# Increasing burden of alcohol-related liver disease in the UK associated with the COVID-19 pandemic

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During the first UK national coronavirus pandemic lockdown (March to July 2020), alcohol sales increased 30% in supermarkets. Surveys reported that 20% of people increased their alcohol consumption and numbers of high-risk drinkers increased by 13%. Post-lockdown, clinicians noted high numbers of alcohol-related liver disease (ARLD)-related admissions. We hypothesised that greater alcohol consumption in high-risk drinkers contributed to this increase. We conducted a national service evaluation to document the number and severity of unplanned ARLD hospital admissions pre- and post-lockdown.

We performed a retrospective service evaluation in 28 UK hospitals of all unplanned admissions during a one-week period in August 2019 and the same period in August 2020. The protocol was approved by the lead site's Clinical Audit Department and registered at participating sites. We applied a validated coding algorithm that more accurately identifies ARLD admissions than using only ARLD codes in the primary diagnosis.[1] Eligible cases were manually reviewed and data extracted into a pre-designed collection tool. Data collected included demographics, diagnosis, alcohol use and liver disease severity scores, which were compared between evaluation periods.

There was an 18% absolute increase in unplanned hospital admissions in the evaluation period in 2020 compared to 2019 (263 vs 223). Demographics were similar between the two periods (mean age 55; 37% female). In-hospital mortality was similar (9.0% vs 7.2%) and there were no differences between proportions of patients with complications of liver disease including variceal bleeding and alcoholic hepatitis. Patients in both evaluation periods had similar severity of liver disease with mean Child Pugh score of 8 and MELD 14. Those with alcoholic hepatitis had mean MELD 20 and discriminant function 90.

In the post-lockdown period, there were more active alcohol drinkers (75% vs 68%) than pre-lockdown and mean consumption per patient was significantly higher (154 vs 127 units alcohol/week; p=0.02). More patients reported drinking spirits post- vs pre-lockdown (31% vs 22%; p=0.06).

In conclusion, this national service evaluation has demonstrated an increase in unplanned ARLD hospital admissions post-lockdown with patients reporting heavier alcohol use. Although there were no differences in clinical presentations or outcomes, this group of patients have advanced liver disease with a high risk of short-term mortality. These data suggest the pandemic has disproportionately affected high-risk drinkers and demonstrate the heavy burden of ARLD in the UK. There is an ongoing need to develop long-term strategies to improve these patients' outcomes.

[1]Kallis et al, Aliment Pharm Therap 2020; 52:182-95