



eFigure.
Flow diagram of the study sample. SNF=skilled nursing facility.

eTable 1.
Total Therapy Minutes per Week Provided to Beneficiaries of Medicare Fee-for-Service in SNFs After Hip Fracture^a

Year	Total (OT+PT+ST)				OT				PT			
	n	\bar{X}	SD	Median	n	\bar{X}	SD	Median	n	\bar{X}	SD	Median
2000	55,551	379	176	360	55,555	151	95	150	55,553	219	102	210
2001	54,820	374	176	356	54,823	152	93	150	54,823	212	101	203
2002	53,137	382	181	368	53,151	159	94	158	53,150	213	101	205
2003	50,946	401	183	393	50,978	170	95	169	50,981	219	101	215
2004	49,745	422	188	427	49,819	181	96	183	49,822	226	103	225
2005	47,514	445	194	465	47,578	193	98	199	47,596	235	104	238
2006	45,392	475	199	503	45,445	207	100	216	45,466	246	106	250
2007	44,264	507	204	522	44,325	222	102	235	44,332	261	108	262
2008	43,377	541	203	555	43,432	237	102	250	43,438	275	108	276
2009	36,657	575	197	623	36,707	251	100	262	36,712	290	106	295

^a SNFs=skilled nursing facilities, OT=occupational therapy, PT=physical therapy, ST=speech and language therapy.

Therapy in SNFs for Patients With Hip Fracture

eTable 2.

Case Mix for Beneficiaries of Medicare Fee-for-Service Who Were Admitted to SNFs After Hip Fracture^a

Year	ADL				CPS				Length of Stay (d)				Discharged to Home (%)		
	n	\bar{X}	SD	Median	n	\bar{X}	SD	Median	n	\bar{X}	SD	Median	n	\bar{X}	SD
2000	55,532	16.7	5.0	17.0	55,432	1.3	1.6	1.0	55,556	27	20	21	55,556	0.71	0.45
2001	54,800	16.9	4.9	17.0	54,738	1.3	1.6	1.0	54,826	29	21	22	54,826	0.72	0.45
2002	53,130	17.3	4.9	18.0	53,037	1.4	1.6	1.0	53,155	30	22	23	53,155	0.71	0.45
2003	50,966	17.4	4.8	18.0	50,882	1.4	1.6	1.0	50,985	32	22	26	50,985	0.72	0.45
2004	49,786	17.6	4.6	18.0	49,721	1.4	1.6	1.0	49,828	33	23	27	49,828	0.74	0.44
2005	47,569	17.7	4.5	18.0	47,496	1.3	1.6	1.0	47,599	34	23	28	47,599	0.74	0.44
2006	45,448	18.0	4.3	18.0	45,351	1.3	1.6	1.0	45,471	35	23	29	45,471	0.75	0.43
2007	44,310	18.1	4.2	18.0	44,214	1.3	1.5	1.0	44,334	35	23	29	44,334	0.77	0.42
2008	43,414	18.2	4.0	18.0	43,280	1.3	1.5	1.0	43,438	36	23	30	43,438	0.77	0.42
2009	36,690	18.3	3.8	18.0	36,580	1.3	1.5	1.0	36,716	35	22	29	36,716	0.79	0.41

^a As measured by activities of daily living (ADL), scored on a scale from 0 to 28 points, with higher scores indicating greater disability; the Cognitive Performance Scale (CPS), scored on a scale from 0 to 6 points, with higher scores indicating more severe impairment; length of stay, and the proportion discharged to home. SNFs=skilled nursing facilities.

eTable 3. Adjusted Association Between Quantity of Therapy and Likelihood of Discharge to Home in Beneficiaries of Medicare Fee-for-Service Who Were Admitted to SNFs After Hip Fracture^a

Independent Variables	Dependent Variable=Discharged to Home							
	Whole Sample	OT	PT	Low	Medium	High	Very High	Ultrahigh
Additional hours of therapy per week	0.031 ^b (0.030, 0.031)	0.053 ^b (0.052, 0.054)	0.059 ^b (0.058, 0.061)	0.118 ^b (0.100, 0.136)	0.062 ^b (0.058, 0.066)	0.028 ^b (0.025, 0.031)	0.014 ^b (0.012, 0.016)	0.001 (-0.005, 0.006)
Age	0.015 ^b (0.012, 0.018)	0.016 ^b (0.013, 0.019)	0.015 ^b (0.012, 0.018)	-0.023 ^c (-0.041, -0.004)	0.005 (-0.002, 0.011)	0.014 ^b (0.007, 0.020)	0.017 ^b (0.012, 0.023)	0.021 ^b (0.013, 0.029)
Age squared	-0.000 ^b (-0.000, -0.000)	-0.000 ^b (-0.000, -0.000)	-0.000 ^b (-0.000, -0.000)	0.000 ^d (-0.000, 0.000)	-0.000 ^b (-0.000, -0.000)	-0.000 ^b (-0.000, -0.000)	-0.000 ^b (-0.000, -0.000)	-0.000 ^b (-0.000, -0.000)
Men	-0.063 ^b (-0.066, -0.060)	-0.060 ^b (-0.063, -0.057)	-0.062 ^b (-0.065, -0.059)	-0.074 ^b (-0.094, -0.055)	-0.063 ^b (-0.071, -0.056)	-0.062 ^b (-0.068, -0.055)	-0.051 ^b (-0.057, -0.046)	-0.047 ^b (-0.054, -0.039)
White (reference)								
Black	0.044 ^b (0.036, 0.053)	0.044 ^b (0.035, 0.052)	0.046 ^b (0.037, 0.054)	0.051 ^d (-0.000, 0.102)	0.056 ^b (0.036, 0.075)	0.043 ^b (0.024, 0.061)	0.042 ^b (0.027, 0.057)	0.011 (-0.012, 0.033)
Other race	0.048 ^b (0.040, 0.056)	0.045 ^b (0.038, 0.053)	0.047 ^b (0.039, 0.055)	0.081 ^b (0.030, 0.132)	0.071 ^b (0.052, 0.091)	0.023 ^c (0.004, 0.041)	0.039 ^b (0.026, 0.053)	0.043 ^b (0.025, 0.060)
Married	0.034 ^b (0.031, 0.037)	0.035 ^b (0.032, 0.038)	0.034 ^b (0.031, 0.036)	0.053 ^b (0.034, 0.072)	0.046 ^b (0.039, 0.052)	0.035 ^b (0.029, 0.041)	0.027 ^b (0.022, 0.031)	0.025 ^b (0.019, 0.032)
ADL score, from 0 to 28	-0.018 ^b (-0.019, -0.018)	-0.019 ^b (-0.019, -0.018)	-0.018 ^b (-0.018, -0.017)	-0.026 ^b (-0.028, -0.024)	-0.020 ^b (-0.021, -0.020)	-0.016 ^b (-0.017, -0.015)	-0.015 ^b (-0.015, -0.014)	-0.014 ^b (-0.015, -0.013)
BMI ≥ 30 kg/m ²	-0.008 ^b (-0.012, -0.004)	-0.009 ^b (-0.013, -0.006)	-0.010 ^b (-0.014, -0.006)	-0.032 ^c (-0.060, -0.003)	-0.014 ^b (-0.023, -0.005)	-0.007 ^d (-0.015, 0.000)	-0.005 (-0.011, 0.002)	-0.008 (-0.017, 0.002)
BMI < 18 kg/m ²	-0.032 ^b (-0.037, -0.028)	-0.034 ^b (-0.038, -0.029)	-0.029 ^b (-0.033, -0.024)	-0.024 ^d (-0.049, 0.001)	-0.020 ^b (-0.030, -0.009)	-0.040 ^b (-0.049, -0.030)	-0.029 ^b (-0.037, -0.020)	-0.030 ^b (-0.043, -0.016)
CPS score=0 (reference)								
CPS score=1	-0.034 ^b (-0.038, -0.030)	-0.033 ^b (-0.037, -0.029)	-0.029 ^b (-0.033, -0.026)	-0.062 ^b (-0.093, -0.030)	-0.043 ^b (-0.053, -0.034)	-0.033 ^b (-0.041, -0.025)	-0.030 ^b (-0.036, -0.023)	-0.025 ^b (-0.035, -0.015)
CPS score=2	-0.064 ^b (-0.068, -0.060)	-0.060 ^b (-0.064, -0.056)	-0.055 ^b (-0.059, -0.051)	-0.069 ^b (-0.098, -0.040)	-0.077 ^b (-0.086, -0.067)	-0.064 ^b (-0.072, -0.056)	-0.058 ^b (-0.065, -0.051)	-0.056 ^b (-0.066, -0.046)
CPS score=3	-0.116 ^b (-0.120, -0.112)	-0.110 ^b (-0.114, -0.106)	-0.104 ^b (-0.109, -0.100)	-0.049 ^b (-0.077, -0.021)	-0.101 ^b (-0.111, -0.092)	-0.121 ^b (-0.130, -0.112)	-0.117 ^b (-0.124, -0.109)	-0.112 ^b (-0.124, -0.101)
CPS score=4	-0.157 ^b (-0.165, -0.149)	-0.150 ^b (-0.158, -0.142)	-0.144 ^b (-0.152, -0.136)	-0.013 (-0.053, 0.026)	-0.120 ^b (-0.137, -0.103)	-0.159 ^b (-0.177, -0.141)	-0.178 ^b (-0.195, -0.162)	-0.160 ^b (-0.185, -0.134)
CPS score=5	-0.161 ^b (-0.170, -0.152)	-0.156 ^b (-0.165, -0.147)	-0.152 ^b (-0.160, -0.143)	-0.02 (-0.058, 0.018)	-0.101 ^b (-0.118, -0.083)	-0.192 ^b (-0.211, -0.172)	-0.190 ^b (-0.209, -0.171)	-0.186 ^b (-0.218, -0.154)
CPS score=6	-0.189 ^b (-0.201, -0.177)	-0.189 ^b (-0.201, -0.178)	-0.183 ^b (-0.194, -0.171)	0.053 ^c (0.009, 0.097)	-0.096 ^b (-0.121, -0.071)	-0.201 ^b (-0.234, -0.167)	-0.292 ^b (-0.326, -0.257)	-0.289 ^b (-0.353, -0.226)
Do-not-resuscitate order	-0.035 ^b (-0.038, -0.032)	-0.036 ^b (-0.039, -0.033)	-0.034 ^b (-0.037, -0.030)	-0.022 ^c (-0.043, -0.002)	-0.040 ^b (-0.048, -0.032)	-0.033 ^b (-0.039, -0.026)	-0.029 ^b (-0.035, -0.024)	-0.025 ^b (-0.034, -0.016)

(Continued)

eTable 3.
Continued

Independent Variables	Dependent Variable=Discharged to Home							
	Whole Sample	OT	PT	Low	Medium	High	Very High	Ultrahigh
Any ICU use during hospitalization before SNF admission	-0.047 ^b (-0.051, -0.044)	-0.047 ^b (-0.051, -0.044)	-0.045 ^b (-0.048, -0.041)	-0.051 ^b (-0.071, -0.030)	-0.042 ^b (-0.051, -0.034)	-0.043 ^b (-0.051, -0.036)	-0.044 ^b (-0.050, -0.037)	-0.043 ^b (-0.052, -0.034)
Devo-Charlson Comorbidity Index during hospitalization	-0.017 ^b (-0.018, -0.016)	-0.018 ^b (-0.019, -0.017)	-0.016 ^b (-0.017, -0.015)	-0.014 ^b (-0.020, -0.008)	-0.017 ^b (-0.019, -0.014)	-0.015 ^b (-0.017, -0.013)	-0.016 ^b (-0.017, -0.014)	-0.013 ^b (-0.016, -0.010)
No. of physician visits in preceding 14 d	-0.006 ^b (-0.007, -0.004)	-0.004 ^b (-0.005, -0.002)	-0.006 ^b (-0.007, -0.004)	-0.005 (-0.011, 0.002)	-0.007 ^b (-0.010, -0.004)	-0.008 ^b (-0.011, -0.006)	-0.002 ^c (-0.005, -0.000)	-0.003 ^c (-0.007, -0.000)
No. of medications received	-0.004 ^b (-0.004, -0.004)	-0.004 ^b (-0.004, -0.004)	-0.004 ^b (-0.004, -0.004)	-0.006 ^b (-0.008, -0.004)	-0.005 ^b (-0.006, -0.004)	-0.005 ^b (-0.006, -0.004)	-0.004 ^b (-0.004, -0.003)	-0.004 ^b (-0.005, -0.003)
Receiving antipsychotic or hypnotic medications	-0.004 ^b (-0.007, -0.001)	-0.004 ^b (-0.007, -0.001)	-0.005 ^b (-0.008, -0.002)	-0.006 (-0.026, 0.013)	-0.002 (-0.009, 0.006)	-0.005 (-0.011, 0.002)	-0.002 (-0.008, 0.003)	-0.003 (-0.011, 0.005)
Occupancy rate	0.002 (-0.013, 0.017)	0.005 (-0.010, 0.020)	0.003 (-0.012, 0.018)	-0.05 (-0.133, 0.033)	0.005 (-0.026, 0.036)	0.012 (-0.017, 0.041)	0.003 (-0.022, 0.028)	0.017 (-0.025, 0.059)
Any physician extender	-0.001 (-0.005, 0.004)	-0.001 (-0.005, 0.004)	0 (-0.004, 0.005)	0.005 (-0.027, 0.037)	-0.002 (-0.013, 0.010)	-0.002 (-0.012, 0.008)	0.001 (-0.006, 0.009)	-0.006 (-0.016, 0.005)
Ratio of registered nurses to total nurses	0.011 (-0.004, 0.027)	0.007 (-0.008, 0.023)	0.012 (-0.004, 0.027)	-0.038 (-0.138, 0.063)	0.043 ^c (0.006, 0.079)	0 (-0.031, 0.031)	0.018 (-0.008, 0.043)	-0.013 (-0.054, 0.028)
Percentage of residents on Medicaid	-0.000 ^d (-0.000, 0.000)	-0.000 ^d (-0.000, 0.000)	-0.000 ^c (-0.000, -0.000)	0 (-0.002, 0.001)	0 (-0.001, 0.000)	0 (-0.001, 0.000)	0 (-0.000, 0.000)	0 (-0.001, 0.000)
Percentage of residents on Medicare	-0.000 ^c (-0.000, -0.000)	-0.000 ^d (-0.000, 0.000)	-0.000 ^c (-0.000, -0.000)	0 (-0.001, 0.001)	-0.000 ^c (-0.001, -0.000)	0 (-0.001, 0.000)	0 (-0.000, 0.000)	0 (-0.001, 0.000)
Total no. of physical therapists per 100 beds	0.000 ^b (0.000, 0.000)	0.000 ^b (0.000, 0.000)	0.000 ^b (0.000, 0.000)	0 (-0.002, 0.002)	0 (-0.000, 0.000)	0 (-0.000, 0.000)	0 (-0.000, 0.000)	0 (-0.000, 0.000)
Total no. of occupational therapists per 100 beds	-0.000 ^b (-0.000, -0.000)	-0.000 ^b (-0.000, -0.000)	-0.000 ^d (-0.000, 0.000)	0 (-0.002, 0.002)	0 (-0.000, 0.000)	0 (-0.001, 0.000)	-0.000 ^c (-0.000, -0.000)	0 (-0.000, 0.000)
Total no. of speech therapists per 100 beds	-0.000 ^b (-0.001, -0.000)	-0.000 (-0.000, 0.000)	-0.000 ^c (-0.000, -0.000)	0.002 (-0.002, 0.005)	0 (-0.001, 0.000)	0 (-0.001, 0.000)	0 (-0.000, 0.001)	0.001 (-0.001, 0.002)
Constant	0.554 ^b (0.432, 0.676)	0.541 ^b (0.419, 0.663)	0.500 ^b (0.378, 0.622)	2.120 ^b (1.344, 2.896)	0.953 ^b (0.674, 1.231)	0.628 ^b (0.366, 0.889)	0.452 ^b (0.234, 0.670)	0.420 ^c (0.093, 0.747)
Observations	463,003	463,389	463,446	24,059	109,926	117,030	141,446	62,619

^a Full list of regression estimates. Values in parentheses are robust confidence intervals. All models were adjusted for patient characteristics and time-varying facility characteristics. Details of the variables are described in the text. Nursing home and year-quarter fixed effects were used in all models. Minimum minutes per week for the Resource Utilization Group (RUG) categories were as follows: low (45 minutes), medium (150 minutes), high (325 minutes), very high (500 minutes), and ultrahigh (720 minutes). SNFs=skilled nursing facilities, OT=occupational therapy, PT=physical therapy, ADL=activities of daily living, BMI=body mass index, CPS=Cognitive Performance Scale, ICU=intensive care unit.
^b P<.01.
^c P<.05.
^d P<.1.