Supplementary Material

Tables for the 31 outlier patients

Table S1. Characteristics of the 31 outlier patients.

	Value
Demographic characteristics	
Age, mean ± SD	75 ± 14
≥75 year old, n (%)	20 (64.5)
Men, n (%)	11 (35.4)
Co-morbidities to PE	
Concurrent symptomatic DVT, n (%)	13 (41.9)
Previous DVT or PE, n (%)	4 (12.9)
ICD-9-CM codes for secondary diagnoses, n (%)	
Active cancer	1 (3.2)
Chronic bronchitis	4 (12.9)
Chronic pulmonary heart disease	4 (12.9)
Chronic ischemic heart disease	3 (9.7)
Heart failure	2 (6.5)
Essential hypertension	3 (9.7)
Diabetes mellitus	0 (0.0)
Disorders of lipid metabolism	9 (29.0)
Asthma	0 (0.0)
APR-DRG severity level, n (%)	
Minor	3 (9.7)
Moderate	7 (22.6)
Major	18 (58.1)
Extreme	3 (9.7)

Table S2. Log-transformed total cost (€) per patient according to the APR-DRG severity of illness (SOI) classes (n = 31 outlier patients).

SOI class	N patients	Mean cost, € (*) (95% CI)	CV (%)
Minor	3	6,971 (3,193 -15,219)	33
Moderate	7	12,385 (9,099 - 16,854)	30
Major	18	13,098 (11,652 – 14,723)	26
Extreme	3	27,970 (11,275 - 69,390)	40

*Log costs were de-transformed with 95 % CI.

CV = coefficient of variation in %.

Analysis of variance with polynomial contrasts showed a significant linear trend for SOI (p < 0.0001).

Table S3. Cost components according to the APR-DRG severity of illness class (SOI). Data are presented as mean ± SD (n = 31 outlier patients).

Cost components	Minor	Moderate	Major	Extreme	All patients
Nursing activities	1,870 ± 279	4,578 ± 1,988	4,362 ± 1,364	9,887 ± 1,615	4,704 ± 2,364
Medical procedures	1,709 ± 460	3,011 ± 1,331	2,794 ± 375	5,623 ± 3,323	3,012 ± 1,498
Pharmaceutical products	612 ± 449	726 ± 487	367 ± 359	2,853 ± 1,342	994 ± 1,082
Hospitalization accommodation	1,262 ± 450	2,212 ± 626	2,804 ± 792	5,234 ± 3,307	2,756 ± 1,444
Administrative costs	539 ± 192	704 ± 332	801 ± 243	1,447 ± 729	816 ± 379

Table S4. Multivariable linear regression analysis of predictors of log-transformed total costs as dependent variable (n=652 inlier and oulier patients)

Predictors	Relative increase in cost (95% CI)	p-value
Age group	1.084 (1.05 – 1.12)	0.001
Chronic Pulmonary Heart Disease	1.14 (1.02 - 1.27)	0.016
Heart failure	1.48 (1.23 - 1.79)	0.001
ICU	1.52 (1.32 – 1.73)	0.001
Thrombolysis	1.42 (1.17 – 1.77)	0.002
Type of hospital	1.05 (1.04 – 1.07)	0.001
p < 0.0001 for the model with R² = 0.239 for this six variables model		

Comment: the inclusion of the outlier patients does not change the model nor the relative increase in cost but slightly decreases adjusted R² from 0.289 to 0.239 (estimation of the parameters and the 95% CI are made using bootstrap technique)