Introduction SARS-CoV-2 is a novel coronavirus that emerged in Wuhan, China in late 2019 and since become a global pandemic. Initial reports suggested a significant proportion of patients have abnormal liver blood tests. We conducted a retrospective review of clinical data to access for incidence, clinical pattern, and severity of liver blood test in patients with confirmed COVID-19.

Method Clinical records and laboratory results were obtained from 210 patients with laboratory-confirmed COVID-19 who were admitted to Ipswich Hospital, East of England, UK between March 2020 and June 2020. Only admission blood tests were reviewed and all patients who had abnormal admission liver function tests were then screened for any risk factors for liver disease. To describe the severity of liver injury, in this study, patients who had raised liver function parameters more than 5× the upper limit unit of normal (ULN) were classified as significant liver injury; patients who had raised liver function parameters 2–5 ULN were classified as moderate liver injury; and patients who had raised liver function parameters 1–2 ULN were classified as mild liver injury.

Results 210 hospitalised COVID-19 positive had liver blood tests available for analysis. 44 patients (20%) had one or more abnormal liver blood tests with raised levels of C-reactive protein and procalcitonin. Abnormality in liver function test was more hepatocellular but 8 patients out of 44 had raised alkaline phosphatase only along with raised GGT but normal rest of liver enzymes. Out of these 44 patients, 20 (9%) required ITU admission within 24 to 48 hours of hospital admission. 15 (7%) patients out of 44 were not ITU candidates either due to advanced age and frailty or multiple co-morbidities. 9 patients out of 44 were managed on ward as were not too unwell to require ITU admission. All patient reviewed in our data had mild to moderate liver injury with none having severe injury. Factors identified in patient requiring ITU admission was male gender, age greater than 60 years and multiple co-morbidities.

Conclusion Twenty percent of patients admitted to the hospital with SARS-CoV-2 infection had an abnormal liver function which was found to be associated with raised levels of inflammatory markers. Its important to aggressively treat patients with COVID-19 infection and deranged LFTs as there is a risk involved that these patients might require ITU. Its important to perform liver screen blood tests along with imaging of liver.