

Symptômes post-covid et leurs associations

Olivier Robineau, Service Universitaire des maladies infectieuses, Tourcoing

Université de Lille,

Inserm u1136, Paris

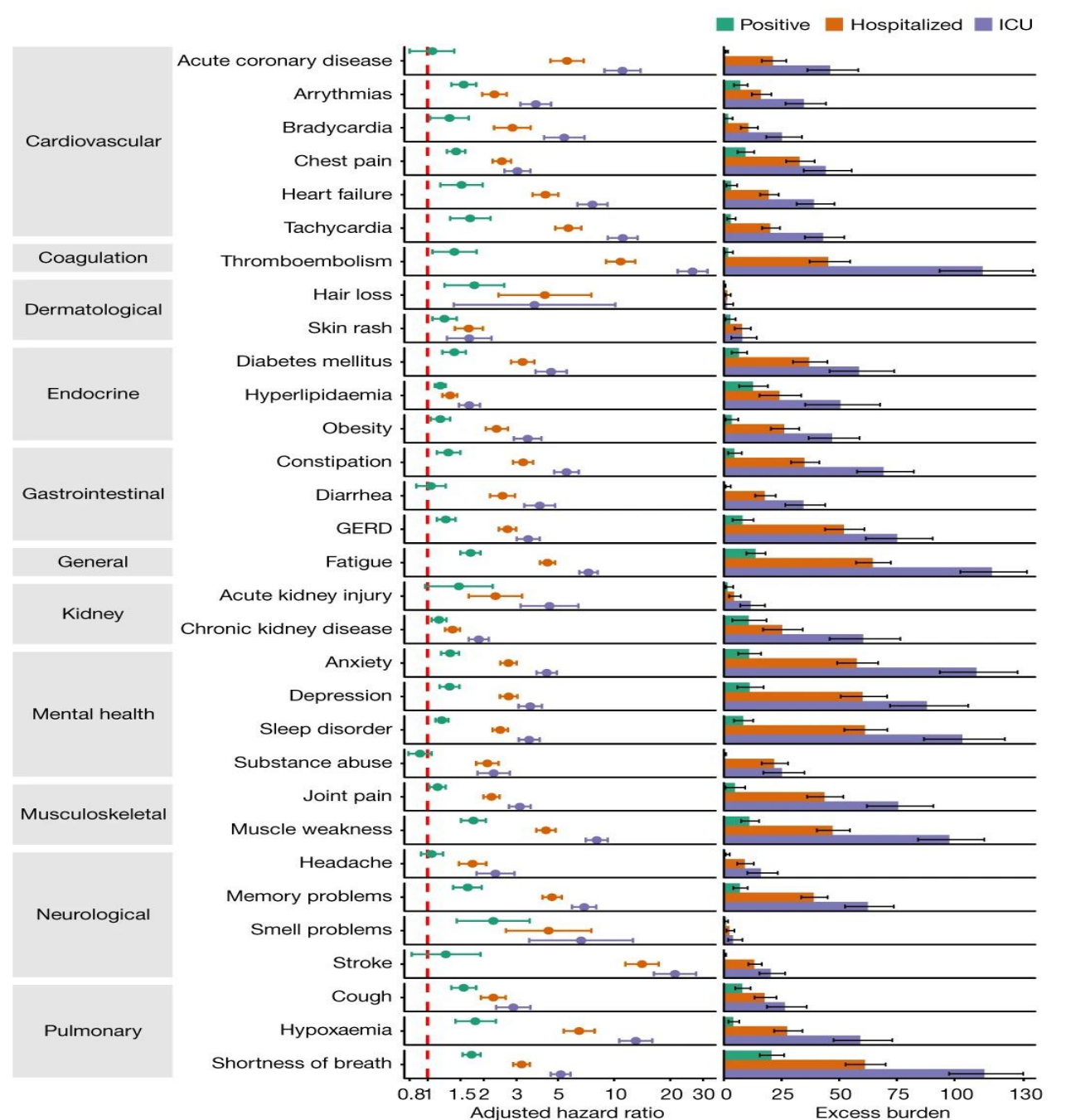
Problématique

- Plaintes multiples + symptômes non spécifiques (hors anosmie)
- Risque:
 - Sur attribution de symptômes « communs » à une cause
 - Diagnostic tardif d'autres pathologies
 - Sous-attribution de symptômes et recherche d'autre causes:
 - Accumulation d'examens
 - Anxiété
- Nécessité de rechercher les symptômes associés au covid, c'est à dire:
 - Plus présent que dans d'autres situations (COVID-long VS « personnes sans histoire »)
 - Autant ou plus présent que dans des situation « similaires » (COVID vs autres infections)

Comparaison de symptômes COVID vs non COVID

Symptom	SARS-CoV-2 test result, weighted % (95% CI)			
	Symptom prevalence among all persons receiving testing		Symptom prevalence among persons receiving testing who reported a symptom lasting >4 weeks since onset	
	Respondents who received a positive test result (n = 698)*	Respondents who received a negative test result (n = 2,437)*	Respondents who received a positive test result (n = 465)*	Respondents who received a negative test result (n = 1,058)*
Any symptom	65.9 [†] (61.9–69.8)	42.9 (40.8–45.1)	—	—
1 symptom only	27.2 [†] (23.7–30.8)	18.7 (17.0–20.4)	41.4 (36.5–46.3)	43.6 (40.3–46.9)
2 symptoms	14.0 [†] (11.1–16.8)	9.5 (8.2–10.7)	21.2 (17.1–25.3)	22.1 (19.3–24.8)
≥3 symptoms	24.7 [†] (21.0–28.3)	14.7 (13.2–16.3)	37.4 (32.5–42.4)	34.3 (31.1–37.5)
Fatigue/Tired/Weakness	22.5 [†] (19.0–26.1)	12.0 (10.6–13.4)	34.2 [†] (29.3–39.1)	28.0 (25.0–31.0)
Change in smell or taste	17.3 [†] (14.1–20.4)	1.7 (1.1–2.3)	26.2 [†] (21.8–30.7)	3.9 (2.6–5.3)
Shortness of breath or breathlessness	15.5 [†] (12.4–18.7)	5.2 (4.2–6.2)	23.6 [†] (19.1–28.1)	12.1 (9.9–14.2)
Cough	14.5 [†] (11.6–17.4)	4.9 (4.0–5.9)	22.0 [†] (17.8–26.2)	11.5 (9.4–13.6)
Headache	13.8 [†] (10.9–16.7)	9.9 (8.6–11.2)	20.9 (16.7–25.1)	23.0 (20.2–25.8)
Problems sleeping	12.0 [†] (9.3–14.7)	16.5 (14.8–18.1)	18.1 [†] (14.2–22.1)	38.3 (35.1–41.6)
Joint or muscle pain	11.1 (8.4–13.9)	12.4 (10.9–13.9)	16.9 [†] (12.9–20.9)	28.9 (25.8–32.0)
Cognitive dysfunction [§]	10.2 [†] (7.7–12.8)	7.3 (6.1–8.4)	15.5 (11.8–19.3)	16.9 (14.4–19.4)
Chest pain or pressure	7.3 [†] (5.2–9.4)	2.3 (1.6–2.9)	11.0 [†] (7.9–14.2)	5.3 (3.7–6.8)
Change in mood	6.6 (4.6–8.7)	8.8 (7.6–10.0)	10.1 [†] (7.1–13.1)	20.6 (17.9–23.2)
Postexertional malaise [¶]	6.1 [†] (4.1–8.0)	2.4 (1.7–3.0)	9.2 [†] (6.3–12.2)	5.5 (3.9–7.0)
Stomach pain	5.8 (3.9–7.7)	5.1 (4.1–6.1)	8.9 (6.0–11.7)	11.9 (9.7–14.1)
Hair loss	5.6 (3.7–7.5)	4.1 (3.3–5.0)	8.5 (5.6–11.3)	9.7 (7.6–11.7)
Diarrhea	5.3 (3.3–7.2)	3.3 (2.6–4.1)	8.0 (5.0–10.9)	7.8 (6.0–9.5)
Sore throat	4.9 [†] (3.1–6.8)	1.7 (1.1–2.2)	7.5 [†] (4.7–10.3)	3.9 (2.7–5.1)
Fever or chills	4.9 [†] (3.0–6.8)	1.9 (1.4–2.5)	7.5 (4.7–10.3)	4.5 (3.2–5.8)
Palpitations (heart racing or pounding)	4.5 (2.7–6.3)	2.5 (1.9–3.2)	6.8 (4.1–9.5)	5.9 (4.3–7.5)
Nausea/Vomiting	4.1 [†] (2.5–5.8)	1.9 (1.3–2.4)	6.3 (3.8–8.8)	4.3 (3.0–5.7)
Other symptom	1.3 (0.3–2.2)**	1.0 (0.6–1.5)	2.0 (0.5–3.4)**	2.4 (1.4–3.4)

Cohorte des vétérans américains COVID-19 vs cohorte entière



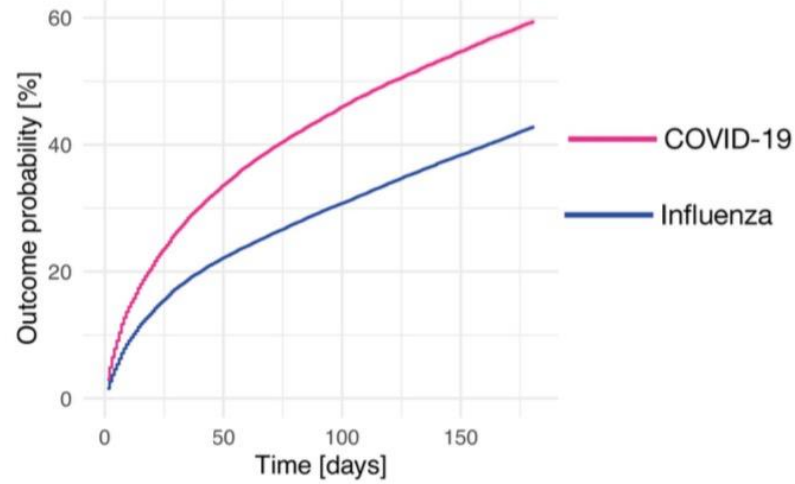
Comparaison à la grippe

	COVID-19 (unmatched)	COVID-19 (matched)	Influenza (matched)
COHORT SIZE	273,618	106,578	106,578
DEMOGRAPHICS			
Age; mean (SD); y	46.3 (19.8)	39.4 (18.4)	38.3 (19.7)
Sex; n (%) female	152,157 (55.6)	62,293 (58.4)	61,419 (57.6)
OUTCOMES, % from 1 day to 6 months post-diagnosis (95% CI)			
Anxiety/Depression	22.82 (22.48–23.14)	26.69 (26.14–27.24)	19.79 (19.47–20.11)
Chest/Throat pain	12.60 (12.34–12.86)	12.80 (12.36–13.22)	7.17 (6.97–7.38)
Abnormal breathing	18.71 (18.41–19.02)	18.43 (17.96–18.90)	9.72 (9.48–9.95)
Myalgia	3.24 (3.09–3.38)	3.67 (3.42–3.91)	2.23 (2.12–2.35)
Fatigue	12.82 (12.56–13.09)	12.59 (12.16–13.03)	6.81 (6.60–7.00)
Headache	8.67 (8.44–8.90)	10.53 (10.14–10.90)	7.98 (7.75–8.19)
Abdominal symptoms	15.58 (15.26–15.87)	17.34 (16.84–17.83)	11.42 (11.16–11.66)
Cognitive symptoms	7.88 (7.69–8.08)	5.56 (5.28–5.85)	3.16 (3.02–3.30)
Pain	11.60 (11.33–11.87)	12.09 (11.67–12.54)	8.34 (8.13–8.56)
Any	57.00 (56.59–57.43)	59.37 (58.72–60.00)	42.77 (42.38–43.16)
OUTCOMES, % from 3 months to 6 months post-diagnosis (95% CI)			
Anxiety/Depression	15.49 (15.21–15.77)	19.24 (18.59–19.90)	14.27 (13.97–14.57)
Chest/Throat pain	5.71 (5.53–5.90)	6.48 (6.08–6.91)	3.79 (3.63–3.96)
Abnormal breathing	7.94 (7.72–8.16)	9.08 (8.62–9.54)	4.69 (4.51–4.87)
Myalgia	1.54 (1.44–1.64)	2.05 (1.82–2.28)	1.27 (1.17–1.36)
Fatigue	5.87 (5.68–6.06)	6.38 (5.99–6.79)	3.73 (3.58–3.89)
Headache	4.63 (4.47–4.80)	6.66 (6.25–7.07)	5.08 (4.89–5.27)
Abdominal symptoms	8.29 (8.06–8.51)	10.69 (10.16–11.22)	6.84 (6.64–7.06)
Cognitive symptoms	3.95 (3.80–4.10)	3.01 (2.74–3.29)	1.83 (1.71–1.94)
Pain	7.19 (6.98–7.39)	8.53 (8.06–9.00)	5.53 (5.33–5.72)

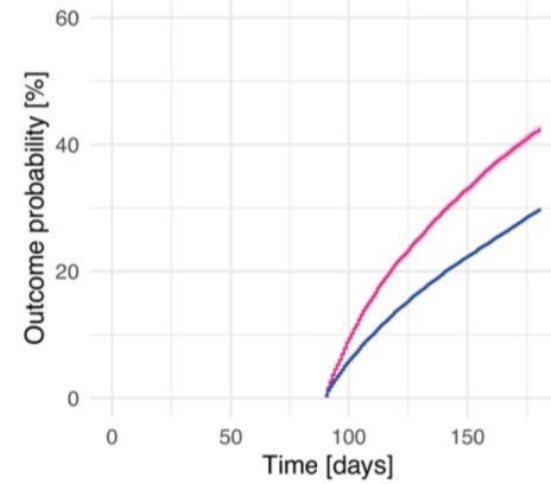
1-180 days follow-up

90-180 days follow-up

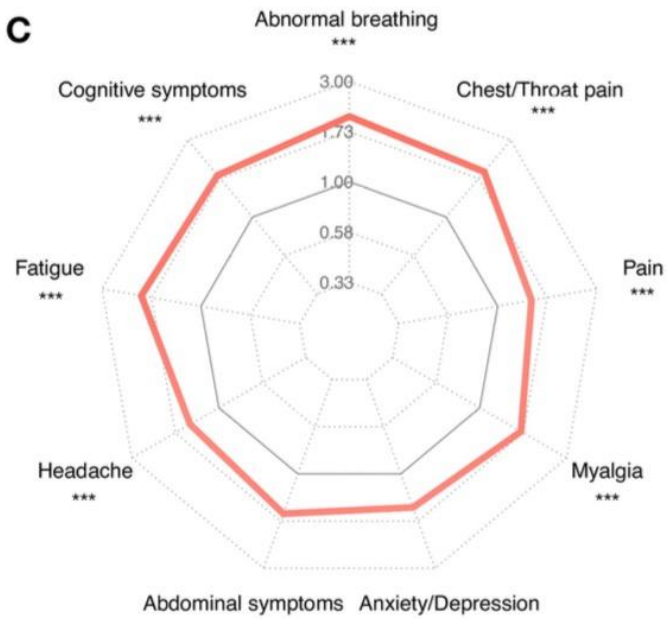
A Any long-COVID feature (HR 1.65, $p < .0001$)



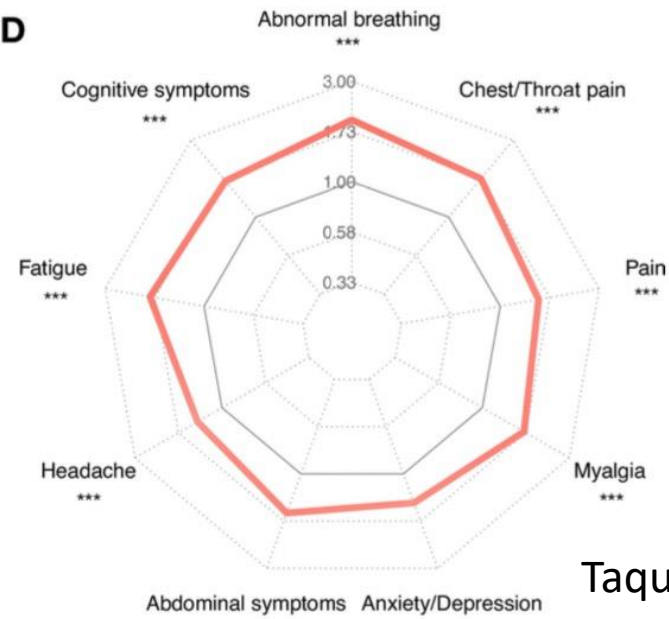
B Any long-COVID feature (HR 1.56, $p < .0001$)



C



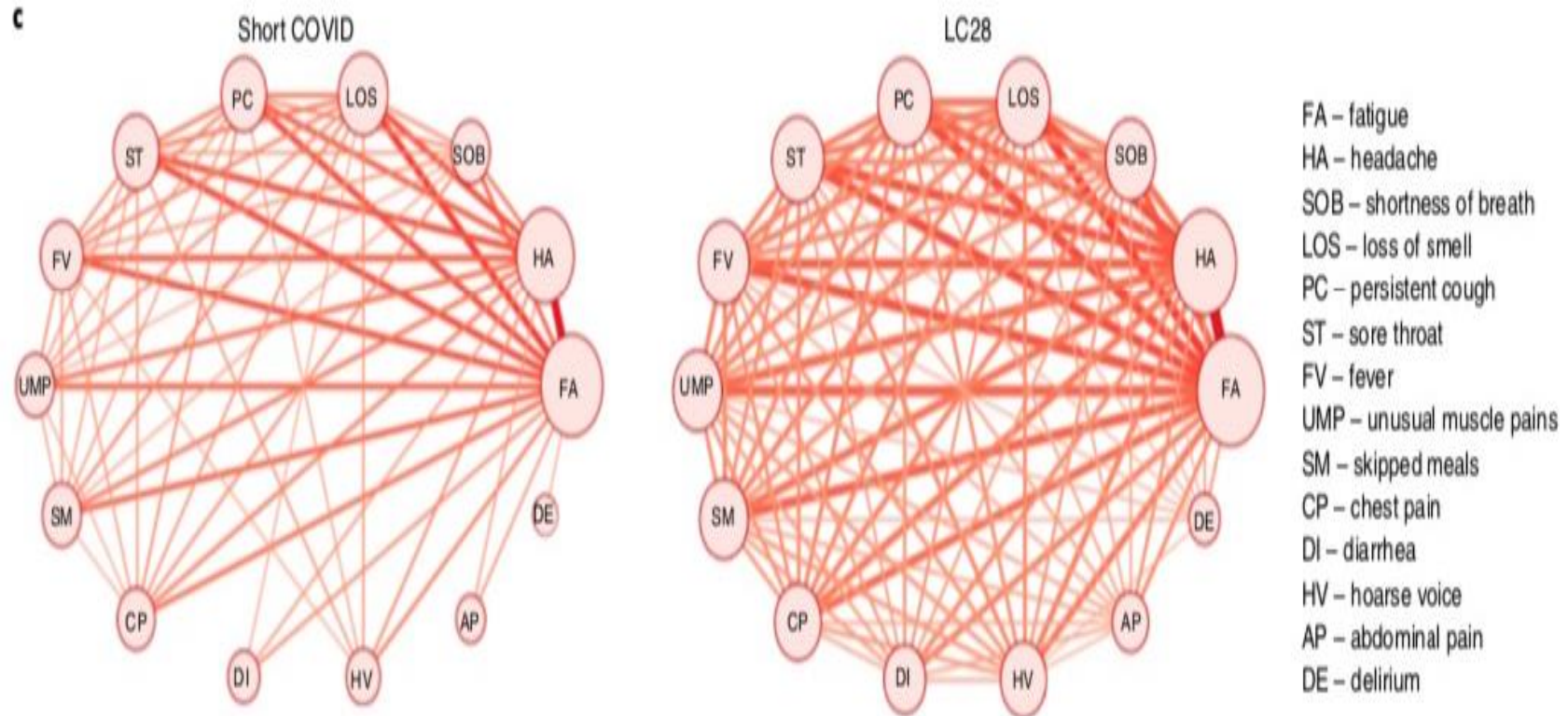
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Association de symptômes

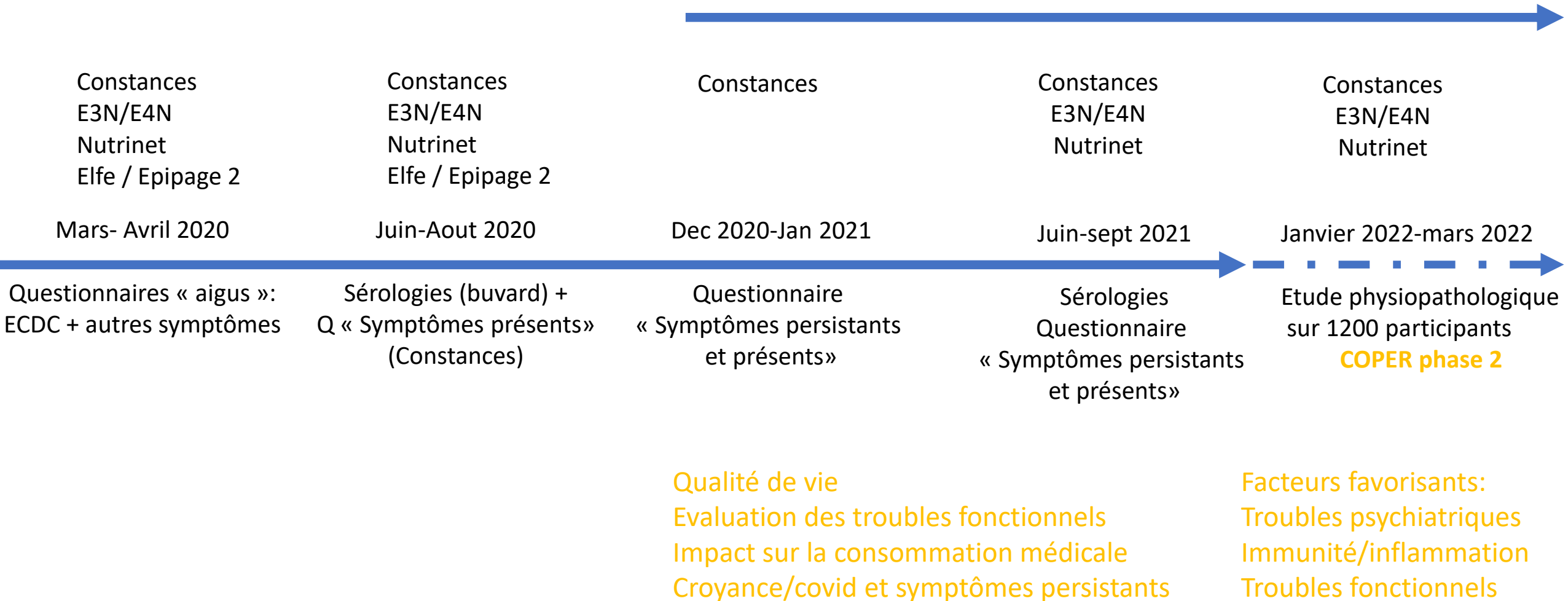
Présentation clinique: étude anglaise prospective à 4 mois

Symptômes polymorphes



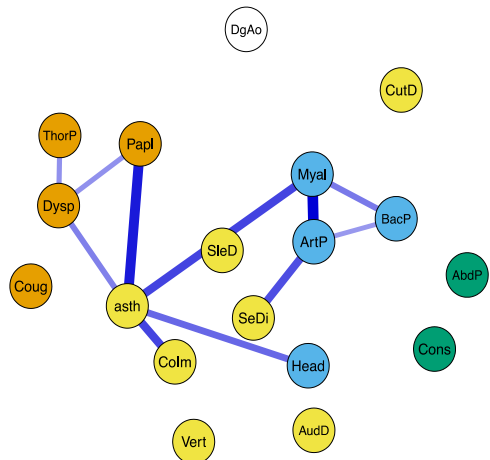
Déroulé des études « covid long » dans SAPRIS

COPER phase « épidémiologique » et de screening (phase 1)

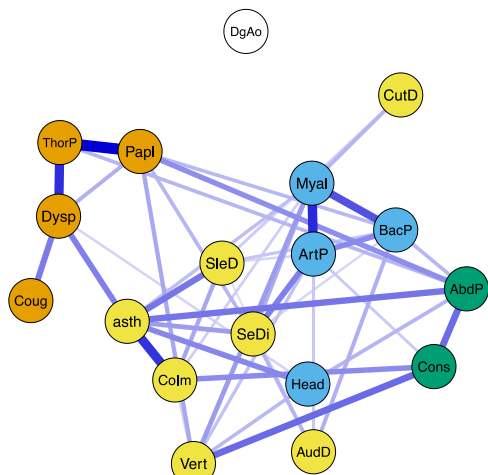


Association de symptômes et centralité

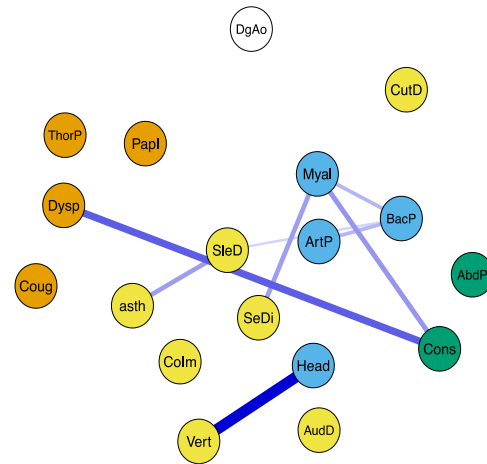
ECDC+/Sero+



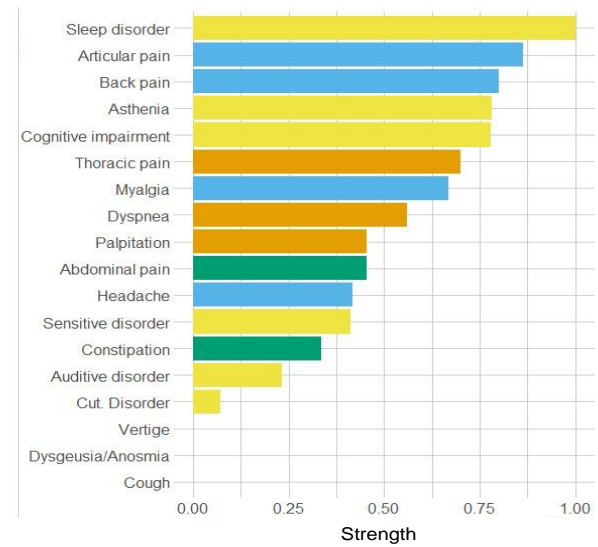
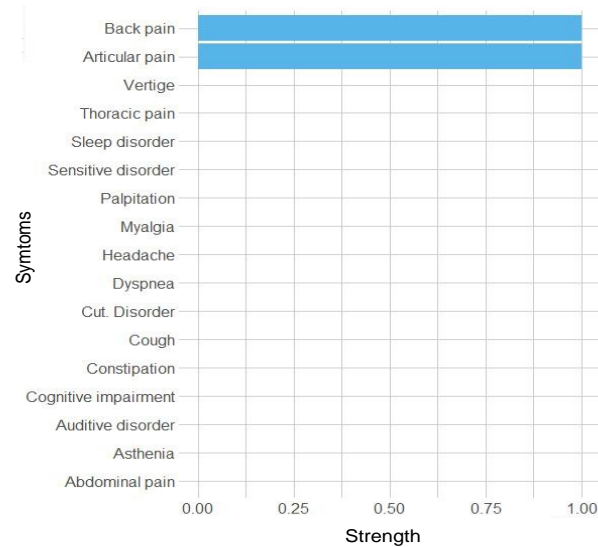
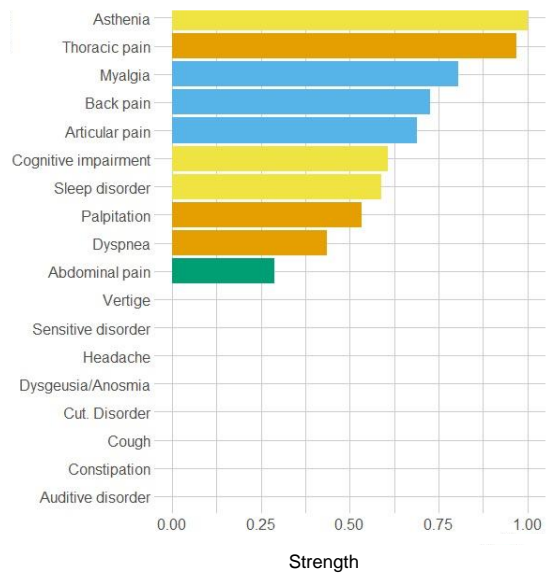
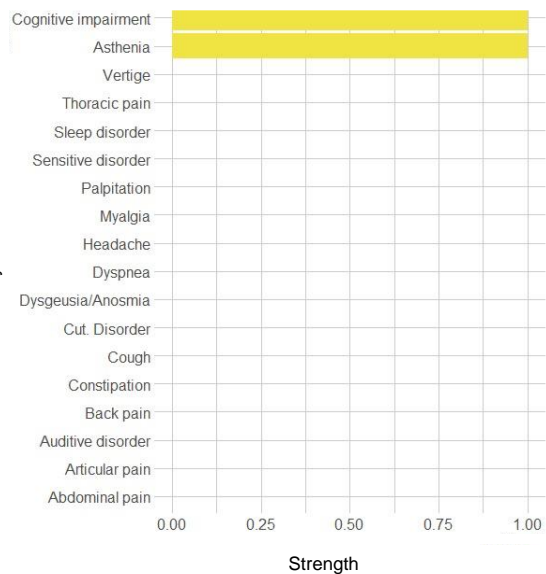
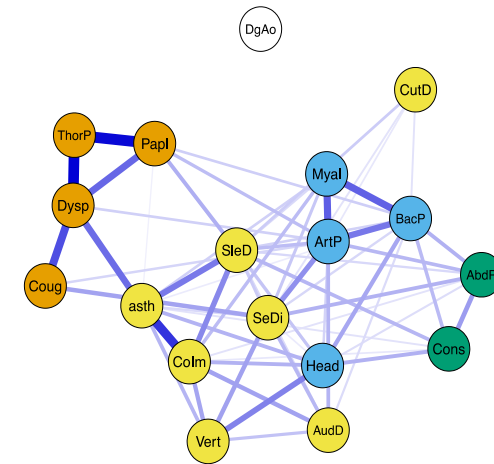
ECDC+/Sero-



ECDC-/Sero+



ECDC-/Sero-



Conclusions

- Les symptômes persistants sont polymorphes
- Plus fréquents Dans le COVID que dans d'autres situations clinique en l'absence d'ajustement sur la sévérité initiale (Hospitalisation ou intensité initiale)
- Leur association n'est pas spécifique de la pathologie
- Ce qu'il manque:
 - Différence dans l'intensité (echelles fonctionnelles, recours au soins, qualité de vie...)
 - Comparaisons ajustées sur l'histoire clinique ambulatoire (en cours)
 - Suivi au delà de 12 mois