

Table 15. DRGs clustering of the study.

DRG description	DRG code	DRG weight*
Lung disease		
OTHER RESP SYSTEM O.R. PROCEDURES	76	2.34
PULMONARY EMBOLISM	78	0.97
RESP INFECT & INFLAM AGE >17	79	1.39
RESPIRATORY NEOPLASMS	82	1.01
PNEUMOTHORAX & PLEURAL EFFUSION	85	1.03
PULMONARY EDEMA & RESPIRATORY FAILURE	87	0.92
SIMPLE PNEUMONIA, PLEURISY AGE >17	89	0.86
INTERSTITIAL LUNG DIS AGE >17 WITH COMPLICATIONS	92	1.09
BRONCHITIS & ASTHMA AGE >17	96	0.62
Infectious disease		
OTH INFECTIOUS & PARASITIC DIS DIAGNOSES	423	1.01
HIV W MAJOR RELATED CONDITION	489	1.01
MAJOR GASTROINT AND PERITONEAL INFECTION	572	0.85
SEPTICAEMIA WITHOUT MECHANICAL VENTILATION 96+ HOURS AGE >17	576	1.33
INFECTIOUS & PARASITIC DIS WITH SURGICAL INTERVENTION	578	4.45
Central Nervous System disease		
SPINAL DISORDERS & INJURIES	9	0.87
NERVOUS SYSTEM NEOPLASMS	11	0.80
DEGENERATIVE NERVOUS SYSTEM DISORDERS	12	0.69
MULTIPLE SCLEROSIS & CEREBELLAR ATAXIA	13	0.34
INTRACRAN HEM OR CEREBRAL INFARCT	14	0.94
TRAUM STUPOR&COMA,COMA<1 HR,AGE >17	29	0.77
Gastrointestinal/liver disease		
DIGESTIVE MALIGNANCY	172	1.10
G.I. HEMORRHAGE	174	0.80
G.I. OBSTRUCTION	180	0.69
OTHER DIGESTIVE SYSTEM DX AGE >17	188	0.78
OTHER DIGESTIVE SYSTEM DX AGE >17	189	0.20
DISORDERS OF LIVER, EX MALIGNANCY	202	0.97
MALIGNANCY OF HEPATOBIL SYST OR PANCREAS	203	0.99
DISORDERS OF PANCREAS EXCEPT MALIGNANCY	204	0.78
DISORDERS OF LIVER, EX MALIGNANCY	205	0.91

DISORDERS OF THE BILIARY TRACT	207	0.91
Kidneys/Urinary tract/ Reproductive organs disease		
RENAL FAILURE	316	0.90
KIDNEY & URINARY TRACT NEOPLASMS	318	0.97
KIDNEY, URIN TRACT SIGN, SYMP AGE >17	325	0.46
OTH KIDNEY & URIN TRACT DX AGE >17	331	0.82
MALIGNANCY, MALE REPRO SYSTEM	346	0.87
Cardiovascular disease		
CIRC DISOR W AMI, DISCH ALIVE	121	1.14
ACUTE & SUBACUTE ENDOCARDITIS	126	2.57
HEART FAILURE & SHOCK	127	0.74
PERIPHERAL VASCULAR DISORDERS WITH COMPL	130	0.80
PERIPHERAL VASCULAR DISORDERS WITHOUT COMPL	131	0.26
CARD CONGEN & VALV DISOR AGE >17	135	0.72
CARD ARRHYTHMIA & CONDUCTN DISOR	138	0.57
OTH CIRCULATORY SYSTEM DIAGNOSES	144	0.95
Haematological disease		
COAGULATION DISORDERS	397	0.66
LYMPHOMA & NON-ACUTE LEUKEMIA WITH COMPLICATIONS	403	1.74
LYMPHOMA & NON-ACUTE LEUKEMIA	404	0.44
ACU LEUKEMIA W/O MAJOR O.R PROC AGE >17	473	3.90
Metabolism and nutrition disease		
NUTRIT & MISC METAB DISOR AGE >17 WITH COMPLIC	296	0.68
NUTRIT & MISC METAB DISOR AGE >17 WITHOUT COMPLIC	297	0.43
Skin Wound		
MAJOR SKIN DISORDERS	271	1.04
Orthopaedic disease		
HIP&FEMUR PROC, EX MAJ JNT, AGE >17	211	1.48
AMPUT FOR MUSCSKL SYST & CONN TISS DISOR	213	1.60
PATH FX & MUSCSKL & CONNECT TISSUE MALIG	239	0.88
MEDICAL BACK PROBLEMS	243	0.29
FX, SPR, STR, DSL UPPER EXT, AGE >17	250	0.60
Breast disease		
MALIGNANT BREAST DISORDERS	274	0.97
Other		
MAJOR CHEST TRAUMA	83	0.63
SIGNS & SYMPTOMS	464	0.42
TRACHMY FOR FACE, MOUTH AND NECK DIAG	482	2.89
MAJOR JOINT REPLACEMENT OR ATTACHMENT	544	2.21

Table 1. Readmission distribution of “revolving patients”.

N° of hospital readmissions	Patients n. (%)
2	310 (72.7%)
3	74 (17.3%)
4	28 (6.5%)
5	8 (1.8%)
6	2 (0.4%)
7	3 (0.7%)
8	1 (0.2%)

Table 2. Patients' demographic characteristics.

Characteristics	Cases (n=426)	Controls (n=420)	p-value
Age (mean ± SD, range)	79.7±11.9 (23-100)	75.9±14.7 (22-99)	0.000018 *
Gender			
Male, n (%)	n=195 (45.8%)	n=186 (44.3%)	0.663408
Female, n (%)	n=231 (54.2%)	n=234 (55.7%)	
Comorbidities			
Cerebrovascular disease, n (%)	n=329 (77.2%)	n=202 (48.1%)	< 0.00001 *
Cognitive decline, n (%)	n=221 (51.8%)	n=113 (26.9%)	< 0.00001 *
Congestive heart failure, n (%)	n=203 (47.6%)	n=85 (20.2%)	< 0.00001 *
Chronic Kidney Disease, n (%)	n=135 (31.7%)	n=55 (13.1%)	< 0.00001 *
Chronic obstructive pulmonary disease, n (%)	n=98 (23.0%)	n=61 (14.5%)	0.001594 *
Diabetes, n (%)	n=132 (30.9%)	n=115 (27.4%)	0.258096
Active cancer, n (%)	n=101 (23.7%)	n=111 (26.42%)	0.361414
Skin ulcers, n (%)	Total n=192 (45.1%) n=21 (4.9%) single non sacral n=71 (16.7%) single sacral n=100 (23.5%) multiple sites	Total n=74 (17.6%) n=8 (1.9%) single non sacral n=37 (8.8%) single sacral n=29 (6.9%) multiple sites	< 0.00001 *

Patient Setting			
Home-based health care, n (%)	n=361 (84.7%)	n=386 (91.9%)	0.035089 *
Extended care, n (%)	n=54 (12.7%)	n=26 (6.2%)	0.001267 *
Social problems, n (%)	n=11 (2.6%)	n=8 (1.9%)	0.506141

* This result is significant at $p < .05$

Table 3. DRGs distribution among cases and controls.

Characteristics	Cases (n=426)	Controls (n=420)	p-value
DRG distribution			
Lung disease	n=139 (32.6%)	n=117 (27.8%)	0.130876
Infectious disease	n=104 (24.4%)	n=63 (15.0%)	0.000583 *
Central Nervous System disease	n=45 (10.6%)	n=94 (22.4%)	< 0.00001 *
Gastrointestinal/liver disease	n=28 (6.6%)	n=44 (10.5%)	0.041917 *
Kidneys/Urinary tract/Reproductive organs disease	n=41 (9.6%)	n=21 (5.0%)	0.009863 *
Cardiovascular disease	n=19 (4.5%)	n=19 (4.5%)	0.964317
Haematological disease	n=13 (3.0%)	n=19 (4.5%)	0.261762
Metabolism and nutrition disease	n=7 (1.6%)	n=7 (1.7%)	0.808201
Skin Wound	n=6 (1.4%)	n=1 (0.2%)	0.060259
Orthopaedic disease	n=5 (1.2%)	n=3 (0.7%)	0.489983
Breast disease	n=1 (0.2%)	n=1 (0.2%)	0.991988
Other	n=18 (4.2%)	n=31 (7.4%)	0.049463
DRG average weight	1.07	1.06	0.441582
Average Length of Stay, days	9.2±7.1	10.0±7.0	0.196947

* The result is significant at $p < .05$

Table 4. Main characteristics and DRGs of dead patients.

	Dead cases (n=228/426)	Dead controls (n=157/420)	p-value
Absolute mortality rate %	53.5%	37.4%	<0.00001 *
Death within 30 days from last admission, n/N (%)	163/426 (38.2%)	n=51/420 (12.1%)	<0.00001 *
Death time from last admission, days, mean \pm SD (range)	31.0 \pm 50.0 (1-347)	57.7 \pm 85.8 (1-500)	0.000077 *
Age, years, mean \pm SD (range)	82.0 \pm 10.0 (37-96)	82.5 \pm 10.5 (45-99)	0.325622
Sepsis	n=72 (31.6%)	n=30 (19.1%)	0.006433 *
Any active cancer	n=39 (17.1%)	n=40 (25.5%)	0.045602 *
Pneumonia	n=39 (17.1%)	n=12 (7.6%)	0.007116 *
Kidney failure	n=22 (9.6%)	n=6 (3.8%)	0.030481 *
Pulmonary oedema/respiratory failure	n=10 (4.4%)	n=8 (5.1%)	0.745863
Pleural effusion	n=10 (4.4%)	n=6 (3.8%)	0.785129
Degenerative CNS disease	n=6 (2.6%)	n=7 (4.5%)	0.329401
Stroke	n=5 (2.2%)	n=9 (5.7%)	0.06827
Other	n=25 (11.0%)	n=39 (24.9%)	0.000326 *
DRG average weight	1.14	1.20	< 0.00001 *

* The result is significant at p <.05