Ways to retrieve
Hepatitis C

Joost PH Drenth
Department of Gastroenterology and Hepatology, Radboudumc
Nijmegen, The Netherlands
29 november 2018
Disclosure of Conflicts of Interest

• I herewith declare the following paid or unpaid consultancies, business interests or sources of honoraria payments since October 1, 2016, and anything else which could potentially be viewed as a conflict of interest:

• Joost PH Drenth has served on advisory boards of AbbVie, Gilead, and Intercept, His Department receives research funding from Gilead, Abbvie, and Ipsen. All reimbursements go to the Radboudumc

• CELINE is sponsored through GILEAD Sciences SCALE programme
As is

- Low HCV (0.22%) prevalence
- A significant % is lost to follow-up
- New effective DAAs available
- Fully reimbursed by the Dutch Health Insurance

WHO targets to achieve HCV elimination


Number of sterile needles/syringes provided per PWID/year

- 300

90% reduction in new infections

90% of HCV-infected people diagnosed

80% of eligible patients treated

65% reduction in mortality

Percentage of blood donations screened

- 100%
Dutch National Hepatitis Plan: 5 pillars

Awareness and vaccination

Identification

Diagnosis and treatment

Organisation of care

Surveillance and research agenda

The concept of Micro-Elimination

130-150 Million people worldwide have chronic hep C.

- 16,000 cases of acute hep C were reported in the U.S in 2009.

Central & East Asia and North Africa have the highest hep C rates.

50-90% of people using antiviral treatment get better.

15-45% of people with hep C get better in 6 months without treatment.

350,000-500,000 people die from HCV-related complications every year.
Micro Elimination

- Focus on special sub-populations
- Go slowly but surely
Retrieval strategies

- Awareness and prevention (1)
  - Information campaigns (PCP, risk groups)
  - Burden of disease estimates

- Testing and diagnosis (2)
  - Screening projects
  - Retrieval of LFU diagnosed patients

- Linkage to care (3)
  - HCV healthcare pathways in addiction care
  - PCP screening and referral guidelines

- Access to medication and qualified health services (4)
  - Full coverage DAA therapy by health insurance
  - Designated hepatitis treatment centers

- Monitoring and evaluation (5)
  - Pilot national HCV registry
  - Mandatory report of acute and chronic* HCV

*implementation of mandatory report of chronic HCV is advised
Dutch micro-elimination efforts

Meer dan opsporen
Nationale hepatitisplan: een strategie voor actie

National Hepatitis Plan

Screening & Case Finding

Retrieval

Chain of Addiction Care

NoMoreC

Local

CELINE
Amsterdam MSM hepatitis C free

(1) awareness & prevention

• Increase:
  • Knowledge and awareness
  • Regular testing and earlier diagnosis
  • Risk reduction behaviour
• Improve awareness, attitude, knowledge and skills among professionals
• Create enabling environment for risk reduction
• Provide fast linkage to care
• Prevent re-infections
• Penetrate social/sexual networks and enhance partner notification
• Understand and predict the epidemic and transmission dynamics
HCV screening in the Netherlands

(2) testing & diagnosis

- Screening the general population is inefficient
- Targeted screening is recommended for high-prevalence groups:
  - 1st generation immigrants, PWID, MSM, healthcare workers, asylum seekers from endemic countries (>2%)
- **HIV-infected patients** at 26 HIV treatment centres across The Netherlands offered HCV screening

- HIV-infected MSM in The Netherlands managed at these centres
- Acceptance of screening
- HIV-positive patients screened at least once for HCV

https://www.gezondheidsraad.nl/sites/default/files/201616_screening_van_risicogroepen_op_hepatitis_b_en_c_0.pdf; Boerekamps A, et al. CROI 2016; Oral #136
Chain of Addiction Care

(3) linkage to care

NISPA
Nijmegen Institute for Scientist-Practitioners in Addiction

Active PWID
Former PWID
OST

Screening & Identification in addiction care facility
- Number tested
- Number positive tests

Treatment & Posttreatment Care in hepatitis centre
- Number treated
- Number SVR12

Follow-up in addiction care facility
- Number reinfected

Data registry

Radboudumc
HCV care in the Netherlands

- 49 Hepatitis Centres
- Multidisciplinary Care
- Regional initiatives
- Local retrieval strategies
- Country-wide action
- CELINE program
Retrieval of lost-to-follow-up patients
(4) testing & diagnosis

CELINE aim:
Systematic identification of lost-to-follow-up (15 years) HCV patients & linkage to care
CELINE: A nationwide approach for retrieval of LTFU patients

- Virological archive
  - Chart review
- Clinical assessment
- Central database
- Management options

- Case Retrieval
- Case Ascertainment

80% case retrieval
50% case ascertainment
50% case counseling
95% in registry
Planning

- Mid 2018 – Mid 2021
- Coordinated from 3 UMC regions
Principles of retrieval
REACH methods

Phase 1
Screening databases

- **Diagnosis centres**
  - UMCU/Diakonessenhuis/St Antonius/
    Meander Medisch Centrum/Saltro

  - **Laboratory**
    Identification of all
    HCV Ig+ patients

  - **Electronic health records**
    Identification of all HCV
    clinical files

  - Linking patients to clinical files
to check for untreated ones

Phase 2
Tracing

1. Retrieve address information from
   municipal database
2. Contact patients for hospital visit

Phase 3
Treating

- Treat and follow-up

https://doi.org/10.1111/liv.13959
# Retrieval of lost-to-follow-up projects

<table>
<thead>
<tr>
<th></th>
<th>Identified</th>
<th>Cured</th>
<th>Listed for retrieval</th>
</tr>
</thead>
<tbody>
<tr>
<td>UMC Utrecht</td>
<td>1913</td>
<td>625</td>
<td>269</td>
</tr>
<tr>
<td>Noordwest Ziekenhuisgroep</td>
<td>499</td>
<td>299</td>
<td>150</td>
</tr>
<tr>
<td>Radboudumc</td>
<td>411</td>
<td>219</td>
<td>76</td>
</tr>
</tbody>
</table>
Results

- Utrecht & Nijmegen retrieval
- Details on 44 patients
Results 44 patients (Utrecht & Nijmegen)

Transmission
- IV drugs
- Transfusie
- Overig
- Onbekend

Fibrose stage
- F0-F1
- F2
- F3
- F4

Reason LTFU
- In afwachting DAA
- Actief drugsgebruik
- Geen opties therapie
Conclusion

• **Goal**
  • Elimination of chronic hepatitis C in the Netherlands

• **Situation**
  • Low prevalence; Low barrier of access to care; wide availability of drugs; hepatitis centres
  • National hepatitis plan

• **Methodology**
  • Series of micro-elimination programs targeting sub-populations
  • CELINE: Design and execution of a comprehensive nationwide retrieval strategy

• **Lessons learned**
  • Ethical Clearance
  • Feasibility of identification of patients on the basis of laboratory results
  • Retrieval projects are time consuming and labour intensive
Ways to retrieve
Hepatitis C

Joost PH Drenth
Department of Gastroenterology and Hepatology, Radboudumc
Nijmegen, The Netherlands
29 november 2018