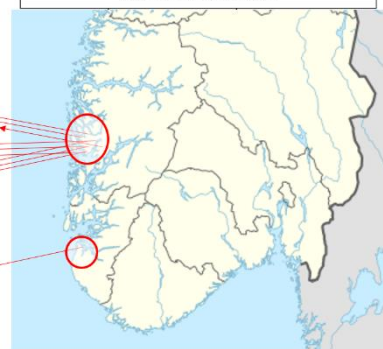
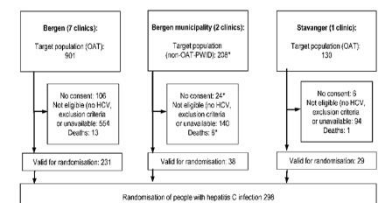




Background for project

Patients with substance dependence have a high disease burden, and a high risk of premature deaths. People who inject drugs have represented more than three quarters of people chronically infected with chronic hepatitis C virus infection (HCV) in high-income settings, and HCV are both among the leading causes of liver disease worldwide. People who inject or who have injected drugs generally have had more difficulties in obtaining adequate health care compared with the general population, on top of knowledge gaps on health status and how to deliver proper treatment and follow-up. Chronic HCV substantially increases the risk of severe complications such as liver failure and death within two to three decades. When we started our project in 2017, the prevalence of hepatitis C among people who inject or had recently injected drugs, was 54%. However, only around a third of those receiving opioid agonist therapy with chronic HCV had received HCV treatment when in 2017.

Thus, there was a need for new approaches to reach more patients with substance use in need of HCV treatment while ensuring high-quality care. To succeed in this, an integrated model of health care was developed and tested in a large randomized controlled clinical trial where we assessed integrated HCV treatment within the opioid agonist therapy clinics compared to standard treatment. The integrated treatment model focused on inter-disciplinarity, accessibility, being patient-centred, less invasive follow-up requiring less blood samples taken (including only one single blood sample prior to treatment with chained testing for antibodies, hepatitis virus and quantification and genotyping of hepatitis C, no routine samples during treatment, and one after completion to confirm successful treatment). It involved close and frequent follow-up availability linked with other treatments, without requiring substantial additional time or visits from the patients. In the trial, half of 298 persons were randomized to receive integrated treatment and the other half received standard treatment; all with direct acting antiviral medications.



Objectives

The primary objectives of the project were to



1. Estimate incidence and prevalence of HCV infection among people who inject drugs in Bergen- and the Stavanger being followed up at opioid agonist therapy outpatient clinics or people who inject drugs followed up at primary health care clinics

2. Compare the effect of integrated HCV treatment between the opioid agonist therapy outpatient clinics in Bergen and Stavanger (intervention arm) with standard treatment provided after referral to infectious disease clinics among patients who receive opioid agonist therapy having HCV

Secondary objectives were to:

1. Assess the proportion with sustained virologic response (successfully treated for hepatitis C)

2. Compare treatment adherence between the intervention and control arms, and the risk of reinfection among those with sustained virologic response

3. Assess changes in quality of life, fatigue, and psychological well-being, drug use and infection related risk behaviour before and after HCV treatment

PLOS MEDICINE

RESEARCH ARTICLE

Integrated treatment of hepatitis C virus infection among people who inject drugs: A multicenter randomized controlled trial (INTRO-HCV)

Aas et al. *Substance Abuse Treatment, Prevention, and Policy* (2021) 16:20
<https://doi.org/10.1186/s13011-021-00354-1>

Substance Abuse Treatment,
Prevention, and Policy

RESEARCH Open Access

Substance use and symptoms of mental health disorders: a prospective cohort of patients with severe substance use disorders in Norway



Aas et al. *Substance Abuse Treatment, Prevention, and Policy* (2021) 16:20
<https://doi.org/10.1186/s13011-021-00354-1>

Substance Abuse Treatment,
Prevention, and Policy

RESEARCH Open Access

Substance use and symptoms of mental health disorders: a prospective cohort of patients with severe substance use



Widell et al. *Substance Abuse Treatment, Prevention, and Policy* (2020) 15:93
<https://doi.org/10.1186/s13011-020-00354-4>

Substance Abuse Treatment,
Prevention, and Policy

RESEARCH Open Access

Impact of clinical and sociodemographic factors on fatigue among patients with substance use disorder: a cohort study



Aas et al. *Substance Abuse Treatment, Prevention, and Policy* (2020) 15:68
<https://doi.org/10.1186/s13011-020-00359-y>

Substance Abuse Treatment,
Prevention, and Policy

RESEARCH Open Access

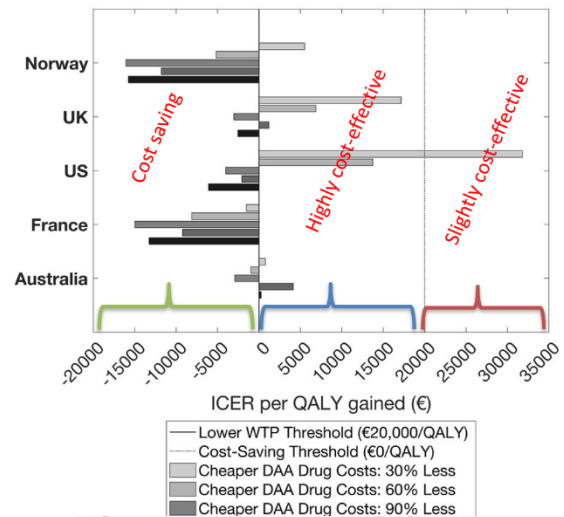
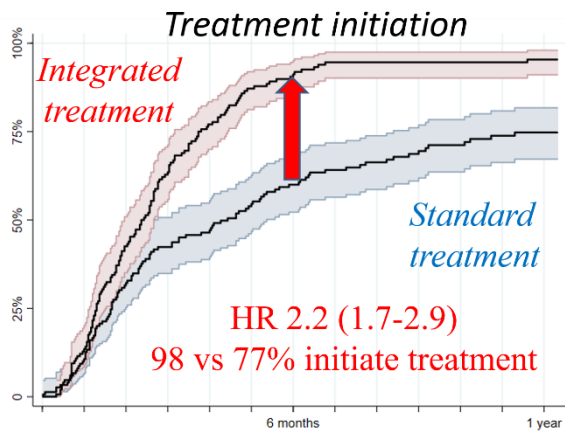
Health-related quality of life of long-term patients receiving opioid agonist therapy: a nested prospective cohort study in Norway



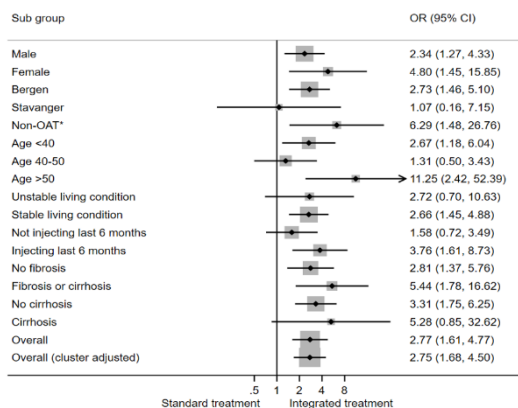
Findings

The results confirmed our hypotheses. Among those receiving integrated treatment, 98% initiated treatment for HCV while 77% initiated among those receiving standard treatment. Treatment was initiated double as fast among those receiving integrated treatment. Further, 93% of those randomized to integrated treatment had sustained virologic response compared to 73% among those receiving standard treatment. Time to sustained virologic response was halved among those receiving integrated treatment. There were no serious adverse events considered to be related with the treatment.

The treatment was effective both for women and men, among the youngest and oldest participants, among those receiving opioid agonist therapy and those receiving municipal care services, those with stable and unstable living conditions, and among those who still injected drugs. The treatment was also found to be highly cost effective in both Norway and in several other countries, and probably also cost saving in Norway and in several other settings.



HCV SVR among randomized (sub-group analysis)



BT skriver om innsatsen mot hepatitt C og INTRO-HCV prosjektet i dagens avis:



Tre års dugnad renset Bergen for livsfarlig virus
Halvparten av rusmisbrukere i Bergen var smittet av det livsfarlige hepatitt C-viruset. Etter tre års innsats er smitten nær utryddet.
☞ bt.no

Relating to change in fatigue and quality of life, our analyses has shown that those receiving integrated treatment had slightly larger reduction in symptoms of fatigue compared to receiving standard treatment,

and people with successfully treated reported more hope relating to the future. Qualitative data on substance use, indicated that many reported that treatment of hepatitis C had contributed to reducing their substance use.

Preliminary assessment of prevalence of hepatitis C among people who inject/have injected drugs in the largest cities in Western Norway (Bergen and Stavanger), showed a reduction in the prevalence of hepatitis C from 54% in 2017 to 7% in 2020.

Societal impacts and significance

Our project contributed to a reduction of 87% in three years in the prevalence of hepatitis C in the largest cities in Western Norway. These areas are now on track to the ambitious targets to reduce the prevalence of hepatitis C by 90% by 2023, aiming for elimination of hepatitis C. The



En «no brainer» ble praksisendrende
Forskere i Bergen har vist at samtidig hepatitt C- og rusbehandling har god effekt. Infeksjonsekspert tr...
☞ dagensmedisin.no

LEVER 4 LIVET:
Årets konserthøydepunkt blir torsdag 3. oktober kl 21 på Lille Ole Bulls Scene, Øvre Ole Bulls plass 3 med Phil Spalding, Morten Sommerbakk, Kristian Lindseth med flere. Vi tror at du som er opptatt av god musikk vil få en minneverdig og god kveld. Gratis inngang

Phil Spalding har spilt sammen med Elton John, Robbie Williams, Seal, Mick Jagger, Britney Spears og Kylie Minogue og mange flere. Han har et stort engasjement for hepatitt C.

INTRO-HCV BERGEN ADDICTION RESEARCH
LEVER 4 LIVET

proLARNett
NASJONALT FORBUND FOR FOLK I LAR

Vi arrangerer også en bruker- og fagdag på Bikuben på Haukeland sykehus torsdag den 3. oktober kl. 12:30-15:30. Der spiller blant annet den verdenskjente bassisten Phil Spalding som bidrar med musikkinnslag i tillegg til spennende innlegg fra både brukerrepresentanter og fageksperter. Vel møtt!

importance of integrated treatment models has now been emphasized both in Norwegian and international guidelines on treatment of hepatitis C where our study is one of the drivers behind this change. The project has also contributed to spreading findings wide and well beyond scientific community. The findings have been spread in mass media, concerts and events arranged by the project targeting user group in collaboration with user representatives.

If this treatment model is scaled up, this could contribute to elimination of HCV, both locally, nationally, and internationally.

We would like to thank all involved – project group, participants and user groups, clinicians and others providing support, as well as funders and policy makers.

Links to project: <http://helse-bergen.no/bar> & https://twitter.com/bar_bergen



BERGEN KOMMUNE



Forskningsrådet



UNIVERSITETET I BERGEN



Norwegian Institute of Public Health



<https://www.uib.no/nye-doktorgrader/145246/betydelig-sykdomsbyrde>

Uib > Nye doktorgrader >

NY DOKTORGRAD

Betydelig sykdomsbyrde blant rusavhengige

Christer Frode As disputerer 14.6.2021 for ph.d.-graden ved Universitetet i Bergen med avhandlingen "The burden of disease among people with severe substance use disorders".

Opplysn. 15.06.2021 (Sjue publisert 15.06.2021)

Rusavhengighet kan være en svært alvorlig tilstand som kjennetegnes av samtidig høy forekomst av somatisk sykdom og mentale lidelser. Selv om rundt halvparten av de som får legemiddelt støttet rehabilitering (LAR) for rusavhengighet har svært knappe ressurser med rapportert C-virus-infeksjon (HCV), var det likevel nylig noe utviklet hvor mange som hadde fått behandling med de nye kurative legemidlene. Vi vet også lite om hvordan ulike rusmiddelpløkker påvirker helse over tid og hvordan helse-relatert livskvalitet er blant langtidstilbehandlede LAR. Denne doktorgraden har vurdert en betydelig sykdomsbyrde blant personer med alvorlige ruslidelser, men har også vist at det er en heterogen gruppe hvor rundt en tredjedel likevel har symptomer på alvorlig psykisk lidelse og rapporterer god helse-relatert livskvalitet. Nye tiltak som vaksinasjon av både psykisk helse- og helse-relatert livskvalitet bør vurderes inkludert som utvalgte i iverksett spesialisert rehabilitering.



Christer Frode As
Les ned presentasjonen

I den første artikkelen ble data fra nasjonale reseptregister benyttet for å beregne hvor mange blant over 10.000 LAR-pasienter i Sverige og Norge som hadde mottatt behandling for HCV. Selv om andelen som ble behandlet for HCV økte betydelig i begge land gjennom hele studieperioden fra 2011 til 2018, var det fortsatt betydelig at to tredjedeler av de som trengte behandling fortsatt var ubehandlet ved i 2018. De neste to artiklene undersøkte mulige sammenhenger mellom helse-relatert livskvalitet i to nordnorske strukturer med høy utvalgt livskvalitet.

Opplysn. 16.06.2021 (Sjue publisert 20.06.2021)

Det er et økende bruk av ulike karmkjerne- og ikke-karmkjerne (Blekket potensialt verdensens største legemiddelfabrikant) blant pasienter i legemiddelt støttet rehabilitering (LAR) i Norge og Sverige. Tillegg rapporterte LAR-pasienter om betydelige utmattelsessymptomer som er assosiert med rusmiddelbruk.



Henrik Vold
Les ned presentasjonen

Jørn Henrik Vold har i sin doktorgrad vurdert omfanget av forekomst og ikke-foretatte pasienter i verdensens største legemiddelfabrikant (Blekket potensialt verdensens største legemiddelfabrikant) i Norge og Sverige. Han har sammenlignet forskningsdata mellom landene, vurdert hvordan avsløring av LAR-behandling påvirker bruken av disse legemidlene, og studert omfanget av bruk av ulike verdensens største legemiddelfabrikant i tillegg har han evaluert hvordan omfanget av bruk av rusmidler påvirker utmattelsessymptomer hos LAR-pasienter.

I den første artikkelen undersøker omfanget av søvn- og angstforstyrrelser (Blekket potensialt verdensens største legemiddelfabrikant) i Norge. Den finner et høyt forbruk av slike legemidler. Den andre artikkelen undersøker bruken av sentralstimulerende legemidler i Norge og finner en svak økning i alle legemiddelt bruk. Den tredje artikkelen