

## Outcome codes (and exclusion before baseline):

Diagnosis	ICD-10 (1997-)	ICD-9 (1987-1996)	ICD-8 (1969-1986)
<b>Severe liver disease</b>			
(D) Esophageal varices, bleeding**	I85.0, I98.3	456.0, 456.20	456.0
(K) Oesophageal varices, non-bleeding	I85.9, I98.2	456.1, 456.21	456.0
(D) Hepatorenal syndrome**	K76.7	572.4	
(A) Liver failure, chronic	K72.1	572.8	573
(K) Liver cirrhosis*	K74.6	571.5	571.9
(K) Liver cirrhosis due to alcohol*	K70.3	571.2	571.0
(D) Liver encephalopathy**		572.2	573.02
(A) Liver failure not otherwise defined	K72.9		
(K) Portal hypertension	K76.6	572.3	571.9
(C) Hepatocellular carcinoma***	C22.0	155.0	155.01
(A) Liver transplantation status	Z94.4	V42	
<b>Procedure codes</b>			
Liver transplantation	JJC00, JJC10, JJC20, DJ005, DJ006, JJC30, JJC40	5200	5200

## Additional exclusion criteria before baseline:

Liver disease	ICD-10 (1997-)	ICD-9 (1987-1996)	ICD-8 (1969-1986)
AAT deficiency	E88.0A, E88.0B	277.6	
Alcohol-related liver disease*	K70	571.0, 571.1, 571.2, 571.3	571.00, 571.01
Autoimmune hepatitis	K75.4		
Budd-Chiari syndrome	I82.0, K76.5	453.0	
Hemochromatosis	E83.1	275.0	273.20
PBC	K74.3, K74.5	571.6	
PSC	(K50 or K51) + K83.0	(555 or 556) + 576.1	563 + 575.05
Wilson	E83.0B	275.1	273.30
Viral hepatitis	B15, B16, B17, B18, B19	070, 571.4	070, 999.20
<b>Alcohol/drug use disorders</b>			
Alcohol-related diagnoses	E24.4, F04.9, F10, G31.2, G62.1, G72.1, I42.6, K29.2, K85.2, K86.0, O35.4, X65, Y15, Y91	255, 294.0, 291, 303, 305.0, 357.5, 359.4, 425.5, 535.3, 577, 655.4	258, 291.1, 299,
Other drug use disorders	F11, F12, F13, F14, F15, F16, F17, F18, F19	292, 305	

Data should be structured using the names:

id	time	event	age	sex	GGT	ALT	AST		
----	------	-------	-----	-----	-----	-----	-----	--	--

Where

- **time** is the follow-up time in years.
- **event** is 1 for liver disease outcome, 2 for death from other causes, and 0 for censored.
- **age** is the age in years at the start of follow-up
- **sex** is 0 for female and 1 for male.
- **GGT , ALT, and AST** are in mikrokat/L (= "U/L" / 60)