

Pre-testing knowledge of hepatitis C status among 1504 consecutive participants at the Stockholm needle exchange

Kåberg M¹ , Hammarberg A², Weiland O¹

¹ Department of Medicine Huddinge, Karolinska Institutet, Stockholm, Sweden, ² Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden

Background:

• People who inject drugs (PWID) are the driving force for the hepatitis C (HCV) epidemic. Transmission via needle- or paraphernalia sharing is the cause. Needle syringe programs (NSP) are part of preventive measures to reduce the spread of HCV. The first NSP in Stockholm was introduced in 2013.

• Since the knowledge of HCV status is poor in PWID, participants in the program were asked to report their individual HCV status before they were tested for anti-HCV and HCV-RNA.

Method:

- At enrollment all individuals participated in a questionnaire-based interview, responding to 34 questions including baseline demographics (country of birth, level of education, marital status, housing conditions and employment).
- Further questions were regarding past and on-going drug use, injection- and sexual risk behavior, contacts with health care services, social services and prison and prohibition services.
- All patients were also asked to report their pre-testing knowledge of HIV, hepatitis B and hepatitis C before they were tested for HIV and hepatitis.

Question	Possible answer
Do you have HIV?	Yes/No/I don't know/No answer
Do you have hepatitis B?	Yes/No – never had/No – spontaneously cleared/No – vaccinated/I don't know/No answer
Do you have hepatitis C?	Yes – (viremic/chronic)/No – never had/No – treated/ No – spontaneously cleared/ I don't know/No answer

Results:

- Of the participants, 62% reported that they had been tested for HIV and hepatitis B and C during the past twelve months and 91% reported getting the test result. Awareness of the actual HCV status, however, was poor. Overall 82% were anti-HCV positive and 62% were HCV-RNA positive.
- The notion of having an viremic/chronic HCV infection correlated well with being anti-HCV positive (99%) but 14% of those who believed they had a viremic/chronic HCV were HCV-RNA negative and 32% of those who believed that they never had encountered HCV were anti-HCV positive and 24% HCV RNA positive.
- Those who stated that they had cleared their HCV-infection were anti-HCV positive in 98% but 32% were HCV RNA positive. 40 persons reported that they were HCV negative after a previous successful HCV treatment. Among these 13 (33%) were HCV-RNA positive.
- Pre-testing knowledge of HIV status was more accurate with 97% (88/91) stating that they were HIV positive, and in fact were so. 62 persons reported that they had HBV, but only 11 (18%) of those were HBsAg positive, confirming a chronic HBV infection.

Do you have HCV?	Yes – viremic/ chronic	No - Never had	No - Treated	No - Cleared	I don't know	Total (n)
All n	784	254	40	138	170	1386
Anti-HCV+ n (%)	777 (99.1)	81 (31.9)	40 (100)	135 (97.8)	106 (62.3)	1139
Anti-HCV- n (%)	7 (0.9)	173 (68.1)	0	3 (2.2)	64 (37.7)	247

Table 1. All (n= 1386) tested for anti-HCV correlated to self-reported answer on the question “Do you have HCV?”.

The table shows self-reported HCV status in relation to actual anti-HCV status.

Do you have HCV?	Yes – viremic/ chronic	No - Never had	No - Treated	No - Cleared	I don't know	Total (n)
All n	784	254	40	138	170	1386
HCV-RNA+ n (%)	664 (84.7)	61 (24.0)	13 (32.5)	44 (31.9)	79 (46.5)	861
HCV-RNA- n (%)	113 (14.4)	20(7.9)	27 (67.5)	91 (65.8)	27 (15.9)	278

Table 2. All tested for HCV-RNA (n=777) are correlated to all (n=1386) self-reported answer on the question “Do you have HCV?”.

The table shows self-reported HCV status in relation to HCV RNA status and thus confirming if beeing HCV viremic or not.

Discussion:

- Accurate awareness of the individual HCV status is poor in PWID in Stockholm despite recent testing. These data indicate that more accurate feed-back on HCV status is needed to improve this awareness.
- Further studies are needed to examine how regular HCV testing and feed-back on HCV status can improve knowledge of HCV status and whether better knowledge of HCV status will reduce injection risk behavior.