### Treatment as prevention approach results in early and marked prevalence reduction of hepatitis C viremia among people who recently injected drugs. Results from Iceland: Treatment as Prevention (TraP HepC)

Tyrfingsson T<sup>1</sup>, <u>Runarsdottir V<sup>1</sup></u>, Hansdottir I<sup>1,2</sup>, Bergmann OM<sup>3</sup>, Björnsson ES<sup>3,4</sup>, Johannsson B<sup>5</sup>, Sigurdardottir B<sup>5</sup>, Fridriksdottir RH<sup>3</sup>, Löve A<sup>4, 6</sup>, Löve TJ<sup>4, 7</sup>, Sigmundsdottir G<sup>8</sup>, Hernandez UB<sup>7</sup>, Heimisdottir M<sup>4, 9</sup>, Gottfredsson M<sup>4,5,7</sup>, Olafsson S<sup>3,4</sup> and the TRAP HEP C working group

<sup>1</sup>SAA National Center for Addiction Medicine - Reykjavik Iceland, <sup>2</sup>Faculty of Psychology, School of Health Sciences, University of Iceland, <sup>3</sup>Department of Gastroenterology and Hepatology, Landspitali University Hospital, <sup>4</sup>Faculty of Medicine, School of Health Sciences, University of Iceland, <sup>5</sup>Department of Infectious Diseases, Landspitali University Hospital, <sup>6</sup>Department of Virology, <sup>7</sup>Department of Science, Landspitali University Hospital, <sup>9</sup>Directorate of Health, <sup>9</sup>Department of Finance, Landspitali University Hospital, Reykavik, Iceland.

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### Disclosure

• Gilead provided the DAA for TrapHepC project



### Iceland and Hepatitis C



- Population of 330.000
- Universal health insurance
- Mandatory reporting HCV Registry since 1991
- Estimated viremic prevalence of HCV 0,3%,
- 800-1000 cases total, >80% already diagnosed

### TraP HepC: for who - when - where - which ?

- All HCV PCR positive individuals living in Iceland
  - Actively injecting drugs
  - Incarcerated
  - Advanced liver fibrosis/cirrhosis
- Offered 2016-2018
- Collaboration:
  - Infectious disease
  - Hepatology
  - Addiction medicine
- Treatment regimen:
  - Jan-Oct 2016: ledipasvir/sofosbuvir +/- ribavirin
  - Nov 2016- : sofosbuvir/velpatasvir







# First 24 months of TraP HepC real-world nationwide setting

- Preferred iv drugs:
  - stimulants 85% ; opioids 15%
- iv drug use: ever 88%; <6 months 34%; on MAT 10%
- Virology: **3a 58%**, 1a 37%, other 5%; HIV coinfected 7%
- Cure rates: SVR 12w; <u>N: 558</u>
- Per protocol 467/500: **95% cured** 
  - Relapse, re-infections
- Overall: 494/558: 89% cured (and still pending results)
  - Did not finish: 10% N:58, 43 discontinued 18 were cured and 19 have been retreated, some pending

Olafsson et al Global hepatitis Summit June 2018



### **Overall organization of TraP HepC**

### **Vogur Addiction Hospital, SAA-National Center for Addiction Medicine**

- Iceland's main addiction treatment center, easy access, free of charge
- 7,4% of the adult population has received care at Vogur Hospital
- Treats the vast majority of PWID
- Comprehensive screening of PWID and precise database on HCV since 1990's
- Opportunity to monitor early trends in HCV prevalence among PWID
- Antiviral **treatment** for HCV provided along with addiction treatment







## Increasing number of PWID identified first time at

Prevalence of HCV viremia among PWID at Vogur Addiction Hospital 2010 - June 2018 : ever used iv





Prevalence of HCV viremia among PWID at Vogur Addiction Hospital 2010 - June 2018 : no ivdu for >1 year



## HCV among PWID at Vogur Hospital in 5 years: 2013-2017 (N=1037), as to pattern of use



Total HCV infections at Vogur Addiction Hospital from 1991, status in 2015 and 2017 before and after 2 years of Trap HepC



### WHO – elimination of HCV as a major health threat before 2030

• Mathematical modelling for Iceland: the WHO target could possibly be achieved in Iceland in 2020

Scott N et al, J Hepatol 2018

- Dramatic change
- Integration of addiction treatment and HCV screening/ treatment, plays an imortant role in TraP HepC
  - In detoxes, treatments, MAT, harm reduction services
- That is where PWID are, and that is where HCV positives are
- Important to make: screen, diagnose and treat "the easy choice"
- Also important to reduce **other health risk** and harm of PWID

### **TraP HepC: Conclusions**

- A major scale-up in HCV treatment across all patient groups has been successful in Iceland
- DAA treatment in the setting of recent IV drug use, although challenging, was generally successful
- Significant reduction in prevalence and incidence of HCV among PWID is seen
- Real life threats and challenges include: continuing effort in HCV screening/treatment; prioritization of authorities; risk of cluster spreading and increase in risky injection behavior



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#### Total HCV infections at Vogur Addiction Hospital from 1991, status in 2015 and 2017 before and after 2 years of Trap HepC

2015: N=664 LIVING HCV POS PWID HCV PCR pos HCV PCR neg HCV PCR neg; N:202; 30% HCV PCR pos; N:462; 70%

#### 2017: N=691 LIVING HCV POS PWID

■HCV PCR pos ■HCV PCR neg

