Track & Trace: Results from a retrieval strategy to identify lost to follow-up chronic hepatitis C patients in the Netherlands

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Introduction

- There are an estimated 23,000 chronic hepatitis C (cHCV) infected people in the Netherlands.
- An unknown proportion of patients has been lost to follow-up (LTFU) and received no adequate treatment.
- Direct acting antivirals (DAAs) offer efficacious and safe therapy for these patients.

Aim

- **Retrieve LTFU cHCV patients and link them to care again.**
- **Assess reasons for loss to follow-up.**
- **Evaluate disease (fibrosis) progression in LTFU patients.**

Methods

- All HCV tests performed in 2003-2017 in the Radboudumc laboratory were analyzed.
- Patients with immunoblot-confirmed positive HCV antibodies and/or positive HCV RNA were selected.
- Chart review was performed to identify LTFU patients and to assess characteristics of LTFU patients:
  - Demographics
  - Disease characteristics
  - Previous treatment attempts
  - Reasons for LTFU
- Identification data was checked with governmental citizen administration to adjust for death or emigration.
- Patients were invited to the outpatient clinic for re-evaluation.

Results

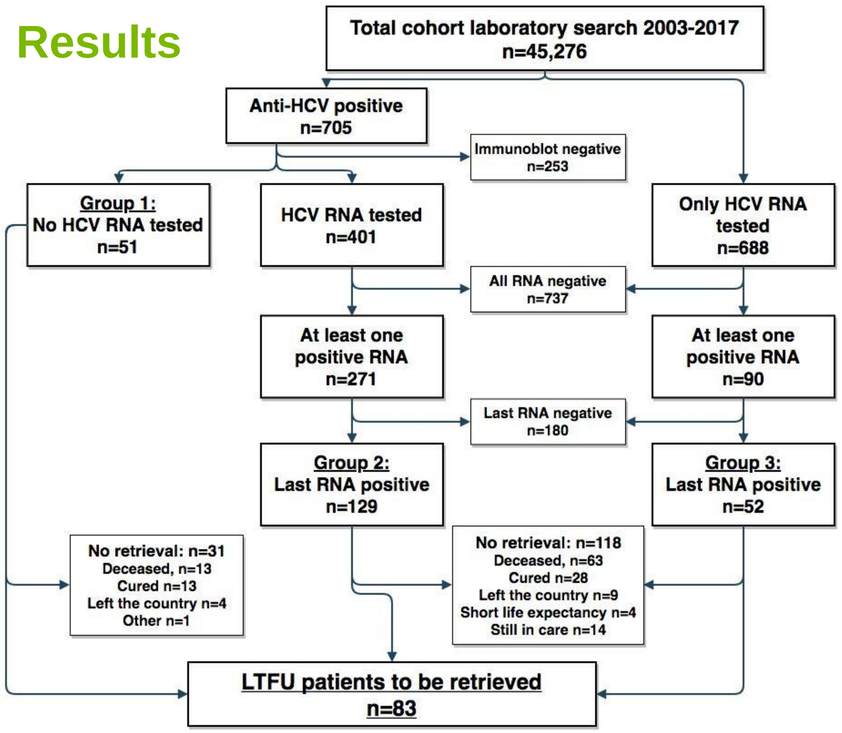


Figure 1. HCV laboratory search flowchart. *cHCV prevalence is estimated at 0.21%. Twenty-three percent (83/361) of ever diagnosed cHCV patients is LTFU.*

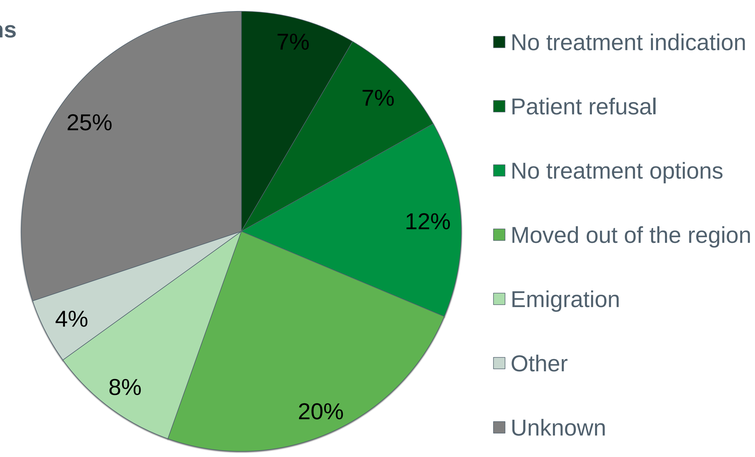
Table 1. Demographics of the LTFU cohort and the patients seen at the outpatient clinic so far.

Demographics	**Total LTFU group (n=83)**	**Patients seen in outpatient clinic (n=3)**
Age at last contact (median, IQR)	44 (36-53)	50
Male gender (n, %)	68 (82)	3 (100)
Non-Dutch resident (n, %)	46 (57)	0
Years since last contact (median, IQR)	7 (4-11)	12
Still living in Radboudumc region (n, %)	16 (19)	3 (100)

Disease characteristics	**Total LTFU group (n=83)**	**Patients seen in outpatient clinic (n=3)**
Probable mode of infection (n, %)		
• Blood transfusion	19 (23)	1 (33)
• Intravenous drug use	41 (49)	2 (67)
• Men who have sex with men	1 (1)	0
• Unknown	21 (25)	0
Genotype (% 1 / 2 / 3 / 4 / NT)	34 / 4 / 17 / 2 / 43	67 / 0 / 0 / 0 / 33
Imaging* abnormality (% HCC / other / none)	3 / 26 / 71	0 / 0 / 100
Fibrosis stage		
• Liver biopsy (%F0 / F1 / F2 / F3 / F4 / NT)	6 / 10 / 4 / 0 / 0 / 81	
• Fibroscan (% <10 kPa / ≥10 kPa / NT)	12 / 0 / 88	100 / 0 / 0
Treatment attempts		
Previous treatment attempt (n, %)	15 (18) patients with 18 attempts	2 (67) patients with 3 attempts
Interferon-containing regimen (n, %)	14 (78)	3 (100)
Other (n, %)	4 (22)	0

Table 2. Disease characteristics of the LTFU cohort and the patients seen at the outpatient clinic so far. *NT = not tested, HCC = hepatocellular carcinoma.*
** Imaging present in 38 (46%) and 2 (67%) patients, respectively.*

Figure 2. Reasons for LTFU (n=83).



Conclusion

- **Identification of cHCV patients through analysis of laboratory results and chart review is feasible.**
- **Disease severity is unknown in a significant part of the LTFU population. These patients could be at great risk for liver related morbidity.**
- **The main known reasons for LTFU are moving to another region and lack of treatment options.**
- **The high percentage of LTFU patients and the relocation of a large proportion emphasizes the need for a nationwide retrieval project.**

Financial disclosures: This investigator-initiated study was funded by an unrestricted grant from Merck, Sharpe & Dohme.

The authors declare no conflict of interest.