**Supplementary Table 1. Inclusion and exclusion criteria in the respective patient groups**

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| **Patient group** | **Inclusion criteria** | **Exclusion criteria** |
| Prevalent PBC | Known primary biliary cholangitis (PBC) patients who had a routine visit between 2016 and 2017 at our tertiary liver department with a PBC diagnosis. | Patient age below 18 years, life expectancy less than 6 months, planned liver transplantation within 6 months, cirrhosis from other causes (hepatitis, alcohol, non-alcoholic fatty liver disease/non-alcoholic steatohepatitis), liver cancer, and other malignancies. |
| Incident PBC | New patients diagnosed with PBC at our liver center between 2016 and 2017 | Same as above. |
| PSC16 | Primary sclerosing cholangitis (PSC) based on typical cholangiographic findings by either magnetic resonance cholangiopancreatography or endoscopic retrograde cholangiopancreatography and a serum sample in the NoPSC biobank between 2008-2012. | Patients with secondary cholangitis or small duct PSC. |
| AIH17 | Consecutive autoimmune hepatitis (AIH) patients who had a routine visit between January 2011 and January 2016 at our tertiary liver department with an AIH diagnosis based on standard criteria of elevated liver transaminases, elevated IgG, positive smooth muscle cell and anti-nuclear antibodies, and a liver biopsy demonstrating compatible morpho-logical lesions. | Patients with autoantibodies characteristic for other diseases and patients with alcoholic liver disease. |
| CHC18 | Patients with chronic hepatitis C (CHC) with severe liver disease (METAVIR F ≥ 3 or liver stiffness >10 kPa), age ≥18 years, and planned initiation of sofosbuvir‐based direct-acting antiviral therapy between September 2014 and February 2017. | Patients co‐infected with hepatitis B virus or human immunodeficiency virus and patients with excessive alcohol intake within the last 6 months preceding treatment initiation. |
| AH21 | A first-time diagnosis of alcoholic hepatitis (AH) by a com- bination of physical and laboratory criteria; a history of excessive alcohol ingestion (≥10 units/day) until at least 3 weeks before admission; and acute jaundice (developed over at most 2 weeks, serum bilirubin >80μmol/l). The diagnosis was verified by liver biopsy in 10 patients, and the histology in no case rejected the clinical diagnosis. | Patients with viral hepatitis, autoimmune liver disease, bile duct obstruction, liver tumors or any other cancer, the presence of an infectious focus (either clinically assessed or based on chest X-ray, urine samples, or ascites puncture), age below 18 or above 75 years, ongoing gastro-intestinal bleeding or bleeding within the previous 3 months, or any previous immune-modulating therapy. |

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