

Supplementary Table 1. ICD-9-CM Coding Variables.

Variables	ICD-9-CM							
Primary Diagnoses								
Cirrhosis	571.2	571.3	571					
Hepatorenal Syndrome	572.4							
Hepatocellular carcinoma	155							
Variceal Hemorrhage	456	456.1	531.4	532.4	456.80	578.9	578	
Septicemia	995.91	995.92	995.93					
Cirrhosis due to Alcohol Use	571.2	571	571.3					
Primary Procedures								
EGD performed in <24hrs	451.3	423.3	451.6					
Transfusion given <24hrs	99.04	99.07	99.05					
Paracentesis performed <24hrs	549.1							
Thoracentesis performed <24 hours	349.1							
TIPS	391							
Non-Cirrhotic Cohort*								
<i>[absence (-) of cirrhosis codes]</i>	<i>(-)571.2</i>	<i>(-)571.3</i>	<i>(-)571</i>					
Chronic Heart Failure Cohort*	398.91	402.11	402.91	402.11	404.13	404.91	404.93	
	428	428.1	428.2	428.21	428.22	428.23	428.3	
	428.31	428.32	428.33	428.4	428.41	428.42	428.43	
	428.9							
<i>[absence (-) of cirrhosis codes]</i>	<i>(-)571.2</i>	<i>(-)571.3</i>	<i>(-)571</i>					

*matched 1:1 on age, gender and year of discharge with cirrhosis cohort

Supplementary Table 2. Incident Relative Risk (RR) of Inpatient Mortality for Cirrhosis Complications, Sepsis, Early EGD, Early Paracentesis and TIPS by Year of Discharge.

Interaction term: Variable x Year of Discharge		RR*	95% confidence interval	p-value
Variable	Year of discharge			
Hepatorenal syndrome	2002	5.62	5.62 - 6.01	<0.001
"	2003	5.10	4.77 - 5.45	<0.001
"	2004	4.15	3.88 - 4.43	<0.001
"	2005	3.51	3.27 - 3.76	<0.001
"	2006	3.36	3.12 - 3.63	<0.001
"	2007	3.58	3.36 - 3.83	<0.001
"	2008	3.09	2.87 - 3.32	<0.001
"	2009	3.33	3.11 - 3.57	<0.001
"	2010	3.20	2.98 - 3.43	<0.001
SBP	2002	1.92	1.74 - 2.12	<0.001
"	2003	1.62	1.48 - 1.78	<0.001
"	2004	1.54	1.41 - 1.69	<0.001
"	2005	1.50	1.37 - 1.64	<0.001
"	2006	1.23	1.11 - 1.36	<0.001
"	2007	1.29	1.15 - 1.43	<0.001
"	2008	1.23	1.12 - 1.36	<0.001
"	2009	1.12	0.99 - 1.28	0.078
"	2010	1.21	1.09 - 1.34	0.000
Hepatocellular carcinoma	2002	1.89	1.69 - 2.10	<0.001
"	2003	1.84	1.66 - 2.04	<0.001
"	2004	1.70	1.55 - 1.88	<0.001
"	2005	1.62	1.48 - 1.78	<0.001
"	2006	1.62	1.47 - 1.78	<0.001
"	2007	1.55	1.42 - 1.70	<0.001
"	2008	1.40	1.28 - 1.53	<0.001
"	2009	1.20	1.09 - 1.32	<0.001
"	2010	1.31	1.20 - 1.43	<0.001
Variceal hemorrhage	2002	2.06	1.93 - 2.21	<0.001
"	2003	2.04	1.91 - 2.18	<0.001
"	2004	1.66	1.56 - 1.77	<0.001
"	2005	1.68	1.57 - 1.81	<0.001
"	2006	1.59	1.49 - 1.69	<0.001
"	2007	1.57	1.47 - 1.67	<0.001
"	2008	1.49	1.39 - 1.60	<0.001
"	2009	1.55	1.45 - 1.66	<0.001
"	2010	1.53	1.43 - 1.64	<0.001
Sepsis	2002	3.62	3.32 - 3.95	<0.001
"	2003	3.78	3.51 - 4.07	<0.001
"	2004	4.48	4.26 - 4.71	<0.001
"	2005	4.49	4.27 - 4.71	<0.001
"	2006	4.51	4.31 - 4.71	<0.001
"	2007	4.34	4.14 - 4.55	<0.001
"	2008	4.99	4.76 - 5.23	<0.001
"	2009	4.65	4.44 - 4.88	<0.001
"	2010	4.63	4.41 - 4.86	<0.001
EGD ≤ 1 day of admission	2002	0.98	0.89 - 1.06	0.575
"	2003	0.91	0.84 - 0.99	0.037
"	2004	0.90	0.83 - 0.97	0.007
"	2005	0.80	0.74 - 0.87	<0.001
"	2006	0.83	0.77 - 0.90	<0.001
"	2007	0.80	0.73 - 0.87	<0.001
"	2008	0.82	0.75 - 0.89	<0.001
"	2009	0.82	0.75 - 0.89	<0.001
"	2010	0.69	0.63 - 0.75	<0.001
Paracentesis ≤ 1 day of admission	2002	1.29	1.19 - 1.40	<0.001
"	2003	1.22	1.13 - 1.32	<0.001
"	2004	1.02	0.95 - 1.10	0.536
"	2005	1.06	0.98 - 1.13	0.136
"	2006	1.09	1.03 - 1.15	0.001
"	2007	0.93	0.86 - 1.00	0.041
"	2008	0.93	0.86 - 1.00	0.048
"	2009	0.91	0.84 - 0.98	0.011
"	2010	0.87	0.81 - 0.94	<0.001
TIPS	2002	1.32	1.10 - 1.59	0.003
"	2003	1.47	1.25 - 1.73	<0.001
"	2004	1.54	1.31 - 1.81	<0.001
"	2005	1.19	0.97 - 1.45	0.089
"	2006	1.32	1.11 - 1.57	0.002
"	2007	1.18	0.98 - 1.43	0.084
"	2008	1.10	0.90 - 1.34	0.348
"	2009	1.08	0.89 - 1.32	0.446
"	2010	1.12	0.92 - 1.37	0.262

* see also Figure 3, main text