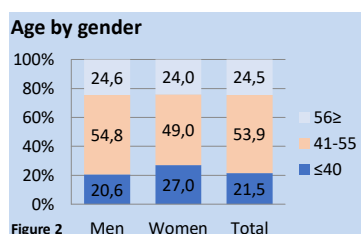
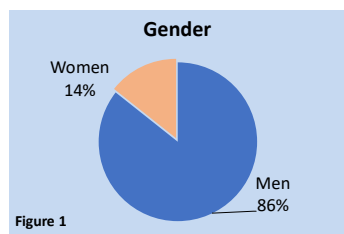
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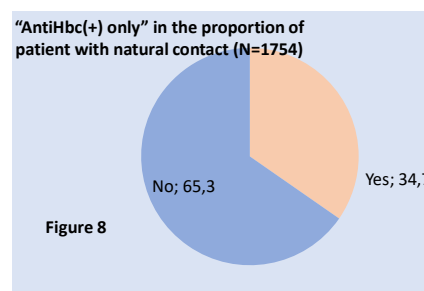


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