

Liver Disease Risk Factors in Patients Treated for Alcohol and Drug Dependence

October 2018

Key findings

- Many patients in treatment for alcohol and drug dependence have modifiable risk factors for liver disease; over half engage in hazardous alcohol use, and approximately a quarter have injected drugs, with a similar percentage having hepatitis C.
- Clinical staff view the major obstacles to treatment for liver disease risk factors as low client prioritisation of overall health and lack of understanding of the consequences of viral infections and alcohol use.
- Staff also view clients' unstable living situations and poor mental health as obstacles to treatment.

Researchers

Dr Katherine I. Morley^{1,2}, Prof Michael T. Lynskey¹, Dr Giulia Toti^{1,3*}, Ms Pia Singh^{1*}, Dr Nicola J. Kalk¹, Ms Carol-Ann Getty¹, Dr Lindsey A. Hines^{1,4*}, Ms Stephanie Fincham-Campbell¹

1 National Addiction Centre, King's College London Institute of Psychiatry, Psychology, and Neuroscience, 4 Windsor Walk, Denmark Hill, London SE5 8BB, United Kingdom.

2 Melbourne School of Population and Global Health, 235 Bouverie St, Carlton VIC 3053, Australia.

3 University of Houston Department of Computer Science, Philip Guthrie Hoffman Hall, 3551 Cullen Blvd., Houston, TX 77204-3010, USA.

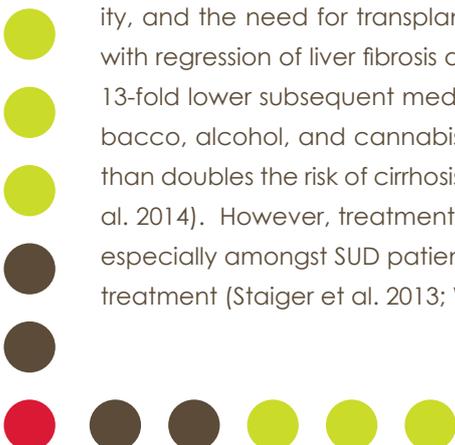
4 Centre for Adolescent Health, Royal Children's Hospital, 50 Flemington Road, VIC 3052, Australia.

* Indicates author was affiliated to King's College London when working on this project; current institution provided where available.

Background

The UK liver disease mortality rate has increased 400% since 1970, making it the third largest cause of premature mortality (Williams et al. 2014). The major causes of advanced liver disease in the UK are alcoholic cirrhosis and chronic viral hepatitis (Tsochatzis et al. 2014; Edeghere et al. 2015). People with substance use disorders (SUDs) have greater alcohol consumption, and hepatitis B and hepatitis C infection than the general population, making them important targets for liver disease prevention. Around 30% of people treated for SUDs are treated for alcohol use, and a significant number treated for illicit drug use also drink heavily (Public Health England 2017; Gossop et al. 2003). Estimated hepatitis B and C exposure is 32% and 50.5% respectively in people who inject drugs (PWID) in the UK, with this group accounting for most new hepatitis C infections (Nelson et al. 2011; Bennett et al. 2015).

Prevention and early intervention are effective in stabilising liver disease progression and reducing morbidity, mortality, and the need for transplantation. Achieving sustained virologic response in hepatitis C treatment is associated with regression of liver fibrosis and cirrhosis, substantially reduced risk of hepatocellular carcinoma and mortality, and 13-fold lower subsequent medical costs (Tsochatzis et al. 2014; Smith-Palmer et al. 2015). Reduction in the use of tobacco, alcohol, and cannabis is also beneficial; even in non-alcoholic liver disease, moderate use of alcohol more than doubles the risk of cirrhosis, while tobacco and cannabis use both worsen the progression of fibrosis (Tsochatzis et al. 2014). However, treatment levels for hepatitis B and hepatitis C infection, and secondary alcohol misuse, are low especially amongst SUD patients which has led to calls for tools to help clinicians identify high-risk patients and target treatment (Staiger et al. 2013; Williams et al. 2014; Bennett et al. 2015; Tsochatzis et al. 2014; Smith-Palmer et al. 2015).



The aim of this project was to characterise the current clinical landscape regarding detection and treatment of liver disease risk factors in individuals undergoing treatment for alcohol and/or drug dependence, using a combination of existing electronic medical record data and data directly collected from staff and clients via questionnaires. It addressed the following research questions:

1. What is the percentage of addiction services clients who have known risk factors for liver disease?
2. How do self-reports of risk factors compare to what is included in clinical records?
3. What are the attitudes of clinical staff and clients to interventions for liver disease risk factors?

Methods

The study comprised a number of elements:

An analysis electronic health data records for clients entering treatment at a South London and Maudsley NHS Foundation Trust community drug and alcohol service. This sought to identify the number of clients presenting with liver disease risk factors. 18,848 patients met the inclusion criteria.

Client survey (103 participants) and interviews (6 participants), focussing on those with liver disease risk factors.

Survey of clinical staff (50 participants).

Findings

Overall, a substantial percentage of patients at community drug and alcohol services had one or more risk factors for liver disease, many of which are modifiable. Over half of patients have a record of engaging in hazardous alcohol use, and approximately a quarter have injected drugs, with a similar percentage having hepatitis C.

Although the percentage of clients with liver disease risk factors appeared to be higher based on self-reported questionnaire data, particularly for hepatitis C and mental health, much of this is likely to be due to the limitations of the available electronic medical record data.

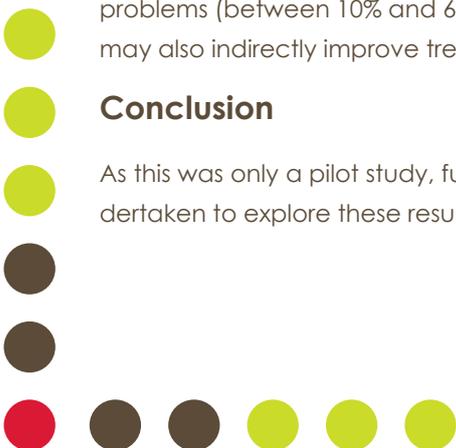
Clinical staff view the major obstacles to treatment for liver disease risk factors as low client prioritisation of overall health and lack of understanding about the consequences of viral infections and alcohol use. However, staff also highlighted clients' unstable living situations and poor mental health as obstacles to treatment for liver disease risk factors.

Implications

Clinical support tools focused on improving risk communication could enhance treatment interest and uptake. Given the large percentage of patients who reported unstable living situations (approximately 30-40%), and mental health problems (between 10% and 65%), supporting clients to organise stable housing and access mental health treatment may also indirectly improve treatment for liver disease risk factors.

Conclusion

As this was only a pilot study, further data collection involving a larger, representative sample of clients should be undertaken to explore these results further.



References

Bennett, H. et al., 2015. Assessing the Long-Term Impact of Treating Hepatitis C Virus (HCV)-Infected People Who Inject Drugs in the UK and the Relationship between Treatment Uptake and Efficacy on Future Infections. *PLoS ONE*, 10(5), p.e0125846.

Edeghere, O. et al., 2015. Retrospective cohort study of liver transplantation in the United Kingdom between 1994 and 2010: the impact of hepatitis C infection. *Public Health*, 129(5), pp.509–516.

Gossop, M. et al., 2003. Alcohol use outcomes and heavy drinking at 4-5 years among a treatment sample of drug misusers. *Journal of Substance Abuse Treatment*, 25(3), pp.135–143.

Nelson, P.K. et al., 2011. Global epidemiology of hepatitis B and hepatitis C in people who inject drugs: Results of systematic reviews. *The Lancet*, 378(9791), pp.571–583.

Public Health England, 2017. Adult Drug Statistics from the *National Drug Treatment Monitoring System (NDTMS)*: 1 April 2016 to 31 March 2017.

Smith-Palmer, J., Cerri, K. & Valentine, W., 2015. Achieving sustained virologic response in hepatitis C: a systematic review of the clinical, economic and quality of life benefits. *BMC Infectious Diseases*, 15(1), pp.1–19.

Staiger, P.K. et al., 2013. Overlooked and underestimated? Problematic alcohol use in clients recovering from drug dependence. *Addiction*, 108(7), pp.1188–1193.

Tsochatzis, E.A. et al., 2014. Cost-effectiveness of noninvasive liver fibrosis tests for treatment decisions in patients with chronic hepatitis C. *Hepatology*, pp.832–843.

Williams, R. et al., 2014. The Lancet Commissions Addressing liver disease in the UK : a blueprint for attaining excellence in health care and reducing premature mortality from lifestyle issues of excess consumption of alcohol, obesity, and viral hepatitis. *Lancet*, 384, pp.1953–97.



[Download the Final Report](#)



This research was funded by **Alcohol Research UK**. Alcohol Research UK and Alcohol Concern merged in April 2017 to form a major independent national charity, working to reduce the harms caused by alcohol.



Read more reports at www.alcoholresearchuk.org



Alcohol Research UK, 27 Swinton Street, London WC1X 9NW
Registered charity 1140287
Registered as a Company Limited by Guarantee Number 7462605

