

Table 1 – Evolution of the relative frequency (abundance) during the lockdown period 2020 vs 2017-2019 for the three types of sampling, Marseille

N°	Species	During the lockdown (weeks 12 – 19)						During the restoration (weeks 20 – 24)						During the post-lockdown (weeks 25 – 35)					
		2017 - 2019		2020		p-value	Evol*	2017 - 2019		2020		p-value	Evol*	2017 - 2019		2020		p-value	Evol*
		n	%	n	%			n	%	n	%			n	%	n	%		
1	<i>E. coli</i>	2926	39.3	613	28.6	< 2.2e-16	↘	1924	37.8	461	32.2	8.2e-05	↘	4228	37.2	1207	35.0	0.02	↘
2	<i>K. pneumoniae</i>	656	8.8	166	7.7	0.12	→	442	8.7	128	8.9	0.78	→	1181	10.4	322	9.3	0.07	→
3	<i>E. faecalis</i>	499	6.7	158	7.4	0.28	→	322	6.3	90	6.3	0.94	→	704	6.2	203	5.9	0.50	→
4	<i>P. aeruginosa</i>	324	4.4	114	5.3	0.06	→	239	4.7	72	5.0	0.61	→	550	4.8	164	4.8	0.84	→
5	<i>C. albicans</i>	295	4.0	169	7.9	8.6e-14	↗	198	3.9	92	6.4	4.2e-5	↗	477	4.2	178	5.2	0.02	↗
6	<i>S. aureus</i>	277	3.7	96	4.5	0.11	→	190	3.7	70	4.9	0.05	→	398	3.5	154	4.5	0.01	↗
7	<i>S. epidermidis</i>	260	3.5	107	5.0	0.001	↗	169	3.3	67	4.7	0.02	↗	334	2.9	125	3.6	0.04	↗
8	<i>P. mirabilis</i>	201	2.7	60	2.8	0.80	→	134	2.6	42	2.9	0.54	→	344	3.0	115	3.3	0.36	→
9	<i>E. cloacae</i>	176	2.4	80	3.7	0.0005	↗	134	2.6	46	3.2	0.24	→	372	3.3	133	3.9	0.10	→
10	<i>S. agalactiae</i>	173	2.3	44	2.1	0.46	→	100	2.	24	1.7	0.47	→	244	2.2	81	2.4	0.48	→
11	<i>K. oxytoca</i>	114	1.5	18	0.8	0.02	↘	71	1.4	24	1.7	0.44	→	147	1.3	38	1.1	0.37	→
12	<i>E. faecium</i>	109	1.5	29	1.4	0.71	→	59	1.2	17	1.2	0.34	→	138	1.2	40	1.2	0.80	→
13	<i>H. influenzae</i>	92	1.2	14	0.7	0.02	↘	52	1.0	12	0.8	0.53	→	90	0.8	16	0.5	0.05	→
14	<i>S. haemolyticus</i>	86	1.2	42	2.0	0.004	↗	68	1.3	24	1.7	0.34	→	121	1.1	46	1.3	0.19	→
15	<i>C. koseri</i>	85	1.1	30	1.4	0.33	→	71	1.4	10	0.7	0.03	↘	111	1.0	33	1.0	0.92	→
16	<i>E. aerogenes</i>	80	1.1	35	1.6	0.04	↗	52	1.0	14	1.0	0.87	→	145	1.3	56	1.6	0.12	→
17	<i>S. saprophyticus</i>	75	1.0	18	0.8	0.49	→	58	1.1	15	1.1	0.77	→	117	1.0	40	1.2	0.51	→
18	<i>M. morgani</i>	61	0.8	26	1.2	0.09	→	50	1.0	7	0.5	0.08	→	104	0.9	35	1.0	0.60	→
19	<i>S. pneumoniae</i>	55	0.7	10	0.5	0.18	→	31	0.6	6	0.4	0.40	→	59	0.5	17	0.5	0.85	→
20	<i>C. glabrata</i>	45	0.6	24	1.1	0.01	↗	36	0.7	11	0.8	0.81	→	68	0.6	23	0.7	0.65	→
21	Autres	865	11.6	287	13.4	0.03	↗	684	13.5	201	14.0	0.58	→	1423	12.5	421	12.2	0.62	→
Total		7454	100	2145	100	-	-	5084	100	1433	100	-	-	11355	100	3447	100	-	-

↗ Significant growth; ↘ Significant decrease; → Non-significant change; Evol* = Evolution

Table 2A – Evolution of relative abundance for respiratory samples from week 12 to week 35, 2020, Marseille

N°	Species	During the lockdown (weeks 12 – 19)						During the restoration (weeks 20 – 24)						During the post-lockdown (weeks 25 – 35)					
		2017 - 2019		2020		p-value	n			2017 - 2019		2020	p-value					2017 - 2019	2020
		n	%	n	%			%	n	n	%			n	%	n	n		
1	<i>E. coli</i>	79	7.5	16	3.3	0.001	↘	41	5.9	14	5.0	0.61	→	73	5.0	28	5.0	0.98	→
2	<i>K. pneumoniae</i>	52	5.0	22	4.5	0.69	→	40	5.7	6	2.2	0.02	↘	96	6.5	26	4.6	0.11	→
3	<i>E. faecalis</i>	26	2.5	15	3.1	0.51	→	8	1.1	11	3.9	0.004	↗	23	1.6	8	1.4	0.82	→
4	<i>P. aeruginosa</i>	94	9.0	47	9.6	0.69	→	70	10.0	31	11.1	0.61	→	127	8.6	53	9.4	0.57	→
5	<i>C. albicans</i>	78	7.4	86	17.6	2.1e-09	↗	63	9.0	37	13.3	<2.2e-16	↗	124	8.4	76	13.5	0.00	↗
6	<i>S. aureus</i>	145	13.8	60	12.2	0.40	→	86	12.3	34	12.2	0.97	→	197	13.4	84	14.9	0.36	→
7	<i>S. epidermidis</i>	52	5.0	34	6.9	0.11	→	26	3.7	19	6.8	0.04	↗	48	3.3	28	5.0	0.07	→
8	<i>P. mirabilis</i>	9	0.9	3	0.6	0.76	→	6	0.9	5	1.8	0.31	→	12	0.8	9	1.6	0.12	→
9	<i>E. cloacae</i>	27	2.6	23	4.7	0.03	↗	22	3.1	9	3.2	0.95	→	80	5.3	28	5.0	0.68	→
10	<i>S. agalactiae</i>	10	1.0	2	0.4	0.36	→	0	0.0	3	1.1	0.02	↗	12	0.8	3	0.5	0.77	→
11	<i>K. oxytoca</i>	14	1.3	2	0.4	0.11	→	10	1.4	5	1.8	0.77	→	20	1.4	7	1.2	0.84	→
12	<i>E. faecium</i>	6	0.6	0	0.0	0.19	→	3	0.4	0	0.0	0.56	→	3	0.2	3	0.5	0.36	→
13	<i>H. influenzae</i>	91	8.7	14	2.9	2.5e-05	↘	51	7.3	11	3.9	0.05	→	90	6.1	16	2.8	0.00	→
14	<i>S. haemolyticus</i>	24	2.3	15	3.1	0.37	→	20	2.9	7	2.5	0.76	→	25	1.7	10	1.8	0.90	→
15	<i>C. koseri</i>	10	1.0	4	0.8	1.00	→	5	0.7	1	0.4	1.00	→	7	0.5	3	0.5	1.00	→
16	<i>E. aerogenes</i>	14	1.3	13	2.7	0.07	→	8	1.1	2	0.7	0.73	→	23	1.6	12	2.1	0.38	→
17	<i>S. saprophyticus</i>	0	0.0	0	0.0	1.00	→	0	0.0	0	0.0	1.00	→	0	0.0	0	0.0	1.00	→
18	<i>M. morgani</i>	5	0.5	7	1.4	0.06	→	3	0.4	0	0.0	0.56	→	11	0.8	3	0.5	0.77	→
19	<i>S. pneumoniae</i>	48	4.6	10	2.0	0.01	↘	28	4.0	6	2.2	0.15	→	54	3.7	17	3.0	1.48	→
20	<i>C. glabrata</i>	10	1.0	7	1.4	0.41	→	9	1.3	2	0.7	0.74	→	10	0.7	6	1.1	0.40	→
21	Autres	255	24.3	110	22.5	0.42	→	201	28.7	76	27.2	0.64	→	439	29.8	143	25.4	0.05	→
Total		1049	100	490	100	-	-	700	100	279	100	-	-	1474	100	563	100	-	-

↗ Significant growth; ↘ Significant decrease; → Non-significant change, Evol* = Evolution

Table 2B – Evolution of relative abundance for blood cultures sample from week 12 to week 35, 2020, Marseille

N°	Species	During the lockdown (weeks 12 – 19)						During the restoration (weeks 20 – 24)						During the post-lockdown (weeks 25 – 35)					
		2017 - 2019		2020		p-value	n			2017 - 2019		2020	p-value					2017 - 2019	2020
		n	%	n	%			%	n	n	%			n	%	n	n		
1	<i>E. coli</i>	19	5.8	1	1.0	0.06	→	14	6.8	1	1.2	0.08	→	20	3.0	8	4.2	0.85	→
2	<i>K. pneumoniae</i>	12	3.7	2	1.9	0.53	→	5	2.4	2	2.4	1.00	→	29	5.7	7	3.7	0.30	→
3	<i>E. faecalis</i>	8	2.4	8	7.8	0.03	↗	4	1.9	0	0.0	0.58	→	14	2.8	9	4.8	0.18	→
4	<i>P. aeruginosa</i>	9	2.7	5	4.9	0.34	→	7	3.4	2	2.4	1.00	→	33	6.5	8	4.3	0.27	→
5	<i>C. albicans</i>	32	9.8	4	3.9	0.07	→	13	6.3	3	3.6	0.57	→	20	3.9	5	2.7	0.42	→
6	<i>S. aureus</i>	37	11.3	9	8.7	0.58	→	29	14.1	14	16.9	0.58	→	63	12.4	26	13.8	0.61	→
7	<i>S. epidermidis</i>	79	24.1	34	33.0	0.07	→	49	23.8	27	32.5	0.14	→	119	23.4	47	25.0	0.66	→
8	<i>P. mirabilis</i>	6	1.8	0	0.0	0.34	→	2	1.0	0	0.0	1.00	→	6	1.2	4	2.1	0.47	→
9	<i>E. cloacae</i>	9	2.7	2	1.9	1.00	→	8	3.9	4	4.8	0.75	→	23	4.5	10	5.3	0.66	→
10	<i>S. agalactiae</i>	1	0.3	0	0.0	1.00	→	0	0.0	0	0.0	1.00	→	2	0.4	1	0.5	1.00	→
11	<i>K. oxytoca</i>	3	0.9	1	1.0	1.00	→	2	1.0	0	0.0	1.00	→	3	0.6	0	0.0	0.57	→
12	<i>E. faecium</i>	2	0.6	1	1.0	1.00	→	2	1.0	0	0.0	1.00	→	3	0.6	2	1.1	0.62	→
13	<i>H. influenzae</i>	1	0.3	0	0.0	1.00	→	1	0.5	1	1.2	0.49	→	0	0.0	0	0.0	1.00	→
14	<i>S. haemolyticus</i>	11	3.4	11	10.7	0.003	↗	5	2.4	5	6.0	0.16	→	14	2.8	16	8.5	0.001	↗
15	<i>C. koseri</i>	0	0.0	0	0.0	1.00	→	0	0.0	1	1.2	0.29	→	1	0.2	0	0.0	1.00	→
16	<i>E. aerogenes</i>	1	0.3	1	1.0	1.00	→	1	0.5	1	1.2	0.49	→	2	0.4	2	1.1	0.30	→
17	<i>S. saprophyticus</i>	0	0.0	0	0.0	1.00	→	1	0.5	1	1.2	0.49	→	0	0.0	0	0.0	1.00	→
18	<i>M. morgani</i>	0	0.0	1	1.0	1.00	→	0	0.0	0	0.0	1.00	→	0	0.0	0	0.0	1.00	→
19	<i>S. pneumoniae</i>	1	0.3	0	0.0	1.00	→	1	0.5	0	0.0	1.00	→	0	0.0	0	0.0	1.00	→
20	<i>C. glabrata</i>	1	0.3	0	0.0	1.00	→	1	0.5	0	0.0	1.00	→	3	0.6	0	0.0	0.57	→
21	Autres	96	29.3	23	22.3	0.17	→	61	29.6	21	25.3	0.46	→	154	30.3	43	22.9	0.05	→
Total		328	100	103	100	-	-	206	100	83	100	-	-	509	100	188	100	-	-

↗ Significant growth; ↘ Significant decrease; → Non-significant change, Evol* = Evolution

Table 2C – Evolution of relative abundance for urine samples from week 12 to week 35, 2020, Marseille

N°	Species	During the lockdown (weeks 12 – 19)						During the restoration (weeks 20 – 24)						During the post-lockdown (weeks 25 – 35)					
		2017 - 2019		2020		p-value	n			2017 - 2019		2020	p-value %					2017 - 2019 %	2020 n
		n	%	n	%			%	n	n	%			n	%	n	n		
1	<i>E. coli</i>	2828	46.5	596	38.4	8.9e-09	↘	1869	44.7	446	41.6	0.07	→	4135	44.1	1171	43.4	0.53	→
2	<i>K. pneumoniae</i>	592	9.7	142	9.2	0.48	→	397	9.5	120	11.2	0.10	→	1056	11.3	289	10.7	0.43	→
3	<i>E. faecalis</i>	465	7.7	135	8.7	0.17	→	310	7.4	79	7.4	0.96	→	667	7.1	186	6.9	0.70	→
4	<i>P. aeruginosa</i>	221	3.6	62	4.0	0.51	→	162	3.9	39	3.6	0.72	→	390	4.2	103	3.8	0.43	→
5	<i>C. albicans</i>	185	3.0	79	5.1	8.3e-05	↗	122	2.9	52	4.9	0.002	↗	333	3.6	97	3.6	0.91	→
6	<i>S. aureus</i>	95	1.6	27	1.7	0.62	→	75	1.8	22	2.1	0.57	→	138	1.5	44	1.6	0.55	→
7	<i>S. epidermidis</i>	129	2.1	39	2.5	0.35	→	94	2.3	21	2.0	0.56	→	167	1.8	50	1.9	0.80	→
8	<i>P. mirabilis</i>	186	3.1	57	3.7	0.22	→	126	3.0	37	3.5	0.46	→	326	3.5	102	3.8	0.45	→
9	<i>E. cloacae</i>	140	2.3	55	3.5	0.005	↗	104	2.5	33	3.1	0.28	→	269	2.9	95	3.5	0.08	→
10	<i>S. agalactiae</i>	162	2.7	42	2.7	0.93	→	95	2.3	21	2.0	0.53	→	230	2.5	77	2.9	0.24	→
11	<i>K. oxytoca</i>	97	1.6	15	1.0	0.07	→	59	1.4	19	1.8	0.38	→	124	1.3	31	1.2	0.48	→
12	<i>E. faecium</i>	101	1.7	28	1.8	0.70	→	54	1.3	17	1.6	0.46	→	132	1.4	35	1.3	0.67	→
13	<i>H. influenzae</i>	0	0.0	0	0.0	1.00	→	0	0.0	0	0.0	1.00	→	0	0.0	0	0.0	1.00	→
14	<i>S. haemolyticus</i>	51	0.8	16	1.0	0.47	→	43	1.0	12	1.1	0.79	→	82	0.8	20	0.7	0.51	→
15	<i>C. koseri</i>	75	1.2	26	1.7	0.17	→	66	1.6	8	0.8	0.04	↘	103	1.1	30	1.1	0.95	→
16	<i>E. aerogenes</i>	65	1.1	21	1.4	0.35	→	43	1.0	11	1.0	0.99	→	120	1.3	42	1.6	0.27	→
17	<i>S. saprophyticus</i>	75	1.2	18	1.2	0.81	→	57	1.4	14	1.3	0.89	→	117	1.3	40	1.5	0.34	→
18	<i>M. morgani</i>	56	0.9	18	1.2	0.39	→	47	1.1	5	0.5	0.05	→	93	1.0	32	1.2	0.38	→
19	<i>S. pneumoniae</i>	6	0.1	0	0.0	0.61	→	2	0.1	0	0.0	1.00	→	5	0.1	0	0.0	0.59	→
20	<i>C. glabrata</i>	34	0.6	17	1.1	0.02	↗	26	0.6	9	0.8	0.43	→	55	0.6	17	0.6	0.80	→
21	<i>Autres</i>	514	8.5	159	10.2	0.03	↗	427	10.2	106	9.9	0.75	→	830	8.9	235	8.7	0.82	→
Total		6077	100	1552	100	-	-	4178	100	1071	100	-	-	9372	100	2696	100	-	-

↗ Significant growth; ↘ Significant decrease; → Non-significant change, Evol* = Evolution

Table 3 – Comparison of wild percentage by origin of infection 2017-2019 vs 2020, Marseille

Species	Global								Origin of infection															
	2017-2019			2020			p-value	Evol*	nosocomial								community							
	W	R	%	W	R	%			2017-2019			2020			p-value	Evol*	2017-2019			2020			p-value	Evol*
							W	R	%	W	R	%	W	R			%	W	R	%	W	R		
<i>A. baumannii</i>	74	22	77.1	9	3	75.0	1.00	→	20	22	47.6	9	3	75	0.11	→	54	0	100	0	0	-	-	→
<i>E. aerogenes</i>	342	49	87.5	119	16	88.2	0.84	→	121	31	79.6	0	16	0	1.6e-10	↘	221	18	92.5	119	0	100	0.001	↗
<i>E. cloacae</i>	786	348	69.3	265	92	74.2	0.08	→	515	0	100	0	0	-	-	→	271	348	43.8	265	92	74.2	<2.2e-16	↗
<i>E. faecalis</i>	1987	9	99.6	348	1	99.7	1.00	→	1374	1	99.9	0	1	0	0.001	↘	613	8	98.7	348	0	100	0.06	→
<i>E. faecium</i>	393	60	86.8	64	5	92.8	0.16	→	273	42	86.7	0	5	0	5.7e-5	↘	120	18	87.0	64	0	100	0.001	↗
<i>E. coli</i>	4791	5771	45.4	1315	1398	48.5	0.004	↗	0	1892	0.0	0	1398	0	1.00	→	4791	3879	55.3	1315	0	100	<2.2e-16	↗
<i>K. oxytoca</i>	408	91	81.8	103	22	82.4	0.87	→	148	61	70.8	0	22	0	2.2e-11	↘	260	30	89.7	103	0	100	0.0001	↗
<i>K. pneumoniae</i>	1542	1047	59.6	484	231	67.7	7.7e-05	↗	1027	373	73.4	484	0	100	<2.2e-16	↗	515	674	43.3	0	231	0	<2.2e-16	↘
<i>M. morgani</i>	285	52	84.6	81	14	85.3	0.87	→	180	38	82.6	0	14	0	1.8e-10	↘	105	14	88.2	81	0	100	0.001	↗
<i>P. mirabilis</i>	532	411	56.4	177	99	64.1	0.02	↗	154	287	34.9	0	0	-	-	→	378	124	75.3	177	99	64.1	0.001	↘
<i>P. aeruginosa</i>	1343	1055	56.0	432	234	64.9	4.2e-05	↗	901	637	58.6	0	234	0	<2.2e-16	↘	442	418	51.4	432	0	100	0.001	↗
<i>S. marcescens</i>	304	8	97.4	119	7	94.4	0.15	→	191	6	97.0	0	7	0	6.5e-10	↘	113	2	98.3	119	0	100	0.24	→
<i>S. aureus</i>	4458	486	90.2	31	2	93.9	0.77	→	1455	154	90.4	0	0	-	-	→	3003	332	90.0	31	2	93.9	0.77	→
<i>S. agalactiae</i>	770	43	94.7	123	5	96.1	0.51	→	253	0	100	0	0	-	-	→	517	43	92.3	123	5	96.1	0.17	→

↗ Significant growth; ↘ Significant decrease; → Non-significant change, Evol* = Evolution; W = Wild; R = Resistance