Table 1: Baseline characteristics of the study population according to SARS-CoV-2 serology

 at inclusion.

	Negative	Positive	Total*
	SARS-CoV-2	SARS-CoV-2	(N=1062)
	serology	serology	(11-1002)
	(N=999)	(N=61)	
Age	33 [28-42.5]	31 [26-38]	33 [28-42]
Women	717 (71.8%)	40 (65.6%)	758 (71.4%)
Professional category			
Senior physicians	208 (20.8%)	12 (19,7%)	221 (20.8%)
Medical students (including residents)	89 (8.9%)	11. (18%)	100 (9.4%)
Care assistants	197 (19.7%)	6 (9.8%)	203 (19.1%)
Nurses	378 (37.8%)	27 (44.7%)	405 (38.1%)
Others**	127 (12.7%)	5 (8.2%)	133 (12.5%)
Working department			
Emergency department	372 (37.2%)	7 (11.5%)	380 (35.8%)
Infectious diseases unit	239 (23.9%)	43 (70.5%)	282 (26.6%)
Intensive care unit	343 (34.3%)	11 (18%)	355 (33.4%)
Virology laboratory	45 (4.5%)	0 (0%)	45 (4.2%)
Working in a COVID-free unit	80 (8%)	2 (3.3%)	82 (7.7%)
Working in a referent hospital for emerging biological risk	519 (52%)	32 (52.5%)	552 (52%)
Night shift	123 (12.3%)	5 (8.2%)	129 (12.2%)

Missing data, No	1	0	1
Experience in the job (months)	84 [36-180]	72 [30-168]	84 [36-180]
Missing data, No	5	0	5
Experience in the department (months)	36 [10-84]	24 [6-72]	36 [9-84]
Missing data, No	14	0	14
Public transportation use	369 (40.5%)	18 (40.9%)	387 (40.5%)
Missing data, No	88	17	105
Active smoker	246 (27.8%)	4 (8 9%)	250 (26.9%)
Missing data. No	115	16	132
Symptoms suggestive of COVID 10	125 (13 3%)	29 (50%)	154 (15 4%)
before inclusion	125 (15.570)	29 (3070)	154 (15.470)
Missing data, No	57	3	
If yes: Fever	29 (23.2%)	13 (44.8%)	42 (27.3%)
Anosmia and/or agueusia	10 (8%)	14 (48.3%)	24 (15.6%)
Respiratory symptoms	56 (44.8%)	13 (44.8%)	69 (44.8%)
Gastrointestinal symptoms	25 (20%)	2 (6.9%)	27 (17.5%)
Adherence to PPE recommendations over the study period***			
Wear a surgical mask	829 (93%)	40 (85%)	870 (93.1%)
Wear an FFP2 mask to take nasopharyngeal swabs	521 (78%)	28 (82%)	549 (77.8%)
Wear an N95 mask to handle a confirmed COVID-19 case	578 (74%)	24 (56%)	603 (73.2%)
If wearing a mask (surgical or FFP2), change every 4 hr	570 (65%)	22 (47%)	592 (63.9%)
Hydro-alcoholic friction or hand washing before and after each	831 (99%)	45 (98%)	877 (98.5%)

patient contact

Data are n (%) for qualitative variables and median [interquartile range] for quantitative variables

* HCWs with positive, negative or missing (n=2) serology at inclusion, thus 2 more individuals than the sum of the 2 other columns.

** Others include (but not limited to): secretaries, nurse's managers, social workers

***Collected at the end of the study on a 5-point Likert scale (0, never, to 5, systematically),

reported as the proportion of HCWs rating 4 or 5; PPE: personal protective equipment

Table 2: Laboratory-confirmed infection with SARS-CoV-2 at month 3 (M3) and seroprevalence at M0, M1 and M3 after imputation of missing data, according to professional category.

	All	Senior physicians	Medical students	Care assistants	Nurses	Others	p value*
Serology positive							
at M0	5.9%	6.3%	12.9%	3.9%	7.1%	5.3%	0.06
	[4.7 ; 7.5]	[5.0;7.9]	[11.0 ; 15.1]	[2.9;5.2]	[5.7 ; 8.9]	[4.1 ; 6.8]	
at M1	13.0%	12.10/	21.10/	11.6%	14.9%	10.5%	0.13
	[11.1 ; 15.2]	[10.3 ; 14.2]	[18.7 ; 23.8]	[9.8 ; 13.8]	[12.9 ; 17.2]	[8.8;12.5]	
at M3	13.0%	12.4%	20.4%	11.6%	14.8%	10.5%	0.21
	[11.1 ; 15.2]	[10.5 ; 14.6]	[17.7 ; 23.4]	[9.7%; 13.8]	[12.8;17.1]	[8.8;12.5%]	
Laboratory-confirmed	14.6%	14.2%	23.5%	12.5%	16.6%	11.3%	0.12
SARS-CoV-2 infection at M3	[12.5 ; 16.9]	[12.2 ; 16.5]	[20.8 ; 26.4]	[10.6 ; 14.7]	[14.4 ; 18.9]	[9.5 ; 13.4]	

Data are % (95% confidence interval). Others include (but not limited to): secretaries, nurse's managers, social workers

*Comparison across professional categories

		Univariate anal	ysis	Multivariate analysis			
	OR	[95% CI]	p value	OR	[95% CI]	p value	
Age	0.99	[0.96; 1.02]	0.42	0.98	[0.95; 1.01]	0.26	
Women	0.76	[0. 44; 1. 32]	0.33	0.60	[0.30; 1.23]	0.16	
Working in a referent hospital for emerging biological risk	1.11	[0.66; 1.87]	0.69	1.08	[0.56; 2.09]	0.83	
Working department			< 0.0001			< 0.0001	
Emergency department	1			1			
Intensive care unit	1.68	[0.64; 4.39]		1.29	[0.47; 3.51]		
Infectious diseases department	9.46	[4.18; 21.40]		6.61	[2.64; 16.54]		
Professional category			0.08			0.50	
Physicians	1			1			
Medical students	2.17	[0.92; 5.11]		1.62	[0.42; 6.28]		
Care assistants	0.51	[0.19; 1.40]		1.18	[0.38; 3.63]		

Table 3: Risk factors of laboratory-confirmed SARS-CoV-2 infection at inclusion (after imputation of missing data; N=1,017*)

Nurses	1.20	[0.59; 2.41]		1.86	[0.77; 4.50]	
Others	0.89	[0.30; 2.60]		0.78	[0.22; 2.69]	
Experience in the department ≥ 12 months	0.71	[0.41; 1.23]	0.22	1.27	[0.49; 3.25]	0.62
Experience in the job ≥ 12 months	1.20	[0.47; 3.07]	0.71	0.94	[0.25; 3.56]	0.92
Night shift	0.61	[0.24; 1.56]	0.30	0.52	[0.12; 2.31]	0.39
Public transportation use	1.11	[0.62; 2.02]	0.65	0.99	[0.51; 1.94]	0.84
Active smoker	0.25	[0.088; 0.701]	0.009	0.28	[0.10; 0.82]	0.02

OR: odds ratio; CI: confidence interval

*HCWs from virology department were excluded because none had a positive serology result at inclusion

Others include (but not limited to): secretaries, nurse's managers, social workers

	Bivariate analysis		sis	Multivariable analysis		
	OR	[95% CI]	p value	OR	[95% CI]	p value
Age	0.98	[0.97; 1.00]	0.06	0.99	[0.97; 1.01]	0.41
Women	1.05	[0.70; 1.56]	0.79	1.04	[0.65; 1.67]	0.85
Working in a referent hospital for emerging biological risk	0.90	[0.63; 1.28]	0.57	1.16	[0.76; 1.77]	0.49
Working department			0.0002			0.003
Virology laboratory	1			1		
Intensive care unit	2.07	[0.47; 9.02]		1.80	[0.38; 8.58]	
Emergency department	4.10	[0.97; 17.39]		3.91	[0.83; 18.43]	
Infectious diseases department	5.65	[1.33; 23.09]		4.22	[0.92; 18.28]	
Professional category			0.12			0.38
Senior physicians	1			1		
Medical students	1.79	[0.93; 3.44]		1.69	[0.68; 4.18]	

Table 4: Risk factors of laboratory-confirmed SARS-CoV-2 infection at M3 (after imputation of missing data; N=1,062))

Care assistants	0.85	[0.47; 1.53]		0.99	[0.50; 1.96]	
Nurses	1.24	[0.77; 2.00]		1.49	[0.85; 2.63]	
Others*	0.71	[0.35; 1.42]		0.87	[0.40; 1.87]	
Experience in the department ≥ 12 months	0.78	[0.53; 1.16]	0.23	1.14	[0.60; 2.17]	0.70
Experience in the job ≥ 12 months	0.86	[0.48; 1.55]	0.63	0.97	[0.42; 2.24]	0.83
Night shift	1.03	[0.60; 1.75]	0.88	1.00	[0.52; 1.90]	0.91
Public transportation use	1.21	[0.84; 1.75]	0.32	1.17	[0.79; 1.75]	0.44
Active smoker	0.38	[0.22; 0.66]	0.0005	0.36	[0.21; 0.63]	0.0003

OR: odds ratio; CI: confidence interval

* Others include (but not limited to): secretaries, nurse's managers, social workers

	Bivariate analysis		М			
	OR	[95% CI]	p value	OR	[95% CI]	p value
Age	0.99	[0.97; 1.01]	0.24	0.99	[0.97; 1.016]	0.51
Women	1.07	[0.70; 1.62]	0.74	0.99	[0.60; 1.65]	0.89
Working in a referent hospital for emerging biological risk	0.97	[0.67; 1.42]	0.80	1.20	[0.77; 1.86]	0.43
Working department			0.0001			0.01
Intensive care unit	1			1		
Emergency department	1.93	[1.17; 3.18]		1.86	[1.05; 3.31]	
Infectious diseases department	3.10	[1.85; 5.22]		2.38	[1.30; 4.35]	
Professional category			0.17			0.25
Physicians	1			1		

Table 5: Risk factors of laboratory-confirmed SARS-CoV-2 infection at month 3 in high-risk healthcare workers, accounting for adherence to personal protective equipment recommendations (after imputation of missing data; N=916))

Medical students	1.80	[0.93; 3.49]		1.76	[0.69; 4.51]	
Care assistants	0.82	[0.45; 1.47]		1.21	[0.58; 2.50]	
Nurses	1.19	[0.74; 1.92]		1.75	[0.96; 3.18]	
Experience in the department ≥ 12 months	0.77	[0.51; 1.16]	0.22	1.26	[0.63; 2.52]	0.55
Experience in the job ≥ 12 months	0.87	[0.48; 1.56]	0.65	0.92	[0.39; 2.18]	0.77
Night shift	0.93	[0.54; 1.61]	0.80	0.93	[0.47; 1.83]	0.83
Public transportation use	1.34	[0.91; 1.99]	0.14	1.28	[0.83; 1.95]	0.27
Active smoker	0.37	[0.21; 0.66]	0.0006	0.36	[0.20; 0.64]	0.0006
Adherence to PPE recommendations over the stu	udy perio	d*				
Wear a surgical mask <4	0.70	[0.29; 1.67]	0.44	0.57	[0.21; 1.57]	0.28
Wear an N95 mask to take nasopharyngeal swabs <4	1.02	[061; 1.71]	0.71	1.02	[0.56; 1.87]	0.71
Wearing an N95 mask to handle a confirmed COVID-19 case <4	1.58	[0.99; 2.51]	0.06	1.36	[0.78; 2.35]	0.29
If wearing a mask (surgical or FFP2),	1.35	[0.90; 2.04]	0.16	1.32	[0.82; 2.13]	0.26

change every 4 hr <4

Data are n (%) for qualitative variables; median [interquartile range] for quantitative variables; OR: odds ratio; CI: confidence interval *Collected at the end of the study on a 5-point Likert scale (0=never to 5= systematically), reported as the proportion of HW rating 4 or 5; PPE: personal protective equipment