

Data supplement for Sánchez-Rico et al., Is a Diagnosis of Schizophrenia Spectrum Disorder Associated With Increased Mortality in Patients With COVID-19? *Am J Psychiatry* (doi: 10.1176/appi.ajp.2021.21020196)

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Ethics statement: This observational study using routinely collected data received approval from the Institutional Review Board of the AP-HP clinical data warehouse (decision CSE-20-20_COVID19, IRB00011591). AP-HP clinical Data Warehouse initiatives ensure patient information and informed consent regarding the different approved studies through a transparency portal in accordance with European Regulation on data protection and authorization n°1980120 from National Commission for Information Technology and Civil Liberties (CNIL).

Data Availability Statement: Data can be available at <https://eds.aphp.fr/> upon request from AP-HP Health Data Warehouse (Entrepôt de Données de Santé (EDS)). The authors did not have special access to the data that other researchers would not have.

TABLE S1. Association of a diagnosis of schizophrenia spectrum disorder, demographic characteristics, and medical risk factors with mortality in adult patients hospitalized for COVID-19 (N=14,391)

	Full sample (N=14,391)		With the outcome (N=1,301)		Without the outcome (N=13,090)		Crude logistic regression analysis		Multivariable logistic regression analysis ^a		Multivariable logistic regression analysis ^b	
	N	%	N	%	N	%	OR	95%CI	AOR	95%CI	AOR	95%CI
Schizophrenia spectrum disorder ^c												
<i>Yes</i>	80	0.56%	25	31.2%	55	68.8%	4.64***	2.88 - 7.48	4.05***	2.41 - 6.83	1.54	0.90 - 2.64
<i>No</i>	14311	99.4%	1276	8.92%	13035	91.1%	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Age, y												
18 to 69	10409	72.3%	394	3.79%	10015	96.2%	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
70 to 79	1715	11.9%	342	19.9%	1373	80.1%	6.33***	5.42 - 7.40	5.42***	4.63 - 6.35	4.33***	3.67 - 5.12
80+	2267	15.8%	565	24.9%	1702	75.1%	8.44***	7.35 - 9.69	8.91***	7.73 - 10.26	9.36***	8.05 - 10.90
Sex												
<i>Women</i>	7585	52.7%	458	6.04%	7127	94.0%	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
<i>Men</i>	6806	47.3%	843	12.4%	5963	87.6%	2.20***	1.95 - 2.48	2.22***	1.96 - 2.53	1.84***	1.60 - 2.11
Current smoking												
<i>Yes</i>	1156	8.03%	188	16.3%	968	83.7%	2.12***	1.79 - 2.50	1.33**	1.10 - 1.59	1.25*	1.03 - 1.51
<i>No</i>	13235	92.0%	1113	8.41%	12122	91.6%	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Obesity ^d												
<i>Yes</i>	1917	13.3%	301	15.7%	1616	84.3%	2.14***	1.86 - 2.46	NA	NA	1.71***	1.46 - 2.00
<i>No</i>	12474	86.7%	1000	8.02%	11474	92.0%	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Number of medical conditions ^e												
0	10967	76.2%	483	4.40%	10484	95.6%	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
1	744	5.17%	79	10.6%	665	89.4%	2.58***	2.01 - 3.31	NA	NA	2.15***	1.65 - 2.80
2+	2680	18.6%	739	27.6%	1941	72.4%	8.26***	7.30 - 9.36	NA	NA	6.50***	5.67 - 7.45

^a Adjusted for age, sex, and current smoking (df=5).

^b Adjusted for age, sex, current smoking, obesity, and number of medical conditions (df=8).

^c Assessed using ICD-10 diagnosis codes for schizophrenia, schizotypal, delusional, and other non-mood psychotic disorders (F20-F29)

^d Defined as having a body-mass index higher than 30 kg/m² or an International Statistical Classification of Diseases and Related Health Problems (ICD-10) diagnosis code for obesity (E66.0, E66.1, E66.2, E66.8, E66.9).

^e Assessed using ICD-10 diagnosis codes for diabetes mellitus (E11), diseases of the circulatory system (I00-I99), diseases of the respiratory system (J00-J99), neoplasms (C00-D49), and diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D5-D8).

* Two-sided p-value is significant (p<0.05).

** Two-sided p-value is significant (p<0.01).

*** Two-sided p-value is significant (p<0.01).

Abbreviations: OR; odds ratio; CI, confidence interval; AOR, adjusted odds ratio; NA, not applicable.

TABLE S2. Association of a diagnosis of schizophrenia spectrum disorder, demographic characteristics, and medical risk factors with mortality in adult patients hospitalized for COVID-19 with psychiatric disorders (N=857)

	Full sample (N=857)		With the outcome (N=326)		Without the outcome (N=531)		Crude logistic regression analysis		Multivariable logistic regression analysis ^a		Multivariable logistic regression analysis ^b	
	N	%	N	%	N	%	OR	95%CI	AOR	95%CI	AOR	95%CI
Schizophrenia spectrum disorder ^a												
<i>Yes</i>	80	9.33%	25	31.2%	55	68.8%	0.72	0.44 - 1.18	1.21	0.71 - 2.08	1.22	0.7 - 2.1
<i>No</i>	777	90.7%	301	38.7%	476	61.3%	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Age, y												
18 to 69	276	32.2%	44	15.9%	232	84.1%	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
70 to 79	187	21.8%	68	36.4%	119	63.6%	3.01***	1.94 - 4.67	3.20***	2.05 - 4.98	3.14***	2.01 - 4.91
80+	394	46.0%	214	54.3%	180	45.7%	6.27***	4.29 - 9.15	7.90***	5.24 - 11.93	7.57***	4.96 - 11.54
Sex												
<i>Women</i>	419	48.9%	158	37.7%	261	62.3%	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
<i>Men</i>	438	51.1%	168	38.4%	270	61.6%	1.03	0.78 - 1.35	1.75**	1.27 - 2.42	1.71**	1.23 - 2.38
Current smoking												
<i>Yes</i>	155	18.1%	54	34.8%	101	65.2%	0.85	0.59 - 1.22	1.01	0.67 - 1.51	0.97	0.65 - 1.46
<i>No</i>	702	81.9%	272	38.7%	430	61.3%	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Obesity												
<i>Yes</i>	167	19.5%	54	32.3%	113	67.7%	0.73	0.51 - 1.05	NA	NA	1.05	0.7 - 1.57
<i>No</i>	690	80.5%	272	39.4%	418	60.6%	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Number of medical conditions												
0	55	6.42%	8	14.5%	47	85.5%	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
1	100	11.7%	31	31.0%	69	69.0%	2.64*	1.12 - 6.24	NA	NA	2.38	0.97 - 5.84
2+	702	81.9%	287	40.9%	415	59.1%	4.06***	1.89 - 8.73	NA	NA	3.19**	1.44 - 7.06

^a Adjusted for age, sex, and current smoking (df=5).

^b Adjusted for age, sex, current smoking, obesity, and number of medical conditions (df=8).

^c Assessed using ICD-10 diagnosis codes for schizophrenia, schizotypal, delusional, and other non-mood psychotic disorders (F20-F29)

^d Defined as having a body-mass index higher than 30 kg/m² or an International Statistical Classification of Diseases and Related Health Problems (ICD-10) diagnosis code for obesity (E66.0, E66.1, E66.2, E66.8, E66.9).

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*** Two-sided p-value is significant (p<0.01).

Abbreviations: OR; odds ratio; CI, confidence interval; AOR, adjusted odds ratio; NA, not applicable.