

Severe alcohol-related liver disease admissions post-COVID-19 lockdown: canary in the coal mine?

The COVID-19 pandemic presents significant complexities for adapting health care provision to our chronic liver disease patients. Concerns have been raised that patients with alcohol-use disorders may be severely impacted and vulnerable during 'lockdown'. Community alcohol and drug services were greatly disrupted during the peak of the COVID-19 pandemic, and provision of support to patients significantly reduced. Staffing of these services was diminished and social distancing measures made provision of detoxification services challenging.

In England in 2018/2019, there were 1.26 million hospital admissions related to alcohol consumption.¹ The continued burden of liver disease from excess alcohol, with increasing numbers of hospital admissions particularly in deprived areas of the UK, has been repeatedly highlighted by the Lancet

Commission into liver disease.² In the initial wave of the COVID-19 pandemic, the Office of National Statistics reported a 10.3% increase in supermarket alcohol sales and a 31.4% annual increase in alcohol store sales in March 2020.³ Observational data have reported 28% of those that consume alcohol are drinking more heavily compared with prelockdown, with this increasing further if individuals had previously been a heavy drinker.⁴ It was feared that there would be a surge of alcohol relapse, alcohol-related liver disease admissions and an increase in newly diagnosed patients following the COVID-19 pandemic.

We report a large increase in the number of patients being referred with alcohol-related liver disease in our tertiary liver unit. Referrals from our network more than doubled in June 2020 compared with June 2019 (48.5% (n=67) vs 19.4% (n=28), $p < 0.0001$) (table 1), with 82.1% (n=55) being currently active drinkers. These admissions were sicker, with 23.9% (n=16) requiring high dependency unit (HDU) or intensive care unit (ICU) organ support

for severe acute alcoholic hepatitis or alcohol-related acute-on-chronic liver failure compared with 10.7% (n=2) in June 2019. None of the admitted patients to our unit in June 2020 were positive for SARs-CoV-2 (COVID-19). Of those in June 2019, there was only one death within 30 days of admission, while in June 2020, four patients died within 30 days of admission.

There may be several explanations for this increase. Patients may have had a delayed presentation due to shielding or fear of attending hospital at this time. The redeployment of medical staffing during the COVID-19 pandemic may have led to difficulties in maintaining or accessing linkage to care and potential relapse or increased alcohol consumption. Reduction in community alcohol and drug services halted alcohol detoxification schemes, significantly reduced face-to-face meetings and overall support for these vulnerable groups.


Following the UK's first wave of the COVID-19 pandemic, we highlight an alarming increase in the number and severity of patients presenting with alcohol-related liver disease to tertiary specialist

Table 1 Baseline patient demographics with alcohol-related liver disease presentation

| | June 2020 | June 2019 | Change (June 2020 vs 2019) |
|---|--------------------|---------------------|----------------------------|
| Total patient referrals (n) | 138 | 144 | |
| Referrals related to alcohol-related liver disease | 67 (48.5%) | 28 (19.4%) | |
| Actively drinking | 55 (82.1%) | 21 (75.0%) | +7.1% (p=0.57) |
| Gender | | | |
| Male | 40 (59.7%) | 18 (64.3%) | |
| Female | 27 (40.3%) | 10 (35.7%) | |
| Average Age | | | |
| Male, years | 54.2 (range 36–79) | 46.14 (range 34–74) | |
| Female, years | 45.6 (range 24–71) | 51.2 (range 40–74) | |
| Social situation | | | |
| Lives alone | 28 (41.8%) | 15 (53.6%) | –11.8% (p=0.37) |
| Presentation | | | |
| Organ failure with HDU/ICU admission for Acute on Chronic Liver Failure or Severe Acute Alcoholic Hepatitis | 16 (23.9%) | 3 (10.7%) | +13.2% (p=0.17) |
| Severe acute alcoholic hepatitis (Maddrey's >32) | 13 (19.4%) | 6 (21.4%) | –2.0% (p=0.79) |
| Mild acute alcoholic hepatitis (Maddrey's <32) | 13 (19.4%) | 5 (17.9%) | +1.5% (p=0.99) |
| Acute decompensation of Alcohol-related liver disease | 14 (20.9%) | 9 (32.1%) | –11.2% (p=0.30) |
| Acute hepatitis (alaininetransaminase >300)+ARLD | 5 (7.5%) | 0 (0.0%) | +7.5% (p=0.32) |
| Deranged liver function tests only | 6 (8.9%) | 5 (17.9%) | –9.0% (p=0.29) |

Comparisons between two groups using Fisher's exact test.

hepatology. Government focus, support and planning to ensure prompt access to treatment services and policies to decrease alcohol excess have long been called for.² Service strategies with tailored hepatology input to identify and care for these patients, wherever located, must be addressed urgently now and for the future.

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