

Supporting document: online-only appendix**Table 1. Patient characteristics**

		Control group		Patients with agitation	
		Average No.	% or SD	Average No.	% or SD
Gender	Female	158,239*	45.2%	2,519*	47.2%
	Male	191,923*	54.8%	2,815*	52.8%
Age		68.3*	17,2	80.5*	11,2
Weighted Elixhauser Index		2.3*	1,8	3.0*	1,7
Index de comorbilidad de Elixhauser	None	69.556*	19,9%	299*	5,6%
	One	70.256*	20,1%	873*	16,4%
	Two or more	210.350*	60,1%	4.162*	78,0%
Type of admittance	Total discharges	350,162	100.0%	5,334	100.0%
	Emergency	245,925*	70.2%	4,883*	91.5%
	Scheduled	104,237*	29.8%	451*	8.5%
Type of discharge	To home	311,456*	88.9%	3,811*	71.4%
	Other hospital	9,893*	2.8%	229*	4.3%
	Other destinations	8,404*	2.4%	567*	10.6%
	Death	20,409*	5.8%	727*	13.6%
Days of stay		9.0*	10,1	12.0*	11,5
Adverse events		25,838*	7.4%	903*	16.9%
Surgical intervention		95,697*	27.3%	557*	10.4%
GRD – AP grouper weight v. 25.0**		2.2*	2,8	2.3*	3,0

Note * Significantly different in $p < 0.01$ in the bilateral equality test of the column proportions. The tests assume equal variations. Abbreviations: No. = number; SD = Standard Deviation
** for the calculation of the mean DRG weight the All Patient version of DRG grouper was used

As no direct information is available on the prevalence of agitation at the different departments of the hospitals in the RECH network a proxy for this information as of the major diagnostic category (MDC) for each discharge of patients in the control group and the group with agitation from the APR-DRG grouper was used. The indication of the number of discharges or % according to its major diagnostic category provides information to identify at which department agitation was assumed to be more prevalent.

As shown in table 2, the distribution of patients for both the control group and the group with agitation is not homogeneous and, as stated in the methods section, is one of the reasons for the use of propensity score matching for controlling selection bias. Nevertheless, for both groups, respiratory system was the most frequent major diagnostic category while the second most populated was circulatory system for the control group and kidney and urinary tract for the group with agitation (without considering the Burns and Eye category because of their low number of cases with agitation). The three mentioned major diagnostic categories (respiratory, circulatory, kidney and urinary tract) and the nervous system include around 65% of all patients with agitation. On the other hand, the incidence of cases with agitation within major diagnostic categories varies from 0,59 % (Blood) to 3,41 % (again kidney and urinary tract). Besides the evident relevance of kidney and urinary tract as major diagnostic category, there is not a straightforward pattern of the distribution of patients with agitation. These aspects of the analysis could be

helpful for further research to improve the definition of the most frequent profile of the patients in the group with agitation.

Table 2. Major diagnostic category information

Major diagnostic category information	Control group		Patients with agitation		
	No.	%	No.	%	% in total category
ALCOHOL/DRUG USE & ALCOHOL/DRUG INDUCED ORGANIC MENTAL DISORDERS	1.186	,3%	18	,3%	1,50%
BURNS	0	0,0%	1	,0%	100,00%
DISEASES & DISORDERS OF BLOOD, BLOOD FORMING ORGANS	6.361	1,8%	38	,7%	0,59%
DISEASES & DISORDERS OF THE CIRCULATORY SYSTEM	66.299	18,9%	727	13,6%	1,08%
DISEASES & DISORDERS OF THE DIGESTIVE SYSTEM	37.534	10,7%	342	6,4%	0,90%
DISEASES & DISORDERS OF THE EAR, NOSE, MOUTH & THROUGHT	3.996	1,1%	42	,8%	1,04%
DISEASES & DISORDERS OF THE EYE	81	,0%	4	,1%	4,71%
DISEASES & DISORDERS OF THE FEMALE REPRODUCTIVE SYSTEM	732	,2%	12	,2%	1,61%
DISEASES & DISORDERS OF THE HEPATOBILIARY SYSTEM & PANCREAS	33.190	9,5%	225	4,2%	0,67%
DISEASES & DISORDERS OF THE KIDNEY & URINARY TRACT	23.323	6,7%	823	15,4%	3,41%
DISEASES & DISORDERS OF THE MALE REPRODUCTIVE SYSTEM	3.721	1,1%	37	,7%	0,98%
DISEASES & DISORDERS OF THE MUSCULOSKELETAL SYSTEM	41.781	11,9%	258	4,8%	0,61%
DISEASES & DISORDERS OF THE NERVOUS SYSTEM	28.460	8,1%	618	11,6%	2,13%
DISEASES & DISORDERS OF THE RESPIRATORY SYSTEM	66.213	18,9%	1.411	26,5%	2,09%
DISEASES & DISORDERS OF THE SKIN, SUBCUTANEOUS TISSUE	4.497	1,3%	88	1,6%	1,92%
ENDOCRINE, NUTRITIONAL & METABOLIC DISEASES & DISORDERS	6.232	1,8%	190	3,6%	2,96%
FACTORS INFLUENCING HEALTH STAT & OTHER CONTACTS WITH HEALTH SERVICES	4.090	1,2%	29	,5%	0,70%
HUMAN IMMUNODEFICIENCY VIRUS INFECTIONS	661	,2%	8	,1%	1,20%
INFECTIOUS & PARASITIC DISEASES, SYSTEMIC OR UNSPECIFIED	9.410	2,7%	232	4,3%	2,41%
INJURIES, POISONINGS & TOXIC EFFECTS OF DRUGS	1.780	,5%	48	,9%	2,63%
MENTAL DISEASES & DISORDERS	4.226	1,2%	66	1,2%	1,54%
MULTIPLE SIGNIFICANT TRAUMA	382	,1%	4	,1%	1,04%
MYELOPROLIFERATIVE DISEASES & DISORDERS, POORLY DIAGNOSED	3.027	,9%	70	1,3%	2,26%
UNGROUPABLE	2.980	,9%	43	,8%	1,42%