Supplementary Table S1. Methods to assess delirium at each study center during COVID-19 emergency.

	Center 1	**Center 2**	**Center 3**	**Center 4**
4AT	X			X
DSM-5 criteria	X			X
Clinical impression	X	X	X	
m-RASS	X	X		X#

DSM denotes Diagnostic and Statistical Manual of Mental Disorders, 5th edition

m-RASS denotes modified Richmond Agitation and Sedation Scale

The methods to diagnose delirium were different depending on the site and the expertise of the physicians who evaluated delirium.

At center 1, delirium diagnoses were obtained on patient's admission by a variable medical staff composed by either geriatricians and non-geriatricians. The delirium episodes were thus classified as following: when the diagnosis was obtained by a geriatrician, the diagnosis was made using the 4AT plus DSM-5 criteria and considered as plausible; however when the diagnosis was not obtained by a geriatrician, we considered as delirium all the cases in which the m-RASS score was different than 0. At center 2, the cases of delirium were reclassified by means of the m-RASS score (i.e., a m-RASS score different than 0 was enough to diagnose delirium). At center 4, the diagnosis of delirium was always obtained as in non-emergency situations and the m-RASS score was disregarded in order to re-classify the delirium episodes. (see the text for additional explanations).

Supplementary Table S2. Patients' characteristics on admission in the study centers.

Characteristics on admission	Center 1 (n = 140)	Center 2 (n = 107)	Center 3 (N = 231)	Center 4 (N=38)
Age (median [IQR])	80 [74, 85]	80 [74, 85]	76 [71, 82]	80 [77, 86]
Male gender, n (%)	82 (59)	58 (54)	163 (71)	15 (39)
Smoking (current or previous), n (%)	31 (34)	13 (23)	33 (26)	18 (47)
Past or current medical history				
Hypertension, n (%)	91 (65)	72 (67)	149 (65)	31 (82)
Cardiac diseases, n (%)*	63 (45)	41 (38)	94 (41)	14 (37)
Diabetes, n (%)	44 (31)	20 (19)	65 (28)	9 (24)
Chronic respiratory disease, n (%)**	16 (11)	15 (14)	25 (11)	7 (18)
N chronic diseases (excluding dementia)	3 [2, 4]	3 [2, 5]	2 [1, 3]	2 [2, 3]
Dementia	29 (21)	22 (21)	29 (12)	5 (13)
Malnutrition	27 (24)	13 (13)	0 (0)	2 (6)
Obesity	15 (13)	14 (14)	27 (20)	2 (6)
Drugs (median [IQR])	6 [2, 9]	4 [2, 7]	4 [2, 7]	7 [6, 9]
Dependence in bathing, n(%)	56 (42)	28 (26)	NA	NA
Dependence in dressing, n(%)	50 (38)	27 (25)	NA	NA
Barthel Index (pre-admission), (median [IQR])	NA	NA	100 [70, 100]	94 [81, 100]
Functional disability n (%)***	56 (42)	28 (26)	72 (32)	16 (44)
Chest X-Ray or CT results, n (%)				
No opacity	21 (15)	10 (9)	8 (3)	7 (18)
Single opacity	35 (25)	25 (23)	8 (3)	6 (16)
Multiple or bilateral opacities	84 (60)	72 (67)	215 (93)	25 (66)
Use of continuous positive airway pressure, n (%)	28 (20)	8 (7)	14 (6)	3 (8)
Laboratory serum levels (median [IQR])				
White blood cell count (x10^9/L)	6.5 [4.7, 9.0]	8.0 [6.1, 10.6]	7.0 [5.0, 9.8]	4.7 [3.8, 6.3]
C-reactive protein, mg/dl	7.2 [3.3, 13.2]	12.1 [4.6, 17.1]	10.7 [5.5, 17.5]	1.1 [0.4, 3.0]
Albumin, gr/dl	3.2 [2.8, 3.5]	3.0 [2.8, 3.3]	3.1 [2.9, 3.3]	NA
Delirium, n (%)	29 (21)	22 (21)	11 (5)	11 (29)
m-RASS score, n (%)			NA	
≤ −1	23 (16)	13 (12)		9 (24)
0	111 (79)	87 (81)		27 (71)
≥ +1	6 (4)	7 (7)		2 (5)

*Cardiac diseases included congestive heart failure, coronary heart disease and atrial fibrillation.
**Chronic respiratory diseases include chronic obstructive pulmonary disease and asthma.

***Functional disability was defined as the presence of dependence in bathing or dressing (for Centers 1 and 2) or a Barthel Index ≤90 (centers 3 and 4).

IQR = Interquartile range

NA = not available

CT = computed tomography

m-RASS = modified Richmond Agitation and Sedation Scale

Supplementary Table S3. Sensitivity analysis on the multivariable logistic model on delirium on admission excluding center 3

	OR (95% CI)	p-value
Sex (male vs female)	0.68(0.34;1.38)	0.288
Age (for each year)	1.02(0.97;1.08)	0.422
Functional disability (yes vs no)	1.96(0.75;5.13)	0.171
Dementia (present vs absent)	5.13(1.96;13.43)	0.001
N. of chronic diseases (excluding dementia)	1.18(1.01;1.39)	0.043
Use of continuous positive airway pressure (yes vs no)	1.76(0.69;4.48)	0.240
Nutritional status (malnourished vs no)	1.69(0.66;4.3)	0.272
Nutritional status (obese vs no)	1.89(0.63;5.71)	0.261
Chest X-ray or CT (multiple or bilateral opacities vs no opacity)	3.57(1.14;11.2)	0.030
Chest X-ray or CT (single opacity vs no opacity)	2.96(0.89;9.81)	0.077
C-reactive protein (for each mg/dl)	1.03(0.98;1.08)	0.230

OR= Odds Ratio
CI = Confidence Intervals
CT = Computed Tomography