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HCV seroprevalence and associated risk factors in a cohort of people who use drugs screened with rapid tests in Rome: the hidden epidemic.

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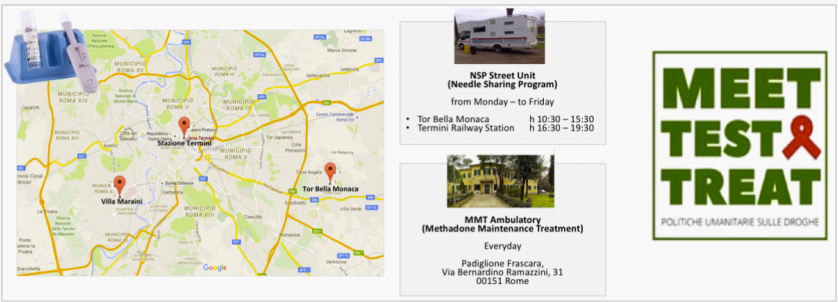
Background.

HCV prevalence among drug users is estimated 80% even though only about 50% have been screened for HCV. It's important to investigate among hard-to-reach drug users to better estimate real HCV prevalence and to improve treatment and health services access. Villa Maraini Foundation ONLUS, engaged in the field of drug addiction since 1976, in partnership with the Infectious Diseases Clinic of Tor Vergata University in Rome, has in place a program of case finding, counseling, testing and linkage to care for hard to reach drug users whose results are here discussed.

Methods.

Evaluation, on a voluntary basis and prior informed consent, of drug users belonging to the MMT ambulatory (Methadone Maintenance Treatment) and NSP Street Unit (Needle Sharing Program-camper placed in two strategic areas in Rome – Tor Bella Monaca and Termini railway station) services of Villa Maraini, was performed from July 2015 to November 2017: OraQuick HCV Ab rapid test, which provides an accurate diagnosis in twenty minutes, was used in finger stick. Drug users, guided by a social operator, made a questionnaire to assess sex and drug-related risk behaviours. In case of positive tests, subjects received emotional and practical support, followed by prompt take in charge by Infectious Diseases Clinic of Policlinico Tor Vergata. Chi-square test, univariate and multivariate logistic regression were used for the statistical analysis to examine factors associated with HCV antibody serostatus.



Results.

A total of 673 people who use drugs, enrolled into the Villa Maraini Services during the study period, performed HCV rapid test. The overall seroprevalence of HCV antibody was 31.5% (212/673); the majority (74.5%) of HCV positive people was male with median age 37 (IQR 30-45). Backward multivariate logistic regression analysis revealed that factors associated with HCV antibody positivity included age>35 (OR, 3 95% C.I. [1.78-5.8]; p<0.0001), a previous HCV test (OR, 3.44 [1.78-5.8]; p<0.0001), injection drug route (OR, 2.69 [1.61-4.48]; p<0.0001), and sex with people who inject drugs (OR, 2.69 [1.61-4.48]; p<0.0001), while having a job results as a protective factor (OR, 0.36 [0.22-0.61]; p<0.0001). Furthermore, subjects with HCV positive serostatus most frequently declared to share drug paraphernalia more than a year before.

	Univariate OR	95% C.I.	P-value	Multivariate OR	95%C.I.	P-value
Age >35, years	3,03	2,17-4,25	**<0,0001**	3,00	1,78-5,80	**<0,0001**
Working	0,35	0,25-0,50	**<0,0001**	0,36	0,22-0,61	**<0,0001**
Previous HCV-test	7,91	5,0-12,66	**<0,0001**	3,44	1,78-6,64	**<0,0001**
Heroin	4,65	3,09-7,01	**<0,0001**	0,78	0,37-1,64	0,51
Multidrug users	1,07	0,77-1,49	0,66	-	-	-
Intravenous	26,86	15,9-43,3	**<0,0001**	16,24	7,97-33	**<0,0001**
Syringe exchange in last year	0,97	0,68-1,39	0,90	-	-	-
Sex with IDU's	3,77	2,54-5,58	**<0,0001**	2,69	1,61-4,48	**<0,0001**

Conclusions.

HCV seroprevalence in our cohort of out of care people who use drugs is still high. Risk factors associated to the HCV rapid test positivity are as known intrinsic to the drug users status (the injection route), even if it emerges that sharing drug paraphernalia would be of long standingand sex related if the partner is an injection drug user. These findings have implications for disease prevention, transmission and treatment and stress the need to focus on the key population of drug users in order to reach the HCV eradication target.