Liver disease knowledge and acceptability of non-invasive liver fibrosis assessment among people who inject drugs in the drug and alcohol setting: The LiveRLife Study

A.D. Marshall a, M. Micallef a, A. Erratt a, J. Telenta b, C. Treloar c, H. Everingham d, S.C. Jones b, N. Bath d, D. How-Chow e, J. Byrne f, P. Harvey g, A. Dunlop h,i, M. Jauncey f, P. Read a,j, T. Collie k, G.J. Dore a, J. Grebely a

a The Kirby Institute, UNSW Australia, NSW, Australia
b Centre for Health and Social Research, Australian Catholic University, VIC, Australia
c Centre for Social Research in Health, UNSW Australia, NSW, Australia
d NSW Users and AIDS Association, Inc., NSW, Australia
e St Vincent’s Hospital Sydney, NSW, Australia
f Australian Injecting and Illicit Drug Users League, ACT, Australia
g Hepatitis NSW, Australia
h University of Newcastle, Newcastle, NSW, Australia
i Drug and Alcohol Clinical Services, Hunter New England Local Health District, Newcastle, NSW, Australia
j Kirketon Road Centre, NSW, Australia k Coffs Harbour Drug and Alcohol Service, NSW, Australia
Project Collaborators

The Kirby Institute
University of New South Wales

National Centre in HIV Social Research
University of New South Wales

Centre for Health Initiatives
University of Wollongong

NSW Users and AIDS Association (NUAA)

Hepatitis NSW

Hunter Pharmacotherapy Services

St. Vincent’s Hospital

Australian Injecting & Illicit Drug Users League (AIVL)
Background

PWID

• Lack of knowledge = barrier to seeking HCV assessment & Tx
• Higher knowledge = greater likelihood of receiving assessment & Tx
• Liver biopsy = barrier to assessment & Tx
• High willingness to receive Tx but Tx uptake is ~1-2% per yr
Aims

To assess...

• Factors associated with baseline knowledge of HCV and liver disease

• Acceptability of transient elastography (TE) assessment (FibroScan®)

• Willingness and intent to receive HCV treatment
Study Design
Liver health promotion campaign designed to enhance liver disease assessments via FibroScan® in the drug and alcohol setting among persons with a history of injection drug use

LiveRLife Campaign

• Phase I: resource development
• Phase II: resource testing
• Phase III: implementation (2014)
Resource Development & Testing

Campaign Messaging

- Focus on liver health
- Main message: Get Tested
- Free, quick, painless
- Real success stories
- Non-technical language
- Positive tone
- Colourful
Methods

LiveRLife Resources

PRINTED RESOURCE

CAMPAIGN POSTERS

FIBROSCAN REPORT

STUDY WEBSITE

LIVERLIFE.ORG.AU
Study Population

- Prospective cohort design
- Aged ≥ 18 years, history of IDU
- No liver biopsy or FS in prior two years
- No current or previous HCV Tx
- Cannot be pregnant

Recruitment from:
- Kirketon Road Centre
- Sydney Medically Supervised Injecting Centre
- Newcastle Pharmacotherapy Service (OST)
- Coffs Harbour Drug and Alcohol Services (OST)
Campaign Day

**Post-Assessment Survey**
- FibroScan acceptability (Likert Scale)

**Dried Blood Spot**
- HCV RNA testing

**Nurse Consultation**
- Review FibroScan results

**Waiting Area**
- Food & refreshments
- **PEER SUPPORT***

**Study Enrolment**
- Informed consent

**Pre-Assessment Survey**
- Demographics
- Injecting history, behaviour
- Alcohol use (AUDIT-C)
- Baseline HCV & liver knowledge
- FibroScan willingness
- Tx willingness & intent (Likert scale)

**FibroScan**
- FibroScan Score
Participants (n=253)

- 31% injected ≥daily, past mon.
- 30% heroin, last drug injected

- Average age: 43
- Male: 68%
- ATSI: 23%
- HCV+: 75%
- Govern't assistance: 86%
- Completed high school or higher education: 27%
- Unstable housing: 29%
- Ever been in prison: 66%
- Ever been in prison past 12 mons: 22%
Results

• Median knowledge score 16/23 (70%)
• Less than daily injection (AOR 5.01; 95% CI, 2.64-9.51) and no daily injection in the past month (AOR 3.54; 95% CI, 1.80-6.94) were associated with high knowledge (≥16)
• 88% definitely or somewhat willing to receive HCV Tx
• 56% intended to start Tx in the next 12 mons
Results

Preferred liver disease assessment method

![Bar chart showing the most preferred methods for liver disease assessment]

- **TE**
  - Pre-TE: 66%
  - Post-TE: 89%

- **Blood**
  - Pre-TE: 16%
  - Post-TE: 9%

- **Biopsy**
  - Pre-TE: 19%
  - Post-TE: 2%

Statistical significance: $P < 0.001$
Liver disease burden, baseline

- **F0/F1**: 68%
- **F2**: 13%
- **F3**: 10%
- **F4**: 9%

- No/Mild fibrosis
- Moderate fibrosis
- Severe fibrosis
- Cirrhosis
## Results

### Follow-up (n=152)

<table>
<thead>
<tr>
<th></th>
<th>Enrolled</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>KRC</td>
<td>70%</td>
<td>34%</td>
</tr>
<tr>
<td>MSIC</td>
<td>66%</td>
<td>66%</td>
</tr>
<tr>
<td>Total</td>
<td>60%</td>
<td></td>
</tr>
</tbody>
</table>

![Bar chart showing 60% of total enrolled subjects have follow-up](chart.png)
Discussion

Implications

• Better understanding of liver disease burden
• Improve upon educational interventions
• Increase non-invasive liver disease assessment
• Prioritise treatment
Acknowledgements

LiveRLife Participants

Supervisors
A/Prof Jason Grebely, Prof Greg Dore, Prof Carla Treloar

The Kirby Institute, UNSW
Prof Gregory Dore
Dr. Michelle Micallef
Ms. Pip Marks
Ms. Amanda Erratt
Dr. Behzad Hajarizadeh
Dr. Danica Martinez

NSW Users & AIDS Association
Ms. Nicky Bath
Ms. Hope Everingham

Australian Injecting and Illicit Drug Users League
Ms. Jude Byrne

Hepatitis NSW
Mr. Paul Harvey

Centre for Health and Social Research, ACU
Prof Sandra Jones
Ms. Joanne Telenta

St. Vincent's Hospital, Sydney
Ms. Dianne How-Chow

Investigators and Clinic Staff
Kirketon Road Centre
Newcastle Pharmacotherapy Service
Medically Supervised Injecting Centre
Coffs Harbour Drug & Alcohol Service

Funding

Student Scholarships