

# The Impact of the COVID-19 Pandemic on Hepatocellular Carcinoma Surveillance in Cirrhotic Patients

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## Introduction

The incidence of Hepatocellular Carcinoma (HCC) worldwide is increasing. It is amongst the leading causes of cancer death globally (1). In the Western world, HCC arises in a cirrhotic background in up to 90% of cases (1). In populations with a high incidence of HCC, surveillance reduces mortality and is cost effective (1). The EASL 2018 guidelines recommend that biannual ultrasound surveillance should be performed in these populations. In response to the COVID-19 pandemic, updated guidance states that surveillance may be delayed. Accordingly, the ISG recommended surveillance ultrasound can be deferred by 3 months (2).

### Aims and objectives

This audit aims to assess the impact of COVID-19 on HCC surveillance.

## Methods

We retrospectively reviewed and compared HCC surveillance with ultrasound and alpha fetoprotein amongst cirrhotic patients attending hepatology clinics in a tertiary referral centre in July 2019 and July 2020. Optimal surveillance was defined as two ultrasounds at no greater than a six-month interval pre/post the clinic visit. A second cut-off of 9 months was used for the 2020 patients. Patients were also assessed to see if alpha fetoprotein levels had been checked at no greater than six-month interval. Patient age and cirrhosis aetiology were also recorded.

## Results

In total 385 clinic visits were reviewed (177 from 2019, 208 from 2020). 143 cirrhotic patients were identified (65 in 2019; 78 in 2020). The underlying aetiology is detailed in figure 1.

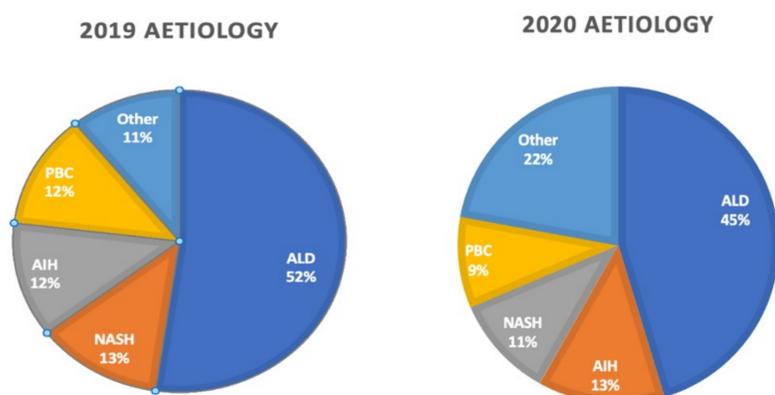


Fig. 1 Aetiology of Cirrhosis

In 2019, 40% of cirrhotic patients had optimal ultrasound surveillance. The average age of this group was 57.23 years. The median time to ultrasound in the remaining 60% of patients in 2019 was 10 months. The average age of this group was 63.44 years.

In 2020, 21% of cirrhotic patients had optimal ultrasound surveillance. The average age of this group was 62.63 years. The median time to ultrasound in the remaining 79% of patients in 2020 was 19 months. The average age of this group was 61.42 years. When a cut off of 9 months was used, as per ISG COVID guidelines, 33% of the 2020 patients were appropriately screened with ultrasound (2).

In 2019, 71% of cirrhotic patients had appropriate AFP surveillance versus 37% in 2020.

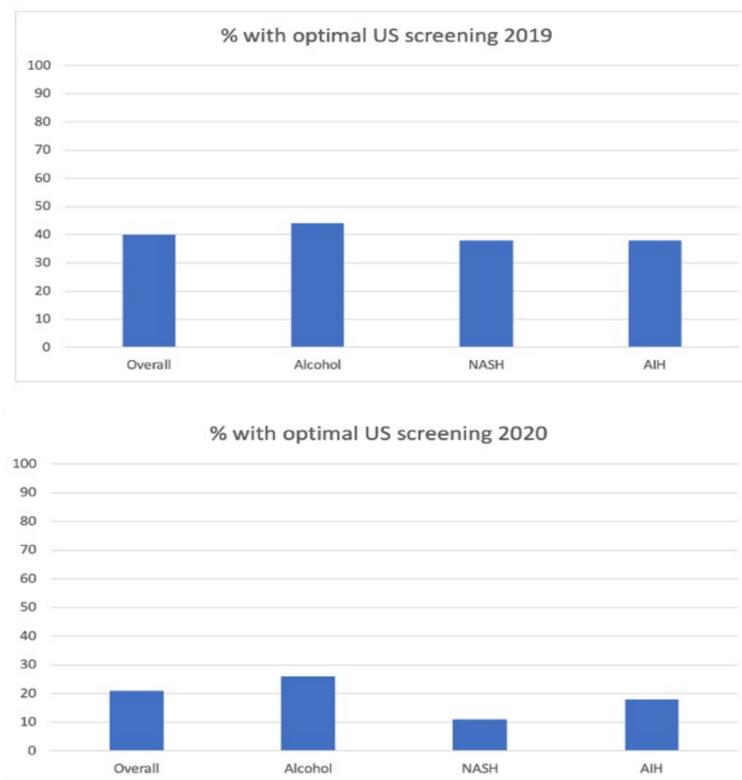


Fig. 2 US Surveillance by Year and Aetiology

## Conclusions

Even with the updated recommendation, there was a clear decrease in the number of patients having optimal HCC surveillance from 2019 to 2020, which could potentially cause excess morbidity and mortality. This represents an important secondary effect of COVID-19.

## References

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