

**Supplementary Table 1.** Identification of etiologies and comorbid conditions

Etiologies	ICD code for diagnosis	Antiviral treatment
Chronic hepatitis B	Z22.51, B18.0, B18.1, B18.10, or B18.18	lamivudine, adefovir, entecavir, tenofovir alafenamide, tenofovir fumarate, telbivudine, clevudine, or besifovir
Chronic hepatitis C	B18.2 or Z22.52	Pegylated interferon and ribavirin, or oral antiviral agents (daclatasvir, asunaprevir, sofosbuvir/ledipasvir, elbasvir/grazoprevir, ombitasvir/paritaprevir/ritonavir, dasabuvir, sofosbuvir, or glecaprevir/pibrentasvir)
Alcoholic liver disease	K70.0, K70.1, K70.2, K70.3, K70.4, or K70.9	
Non-alcoholic fatty liver disease	NAFLD (K76.0, K76.0A, or K75.8B) or diabetes mellitus (E10, E11, E12, E13, E14, or E15), and not assigned with ICD codes for chronic hepatitis B, chronic hepatitis C, alcoholic liver disease, Wilson's disease, autoimmune hepatitis, or primary biliary cholangitis	
Comorbid conditions		
Liver cirrhosis		Liver cirrhosis (K74, K70.2, or K70.3) or cirrhosis-related complications (K76.6, I85, I86.4, K70.43, K71.11, K72.01, or K72.91)
Diabetes mellitus		E10, E11, E12, E13, E14, or E15
Hypertension		I10, I11, I12, or I13
Chronic kidney disease		N18 or N19
Other malignancies		All cancer codes beginning with C
Cardiovascular diseases		I20, I21, I22, I23, I24, or I25
Cerebrovascular diseases		I60, I61, I62, I63, I64, I65, I66, or I69

NAFLD, non-alcoholic fatty liver disease; ICD, International Classification of Diseases.