



Evaluation of the Hepatitis C testing strategy for HIV-positive men who have sex with men at the sexually transmitted infection outpatient clinic of Amsterdam

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Background

To reduce the incidence of hepatitis C virus (HCV) among HIV-positive men who have sex with men (MSM) in Amsterdam, routine HCV testing was re-introduced in February 2017 at the STI clinic of the Public Health Service (PHS) of Amsterdam using a new HCV testing strategy.

Objectives

This study aimed to:

- Evaluate the new HCV testing strategy for HIV-positive MSM
- Evaluate the potential use of the HCV-MOSAIC score as part the HCV testing strategy for HIV-positive MSM

Conclusions

- In total, 66.5% men were not tested based on the HCV testing strategy for HIV-positive MSM.
- HCV positivity rate was high among HIV-positive MSM attending the STI clinic. Positivity rate of new infectious HCV infections was 0.8%.
- To reduce costs, the MOSAIC risk score could be implemented, although 20% of new infectious HCV diagnoses would be missed.

Methods

A new HCV testing strategy was developed in collaboration with two HIV centres in Amsterdam (Figure).

Six questions of the HCV-MOSAIC score were asked to all MSM eligible for HCV testing (Table).

Outcomes of interest:

- Diagnostic outcomes of the new HCV testing strategy
- Discriminative capacity of the HCV MOSAIC score

Definitions of HCV diagnoses:

- Infectious (HCV RNA positive, antibody positive/negative)
- Cleared (HCV RNA negative, antibody positive)

Results- HCV testing strategy

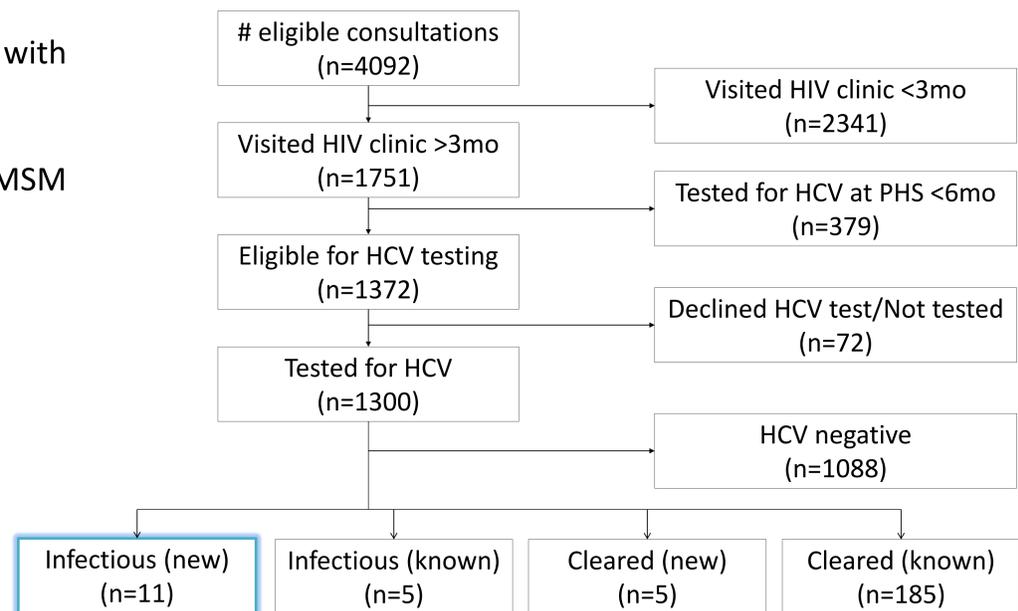


Figure: Flowchart of the consultations with HIV-positive MSM eligible for HCV testing at the STI clinic of Amsterdam, the Netherlands, 1 February 2017 to 29 June 2018.

Results- MOSAIC score

Table: Discriminative capacity and accuracy of the HCV-MOSAIC risk score to correctly identify new infectious HCV infections (HCV RNA positive) among HIV-positive MSM clients (n=924, 1189 consultations¹) of the STI clinic of the Public Health Service of Amsterdam, the Netherlands, 1 February 2017 to 29 June 2018².

	# cases identified by risk score	# cases not identified by risk score	Sensitivity	Specificity	Proportion to be tested	AUC
	n	n	% (95% CI)	% (95% CI)	%	(95% CI)
<i>Discriminative capacity of each individual risk factor</i>						
Receptive unprotected receptive anal sex in previous 6 months	9	1	90.0 (59.6-98.2)	21.9 (19.6-24.3)	78.2	0.56 (0.46-0.66)
Toy sharing in previous 6 months	3	7	30.0 (10.8-60.3)	83.5 (81.2-85.5)	16.7	0.57 (0.42-0.72)
Unprotected fisting in previous 6 months	6	4	60.0 (31.3-83.2)	85.2 (83.0-87.1)	15.2	0.73 (0.57-0.89)
Injecting drugs in previous 12 months	2	8	20.0 (5.7-51.0)	94.2 (92.7-95.3)	6.0	0.57 (0.44-0.70)
Straw sharing in previous 12 months	6	4	60.0 (31.3-83.2)	75.4 (72.9-77.8)	24.9	0.68 (0.52-0.84)
Ulcerative STI in previous 12 months	2	8	20.0 (5.7-51.0)	76.6 (74.1-78.9)	23.4	0.48 (0.35-0.61)
Total risk score	8	2	80.0 (49.0-94.3)	53.7 (50.8-56.5)	46.6	0.68 (0.50-0.86)

1. Not all clients tested for HCV completed the risk score.

2. Number of new infectious HCV diagnoses is lower than the total number of new infectious HCV diagnoses found in this study (n=11), because one client with a new infectious HCV infection did not complete the risk score.