







## Opportunistic treatment of HCV infection (OPPORTUNI-C):

Study protocol for a pragmatic cluster randomized trial of immediate versus outpatient treatment initiation among hospitalized people who inject drugs

Midgard H<sup>1,2</sup>, Finbråten AK<sup>3,4</sup>, Malme KN<sup>1</sup>, Berg-Pedersen RM<sup>5</sup>, Tanum L<sup>6</sup>, Olsen IC<sup>7</sup>, Bjørnestad R<sup>8</sup>, Dalgard O<sup>1,9</sup>

Department of Infectious Diseases, Akershus University Hospital, Norway.
 Department of Gastroenterology, Oslo University Hospital, Norway.
 Department of Medicine, Lovisenberg Diaconal Hospital, Norway.
 Department of Illicit drug use, Oslo University Hospital, Norway.
 Department for Research and Development in Mental Health, Akershus University Hospital, Norway.
 Prolar Nett, Søgne, Norway.
 Institute of clinical Medicine, University of Oslo, Norway

INHSU 2021 #264

### Disclosures

Håvard Midgard and Olav Dalgard: Advisory boards and lecture fees from Abbvie, MSD and Gilead

OPPORTUNI-C was funded by South-Eastern Health Authority in Norway

# Acknowledgements

Thank you to all study participants and people who inject drugs who generously contributed to this research



**SELIHEP** | Norwegian center for elimination of hepatitis C

#### **OPPORTUNI-C study group**

Olav Dalgard
Håvard Midgard
Ane-Kristine Finbråten
Kristian Braathen Malme
Riikka Mari Berg-Pedersen
Lars Tanum
Ronny Bjørnestad
Inge Christoffer Olsen

Ana Urzua
Lybica Zacariassen
David Nilssen
Hans Martin Nussle
Artur Nilsen
Anita Tollisen
Hanna Eilertsen
Ida Tveter
Silje Lehne Michalsen
Anne Haug
Lene Loose
Karoline Landrø

Hans Lannerstedt
Ida Glad
Lasse Rossvoll
Charlotte Pihl
Magrit Hovind
Truls Leegaard
Fredrik Rangnes
Trude Haga Flatås
Beth-Marie Brotnov
Ingvild Klundby
Kathrine Stene-Johansen

Kristian Alfsnes

# Background and aim

- New models of HCV care are needed to reach people who inject drugs (PWID)
- PWID are often hospitalized for inpatient treatment of various conditions
  - drug-dependency disorders, intoxications, psychosis, soft tissue infections, deep venous thrombosis, endocarditis, liver disease, etc
- Hospitalizations are not sufficiently utilized for HCV testing and treatment
- Standard of care referral to outpatient treatment often results lack of retention in the cascade of care
- **Hypothesis**: Hospitalizations represent opportunities to efficiently engage PWID in HCV treatment
- Primary aim: Evaluate the efficacy of opportunistic and immediate treatment of HCV infection among
   PWID admitted for inpatient care in departments of internal medicine, addiction medicine, and psychiatry

## Pragmatic clinical trial: Mimics usual practice

## Representative - generalizable - affordable

- Recruitment from ordinary clinical practice
- Wide inclusion criteria, few excluded
- Clinical infrastructure, few research specific assessments
- Flexible intervention delivery
- Clinically relevant endpoints
- Collection of readily available data from the patient files
- Analysis according to the principles of intention to treat

## Study design: Stepped wedge cluster randomized trial

		STEPS								TOTAL
		#1	#2	#3	#4	#5	#6	#7	#8	TOTAL
CLUSTERS	#1	4	4	4	4	4	4	4	4	32
	#2	4	4	4	4	4	4	4	4	32
	#3	4	4	4	4	4	4	4	4	32
	#4	4	4	4	4	4	4	4	4	32
	#5	4	4	4	4	4	4	4	4	32
	#6	4	4	4	4	4	4	4	4	32
	#7	4	4	4	4	4	4	4	4	32
TOTAL		28	28	28	28	28	28	28	28	224

#### **Primary outcome**

 Treatment completion (dispension of final DAA pack)

#### Inclusion criteria

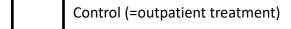
- HCV RNA positive
- Age > 18 years
- Admitted for inpatient care
- Signed informed consent

#### **Exclusion criteria**

- Unable or unwilling to consent
- Ongoing HCV treatment

#### Sample size

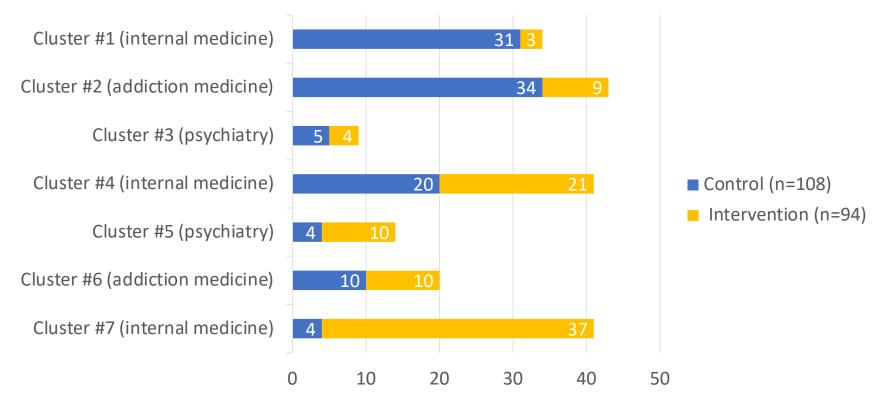
224 patients



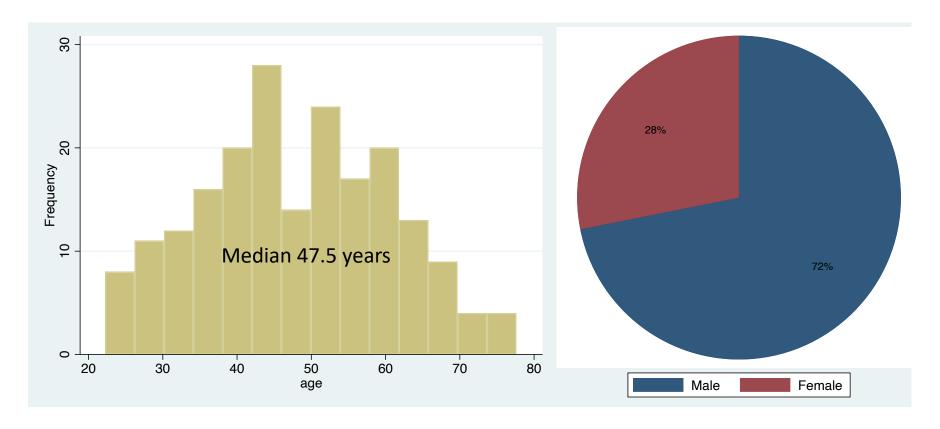


Intervention (=immediate treatment)

# Status for inclusion by September 17 2021: 202 of 224 patients included



# Age and gender among included participants



## Conclusions

- Participant recruitment will be completed by October 2021
- The results will inform HCV elimination efforts locally and internationally
- The model of care could replace current standard of care for hospitalized individuals
- Challenges
  - Informed consent may introduce selection bias
  - Short hospital stays: HCV RNA testing not performed, results available after discharge
  - Changing epidemiology: Different treatment arenas and declining prevalence
- Strengths
  - Representative and relatively unselected population: «Real world evidence»
  - Robust study design: Logistically, politically, statistically