



**Supplementary Figure 1 Pearson's Correlation between 30-d readmission rate and subsequent mortality.**

**Supplemental Table 1: Gastrointestinal Disorders and Corresponding ICD-9 Codes**

<b>GI Disorder</b>	<b>ICD-9 Codes</b>
<b>Gastrointestinal Hemorrhage</b>	456.0, 456.20, 530.21, 530.7, 530.82, 531.0, 531.2, 531.4, 531.6, 532.0, 532.2, 532.4, 532.6, 533.0, 533.2, 533.4, 533.6, 534.0, 534.2, 534.4, 534.6, 535.01, 535.11, 535.21, 535.31, 535.41, 535.51, 535.61, 535.71, 537.83, 562.02, 562.03, 562.12, 562.13, 569.85, 569.86, 569.3, 578, 772.4
<b>Cholelithiasis with Cholecystitis</b>	574, 575.0-575.2
<b>Acute Pancreatitis</b>	577.0
<b>Intestinal Obstruction</b>	560.9, 560.89, 560.81
<b>Appendicitis</b>	540-542
<b>Chronic Liver Disease and Viral Hepatitis</b>	070, 570-573, 789.5, 567.23, 456.1, 456.21
<b>Diverticulitis without Hemorrhage</b>	562.11
<b>Noninfectious Gastroenteritis/colitis</b>	558.9
<b>Obesity</b>	278.00, 278.01
<b>Clostridium Difficile Infection</b>	008.45
<b>Gastrointestinal Infection</b>	001, 002, 003, 004, 005, 006, 007, 009, 008.00-008.44, 008.46-008.8
<b>Functional / Motility Disorders</b>	530.0, 530.5, 536.2, 536.3, 536.8, 536.9, 564, 306.4
<b>Inflammatory Bowel Diseases</b>	555, 556



**Supplementary Table 3 Multivariate Analysis of Predictors of 30-day Readmission: Nationwide Readmission Database 2013.**

	Appendicitis OR (95% CI)		Diverticulitis without Hemorrhage OR (95% CI)		Noninfectious Gastroenteritis/colitis OR (95% CI)		Chronic Liver Disease and Viral Hepatitis OR (95% CI)	
Age								
≤40	Reference		Reference		Reference		Reference	
41-60	1.33	(1.21, 1.45)	1.11	(1.01, 1.21)	1.01	(0.92, 1.10)	1.24	(1.16, 1.32)
61-80	1.19	(1.04, 1.37)	1.07	(0.95, 1.20)	0.86	(0.77, 0.96)	1.14	(1.05, 1.23)
>80	1.24	(0.99, 1.56)	1.28	(1.12, 1.46)	0.85	(0.75, 0.97)	0.89	(0.78, 1.01)
Gender								
Male	Reference		Reference		Reference		Reference	
Female	1.00	(0.93, 1.07)	0.97	(0.92, 1.03)	0.84	(0.79, 0.90)	0.96	(0.93, 1.00)
Income (National Quartile)								
64,000+	Reference		Reference		Reference		Reference	
48,000-63,999	1.01	(0.90, 1.12)	1.06	(0.98, 1.14)	1.13	(1.02, 1.25)	0.97	(0.91, 1.02)
38,000-47,999	1.11	(0.99, 1.23)	1.04	(0.96, 1.13)	1.07	(0.97, 1.18)	1.00	(0.94, 1.06)
1-37,999	1.12	(1.00, 1.25)	1.09	(1.00, 1.18)	1.13	(1.03, 1.25)	1.03	(0.97, 1.10)
Type of insurance								
Private	Reference		Reference		Reference		Reference	
Medicare	1.33	(1.16, 1.53)	1.26	(1.16, 1.38)	1.51	(1.36, 1.67)	1.29	(1.21, 1.37)
Medicaid	1.16	(1.03, 1.31)	1.31	(1.18, 1.45)	1.60	(1.43, 1.79)	1.31	(1.23, 1.40)
Other	1.22	(1.10, 1.36)	1.11	(1.00, 1.22)	1.09	(0.95, 1.26)	0.87	(0.81, 0.93)
Type of hospital								
Urban Teaching	Reference		Reference		Reference		Reference	
Urban Non-Teaching	0.83	(0.76, 0.91)	0.93	(0.87, 0.98)	0.95	(0.89, 1.01)	0.95	(0.91, 1.00)
Rural	0.76	(0.66, 0.88)	0.81	(0.74, 0.89)	0.79	(0.72, 0.88)	0.86	(0.79, 0.94)
Hospital size								
Large	Reference		Reference		Reference		Reference	
Medium	1.00	(0.91, 1.10)	1.00	(0.94, 1.07)	0.96	(0.90, 1.03)	0.97	(0.91, 1.03)
Small	0.81	(0.71, 0.92)	0.97	(0.90, 1.05)	0.98	(0.89, 1.09)	0.98	(0.90, 1.06)
AHRQ-Elixhauser Index								
< 3	Reference		Reference		Reference		Reference	
≥ 3	1.50	(1.35, 1.66)	1.42	(1.35, 1.49)	1.75	(1.64, 1.87)	1.34	(1.27, 1.41)
Length of Stay								
≤3	Reference		Reference		Reference		Reference	
3-7	2.15	(1.97, 2.35)	1.44	(1.36, 1.53)	1.40	(1.30, 1.50)	1.05	(1.01, 1.11)
>7	2.79	(2.45, 3.17)	2.02	(1.86, 2.19)	2.24	(1.98, 2.52)	1.31	(1.23, 1.39)
Disposition								
Home/Home Health/AMA	Reference		Reference		Reference		Reference	
Other	1.45	(1.19, 1.78)	1.39	(1.26, 1.53)	1.11	(0.98, 1.26)	0.93	(0.87, 0.98)

**Supplementary Table 4 Multivariate Analysis of Predictors of 30-day Readmission: Nationwide Readmission Database 2013.**

	Obesity OR (95% CI)		Clostridium Difficile Infections OR (95% CI)		Gastrointestinal Infection OR (95% CI)		Functional/Motility Disorders OR (95% CI)	
Age								
≤40	Reference		Reference		Reference		Reference	
41-60	0.90	(0.81, 1.00)	0.83	(0.75, 0.93)	0.94	(0.84, 1.05)	0.94	(0.86, 1.03)
61-80	0.78	(0.66, 0.93)	0.74	(0.66, 0.83)	0.78	(0.68, 0.90)	0.73	(0.66, 0.81)
>80	1.00	(0.13, 7.79)	0.76	(0.67, 0.86)	0.77	(0.66, 0.91)	0.63	(0.56, 0.72)
Gender								
Male	Reference		Reference		Reference		Reference	
Female	1.05	(0.94, 1.17)	0.85	(0.80, 0.90)	0.95	(0.88, 1.02)	0.88	(0.82, 0.93)
Income (National Quartile)								
64,000+	Reference		Reference		Reference		Reference	
48,000-63,999	1.12	(0.97, 1.28)	1.05	(0.98, 1.13)	0.98	(0.87, 1.10)	1.01	(0.92, 1.12)
38,000-47,999	1.13	(0.97, 1.31)	1.07	(0.99, 1.16)	1.03	(0.91, 1.17)	1.01	(0.92, 1.11)
1-37,999	1.17	(1.01, 1.36)	1.06	(0.98, 1.14)	1.04	(0.93, 1.17)	1.00	(0.91, 1.10)
Type of insurance								
Private	Reference		Reference		Reference		Reference	
Medicare	1.56	(1.39, 1.75)	1.48	(1.36, 1.62)	1.81	(1.60, 2.05)	1.35	(1.24, 1.48)
Medicaid	1.41	(1.20, 1.65)	1.66	(1.49, 1.85)	1.78	(1.56, 2.04)	1.45	(1.30, 1.61)
Other	1.14	(0.90, 1.45)	1.07	(0.94, 1.22)	1.14	(0.97, 1.34)	1.01	(0.90, 1.15)
Type of hospital								
Urban Teaching	Reference		Reference		Reference		Reference	
Urban Non-Teaching	1.11	(0.99, 1.26)	0.94	(0.89, 1.01)	0.85	(0.79, 0.92)	0.92	(0.86, 0.98)
Rural	0.78	(0.53, 1.15)	0.75	(0.68, 0.84)	0.72	(0.63, 0.82)	0.88	(0.78, 0.99)
Hospital size								
Large	Reference		Reference		Reference		Reference	
Medium	0.92	(0.80, 1.06)	0.98	(0.91, 1.05)	0.88	(0.81, 0.96)	0.98	(0.91, 1.06)
Small	0.98	(0.82, 1.17)	0.99	(0.90, 1.09)	0.92	(0.81, 1.04)	0.91	(0.82, 1.02)
AHRQ-Elixhauser Index								
< 3	Reference		Reference		Reference		Reference	
≥ 3	1.32	(1.20, 1.44)	1.49	(1.39, 1.59)	1.72	(1.57, 1.88)	1.58	(1.48, 1.70)
Length of Stay								
≤3	Reference		Reference		Reference		Reference	
3-7	2.35	(2.12, 2.60)	1.38	(1.28, 1.50)	1.37	(1.26, 1.48)	1.38	(1.29, 1.48)
>7	5.78	(3.90, 8.55)	1.81	(1.66, 1.97)	2.00	(1.73, 2.32)	1.95	(1.75, 2.17)
Disposition								
Home/Home Health/AMA	Reference		Reference		Reference		Reference	
Other	1.38	(0.96, 1.99)	0.95	(0.89, 1.02)	1.22	(1.06, 1.40)	1.00	(0.90, 1.12)

**Supplementary Table 5 Multivariate Analysis of Predictors of 30-day Readmission: Nationwide Readmission Database 2013.**

	<b>Inflammatory Bowel Disease</b>	
	<b>OR (95% CI)</b>	
Age		
≤40	Reference	
41-60	0.87	(0.79, 0.94)
61-80	0.85	(0.76, 0.96)
>80	0.93	(0.78, 1.12)
Gender		
Male	Reference	
Female	0.85	(0.79, 0.91)
Income (National Quartile)		
64,000+	Reference	
48,000-63,999	0.97	(0.88, 1.08)
38,000-47,999	1.01	(0.91, 1.11)
1-37,999	1.10	(1.00, 1.22)
Type of insurance		
Private	Reference	
Medicare	1.45	(1.30, 1.62)
Medicaid	1.48	(1.33, 1.64)
Other	0.94	(0.84, 1.05)
Type of hospital		
Urban Teaching	Reference	
Urban Non-Teaching	0.91	(0.84, 0.99)
Rural	0.83	(0.71, 0.97)
Hospital size		
Large	Reference	
Medium	1.07	(0.98, 1.18)
Small	0.99	(0.87, 1.12)
AHRQ-Elixhauser Index		
< 3	Reference	
≥ 3	1.31	(1.21, 1.42)
Length of Stay		
≤3	Reference	
3-7	1.30	(1.20, 1.41)
>7	1.89	(1.68, 2.12)
Disposition		
Home/Home Health/AMA	Reference	
Other	1.28	(1.09, 1.52)