Appendix: Supplementary tables [posted as supplied by author]

Table A. ICD-9 (*International Classification of Diseases, 9th Edition*) codes

Condition	ICD-9 codes
Sepsis	0031, 0202, 0223, 0362, 0380, 0381, 03810, 03811, 03812, 03819, 0382, 0383, 03840, 03841, 03842, 03843, 03844, 03849, 0388, 0389, 0545, 449, 77181, 7907, 99591, 99592
Pneumonia	00322, 0203, 0204, 0205, 0212, 0221, 0310, 0391, 0521, 0551, 0730, 0830, 1124, 1140, 1144, 1145, 11505, 11515, 11595, 1304, 1363, 4800, 4801, 4802, 4803, 4808, 4809, 481, 4820, 4821, 4822, 4823, 48230, 48231, 48232, 48239, 4824, 48240, 48241, 48242, 48249, 4828, 48281, 48282, 48283, 48284, 48289, 4829, 483, 4830, 4831, 4838, 4841, 4843, 4845, 4846, 4847, 4848, 485, 486, 5130, 5171
Congestive heart failure	39891, 4280, 4281, 42820, 42821, 42822, 42823, 42830, 42831, 42832, 42833, 42840, 42841, 42842, 42843, 4289
Chronic obstructive pulmonary disease	490, 4910, 4911, 4912, 49120, 49121, 49122, 4918, 4919, 4920, 4928, 494, 4940, 4941, 496

Table B. Association between physician age and 30-day patient mortality, among general internists

Physician age	No. of hospitalizations (No. of physicians)	Adjusted 30-day mortality rate (95%CI)	Adjusted odds ratio (95%CI)	p-value
Physician age as a continuous variable				
For every 10 years increase	1,008,194 (31,210)		**1.03** (1.02 to 1.04)	<0.001
Physician age as a categorical variable				
<40 years	392,774 (14,763)	**11.0%** (10.9% to 11.1%)	Reference	
40-49 years	373,732 (12,614)	**11.4%** (11.3% to 11.5%)	**1.05** (1.03 to 1.07)	<0.001
50-59 years	180,546 (6,655)	**11.5%** (11.3% to 11.6%)	**1.05** (1.03 to 1.08)	<0.001
≥60 years	61,142 (3,108)	**11.8%** (11.5% to 12.2%)	**1.10** (1.06 to 1.15)	<0.001

Adjusted for patient and physician characteristics and hospital fixed effects. Standard errors were clustered at physician level. The total number of physicians varies between the continuous and categorical analyses because some physicians moved to a higher age category during the study period.

* Estimates should be interpreted as an average odds ratio across all physician age categories.

Table C. Association between physician age and 30-day patient mortality, using different rules to attribute patient outcomes to physicians

	Physician age	No. of hospitalizations (No. of physicians)	Adjusted 30-day mortality rate (95%CI)	Adjusted odds ratio (95%CI)	p-value
Physicians billing he largest number of E&M claims	**Physician age as a continuous variable**				
	For every 10 years increase	724,002 (18,844)		**1.03** (1.02 to 1.05)	<0.001
	Physician age as a categorical variable				
	<40 years	305,741 (10,166)	**10.7%** (10.6% to 10.8%)	Reference	
	40-49 years	274,716 (7,991)	**10.8%** (10.7% to 11.0%)	**1.02** (1.00 to 1.04)	0.04
	50-59 years	112,218 (3,314)	**11.0%** (10.8% to 11.2%)	**1.05** (1.02 to 1.08)	0.003
	≥60 years	31,327 (1,084)	**11.8%** (11.4% to 12.3%)	**1.15** (1.09 to 1.22)	<0.001
Physicians billing the first E&M claims	**Physician age as a continuous variable**				
	For every 10 years increase	788,770 (18,946)		**1.04** (1.02 to 1.05)	<0.001
	Physician age as a categorical variable				
	<40 years	333,641 (10,189)	**10.2%** (10.1% to 10.3%)	Reference	
	40-49 years	300,161 (8,045)	**10.4%** (10.3% to 10.5%)	**1.02** (1.002 to 1.04)	0.03
	50-59 years	120,923 (3,366)	**10.7%** (10.6% to 10.9%)	**1.07** (1.04 to 1.10)	<0.001
	≥60 years	34,045 (1,120)	**11.2%** (10.8% to 11.5%)	**1.12** (1.07 to 1.18)	<0.001

Adjusted for patient and physician characteristics and hospital fixed effects. Standard errors were clustered at physician level. The total number of physicians varies between the continuous and categorical analyses because some physicians moved to a higher age category during the study period.

* Estimates should be interpreted as an average odds ratio across all physician age categories.

Table D. Association between physician age and 30-day patient mortality, excluding patients with cancer and patients who were discharged to hospice

Physician age	No. of hospitalizations (No. of physicians)	Adjusted 30-day mortality rate (95%CI)	Adjusted odds ratio (95%CI)	p-value
Physician age as a continuous variable				
For every 10 years increase	653,929 (18,775)		**1.05** (1.03 to 1.07)	<0.001
Physician age as a categorical variable				
<40 years	274,379 (10,137)	**7.3%** (7.2% to 7.54%)	Reference	
40-49 years	249,526 (7,959)	**7.7%** (7.6% to 7.8%)	**1.07** (1.04 to 1.09)	<0.001
50-59 years	102,798 (3,307)	**7.9%** (7.7% to 8.0%)	**1.09** (1.05 to 1.13)	<0.001
≥60 years	27,226 (1,076)	**8.2%** (7.8% to 8.6%)	**1.15** (1.07 to 1.22)	<0.001

Adjusted for patient and physician characteristics and hospital fixed effects. Standard errors were clustered at physician level. The total number of physicians varies between the continuous and categorical analyses because some physicians moved to a higher age category during the study period.

* Estimates should be interpreted as an average odds ratio across all physician age categories.

Table E. Association between physician age and 30-day patient mortality, restricted to patients aged 65-75 years.

Physician age	No. of hospitalizations (No. of physicians)	Adjusted 30-day mortality rate (95%CI)	Adjusted odds ratio (95%CI)	p-value
Physician age as a continuous variable				
For every 10 years increase	210,317 (17,777)		**1.05** (1.02 to 1.08)	0.001
Physician age as a categorical variable				
<40 years	89,129 (9,533)	**6.9%** (6.8% to 7.1%)	Reference	
40-49 years	79,474 (7,399)	**7.2%** (7.1% to 7.4%)	**1.06** (1.01 to 1.11)	0.02
50-59 years	32,926 (3,017)	**7.2%** (7.0% to 7.5%)	**1.06** (0.99 to 1.13)	0.07
≥60 years	8,788 (936)	**8.1%** (7.5% to 8.7%)	**1.23** (1.11 to 1.37)	<0.001

Adjusted for patient and physician characteristics and hospital fixed effects. Standard errors were clustered at physician level. The total number of physicians varies between the continuous and categorical analyses because some physicians moved to a higher age category during the study period.

* Estimates should be interpreted as an average odds ratio across all physician age categories.

Table F. Association between physician age and 30-day patient mortality, hospitalists not restricted to general internists (includes hospitalists with subspecialty boards)

Physician age	No. of hospitalizations (No. of physicians)	Adjusted 30-day mortality rate (95%CI)	Adjusted odds ratio (95%CI)	p-value
Physician age as a continuous variable				
For every 10 years increase	949,313 (26,275)		**1.03** (1.02 to 1.05)	<0.001
Physician age as a categorical variable				
<40 years	378,617 (13,289)	**11.1%** (11.0% to 11.2%)	Reference	
40-49 years	354,995 (10,903)	**11.5%** (11.3% to 11.6%)	**1.05** (1.03 to 1.07)	<0.001
50-59 years	164,467 (5,190)	**11.6%** (11.4% to 11.7%)	**1.06** (1.03 to 1.09)	<0.001
≥60 years	51,234 (2,142)	**11.9%** (11.6% to 12.3%)	**1.11** (1.06 to 1.16)	<0.001

Adjusted for patient and physician characteristics and hospital fixed effects. Standard errors were clustered at physician level. The total number of physicians varies between the continuous and categorical analyses because some physicians moved to a higher age category during the study period.

* Estimates should be interpreted as an average odds ratio across all physician age categories.

Table G. Association between physician age and 30-day patient mortality, restricting to first admissions for patients with multiple admissions

Physician age	No. of hospitalizations (No. of physicians)	Adjusted 30-day mortality rate (95%CI)	Adjusted odds ratio (95%CI)	p-value
Physician age as a continuous variable				
For every 10 years increase	529,028 (18,758)		**1.05** (1.03 to 1.07)	<0.001
Physician age as a categorical variable				
<40 years	223,554 (10,121)	**9.9%** (9.8% to 10.0%)	Reference	
40-49 years	201,127 (7,960)	**10.3%** (10.1% to 10.4%)	**1.05** (1.02 to 1.08)	<0.001
50-59 years	82,300 (3,293)	**10.4%** (10.1% to 10.6%)	**1.06** (1.03 to 1.10)	0.001
≥60 years	22,047 (1,064)	**11.4%** (10.9% to 11.9%)	**1.21** (1.14 to 1.30)	<0.001

Adjusted for patient and physician characteristics and hospital fixed effects. Standard errors were clustered at physician level. The total number of physicians varies between the continuous and categorical analyses because some physicians moved to a higher age category during the study period.

* Estimates should be interpreted as an average odds ratio across all physician age categories.

Table H. Association between physician age and in-hospital mortality of patients

Physician age	No. of hospitalizations (No. of physicians)	Adjusted in-hospital mortality rate (95%CI)	Adjusted odds ratio (95%CI)	p-value
Physician age as a continuous variable				
For every 10 years increase	578,329 (18,173)		**1.12** (1.09 to 1.14)	0.001
Physician age as a categorical variable				
<40 years	249,201 (9,694)	**3.6%** (3.5% to 3.6%)	Reference	
40-49 years	217,749 (7,075)	**4.0%** (3.9% to 4.1%)	**1.15** (1.10 to 1.19)	0.02
50-59 years	88,411 (2,866)	**4.2%** (4.1% to 4.4%)	**1.23** (1.17 to 1.30)	0.07
≥60 years	22,968 (897)	**4.4%** (4.1% to 4.8%)	**1.31** (1.19 to 1.44)	<0.001

Adjusted for patient and physician characteristics and hospital fixed effects. Standard errors were clustered at physician level. The total number of physicians varies between the continuous and categorical analyses because some physicians moved to a higher age category during the study period.

* Estimates should be interpreted as an average odds ratio across all physician age categories.

Table I. Association between physician age and 60- and 90-day mortality of patients

	Physician age	No. of hospitalizations (No. of physicians)	Adjusted mortality rate (95%CI)	Adjusted odds ratio (95%CI)	p-value
60-day mortality	**Physician age as a continuous variable**				
	For every 10 years increase	722,797 (18,840)		**1.04** (1.03 to 1.05)	<0.001
	Physician age as a categorical variable				
	<40 years	303,670 (10,162)	**15.0%** (14.8% to 15.1%)	Reference	
	40-49 years	275,443 (8,013)	**15.4%** (15.3% to 15.5%)	**1.04** (1.02 to 1.06)	<0.001
	50-59 years	113,378 (3,329)	**15.6%** (15.4% to 15.8%)	**1.06** (1.03 to 1.09)	<0.001
	≥60 years	30,306 (1,085)	**16.5%** (16.0% to 17.1%)	**1.16** (1.10 to 1.22)	<0.001
90-day mortality	**Physician age as a continuous variable**				
	For every 10 years increase	709,135 (18,805)		**1.04** (1.03 to 1.05)	<0.001
	Physician age as a categorical variable				
	<40 years	298,440 (10,139)	**17.6%** (17.5% to 17.8%)	Reference	
	40-49 years	270,058 (7,999)	**18.0%** (17.9% to 18.2%)	**1.04** (1.02 to 1.05)	<0.001
	50-59 years	110,985 (3,326)	**18.3%** (18.1% to 18.6%)	**1.06** (1.03 to 1.09)	<0.001
	≥60 years	29,652 (1,080)	**19.1%** (18.5% to 19.7%)	**1.13** (1.08 to 1.19)	<0.001

Adjusted for patient and physician characteristics and hospital fixed effects. Standard errors were clustered at physician level. The total number of physicians varies between the continuous and categorical analyses because some physicians moved to a higher age category during the study period.

* Estimates should be interpreted as an average odds ratio across all physician age categories.

Table J. Association between physician age and 30-day patient mortality, using generalized estimating equations

Physician age	No. of hospitalizations (No. of hospitals)	Adjusted 30-day mortality rate (95%CI)	Adjusted odds ratio (95%CI)	p-value
Physician age as a continuous variable				
For every 10 years increase	736,549 (2,675)		**1.04** (1.03 to 1.06)	<0.001
Physician age as a categorical variable				
<40 years	736,549 (2,675)	**10.8%** (10.7% to 10.9%)	Reference	
40-49 years		**11.1%** (11.0% to 11.3%)	**1.04** (1.02 to 1.06)	<0.001
50-59 years		**11.3%** (11.1% to 11.5%)	**1.07** (1.04 to 1.10)	<0.001
≥60 years		**12.1%** (11.6% to 12.4%)	**1.17** (1.11 to 1.22)	<0.001

Adjusted for patient and physician characteristics and hospital fixed effects. We used the independent correlation matrix with observations clustered within hospitals. The number of observations in each physician age category was unavailable because some hospitals were excluded from the sample due to complete or quasi-complete separation.

* Estimates should be interpreted as an average odds ratio across all physician age categories.

Table K. Association between physician age and 30-day patient mortality, by primary condition

	Physician age	No. of hospitalizations (No. of physicians)	Adjusted 30-day mortality rate (95%CI)	Adjusted odds ratio (95%CI)	p-value
Sepsis	Continuous	71,044 (14,742)		**1.08** (1.05 to 1.11)	<0.001
	<40 years	29,944 (7,486)	**22.2%** (21.7% to 22.7%)	Reference	
	40-49 years	26,989 (5,990)	**22.7%** (22.2% to 23.2%)	**1.04** (0.99 to 1.09)	0.14
	50-59 years	11,037 (2,400)	**24.2%** (23.3% to 25.0%)	**1.14** (1.07 to 1.22)	<0.001
	≥60 years	3,074 (729)	**24.9%** (23.1% to 26.7%)	**1.20** (1.06 to 1.35)	0.004
Pneumonia	Continuous	48,858 (12,776)		**1.01** (0.96 to 1.05)	0.74
	<40 years	19,881 (6,404)	**11.3%** (110.9% to 11.8%)	Reference	
	40-49 years	19,005 (5,151)	**11.0%** (10.6% to 11.5%)	**0.96** (0.89 to 1.04)	0.34
	50-59 years	7,854 (2,046)	**11.4%** (10.7% to 12.2%)	**1.01** (0.91 to 1.12)	0.82
	≥60 years	2,118 (603)	**11.3%** (9.8% to 12.8%)	**1.00** (0.83 to 1.19)	0.96
Congestive heart failure	Continuous	48,601 (12,888)		**1.10** (1.05 to 1.16)	<0.001
	<40 years	20,441 (6,547)	**11.8%** (11.4% to 12.3%)	Reference	
	40-49 years	18,560 (5,222)	**13.3%** (12.8% to 13.8%)	**1.16** (1.08 to 1.25)	<0.001
	50-59 years	7,604 (2,041)	**13.5%** (12.7% to 14.3%)	**1.18** (1.08 to 1.30)	<0.001
	≥60 years	1,996 (585)	**13.4%** (11.7% to 15.0%)	**1.17** (0.99 to 1.38)	0.07
Chronic obstructive pulmonary disease	Continuous	25,335 (8,306)		**1.10** (1.02 to 1.18)	0.01
	<40 years	10,407 (4,069)	**6.8%** (6.3% to 7.3%)	Reference	
	40-49 years	9,652 (3,338)	**7.4%** (6.9% to 7.9%)	**1.11** (0.98 to 1.27)	0.10
	50-59 years	4,145 (1,310)	**7.5%** (6.7% to 8.4%)	**1.14** (0.96 to 1.35)	0.14
	≥60 years	1,131 (361)	**9.7%** (7.7% to 11.7%)	**1.56** (1.18 to 2.07)	0.002

The total number of physicians varies between the continuous and categorical analyses because some physicians moved to a higher age category during the study period.

*Estimates should be interpreted as an average odds ratio across all physician age categories.

Table L. Association between years since completion of residency and 30-day patient mortality, using years since completion of residency instead of physician age

Years in practice	No. of hospitalizations (No. of physicians)	Adjusted 30-day mortality rate (95%CI)	Adjusted odds ratio (95%CI)	p-value
Years in practice as continuous variable				
For every 10 years increase	436,370 (13,215)		**1.04** (1.02 to 1.06)	<0.001
Years in practice as categorical variable				
<40 years	111,741 (6,553)	**10.7%** (10.5% to 10.9%)	Reference	
40-49 years	141,068 (7,638)	**11.1%** (10.9% to 11.3%)	**1.05** (1.02 to 1.09)	0.001
50-59 years	89,962 (4,960)	**11.0%** (10.8% to 11.2%)	**1.04** (1.01 to 1.08)	0.03
≥60 years	93,599 (3,678)	**11.5%** (11.3% to 11.7%)	**1.10** (1.06 to 1.15)	<0.001

Adjusted for patient and physician characteristics and hospital fixed effects. Standard errors were clustered at physician level. The total number of physicians varies between the continuous and categorical analyses because some physicians moved to a higher age category during the study period.

* Estimates should be interpreted as an average odds ratio across all physician age categories.

Table M. Assessing the sensitivity of regression results to unmeasured confounders

		P_0					
Γ	**P_1**	0.0	0.10	0.20	0.30	0.40	0.50
1.30	0.0	1.17					
	0.1	1.14	1.17	1.20			
	0.2	1.10	1.14	1.17	1.20	1.24	
	0.3	1.07	1.11	1.14	1.17	1.20	1.23
	0.4	1.04	1.08	1.11	1.14	1.17	1.20
	0.5	1.02	1.05	1.08	1.11	1.14	1.17
2.15	0.0	1.17					
	0.1	1.05	1.17	1.29			
	0.2	0.95	1.06	1.17	1.28	1.39	
	0.3	0.87	0.97	1.07	1.17	1.27	1.37
	0.4	0.80	0.89	0.99	1.08	1.17	1.26
	0.5	0.74	0.83	0.91	1.00	1.08	1.17

We conducted a formal test to assess the extent to which an unmeasured confounder might explain the difference in patients' 30-day mortality between physicians aged <40 years and physicians aged 60 years or older, which is the adjusted odds ratio [OR] of 1.17. P_0 and P_1 denote the proportion of patients with the unmeasured confounder among patients treated by young physicians and those of old physicians, respectively. Γ represents the strength of association between the unmeasured confounder and mortality. We modeled that patients with the unmeasured confounder have Γ times the odds of death (Γ>1) compared with patients without it. In order to use a realistic value for Γ, we selected two comorbidities from the Elixhauser comorbidity conditions that are associated with high risk of death: congestive heart failure (adjusted OR, 1.30) and solid tumor without metastasis (adjusted OR, 2.15). Details about the method can be found elsewhere.[1]

P_0 and P_1 denote the proportion of patients with the unmeasured confounder among patients treated by the youngest age group of physicians (<40 years of age) and those of oldest age group (≥60 years of age), respectively. The numbers in the table represent the odds ratio that would have been estimated with varying degrees of differential confounding. For example, if there were no confounding or if the confounder affected the two age groups equally, we would obtain the adjusted odds ratio of 1.17, which is the value shown in Table 2 for the 60 years and over group compared to the under 40 years group. Thus, the main diagonals of both matrices are 1.17. For an unmeasured confounder that is as impactful as congestive heart failure (adjusted odds ratio [OR], 1.30), even a 50 percentage point difference in the prevalence of the unmeasured confounder between patients of young and old physicians (0% vs 50%) cannot fully explain the observed difference in patient mortality since the adjusted odds ratio would still be 1.02. If the effect of the unmeasured confounder is greater, for example if it is as influential as a solid tumor without metastasis (adjusted OR, 2.15), then a 10 percentage point difference in the prevalence of the unmeasured confounder (e.g., 0 vs 0.1) would have resulted in an estimated adjusted odds ratio of 1.05. In other words, even this difference with a strong confounder cannot fully explain the observed difference between the oldest and youngest physician groups in patient mortality. Given that the observed difference in prevalence of comorbidities between groups was < 2% across all conditions included in the Elixhauser comorbidity index, it seems highly unlikely that the prevalence of the unmeasured strong confounder would differ by more than 10 percentage points across physicians of varying age.

[1] Lin DY, Psaty BM, Kronmal RA**.** Assessing the sensitivity of regression results to unmeasured confounders in observational studies. Biometrics. 1998;54(3):948-63.

Table N. Cost analysis using different model specifications

	Physician age	No. of hospitalizations (No. of physicians)	Adjusted cost of care (95%CI)	Adjusted difference** (95%CI)	p-value
Negative binomial distribution (GLM)					
Continuous*	For every 10 years	780,197 (18,956)		**+2.4%** (+2.0% to +2.8%)	<0.001
Categorical	<40 years	327,707 (10,211)	**$1008** ($1004 to $1012)	Reference	
	40-49 years	296,680 (8,071)	**$1027** ($1022 to $1032)	**+1.8%** (+1.3% to +2.4%)	<0.001
	50-59 years	122,758 (3,364)	**$1056** ($1048 to $1064)	**+4.7%** (+3.8% to +5.6%)	<0.001
	≥60 years	33,052 (1,111)	**$1071** ($1055 to $1088)	**+6.3%** (+4.5% to +8.0%)	<0.001
Poisson distribution (GLM)					
Continuous*	For every 10 years	780,197 (18,956)		**+3.0%** (+2.5% to +3.4%)	<0.001
Categorical	<40 years	327,707 (10,211)	**$1008** ($1004 to $1012)	Reference	
	40-49 years	296,680 (8,071)	**$1032** ($1027 to $1038)	**+2.4%** (+1.7% to +3.1%)	<0.001
	50-59 years	122,758 (3,364)	**$1065** ($1056 to $1074)	**+5.7%** (+4.7% to +6.7%)	<0.001
	≥60 years	33,052 (1,111)	**$1083** ($1063 to $1103)	**+7.4%** (+5.4% to +9.5%)	<0.001
OLS model after excluding outliers					
Continuous*	For every 10 years	780,197 (18,956)		**+$28** (+$24 to +$32)	<0.001
Categorical	<40 years	327,707 (10,211)	**$988** ($984 to $992)	Reference	
	40-49 years	296,680 (8,071)	**$1011** ($1006 to $1016)	**+$23** (+$16 to +$29)	<0.001
	50-59 years	122,758 (3,364)	**$1042** ($1033 to $1050)	**+$53** (+$44 to +$63)	<0.001
	≥60 years	33,052 (1,111)	**$1058** ($1041 to $1077)	**+$69** (+$52 to +$87)	<0.001

Adjusted for patient and physician characteristics and hospital fixed effects. Standard errors were clustered at physician level. The total number of physicians varies between the continuous and categorical analyses because some physicians moved to a higher age category during the study period.

Abbreviations: GLM, generalized linear model; OLS, ordinary least square

* Estimates should be interpreted as an average odds ratio across all physician age categories.

**Adjusted differences are presented as percent changes for GLMs and absolute differences in cost for OLS.

Table O. Association between physician age and 30-day patient mortality (**Part 1**) and readmissions (**Part 2**), among emergency and elective admissions

	Physician age	No. of hospitalizations (No. of physicians)	Adjusted 30-day mortality rate (95% CI)	Adjusted risk difference (95% CI)	p-value
Part 1. 30-day mortality rate					
Emergency admissions	Physician age as a continuous variable				
	For every 10 years increase	640,861 (18,472)		**+0.4%** (+0.3% to +0.5%)	<0.001
	Physician age as a categorical variable				
	<40 years	269,385 (9,939)	**10.8%** (10.7% to 11.0%)	Reference	
	40-49 years	245,138 (7,799)	**11.2%** (11.1% to 11.3%)	**+0.4%** (+0.2% to +0.6%)	<0.001
	50-59 years	99,857 (3,231)	**11.4%** (11.1% to 11.6%)	**+0.5%** (+0.2% to +0.8%)	<0.001
	≥60 years	26,481 (1,052)	**12.4%** (11.8% to 12.9%)	**+1.5%** (+0.9% to +2.1%)	<0.001
Elective admissions	Physician age as a continuous variable				
	For every 10 years increase	26,137 (7,978)		**+0.4%** (-0.1% to +0.9%)	0.14
	Physician age as a categorical variable				
	<40 years	9,987 (3,750)	**9.4%** (8.8% to 10.0%)	Reference	
	40-49 years	9,759 (3,083)	**9.9%** (9.3% to 10.5%)	**+0.5%** (-0.4% to +1.4%)	0.28
	≥50 years	6,391 (1,638)	**10.7%** (9.8% to 11.5%)	**+1.2%** (+0.1% to +2.4%)	0.03
Part 2. 30-day readmission rate					
Emergency admissions	Physician age as a continuous variable				
	For every 10 years increase	618,378 (18,433)		**+0.02%** (-0.1% to +0.1%)	0.74
	Physician age as a categorical variable, years				
	<40 years	261,692 (9,918)	**15.7%** (15.5% to 15.8%)	Reference	
	40-49 years	235,898 (7,789)	**15.7%** (15.6% to 15.9%)	**+0.02%** (-0.2% to +0.2%)	0.84
	50-59 years	95,647 (3,214)	**15.7%** (15.4% to 15.9%)	**-0.02%** (-0.3% to +0.3%)	0.90
	≥60 years	25,141 (1,037)	**15.6%** (15.1% to 16.1%)	**-0.1%** (-0.6% to +0.4%)	0.78
Elective admissions	Physician age as a continuous variable				
	For every 10 years increase	27,248 (8,139)		**+0.4%** (-0.2% to +1.0%)	0.16
	Physician age as a categorical variable				
	<40 years	10,568 (3,842)	**15.5%** (14.8% to 16.2%)	Reference	
	40-49 years	10,220 (3,157)	**15.9%** (15.2% to 16.6%)	**+0.4%** (-0.7% to +1.5%)	0.49
	≥50 years	6,460 (1,652)	**16.4%** (15.4% to 17.4%)	**+0.9%** (-0.5% to +2.3%)	0.21

Non-elective admissions are defined as either emergency admissions or urgent admissions. The above analysis focused on emergency admissions and elective admissions, as noted. Among elective admissions, those with physician age ≥50 years old were categorized into a single group due to the small sample size of elective admissions. Multivariable linear probability models were used instead of logistic regression models.

Table P. Association between physician age and 30-day patient mortality, among patients aged 20-64 years

Physician age	No. of hospitalizations (No. of physicians)	Adjusted 30-day mortality rate (95%CI)	Adjusted risk difference (95%CI)	p-value
Physician age as a continuous variable				
For every 10 years increase	154,792 (17,717)		**+0.2%** (+0.07% to +0.3%)	0.002
Physician age as a categorical variable, years				
<40 years	66,911 (9,405)	**3.7%** (3.5% to 3.8%)	Reference	
40-49 years	57,323 (7,272)	**3.9%** (3.7% to 4.0%)	**+0.2%** (-0.04% to +0.4%)	0.12
≥50 years	30,558 (3,602)	**4.0%** (3.7% to 4.2%)	**+0.3%** (+0.0% to +0.6%)	0.049

Patients aged 20-64 years were eligible for Medicare through disability and are therefore not reflective of the overall US population aged 20-64 years. This analysis was conducted to explore whether the relationship between physician age and patient mortality observed in the Medicare population aged ≥65 years might hold in a younger hospitalized population as well. Hospitalizations for which physicians were aged ≥50 years old were categorized into a single group due to the smaller sample size of these admissions. Multivariable linear probability models were used instead of logistic regression models.