

Supplement Table 1. ICD-10 codes of comorbidities in spontaneous pneumothorax

Disease	Code
COPD	J40*, J41*, J42*, J43*, J44*, J961, J982
Pneumonia	J12*, J13*, J14*, J15*, J16*, J18*
Interstitial lung disease	J84*
Lung cancer	C34*, C780*, C783, D022-D024, D143*, D174, D381
Asthma	J45*
Lung abscess	J850, J851, J852

ICD-10, International Statistical Classification of Disease and Related Health Problems, 10th revision; COPD, Chronic Obstructive Pulmonary Disease

Supplement Table 2. Prevalence rate of spontaneous pneumothorax per 100,000 individuals and sociodemographic characteristics

	2002		2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
	N	Prev.	N	Prev.	N	Prev.	N	Prev.	N	Prev.	N	Prev.	N	Prev.	N	Prev.	N	Prev.	N	Prev.	N	Prev.	N	Prev.
Total SP Patients	398	38.8	490	48.2	504	49.6	514	50.5	518	51.7	555	54.4	557	55.7	610	61.1	598	59.7	661	65.7	623	61.6	616	60.7
Sex																								
Male	322	62.7	404	79.3	412	81.1	422	83.0	424	84.7	471	92.4	474	94.6	519	103.9	518	103.3	547	108.7	532	105.2	524	103.3
Female	76	14.8	86	16.9	92	18.1	92	18.1	94	18.8	84	16.4	83	16.6	91	18.2	80	16.0	114	22.7	91	18.0	92	18.1
Age																								
< 15	11	5.3	6	3.0	22	11.2	9	4.7	12	6.6	11	6.2	11	6.5	11	6.8	14	9.0	12	7.9	11	7.5	13	9.1
15–34	220	64.8	281	86.3	298	93.9	281	90.4	297	99.3	311	103.2	328	112.6	382	133.2	344	120.6	376	132.4	359	127.2	329	117.1
35–64	123	30.9	147	36.4	131	31.8	162	38.6	139	32.9	165	37.9	156	35.9	143	32.5	176	39.3	179	39.4	165	36.0	167	36.1
≥ 65	55	69.1	62	71.7	75	82.6	71	74.8	82	83.2	79	74.6	73	68.4	85	77.3	78	68.8	106	90.3	99	80.5	120	93.5
Sub-divided Age																								
< 15	11	5.3	6	3.0	22	11.2	9	4.7	12	6.6	11	6.2	11	6.5	11	6.8	14	9.0	12	7.9	11	7.5	13	9.1
15–19	81	114.7	96	143.2	110	165.5	106	160.4	111	166.2	140	200.4	162	231.4	193	270.2	179	245.2	184	254.0	156	218.9	153	220.2
20–24	54	63.7	91	109.1	71	89.2	66	86.9	73	104.6	71	104.9	58	91.3	77	122.8	77	123.2	92	142.8	105	156.8	93	134.6
25–29	41	47.6	50	62.6	55	70.0	55	69.6	66	84.0	63	77.6	58	72.1	60	78.0	45	61.3	46	66.4	50	76.5	44	70.1
30–34	33	33.6	38	39.9	40	43.1	45	50.2	35	41.6	26	31.4	39	50.5	41	54.1	29	38.0	42	53.9	37	47.1	26	32.7
35–39	23	25.7	30	33.1	28	30.5	39	42.1	32	34.4	34	35.9	30	32.7	26	29.0	41	47.3	31	37.3	34	42.4	33	43.2
40–44	19	20.0	23	24.6	21	22.9	26	28.9	18	20.9	23	26.6	21	24.2	28	31.7	24	26.8	30	32.9	26	28.3	25	27.5
45–49	26	35.4	22	28.4	21	25.7	26	30.5	20	22.7	30	32.9	32	35.8	24	27.3	24	27.8	29	34.5	15	18.0	28	32.6
50–54	13	24.2	23	42.4	22	38.8	19	30.8	21	31.7	26	36.9	26	35.5	23	29.6	26	32.0	33	38.6	35	40.0	25	28.4
55–59	21	48.4	25	55.9	18	38.9	25	51.5	26	53.7	23	44.8	26	50.9	21	39.3	32	54.6	29	45.4	27	40.2	31	43.3
60–64	21	48.7	24	55.1	21	48.8	27	64.2	22	54.0	29	70.6	21	50.3	21	48.5	29	63.5	27	58.4	28	57.8	25	50.5
65–69	23	71.1	22	64.3	30	84.4	34	93.9	30	80.6	32	79.4	25	62.9	24	61.2	26	67.3	32	83.8	28	73.3	30	75.4
70–74	16	74.4	19	82.4	21	85.7	15	57.0	25	90.1	25	85.1	24	80.2	33	105.6	14	43.6	22	65.5	12	33.2	27	73.2
≥ 75	16	62.1	21	72.0	24	78.1	22	68.0	27	80.4	22	60.8	24	64.9	28	70.9	38	89.1	52	114.0	59	121.2	63	121.8
Income																								
Low (0–3)	71	31.1	99	43.9	116	51.3	129	54.8	92	39.7	125	52.0	116	48.4	127	54.4	117	48.8	163	67.3	150	68.1	170	70.3
Medium (4–7)	164	40.9	194	49.3	188	48.2	190	49.4	212	56.0	206	53.8	213	57.3	229	61.8	213	58.0	237	64.7	190	54.2	196	53.3

High (8–10)	163	41.1	197	49.5	200	50.0	195	49.2	214	54.6	224	56.3	228	58.5	254	64.4	268	67.8	261	65.5	283	64.2	250	61.7
Insurance type																								
Region	200	40.2	236	49.8	206	45.8	221	52.5	201	52.0	214	56.4	203	56.2	213	61.3	200	59.8	207	64.4	179	57.4	161	53.8
Employment	195	39.3	252	49.2	292	54.7	285	51.1	315	54.6	336	55.8	346	57.6	390	63.3	396	62.6	419	64.4	414	62.0	415	60.5
Medical Assistance	3	9.8	2	6.3	6	18.1	8	21.1	2	5.1	5	12.7	8	20.5	7	19.8	2	5.7	35	103.7	30	95.8	40	132.9

Prev., Prevalence Rate

Supplement Table 3. Annual prevalence rate of hospitalization due to spontaneous pneumothorax (per 100,000 individuals)

Hospitalization				Sex						Age (years)											
Year	N	Pre v.*	Gro w. (%)†	Male			Female			< 15			15–34			35–64			≥ 65		
				N	Prev.	Grow. (%)†	N	Prev.	Grow. (%)†	N	Prev.	Grow. (%)†	N	Prev.	Grow. (%)†	N	Prev.	Grow. (%)†	N	Prev.	Grow. (%)†
2002	188	18.3		161	31.4		27	5.3		4	1.9		111	32.7		43	10.8		30	37.7	
2003	236	23.2	26.5	202	39.7	26.5	34	6.7	26.9	2	1.0	-48.4	135	41.5	26.9	62	15.3	42.0	37	42.8	13.7
2004	262	25.8	11.1	217	42.7	7.6	45	8.9	32.3	9	4.6	360.9	151	47.6	14.7	56	13.6	-11.3	46	50.7	18.3
2005	276	27.1	5.3	235	46.2	8.3	41	8.1	-8.9	3	1.6	-65.7	161	51.8	8.9	74	17.6	29.6	38	40.1	-20.9
2006	281	28.0	3.3	241	48.1	4.1	40	8.0	-1.0	2	1.1	-29.8	156	52.1	0.6	66	15.6	-11.3	57	57.8	44.4
2007	286	28.0	-0.1	244	47.8	-0.6	42	8.2	3.0	4	2.2	103.9	169	56.1	7.5	73	16.8	7.4	40	37.8	-34.7
2008	296	29.6	5.6	270	53.9	12.6	26	5.2	-36.7	3	1.8	-20.7	183	62.8	12.1	62	14.3	-14.9	48	45.0	19.1
2009	327	32.7	10.7	279	55.8	3.6	48	9.6	85.0	4	2.5	39.3	215	74.9	19.3	59	13.4	-6.1	49	44.5	-1.0
2010	342	34.1	4.2	306	61.0	9.3	36	7.2	-25.3	3	1.9	-22.0	196	68.7	-8.3	89	19.9	48.2	54	47.6	6.9
2011	364	36.2	6.0	307	61.0	-0.1	57	11.3	57.6	3	2.0	2.7	208	73.3	6.6	82	20.1	1.2	71	43.4	-8.9
2012	338	33.4	-7.6	285	56.4	-7.6	53	10.5	-7.5	4	2.7	36.7	184	65.2	-11.0	83	20.2	0.7	67	39.1	-9.9
2013	338	33.3	-0.4	291	57.4	1.8	47	9.3	-11.7	4	2.8	2.8	175	62.3	-4.5	86	20.8	3.0	73	41.0	5.0

Prev., *Prevalence rate: rate of prevalence per 100,000 individuals.

Grow., †Growth rate (%) = (Current Year *100) / Previous Year - 100

Supplement Table 4. Logistic regression analysis of factors affecting hospitalization rate in spontaneous pneumothorax patients

Characteristics	Hospitalization			
	Unadjusted OR	95% CI	Adjusted OR ^b	95% CI
Sex				
M	1.39	(1.23, 1.57)	1.40	(1.24, 1.59)
F	1.0 ^a	-	1.0 ^a	-
Age				
< 15	0.19	(0.10, 0.38)	0.20	(0.10, 0.40)
15–34	1.52	(1.37, 1.69)	1.48	(1.32, 1.64)
35–64	1.0 ^a	-	1.0 ^a	-
≥ 65	1.74	(1.52, 1.99)	1.73	(1.51, 1.98)
Income range				
Low (0–3)	1.0 ^a	-	1.0 ^a	-
Medium (4–7)	0.98	(0.86, 1.11)	0.97	(0.86, 1.10)
High (8–10)	0.97	(0.86, 1.09)	0.95	(0.84, 1.07)
Insurance Type				
Region	1.0 ^a	-	1.0 ^a	-
Job	1.00	(0.91, 1.10)	0.99	(0.90, 1.09)
Medical Assistance	1.60	(1.17, 2.19)	1.57	(1.15, 2.15)
Comorbidities (ref. none)				
COPD	2.34	(2.02, 2.72)	2.38	(2.04, 2.77)
Pneumonia	2.05	(1.66, 2.55)	2.08	(1.67, 2.59)
Interstitial	3.77	(1.66, 8.59)	3.87	(1.69, 8.84)
Lung cancer	2.14	(1.53, 2.99)	2.16	(1.54, 3.04)
Asthma	2.03	(1.63, 2.52)	2.08	(1.67, 2.60)
Lung abscess	1.09	(0.29, 4.07)	1.02	(0.27, 3.79)

OR; odds ratio, CI; confidence intervals; M, male; F, female; COPD, chronic obstructive pulmonary disease
a; reference group, b: adjusted for age and sex

Supplement Table 5. Rehospitalization of spontaneous pneumothorax patients

Rehospitalization (within)	Number of rehospitalizations		Number of hospitalizations per person			
	N*	Cumulative %	Mean	SD	Minimum	Maximum
6 months	1,022	60.7	1.34	0.70	1	10
1 year	1,202	71.4	1.40	0.80	1	12
2 years	1,412	83.9	1.47	0.94	1	19
Total	1,683	100.0	1.56	1.07	1	19
Interval between hospitalizations			223.07	445.3	0	3,989

*N = Cumulative frequency; SD, standard deviation