Évaluation et prise en charge de la COVID Longue en physiothérapie

Simon Décary, pht, PhD
Professeur adjoint
Université de Sherbrooke
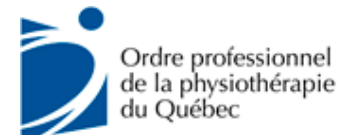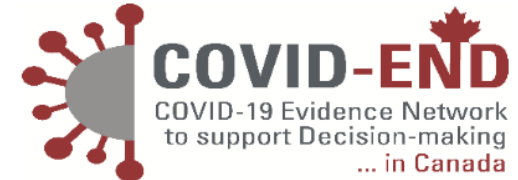Laboratoire sur la santé musculosquelettique en soins primaires

Association québécoise de la physiothérapie
2 Décembre 2021

Quick evidence update about Long COVID.

A clinical case definition of post COVID-19 condition by a Delphi consensus

6 October 2021

World Health Organization

Post COVID-19 condition occurs in individuals with **a history of probable or confirmed SARS-CoV-2** infection, **usually 3 months from the onset of COVID-19 with symptoms that last for at least 2 months and cannot be explained by an alternative diagnosis.** Common symptoms include **fatigue, shortness of breath, cognitive dysfunction** but also others (see Table 3 and Annex 2) which generally have an **impact on everyday functioning.** Symptoms may be **new onset,** following initial recovery from an acute COVID-19 episode, or **persist** from the initial illness. Symptoms may also **fluctuate** or **relapse** over time. A separate definition may be applicable for children.

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Prevalence of Long COVID

The most conservative estimates indicate that 10% of all cases will develop persistent symptoms at 12 weeks.

- Among a sample of over 20,000 study participants who tested positive for COVID-19 between 26 April 2020 and 6 March 2021, 13.7% continued to experience symptoms for at least 12 weeks. This was eight times higher than in a control group of participants who are unlikely to have had COVID-19, suggesting that the prevalence of ongoing symptoms following coronavirus infection is higher than in the general population.

1.2 million people with symptoms >4 weeks 1.9% UK population
- Of these, 862k have symptoms >12 weeks: 81%
- 439k symptoms >12 months: 36%
- 64% day to day activities impacted
- 19% severely limited

Global Prevalence of Post-Acute Sequelae of COVID-19 (PASC) or Long COVID: A Meta-Analysis and Systematic Review

Authors:
Chen Chen, MA[1,*], Spencer R. Haupert, BS[1,*], Lauren Zimmermann, BSc[1,2], Xu Shi, PhD [1], Lars G. Fritsche, PhD[1,3,4], Bhramar Mukherjee, PhD [1,2,3,4,5]

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Results

Global estimated pooled PASC prevalence derived from the estimates presented in 29 studies was 0.43 (95% confidence interval [CI]: 0.35, 0.63), with a higher pooled PASC prevalence estimate of 0.57 (95% CI: 0.45, 0.68), among those hospitalized during the acute phase of infection. Females were estimated to have higher pooled PASC prevalence than males (0.49 [95% CI: 0.35, 0.63] versus 0.37 [95% CI: 0.24, 0.51], respectively). Regional pooled PASC prevalence estimates in descending order were 0.49 (95% CI: 0.21, 0.42) for Asia, 0.44 (95% CI: 0.30, 0.59) for Europe, and 0.30 (95% CI: 0.32, 0.66) for North America. Global pooled PASC prevalence for 30, 60, 90, and 120 days after index test positive date were estimated to be 0.36 (95% CI: 0.25, 0.48), 0.24 (95% CI: 0.13, 0.39), 0.29 (95% CI: 0.12, 0.57) and 0.51 (95% CI: 0.42, 0.59), respectively. Among commonly reported PASC symptoms, fatigue and dyspnea were reported most frequently, with a prevalence of 0.23 (95% CI: 0.13, 0.38) and 0.13 (95% CI: 0.09, 0.19), respectively.

100M de cas de COVID Longue dans le monde…

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Prognosis

40% of people with Long COVID will have persistent symptoms and impact **12 months** after the infection.

ONS, 2021
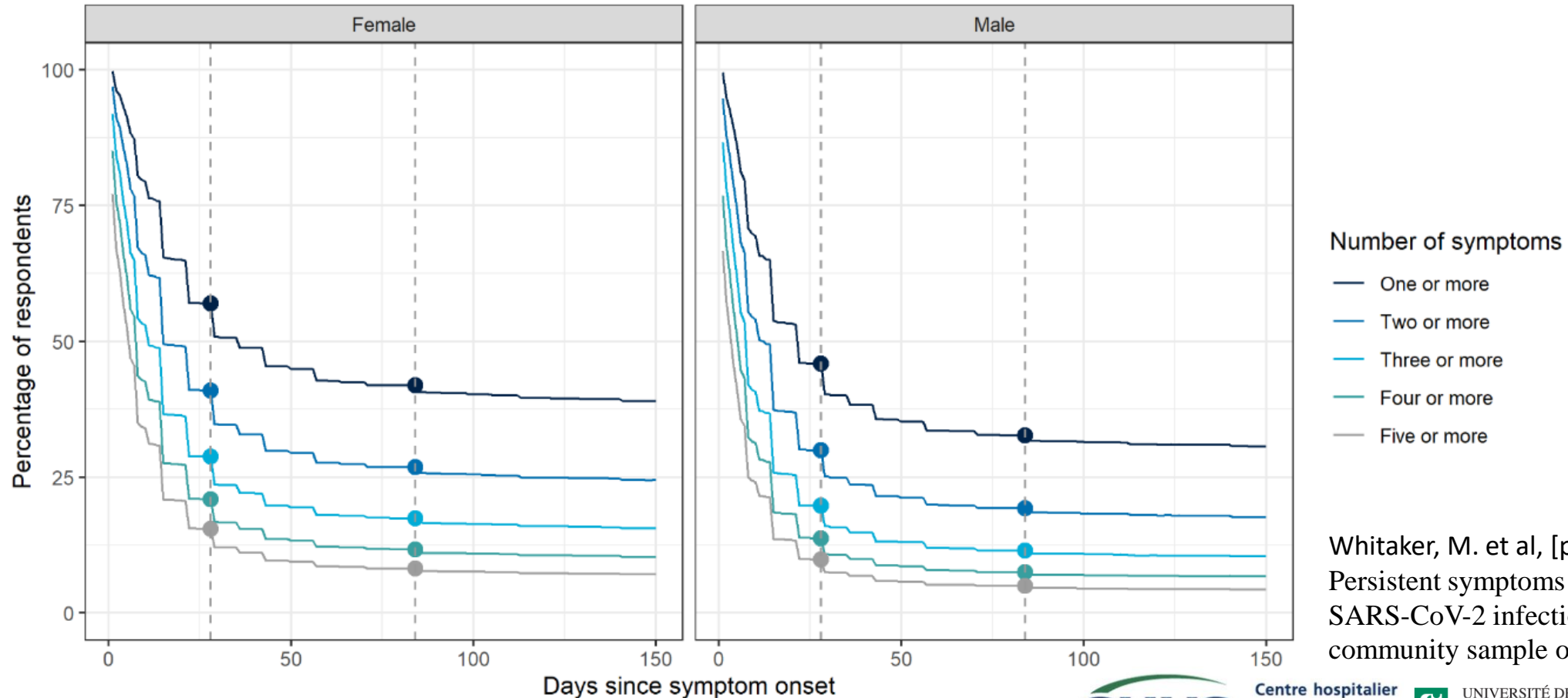
Whitaker, M. et al, [preprint 2021]. Persistent symptoms following SARS-CoV-2 infection in a random community sample of 508,707

Davis, 2021

Research Paper

Characterizing long COVID in an international cohort: 7 months of symptoms and their impact

Hannah E. Davis[a,1], Gina S. Assaf[a,1], Lisa McCorkell[a,1], Hannah Wei[a,1], Ryan J. Low[a,b,1], Yochai Re'em[a,c,1], Signe Redfield[a], Jared P. Austin[a,d], Athena Akrami[a,b,1,*]
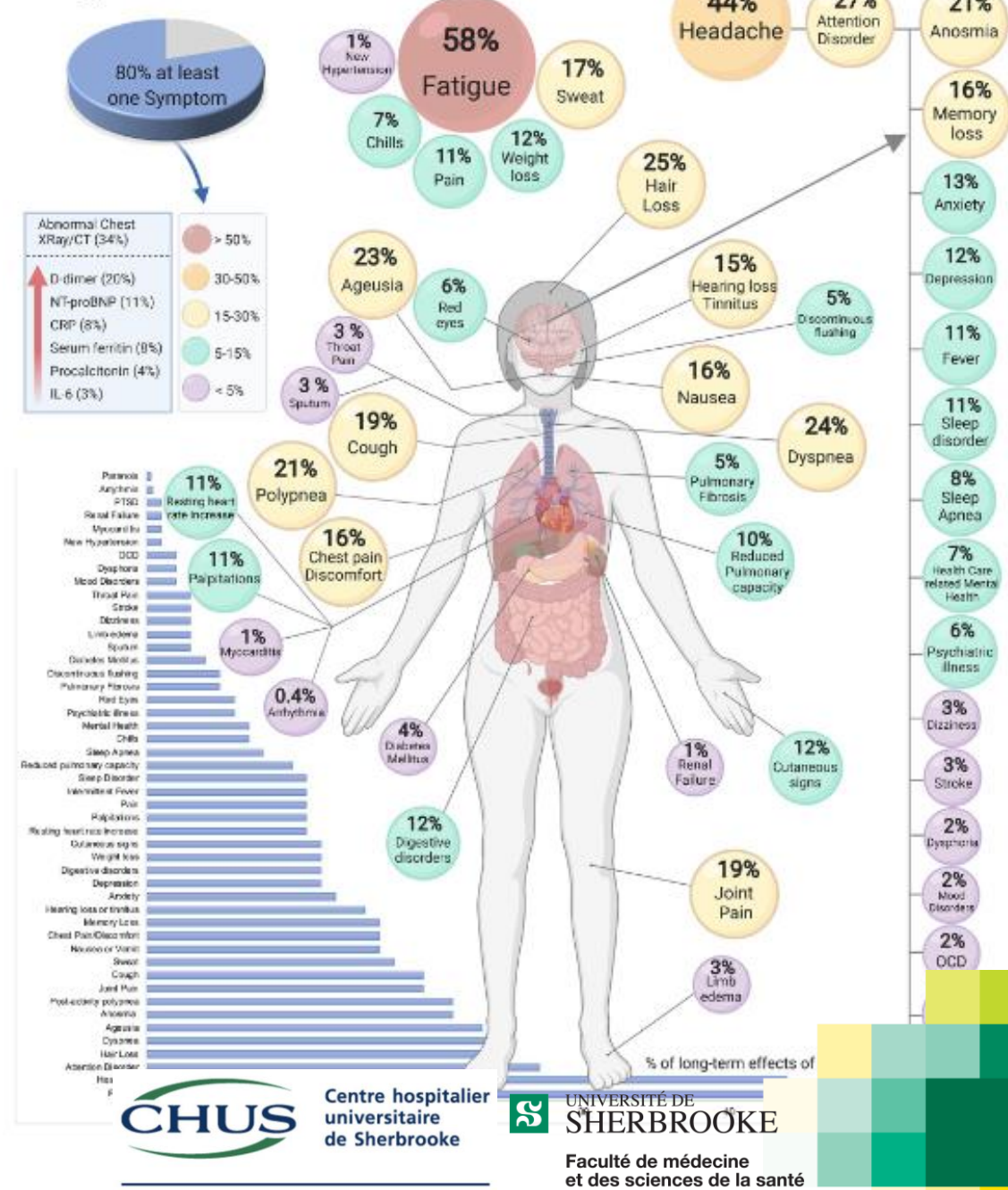
OPEN

More than 50 long-term effects of COVID-19: a systematic review and meta-analysis

Sandra Lopez-Leon[1], Talia Wegman-Ostrosky[2], Carol Perelman[3], Rosalinda Sepulveda[4], Paulina A. Rebolledo[5,6], Angelica Cuapio[7] & Sonia Villapol[8,9]

Check for updates

Early symptom clusters

A1 n=18331	A2 n=34978	Symptom
64.6	16.2	Appetite loss
61.5	13.4	Severe fatigue
68.9	22.8	Shortness of breath
59.3	15.1	Chills
45.5	15.9	Heavy arms/legs
64.0	22.8	Tight chest
53.5	13.8	Difficulty sleeping
38.2	11.8	Dizziness
30.4	15.6	Blocked nose
28.3	16.0	Runny nose
21.4	10.1	Diarrhoea
34.7	9.7	Chest pain
20.1	6.3	Nausea/vomiting
32.5	11.1	Hoarse voice
22.2	8.7	Sore eyes
18.4	6.3	Abdominal pain / belly ache
22.2	10.9	Sneezing
12.6	3.7	Numbness/tingling
6.4	2.8	Red, itchy areas on skin
1.4	0.4	Sudden swelling to face or lips
1.7	1.0	Purple sores/blisters on feet
41.3	26.9	Loss or change of sense of taste
36.3	25.6	Loss or change of sense of smell
73.3	40.1	New persistent cough
65.9	32.6	Sore throat
78.5	56.9	Tiredness
84.5	38.2	Muscle aches
81.0	39.7	Headache
81.5	32.0	Fever

Symptom prevalence: 100 / 80 / 60 / 40 / 20 / 0

A1   A2

A1 n=18,331
High prevalence of all symptoms, especially muscle aches, headache, fever, appetite loss, cough, shortness of breath, and chills, at time of infection

A2 n=34,978
Lower prevalence of all symptoms, especially flu-like and respiratory, at time of infection
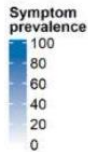
Symptom onset → 12 weeks after symptom onset
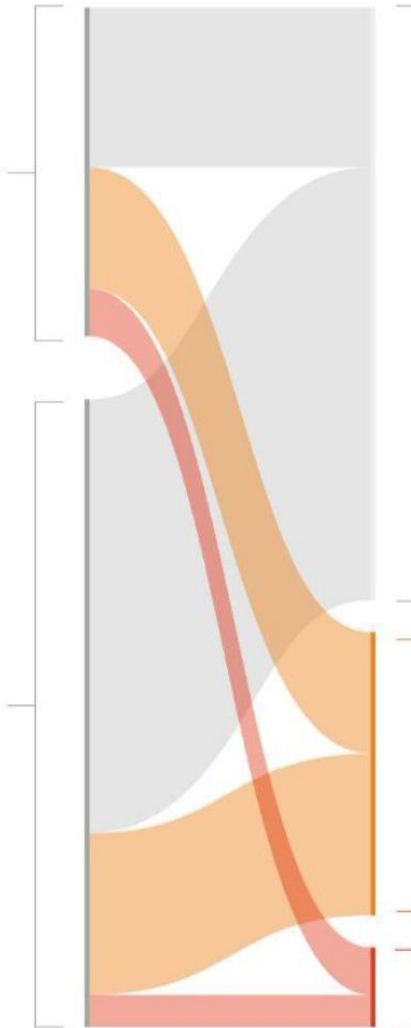
No symptoms n=33,069
No persistent symptoms 12 weeks after symptom onset

L1: tiredness n=15,799
High prevalence of tiredness

L2: respiratory n=4,441
High prevalence of respiratory symptoms

Symptom clusters at 12 weeks

L1 n=15799	L2 n=4441	Symptom
7.1	9.0	Appetite loss
6.7	12.9	Severe fatigue
11.1	85.8	Shortness of breath
3.0	4.5	Chills
7.7	12.5	Heavy arms/legs
3.1	61.2	Tight chest
19.8	21.0	Difficulty sleeping
7.5	12.3	Dizziness
7.7	8.5	Blocked nose
7.2	6.0	Runny nose
3.6	3.7	Diarrhoea
3.0	20.9	Chest pain
2.0	3.2	Nausea/vomiting
5.0	9.1	Hoarse voice
7.5	9.1	Sore eyes
3.7	6.0	Abdominal pain / belly ache
5.7	5.0	Sneezing
5.1	7.9	Numbness/tingling
3.1	3.4	Red, itchy areas on skin
0.2	0.5	Sudden swelling to face or lips
0.8	0.9	Purple sores/blisters on feet
12.5	9.3	Loss or change of sense of taste
15.5	9.8	Loss or change of sense of smell
9.6	16.6	New persistent cough
7.7	8.8	Sore throat
50.8	29.1	Tiredness
18.7	23.7	Muscle aches
13.9	15.3	Headache
2.9	4.8	Fever

Cluster L1 n=15799   Cluster L2 n=4441

L1   L2

Whitaker, M. et al, [preprint 2021]. Persiste[nt symptoms following] SARS-CoV-2 infection in a random commu[nity sample of] people

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Supplementary Table 1. FACIT-F scores in a range of other populations for comparison with long COVID

Disease or Clinical condition	FACIT-F*	n	Age*	%Female*	Study
Long COVID	18 ± 10	213	Table 1	85	-
General population	44 ± 9	1010	46 ± 17	52	[11]
Cancer & anemia	24 ± 13	2292	63 ± 13	65	[11]
Chronic cancer-related fatigue	27 ± 7	51	54 ± 11	65	[12]
Human immunodeficiency virus	34 ± 13	51	40 ± 7	12	[13]
Rheumatoid arthritis	29 ± 11	631	56[¥]	79	[14]
Psoriatic arthritis	36 ± 12	135	52 ± 13	42	[15]
Iron deficiency anemia	24 ± 12	608	45 ± 14	89	[16]
Chronic obstructive pulmonary disease	42 ± 9	564	68 ± 10	68	[17]
Parkinson's disease	34 ± 10	118	64 ± 10	46	[18]
Chronic immune thrombocytopenia	36 ± 12	207	50[¥]	67	[19]
Stroke	38 ± 10	51	63 ± 14	51	[13]

*Values have been rounded for presentation. [¥]=median

Chronic fatigue and post-exertional malaise in people living with long COVID

Rosie Twomey, Jessica DeMars, Kelli Franklin, S. Nicole Culos-Reed, Jason Weatherald, James G. Wrightson

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Chronic fatigue and post-exertional malaise in people living with long COVID

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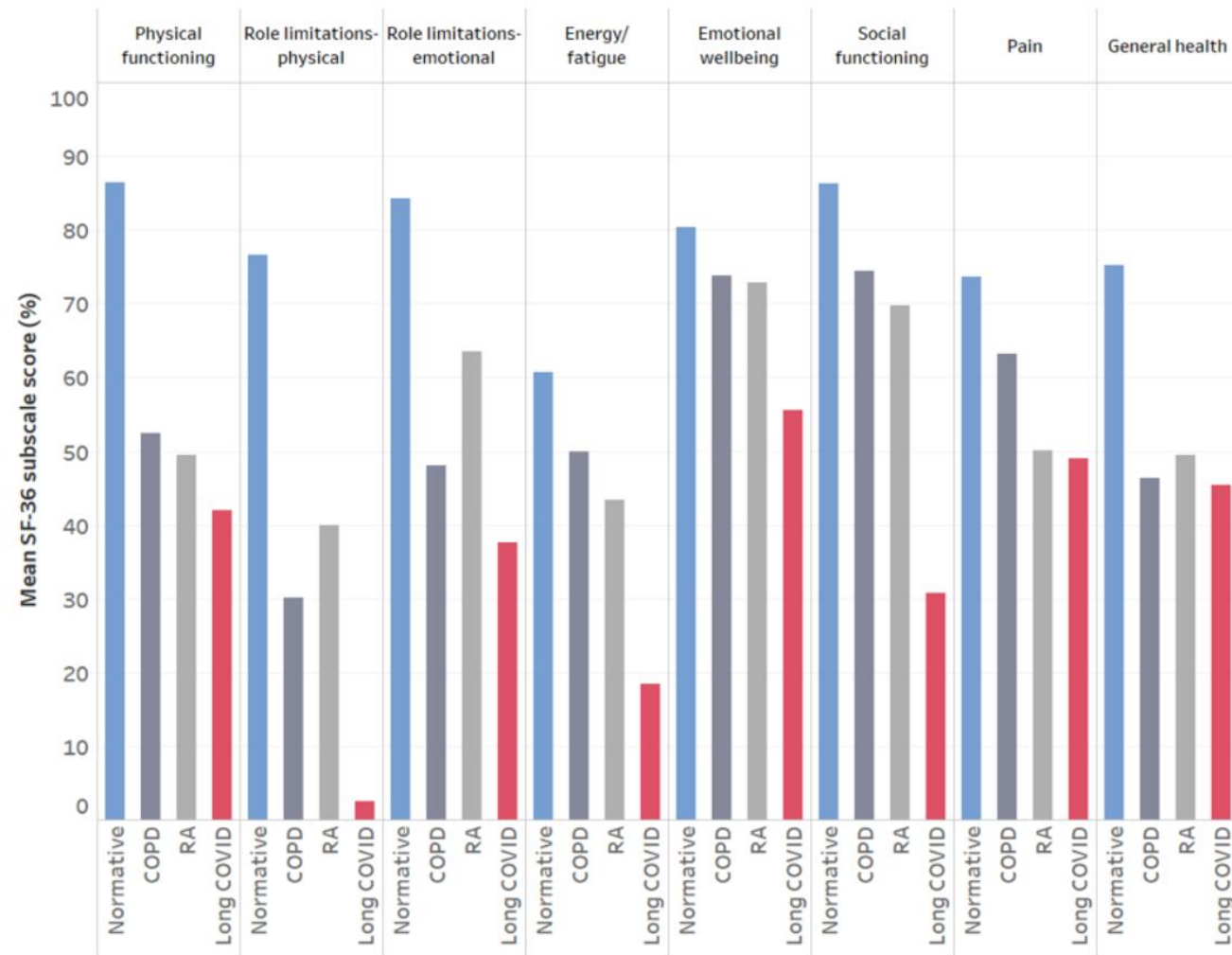
Meanwhile in Canada…

- Despite strong vaccination efforts, 1.64M cases, 27K deaths, for a 38M population
- We are currently in our 4th wave of the pandemic
- Challenges for Long COVID care organization in Canada:
  - 13 independent provinces and territories.
  - Population spread across a large geography, including northern territories.

2 Oct 2021
New cases: 1,973
7-day avg: 3,920
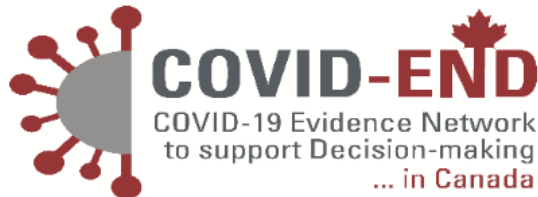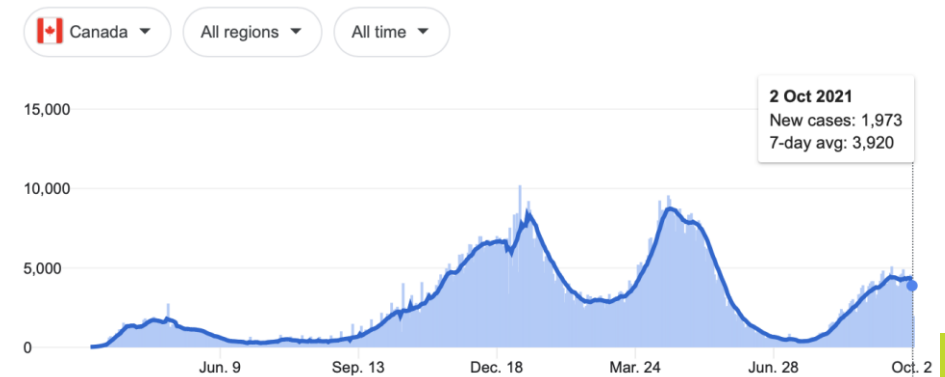
The Public Health Agency of Canada recognized the condition on July 7th 2021.

www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/symptoms/post-covid-19-condition.html

Government of Canada | Gouvernement du Canada

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MENU ⌄

Canada.ca > Coronavirus disease (COVID-19) > Symptoms and treatment

Post COVID-19 condition

On this page

- About
- Symptoms
- Mental health
- Prevention, diagnosis and treatment
- What Canada's doing

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Humility:

Primary care rehabilitation is safe, but it takes more than 3 months to recover.

SIMON DÉCARY, PT, PhD[1] • ISABELLE GABOURY, PhD[2] • SABRINA POIRIER[3] • CHRISTIANE GARCIA[4]
SCOTT SIMPSON, BA, CWC[5] • MICHELLE BULL, PhD[6] • DARREN BROWN, MSc, MRes[7] • FRÉDÉRIQUE DAIGLE, MSc[1]

Humility and Acceptance: Working Within Our Limits With Long COVID and Myalgic Encephalomyelitis/ Chronic Fatigue Syndrome

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STOP trying to push your limits. Overexertion may be detrimental to your recovery.
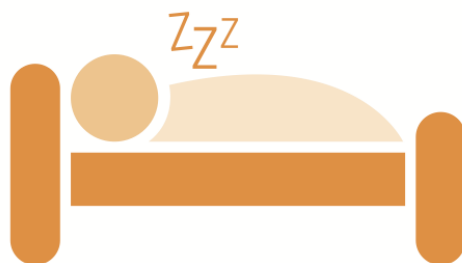
REST is your most important management strategy. Do not wait until you feel symptoms to rest.

PACE your daily physical and cognitive activities. This is a safe approach to navigate triggers of symptoms.

FIGURE. The "Stop. Rest. Pace" approach to safely manage physical and cognitive activities while recovering from long COVID.

663

SUMMARY | News | Blogs | Twitter | Facebook | Reddit | Dimensions citations

Title	Humility and Acceptance: Working Within Our Limits With Long COVID and Myalgic Encephalomyelitis/Chronic Fatigue Syndrome
Published in	Journal of Orthopaedic & Sports Physical Therapy, May 2021
DOI	10.2519/jospt.2021.0106
Pubmed ID	33930983
Authors	Simon Décary, Isabelle Gaboury, Sabrina Poirier, Christiane Garcia, Scott Simpson, Michelle Bull... [show]
Abstract	The term long COVID was coined by patients to describe the long-term consequences of COVID-19. One... [show]

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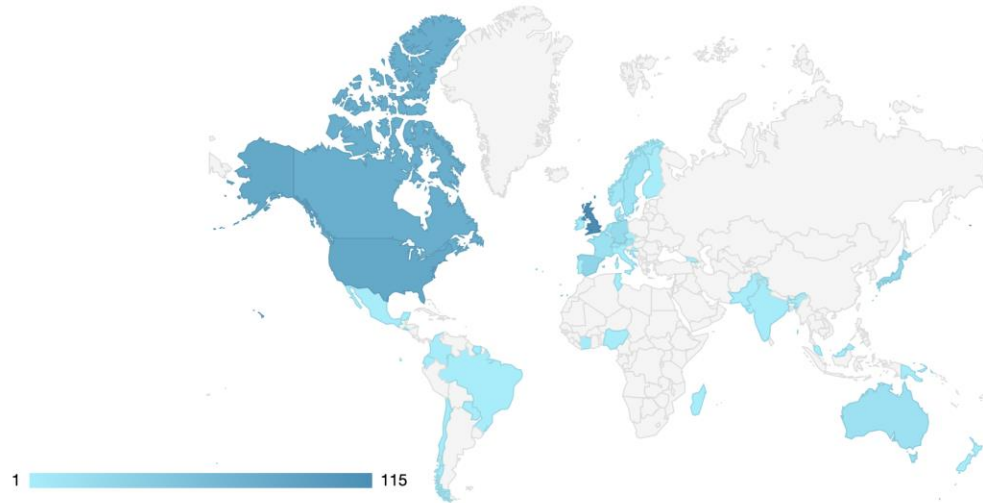
Geographical breakdown

Country	Count	As %
United Kingdom	115	13%
United States	83	9%
Canada	75	9%
Spain	30	3%
Japan	24	3%
Germany	22	3%
Australia	15	2%
France	14	2%
Sweden	11	1%
Other	68	8%
Unknown	420	48%

Demographic breakdown

Type	Count	As %
Members of the public	764	87%
Practitioners (doctors, other healthcare professionals)	53	6%
Scientists	52	6%
Science communicators (journalists, bloggers, editors)	7	<1%
Unknown	1	<1%

The TELEPORT clinical study

► AIMS

❖Establish the safety of a primary care interprofessional rehabilitation service for people living with Long COVID.

❖Describe the effect on recovery of quality of life, pulmonary symptoms and fatigue.

► METHODS

❖**Study design:** A nonrandomized pre-post intervention study. All participants were assessed at initial assessment (pre intervention), at 4, 8 and 12 weeks (post intervention). All assessments were conducted by a trained and blinded assessor.

❖**Population:** We recruited 34 people people living with Long COVID from the community, defined as having persistent symptoms at least 4 weeks following a suspected or confirmed acute COVID-19.

❖**Intervention:** Participants received a 12-week primary care interprofessional rehabilitation intervention including 8 physiotherapy sessions (e.g. breathing exercises, activity monitoring) and 6 occupational therapy sessions (e.g. energy management, return to work). In total, participants received up to 14 hours of rehabilitation services. Rehabilitation was based on our *Stop. Rest. Pace* safe approach to prevent relapses while recovering from a post-viral illness.

❖**Outcomes: 1-** Health-related quality of life (EuroQoL-5D-5L, Visual Analog Scale, score 0 to 100); **2-** Pulmonary symptoms (COPD Assessment Test, 8-item, score 0 to 40). **3-** Fatigue (Chalder Fatigue Scale, 11-item, score 0 to 33) and **4-** Post-exertional malaise (DePaul Symptom Questionnaire, 5-item, score positive/negative based on frequency and intensity of symptoms).

❖**Data analysis**. Descriptive statistics. Within subject pre-post comparison between initial assessment and 12-week follow-up.

► RESULTS

- Data collection from February 1ˢᵗ 2021 to July 30ᵗʰ 2021.
- 49 patients assessed with a standardized from based of the ICF: 70% inclusion rate.
- Participants had an average of 8 symptoms, commonly fatigue (100%), breathlessness (91%) and limitation in work and daily living activities (88%).
- 34 began the project, 30 completed it. **4 loss to follow-up, mainly for deterioration of medical condition.**

	Mean ± SD	N (%)
Age	45,0 ± 9,1	
Female gender		30 (88)
Days since COVID-19 infection	142,7 ± 94,3	
Participants requiring hospitalization		7 (21)
Participants with of at least one prior comorbidity		22 (65)
Body mass index	27,5±5,2	
Participants with household support		29 (85)
Participants with post-exertional malaise		34 (100)

Table 1. Participants' characteristics, n=34.

DePaul Questionnaire

Symptoms	Frequency: Throughout the **past 6 months**, **how often** have you had this symptom? For each symptom listed below, circle a number from: 0 = none of the time 1 = a little of the time 2 = about half the time 3 = most of the time 4 = all of the time	Severity: Throughout the **past 6 months**, **how much** has this symptom bothered you? For each symptom listed below, circle a number from: 0 = symptom not present 1 = mild 2 = moderate 3 = severe 4= very severe
1. Dead, heavy feeling after starting to exercise	0 1 2 3 4	0 1 2 3 4
2. Next day soreness or fatigue after non-strenuous, everyday activities	0 1 2 3 4	0 1 2 3 4
3. Mentally tired after the slightest effort	0 1 2 3 4	0 1 2 3 4
4. Minimum exercise makes you physically tired	0 1 2 3 4	0 1 2 3 4
5. Physically drained or sick after mild activity	0 1 2 3 4	0 1 2 3 4

Supplementary Questions

6. If you were to become exhausted after actively participating in extracurricular activities, sports, or outings with friends, would you recover within an hour or two after the activity ended?	Yes			No		
7. Do you experience a worsening of your **fatigue/energy related illness** after engaging in minimal physical effort?	Yes			No		
8. Do you experience a worsening of your **fatigue/energy related illness** after engaging in mental effort?	Yes			No		
9. If you feel worse after activities, how long does this last?	≤1 h	2–3 h	4–10 h	11–13 h	14–23 h	≥ 24 h
10. If you do not exercise, is it because exercise makes your symptoms worse?	Yes			No		

DePaul Questionnaire
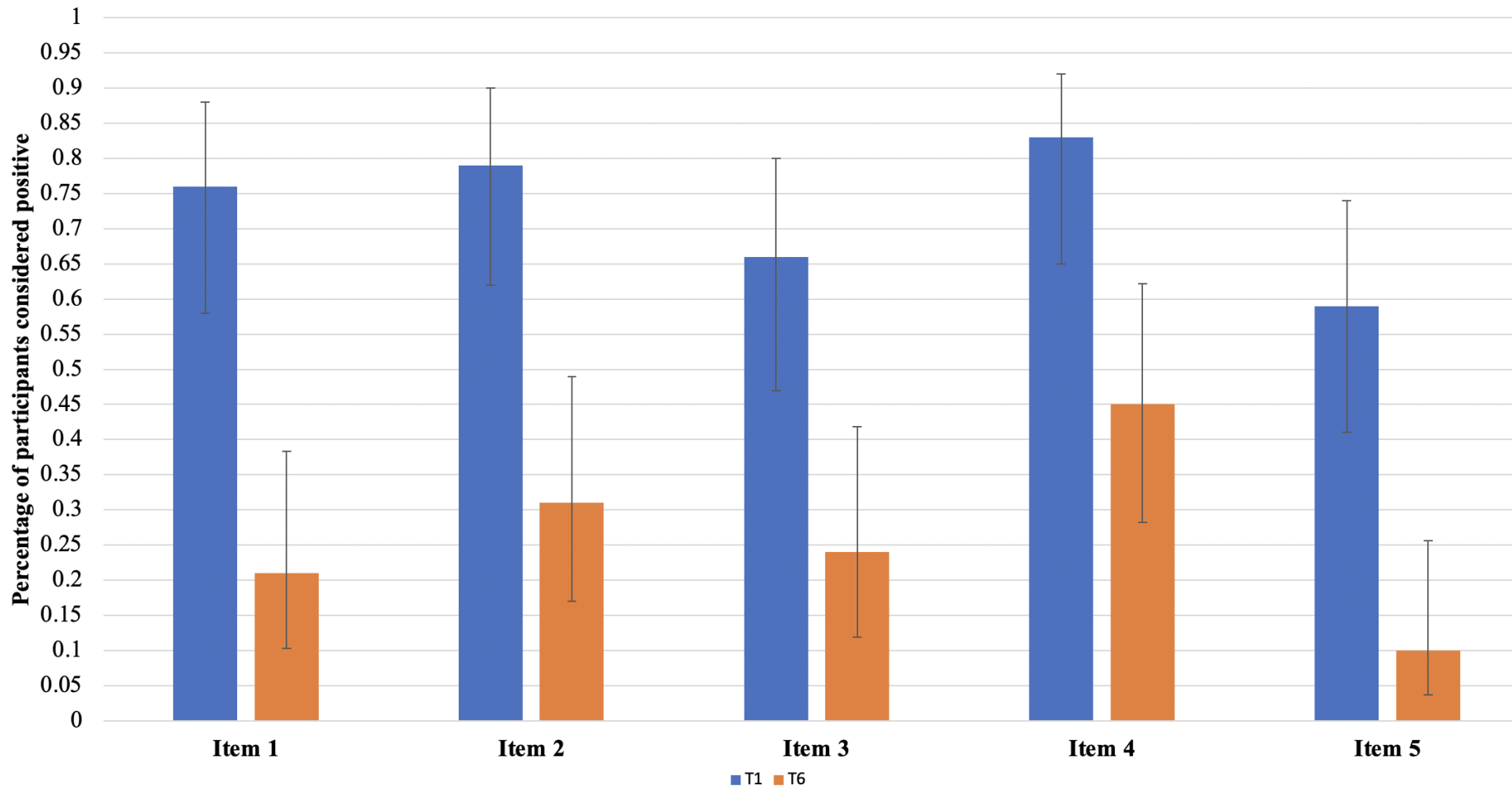
Item 1. Dead, heavy feeling after starting to exercise
Item 2. Next day soreness or fatigue after non-strenuous, everyday activities
Item 3. Mentally tired after the slightest effort
Item 4. Minimum exercise makes your physically tired
Item 5. Physically drained or sick after mild activity

Figure 1. Percentage of participants scoring positive (frequency and intensity) for each item to DePaul Questionnaire between T1 and T6. Lower percentage positive indicates less severity and frequency of post-exertional malaise symptoms.

	T1	T2	T3	T4	T5	T6
Participant 1	Positif	Positif	Négatif	Positif	Positif	Négatif
Participant 2	Positif	Positif	Positif	Négatif	Positif	Positif
Participant 4	Positif	Positif	Positif	Positif	Positif	Positif
Participant 5	Positif	Négatif	Négatif	Négatif	Négatif	Négatif
Participant 7	Positif	Positif	Négatif	Négatif	Positif	Positif
Participant 9	Positif	Positif	Négatif	Négatif	Négatif	Négatif
Participant 10	Positif	Positif	Positif	Positif	Positif	Positif
Participant 17	Positif	Positif	Positif	Positif	Négatif	Négatif
Participant 18	Positif	Positif	Positif	Positif	Positif	Positif
Participant 20	Positif	Positif	Positif	Positif	Positif	Positif
Participant 21	Positif	Positif	Positif	Positif	Positif	Positif
Participant 22	Positif	Positif	Positif	Positif	Positif	Positif
Participant 23	Positif	Positif	Positif	Positif	Négatif	Négatif
Participant 25	Positif	Positif	Positif	Négatif	Négatif	Négatif
Participant 26	Positif	Positif	Positif	Positif	Positif	Négatif
Participant 27	Positif	Positif	Positif	Positif	Positif	Positif
Participant 29	Positif	Positif	Positif	Positif	Positif	Positif
Participant 31	Positif	Positif	Positif	Positif	Positif	Positif
Participant 32	Positif	Positif	Positif	Positif	Positif	Négatif
Participant 33	Positif	Positif	Positif	Positif	Positif	Positif
Participant 34	Positif	Positif	Positif	Positif	Positif	Positif
Participant 37	Positif	Positif	Positif	Positif	Positif	Négatif
Participant 39	Positif	Positif	Positif	Positif	Positif	Positif
Participant 41	Positif	Positif	Négatif	Positif	Positif	Positif
Participant 42	Positif	Positif	Positif	Positif	Positif	Négatif
Participant 43	Positif	Positif	Positif	Négatif	Positif	Positif
Participant 44	Positif	Positif	Positif	Positif	Positif	Positif
Participant 45	Positif	Positif	Positif	Positif	Positif	Positif
Participant 46	Positif	Positif	Positif	Positif	Positif	Négatif
Participant 49	Positif	Positif	Positif	Positif	Positif	Positif

Interpretation:

- One « negative » = improvement
  - 11/34 participants improved

- Two « negative » = improvement
  - 5/34 participants improved

	Pre intervention Mean ± SD	Post intervention Mean ± SD	P-value
EQ-VAS	46.7 ± 16.4	52.8 ± 16.3	P=0.51
COPD Assessment Test	19.7 ± 7.7	15.3 ± 8,5	P=0.19
Chalder Fatigue Scale	26.0 ± 4.4	24.5 ± 6.4	P=0.42

Table 2. Primary outcome measures pre and post intervention. EQ-VAS: Euro-QoL Visual Analog Scale, score 0 to 100, higher score indicates better quality of life. COPD Assessment Test, score 0 to 40, lower score indicates better pulmonary health. Chalder Fatigue Scale, score 0 to 33, lower score indicates less fatigue.

Return to work

- Stopped working because of a COVID-19 infection: 30 participants/34
- Attempts to return to work: 16 participants/34
- Unable to return to work (partial or fully): 23 participants/34
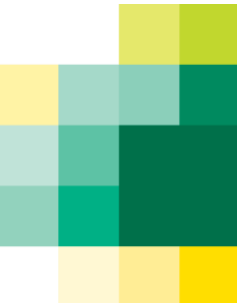
► CONCLUSION

❖ Although our rehabilitation approach did not triggered relapses, post-exertional malaise, breathlessness and fatigue still impacted quality of life even after 12 weeks of pacing education and rehabilitation by physiotherapists and occupational therapists.

❖ Rehabilitation may reduce intensity and frequency of relapses.

❖ Only a third of participants were able to return to work at 12 weeks.

❖ A combination of medical and personalized rehabilitation approaches are required in primary care to help people with Long COVID to recover.

► PROPOSITIONS

❖ Increase follow-up duration to 6 to 12 months while reducing intensity of follow-up with same total exposure (e.g. one session every two weeks spread across 6 months).

❖ Develop specific interventions for return to work. Insurers have a massive role to play. This disease does not follow a traditional recovery trajectory.

❖ Always work with medical professional, medical relapses of comorbidities is extremely likely.

❖ This is a complex population, train local champion who will have at least 2 days per week of Long COVID in their caseload to develop expertise.

❖ Rehabilitation are key player for the initial assessment. Rehabilitation is way more than an exercise program.

Knowledge mobilization in rehabilitation can change the world...

Acceptance:
Opportunities for a new future.

A Review of Care Models?

- Long COVID was recognized very early in Canada
- Our first post COVID clinics were set up as early as May 2020
- Alberta was also among the first province to create a task force to organize care models for Long COVID
- COVID-END received a first query on care models in April 2021
- Public Health Agency of Canada officially recognized Post COVID-19 Condition in July 2021
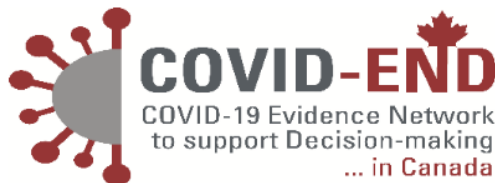
Care Models for Long COVID

A Rapid Systematic Review

Date of Literature Search: 5/27/2021
Date of Submission: 6/18/2021

Prepared by:
Simon Décary, PT, PhD
Léa Langlois, MSc
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Théo Stefan, MSc
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For and in close collaboration with:
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Stephanie Hastings, PhD
Branden Manns, MD, MSc
Lynora Saxinger, PhD

https://sporevidencealliance.ca/wp-content/uploads/2021/06/Care-Models-for-Long-COVID_Full-Report_2021.06.18.pdf

CHUS — Centre hospitalier universitaire de Sherbrooke — RESEARCH CENTER

UNIVERSITÉ DE SHERBROOKE
Faculté de médecine et des sciences de la santé

Methods

- **Objective:** To provide the best-available evidence about care models for people living with Long COVID
- We performed **a rapid systematic review** following the Joanna Briggs Institute's Manual for Evidence Synthesis
- We systematically searched on May 27th 2021 seven electronic database: MEDLINE, Embase, Web of Science, COVID-END, L-OVE, CDRS and WHO Ovid
- Two independent reviewers screened title, abstract and full text
- We included studies reporting on 1 - people living with Long COVID and 2- a specific care model (i.e. structured clinic, care pathway).
- We extracted characteristic of studies, referral pathways, clinical settings of care model, staffing, care model components and reporting of the care model implementation.

Eligibility Criteria
Our inclusion criteria (PICO) were as followed:

Population:	Persons living with Long COVID (children and adults) or healthcare professionals managing Long COVID. We included all definition of persistent symptoms of COVID-19 (e.g., post-COVID syndrome).
Intervention:	Care models (including pathways, trajectories, frameworks or structured clinics) to organise health care services for Long COVID.
Comparator:	Natural recovery, usual care models, inter-jurisdiction models comparison if available.
Outcomes:	Any outcomes or specifically system-level outcomes (e.g., cost, access, quadruple aim), patient-level outcomes (e.g., specific PROMS related to symptoms), clinician-level outcome (e.g., satisfaction with the care pathways).
Study design:	Any design.
Settings:	Any setting.

Results

- We screened 2181 citations, read 65 full texts and included 12 international care models for Long COVID.
- Half of studies were from the United Kingdom.
- 7 out of 12 studies reported conceptual models without a description of implementation
- All but one model was designed for discharge and long-term follow-up of hospitalized patient and half for non-hospitalized
- A total of **30 healthcare professions** and medical specialities were proposed for staffing Long COVID services.
- **Principles (22):** multidisciplinary teams, integrated/coordination of care.
- **Components (10):** Standardized assessment, follow-up system and virtual care

A proposed care pathway for Long COVID
based on a rapid systematic review of care models for Long COVID - June 2021

SPOR Evidence Alliance · SPOR · COVID-END COVID-19 Evidence Network to support Decision-making ...in Canada

OVERARCHING PRINCIPLES

| Patient-centered care | Patient empowerment | Evidence-based care | Integrated & coordinated care | Shared & multidisciplinary care |

Patient Pathway

Post-COVID Learning Ecosystem

People who had COVID in the community

New or ongoing symptoms →

Primary care visit (4-12 wks)
Assessment and investigation of new or ongoing symptoms

Alternative diagnoses ruled out →

People hospitalized with COVID

Post-discharge follow-up (6-8 wks)
Assessment and investigation of new or ongoing symptoms

Alternative diagnoses ruled out →

Post-COVID assessment & triage
- Care and referral coordination
- Standardized assessment*
  - Respiratory issues
  - Fatigue & strength
  - Pain & discomfort
  - Sleep
  - Cognition
  - Mood & mental health
  - Nutrition & weight
  - Usual activities & occupation
  - Social determinants
- Personnel
  - Any physician
  - Trained healthcare professional

*COVID-19 Yorkshire Rehabilitation Scale and Newcastle Post-COVID Screening Tool

Rehabilitation
- Disability management (long term if needed)
- Targeted personnel
  - Physiotherapist
  - Occupational therapist
  - Nutrition
  - Speech & language therapist

Tailored to patient needs

Referral according to patient needs

Specialty care
- Further investigation for organ impairment & follow-up
- Targeted specialties
  - Pulmonary/respiratory
  - Cardiovascular
  - Psychiatry/psychology
  - Neurology
  - Hepatology
  - Otolaryngology
  - Dermatology

Primary care
- Care coordination
- Medication management
- Comorbidities management
- Self-management support
- Targeted personnel
  - General practitioner
  - Social worker
  - Nursing
  - Pharmacist

→ Long-term follow-up

Provider support :
- Standardized assessment
- EMR template
- Referral and follow-up system
- Training

Patient support :
- Home-based care
- Patient education
- Patient support groups
- Telehealth / virtual care

OUTCOMES

| Quality of life | Patient experience | Provider experience | Sustainable cost |

32

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SPOR Evidence Alliance

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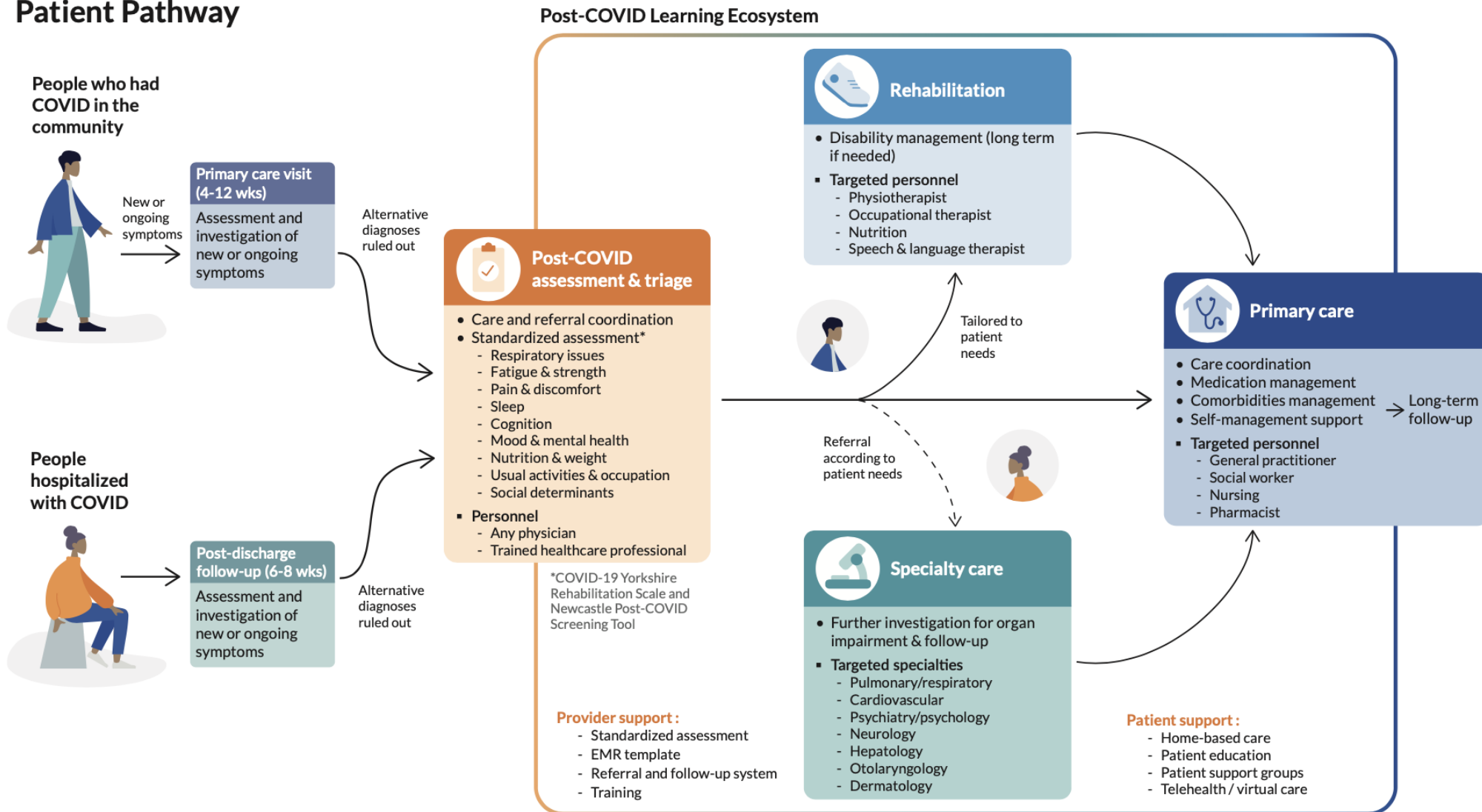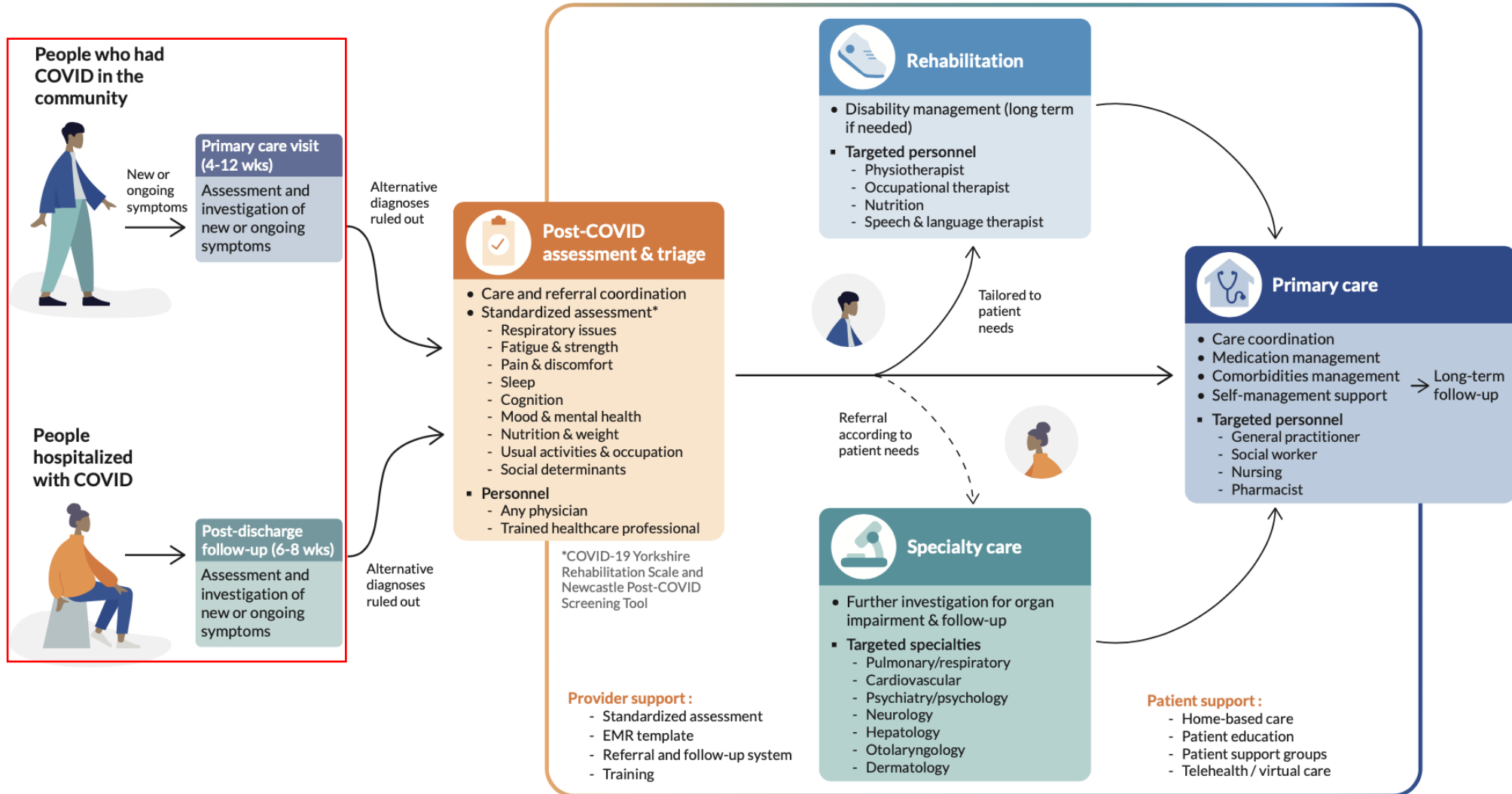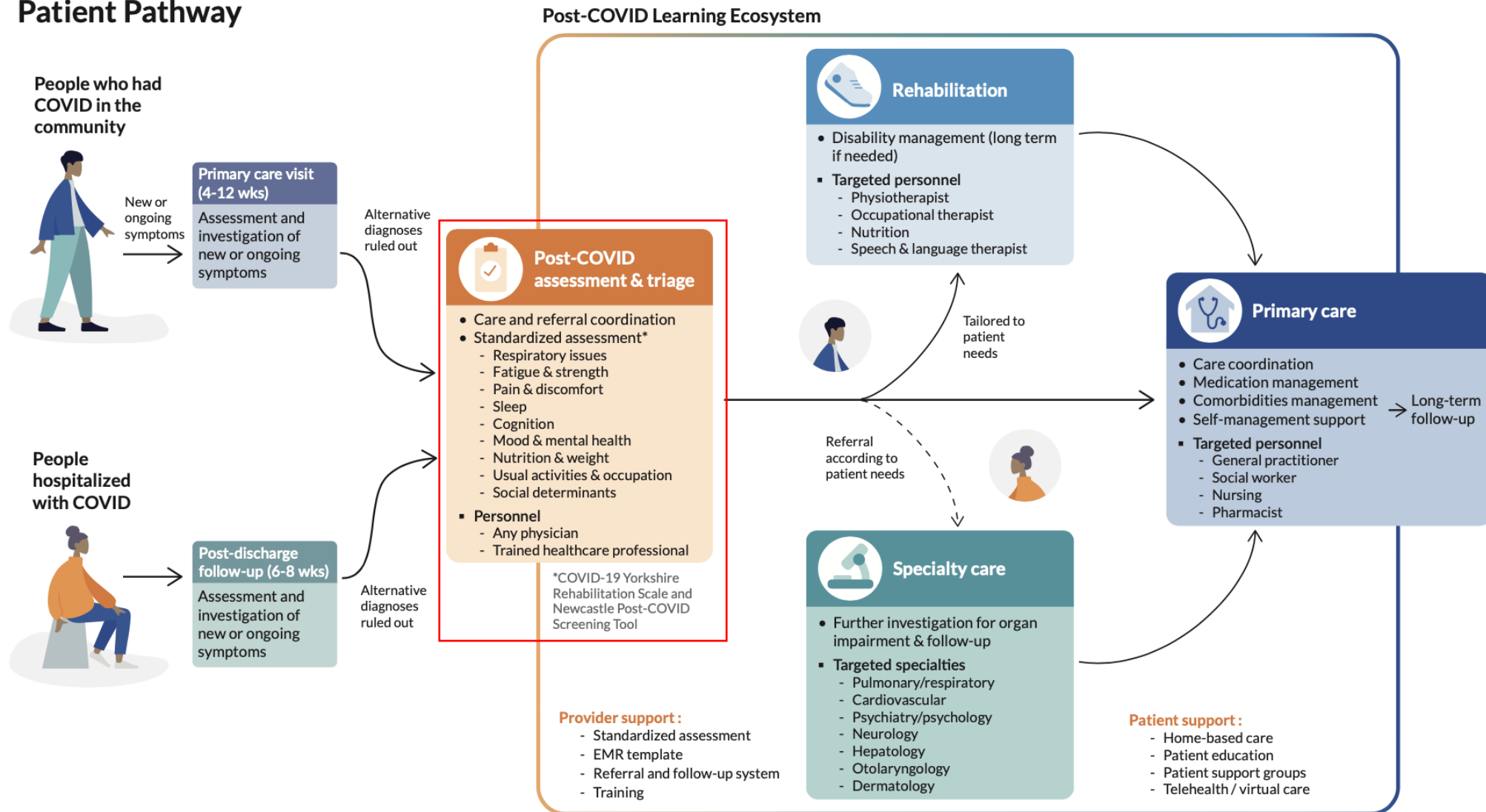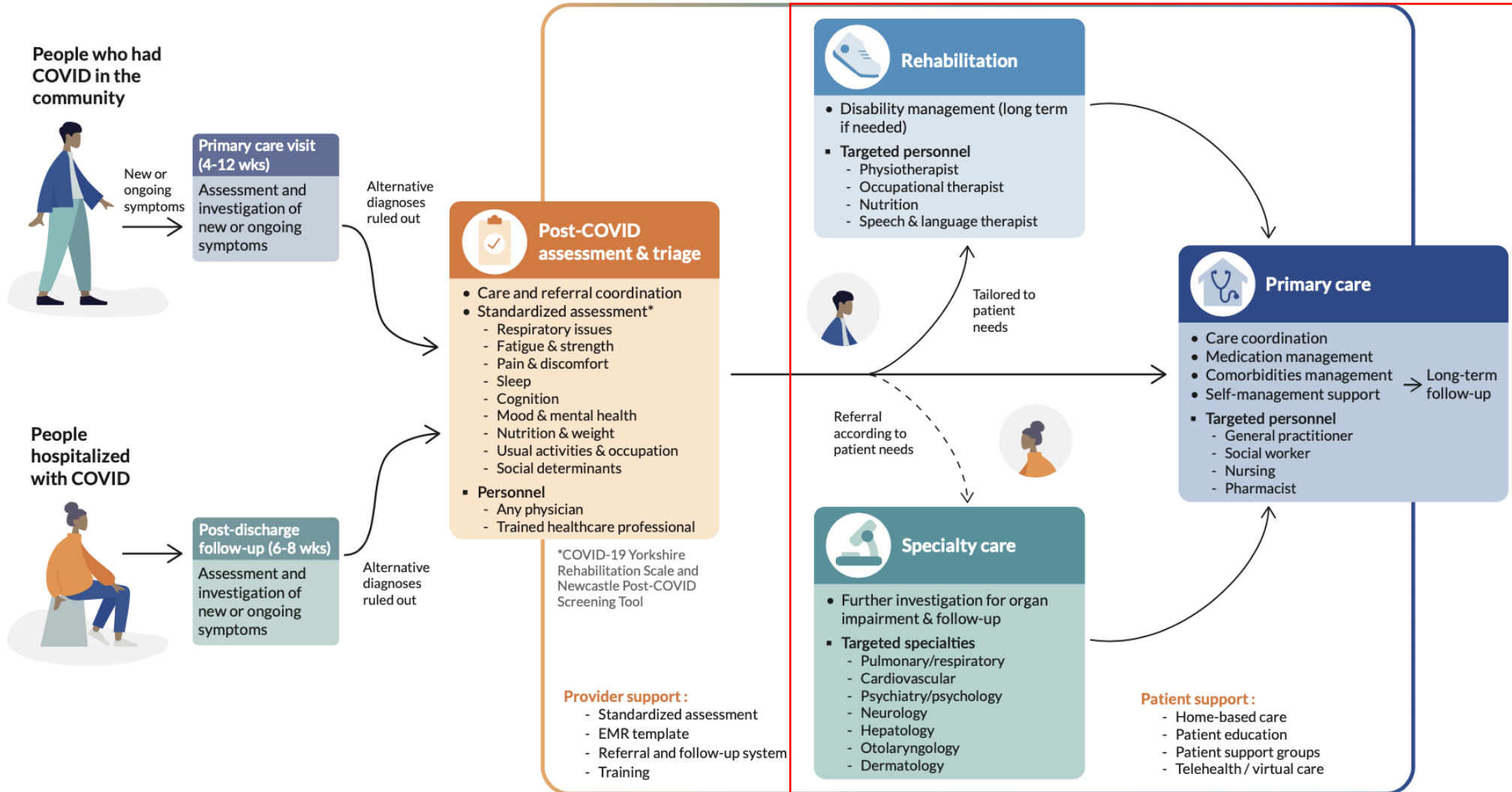based on a rapid systematic review of care models for Long COVID - June 2021

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OUTCOMES	Quality of life	Patient experience	Provider experience	Sustainable cost

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Discussion

- Rapid review… to living review! Update coming in November
- The implementation of care models from Long COVID is underway in several countries
- Many interfaces, including rehabilitation, lack a detailed description to operationalize the services
- Evidence concerning rehabilitation interventions is building rapidly and this will impact model pathways and trajectories
- There is still unmet needs in the current form of rehab models (e.g. return to work, children)
- New evidence still limited to large countries health systems.
- Real-time and locally contextualized data could be captured from already running clinical initiatives worldwide
- No impact and cost analysis data

I am taking history lessons from patient communities…

A care model that is safe, adaptable, integrated, equitable, accessible, financially sustainable and most importantly that improves the experience and engagement with care for people with disabilities from Long COVID, post infectious conditions and any other chronic or episodic disabilities.

Thank you!

Email: simon.decary@usherbrooke.ca
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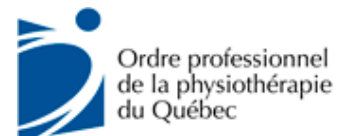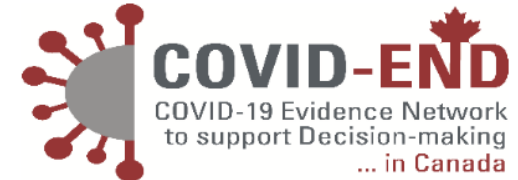
COVID LONGUE

CANEVAS D'ÉVALUATION EN PHYSIOTHÉRAPIE

NOS OBJECTIFS

1. Guide d'évaluation pour Physiothérapeutes avec clientèle COVID Longue

2. Uniformiser prise en charge de cette clientèle

3. Canevas du HMA, S-O-A-P, Diagramme

4. Récole d'informations complète (drapeaux rouges et jaunes, précautions) et guider la prise de décision incluant référencement

UN CONTINUUM

Début des Sx → COVID

Sx multi systémiques >12 semaines → COVID Longue
- Fatigue
- PEM
- Dysfonction cognitive
- Essoufflement

POST EXERTIONAL MALAISE (PEM)

1. Exacerbation Sx: Épuisement, Cognition, Neuromusculaire

2. Déclenché 0-48h **post effort mineur** physique, cognitif ou émotionnel

3. Durée de 24h à 7 jours et +

4. Interférence avec rythme de vie normal

https://www.health.belgium.be/fr/node/38026

COMMENT UTILISER LE CANEVAS?

Connaître la présentation clinique, l'évolution des Sx

Récolter L'HMA→ Informations Subjectives

Utiliser le Diagramme pour:

Choisir les tests selon données récoltées

ET du portrait global individuel

Choisir l'intervention appropriée
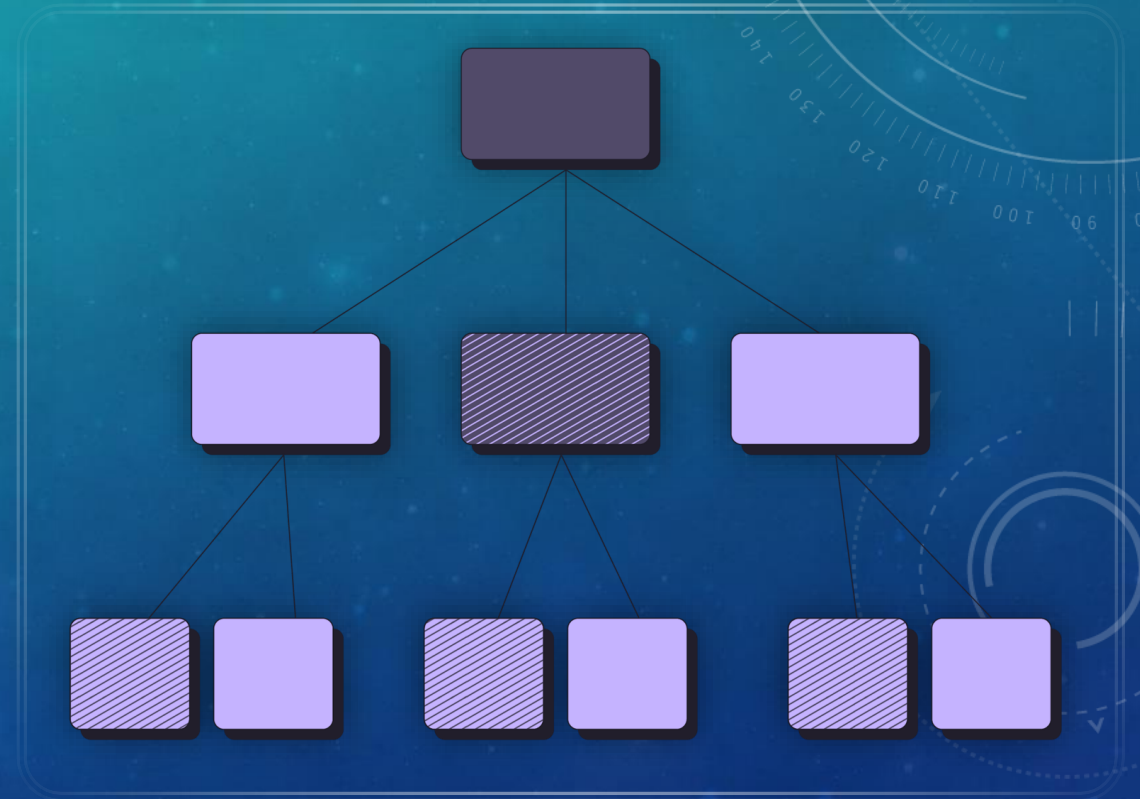
CONTENU DU TRAVAIL

1. Canevas d'évaluation

   - HMA, Subjectif, Objectif, Analyse, Plan

   - Informations détaillées

2. Diagramme = résumé du canevas

   - Texte en gras: Tests principaux

   - Texte avec étoile: Banque de tests prioritaires

DIAGRAMME DÉCISIONNEL

Histoire de la maladie (HMA) :

HMA traditionnelle en physiothérapie.

Questions spécifiques:
- Date d'infection initiale
- Liste des sx initiaux + sévérité (EVA)
- Traitements reçus lors de l'infection initiale
- Hospitalisation? Si oui, pour combien de temps?
- Ventilation mécanique?
- Évolution des sx initiaux (idurée des sx, quels sx ont disparus, lesquels sont restés?)
- Liste de sx COVID longue + sévérité (EVA)
- CA + ATCD
- Résultats tests médicaux passés et à venir
- Impact AVQ/AVD
- Travail
- Loisirs
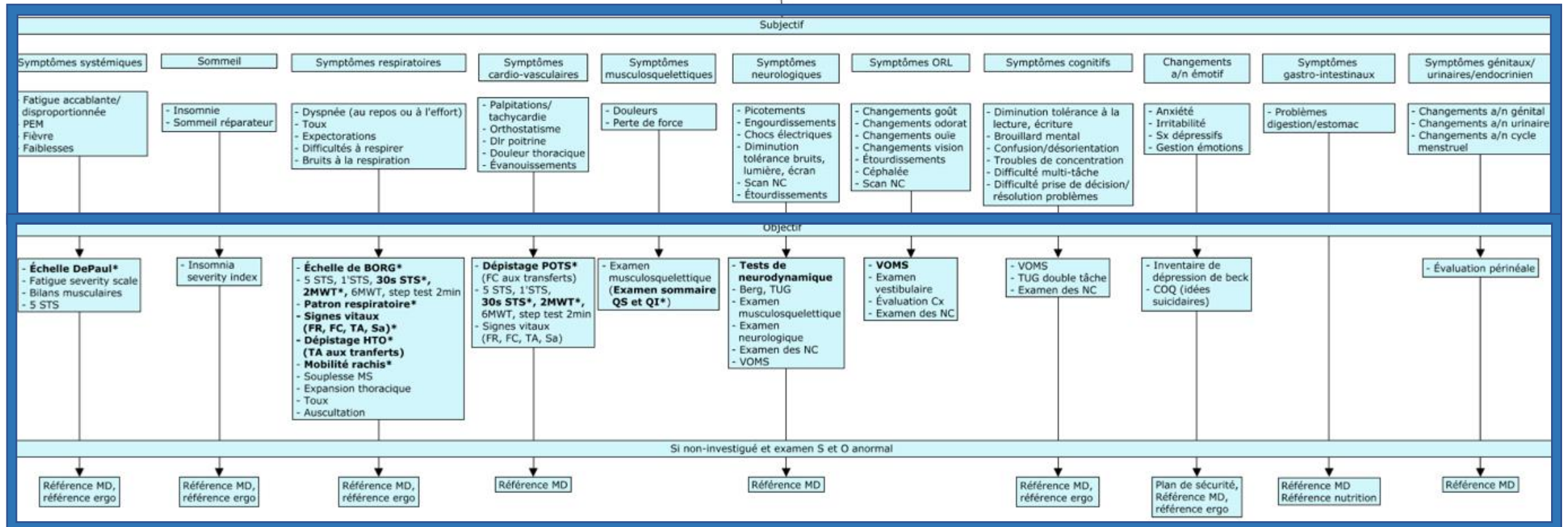- Environnement physique/social

Drapeaux rouges:
- Dlr poitrine ou serrement ou aggravation de dlr à la poitrine non-investiguée
- Palpitations cardiaques non-investiguées
- Désaturation post effort non-investigué
- COQ qui révèle un haut risque de suicide
- Sx non-investigués: fièvre, hémoptysie, syncope

Drapeaux jaunes:
- PEM récurrents
- Facteurs psychosociaux
- Troubles de sommeil

Précautions:
- PEM
- Myocardite ou maladie cardio-vasculire connue
- POTS
- Dysfonction coagulation
- FC augmentée
- HTO
- Confusion

11 sphères

Subjectif

Symptômes systémiques	Sommeil	Symptômes respiratoires	Symptômes cardio-vasculaires	Symptômes musculosquelettiques	Symptômes neurologiques	Symptômes ORL	Symptômes cognitifs	Changements a/n émotif	Symptômes gastro-intestinaux	Symptômes génitaux/ urinaires/endocrinien
Fatigue accablante/ disproportionnée, PEM, Fièvre, Faiblesses	- Insomnie, - Sommeil réparateur	- Dyspnée (au repos ou à l'effort), - Toux, - Expectorations, - Difficultés à respirer, - Bruits à la respiration	- Palpitations/ tachycardie, - Orthostatisme, - Dlr poitrine, - Douleur thoracique, - Évanouissements	- Douleurs, - Perte de force	- Picotements, - Engourdissements, - Chocs électriques, - Diminution tolérance bruits, lumière, écran, - Scan NC, - Étourdissements	- Changements goût, - Changements odorat, - Changements ouïe, - Changements vision, - Étourdissements, - Céphalée, - Scan NC	- Diminution tolérance à la lecture, écriture, - Brouillard mental, - Confusion/désorientation, - Troubles de concentration, - Difficulté multi-tâche, - Difficulté prise de décision/ résolution problèmes	- Anxiété, - Irritabilité, - Sx dépressifs, - Gestion émotions	- Problèmes digestion/estomac	- Changements a/n génital, - Changements a/n urinaire, - Changements a/n cycle menstruel

Objectif

- **Échelle DePaul***, - Fatigue severity scale, - Bilans musculaires, - 5 STS	- Insomnia severity index	- **Échelle de BORG***, - 5 STS, 1'STS, **30s STS***, **2MWT***, 6MWT, step test 2min, - **Patron respiratoire***, - **Signes vitaux (FR, FC, TA, Sa)***, - **Dépistage HTO*** **(TA aux tranferts)**, - **Mobilité rachis***, - Souplesse MS, - Expansion thoracique, - Toux, - Auscultation	- **Dépistage POTS*** (FC aux transferts), - 5 STS, 1'STS, **30s STS***, **2MWT***, 6MWT, step test 2min, - Signes vitaux (FR, FC, TA, Sa)	- Examen musculosquelettique **(Examen sommaire QS et QI*)**	- **Tests de neurodynamique**, - Berg, TUG, - Examen musculosquelettique, - Examen neurologique, - Examen des NC, - VOMS	- **VOMS**, - Examen vestibulaire, - Évaluation Cx, - Examen des NC	- VOMS, - TUG double tâche, - Examen des NC	- Inventaire de dépression de beck, - COQ (idées suicidaires)		- Évaluation périnéale

Si non-investigué et examen S et O anormal

Référence MD, référence ergo	Référence MD, référence ergo	Référence MD, référence ergo	Référence MD	Référence MD	Référence MD, référence ergo	Plan de sécurité, Référence MD, référence ergo	Référence MD Référence nutrition	Référence MD

DRAPEAUX ROUGES

- Dlr poitrine ou serrement ou aggravation de dlr à la poitrine non-investiguée (md/urgence)

- Palpitations cardiaques non-investiguées (md/urgence)

- Désaturation post effort non-investigué ($\downarrow \geq 5\%$ ou Sa < 90% vs 88%)

- COQ (haut risque de suicide)

- Sx non-investigués: Fièvre, Hémoptysie, Syncope

DRAPEAUX JAUNES

- PEM récurrents

- Facteurs psychosociaux

- Troubles de sommeil

PRÉCAUTIONS

- PEM (+ au DePaul)

- Myocardite ou maladie cardio-vasculaire connue (recommandations cardiologue)

- POTS ($\uparrow \geq 30$ bpm ou ≥ 120 bpm, en 10min debout)

- Dysfonction coagulation (souffle court + dlr jambe, signe/sx infarctus, signe/sx TVP)

- FC augmentée (Monitorer FC)

- HTO ($\downarrow$ TAS > 20mmHg ou TAD > 10mmHg en 3min debout)

- Confusion

HMA: PARTICULARITÉS COVID LONGUE

Date infection initiale

Liste Sx initiaux + Sévérité (EVA)

Traitements reçus

Hospitalisation? Ventilation mécanique?

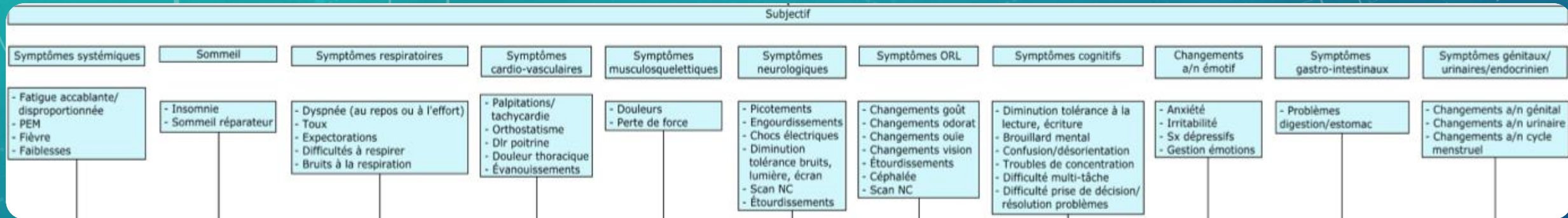Évolution des Sx (durée, disparus vs persistants)

Liste Sx actuels + Sévérité, CA, ATCD

Résultats examens médicaux (Bilan sanguin, ECG, Rx pulmonaire, Spirométrie, Échographie, Holter)

Impacts AVQ/AVD, Loisirs, Tolérance

Environnement physique et social

Travail (AT, tentatives RAT)

SUBJECTIF: EXPLORER LES SYSTÈMES

Multi systémique: 11 sphères à investiguer

Subjectif

Symptômes systémiques	Sommeil	Symptômes respiratoires	Symptômes cardio-vasculaires	Symptômes musculosquelettiques	Symptômes neurologiques	Symptômes ORL	Symptômes cognitifs	Changements a/n émotif	Symptômes gastro-intestinaux	Symptômes génitaux/ urinaires/endocrinien
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ÉVALUATION SUBJECTIVE

Approfondir selon le HMA

11 sphères: prioriser

Rôle de dépistage vs Dx
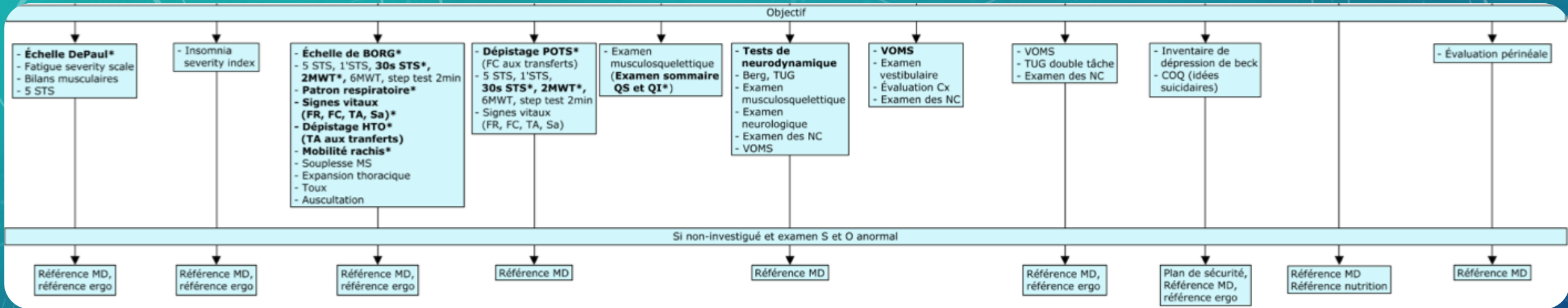
OBJECTIF: TESTER ET MESURER

BANQUES DE TESTS ASSOCIÉS À CHAQUE SYSTÈME

ÉVALUATION OBJECTIVE

Adapté au profil du patient

Utiliser raisonnement clinique pour choisir les tests

- Jugement clinique
- Mesure d'évolution vs Comparer aux normes
- Sécuritaire

Reconnaître ses limites : Référer/Collaborer

- Physiothérapeute
- Ergothérapeute
- Médecin
- Pharmacien
- Nutritionniste

SX SYSTÉMIQUES

EXAMEN SUBJECTIF

Fatigue accablante/disproportionnée

Questions de dépistage PEM

Caractéristiques du PEM

Fièvre

Faiblesse

EXAMEN OBJECTIF

DePaul

Fatigue severity scale

Bilans musculaires

5x Sit to Stand

SX RELIÉS AU SOMMEIL

EXAMEN SUBJECTIF

Insomnie

Sommeil réparateur

EXAMEN OBJECTIF

Index de sévérité de l'insomnie (ISI)

SX RESPIRATOIRES

EXAMEN SUBJECTIF

Dyspnée (repos, effort)

Toux

Expectorations

Difficulté à respirer

Bruit à la respiration

EXAMEN OBJECTIF

Échelle de BORG

5 STS, 30STS, 2MWT,

6MWT

Patron respiratoire

Expansion thx

Auscultation

Toux

Signes vitaux (FR, Sa)

Dépistage HTO

ROM Cx, Thx
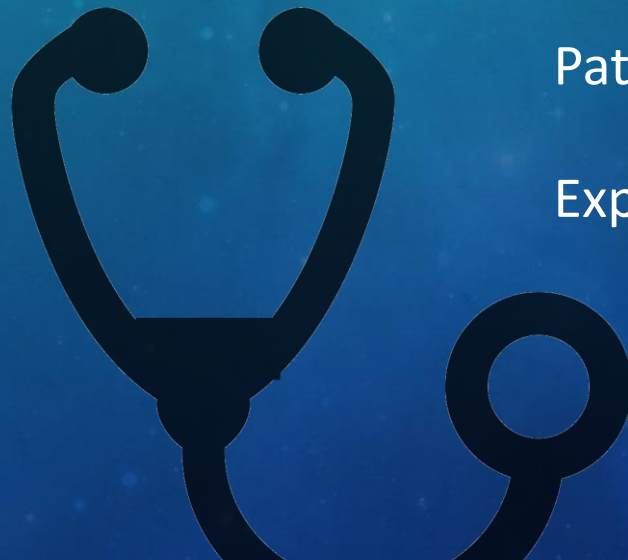
SX CARDIO-VASCULAIRES

EXAMEN SUBJECTIF

Palpitations, Tachycardie

Orthostatisme

Douleur thx

Évanouissement

EXAMEN OBJECTIF

Signes vitaux (FC, TA, Sa)

5 STS, 30STS, 2MWT, 6MWT

Dépistage POTS:

    - Nasa Lean Test

→ Référence médecin si sx inconnus

SX MUSCULOSQUELETTIQUES

EXAMEN SUBJECTIF

Douleurs

Diminution mobilité

Faiblesse

EXAMEN OBJECTIF

Examen musculosquelettique

SX NEUROLOGIQUES

EXAMEN SUBJECTIF

Picotements

Engourdissements

Chocs électriques

Sensibilité sensorielle

EXAMEN OBJECTIF

Examen musculosquelettique

Examen neurologique

Tests neurodynamiques

Examen des NC

VOMS

SX ORL (YEUX, OREILLES, NEZ, GORGE)

EXAMEN SUBJECTIF

Changement goût	Étourdissements
Changement odorat	Céphalée
Changement ouïe	Questions NC
Changement vision	

EXAMEN OBJECTIF

VOMS

Examen vestibulaire

Évaluation NC

Examen Cx

SX COGNITIFS

EXAMEN SUBJECTIF

Tolérance lecture, écriture

Brouillard mental

Confusion/Désorientation

Trouble concentration

Difficulté multi-tâche

Prise de décision/résolution problème

EXAMEN OBJECTIF

VOMS

Évaluation des NC

Référence Ergothérapie
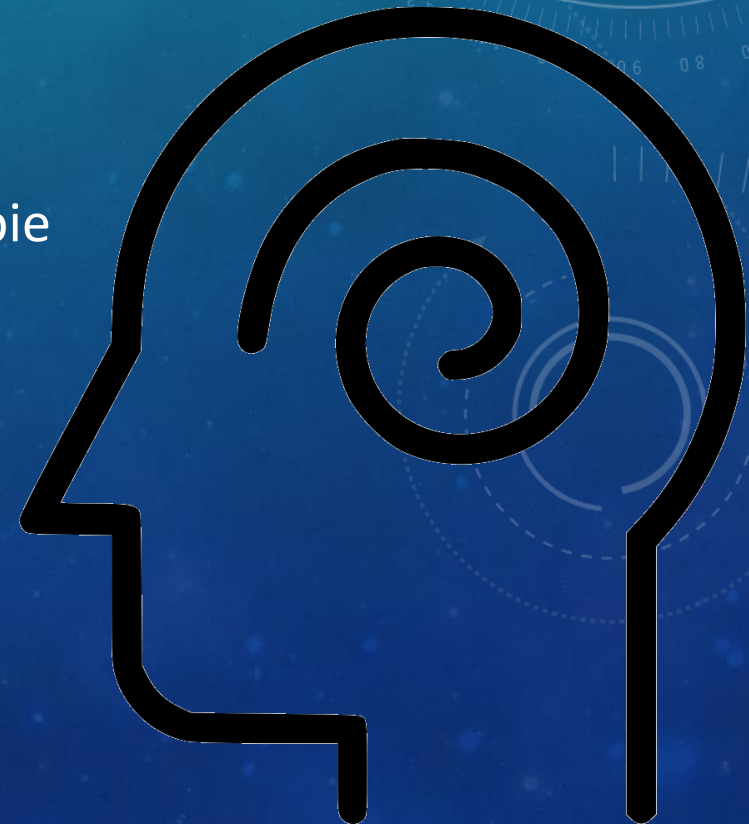
SX ÉMOTIONNELS

EXAMEN SUBJECTIF

Anxiété

Irritabilité

Sx dépressifs

Gestion émotions

EXAMEN OBJECTIF

Inventaire dépression de Beck

COQ (idées suicidaires)

→ Plan sécurité et Référencement

SX GASTRO-INTESTINAUX

EXAMEN SUBJECTIF

Problèmes de digestion

Problème alimentation

INTERVENTION

Référence médecin

Référence nutritionniste

SX REPRODUCTIFS, GÉNITO-URINAIRES, ENDOCRINIENS

EXAMEN SUBJECTIF

Changements a/n génital

Changements a/n urinaire

Changement a/n cycle menstruel

EXAMEN OBJECTIF

Évaluation périnéale / Référence RPP

→ Référence médecin

SECTION ANALYSE ET PLAN

Impression clinique

Tableau: Liste de problèmes et plan de traitement

- Déficiences et modalités principales

- Classé selon système

Objectifs en physiothérapie

ANALYSE + PLAN DE TRAITEMENT

Analyse et plan de traitement

Impression clinique :

_____
_____
_____

Liste de problèmes et plan de traitement :

| #	Déficiences/limitations/restrictions (priorisation)	Modalités de traitement
	PEM actifs	☐ Conseils/Éducation : Identifier PEM, Sx précurseurs ☐ Intégrer dosage, segmentation, repos, éviter PEM ☐ Via :
	☐ Fatigue/ ☐ Trouble du sommeil/ Diminution endurance ☐ Physique ou ☐ Cognitive	☐ Dosage ☐ Techniques relaxation, ☐ Hygiène sommeil ☐ Conseils : _____ ☐ Via :
	☐ Brouillard mental/ ☐ Trouble concentration Diminution tolérance : ☐ Lecture, ☐ Écriture, ☐ Rapports sociaux, ☐ Lumière, ☐ Écrans, ☐ Bruit	☐ Exposition graduelle activité ☐ Rééducation oculaire ☐ Coquilles, Bouchons, Cache-yeux, Filtre lumière bleue ☐ Conseils : _____ ☐ Via :
	☐ Dyspnée/ ☐ Sensation restriction respiratoire	☐ Exercices respiration : _____ ☐ Inspirométrie ☐ Via :

PRISE EN CHARGE

Collaboration avec Ergothérapeute:

Systémique, Sommeil, Cognitif, Sensoriel, Émotif

- Organiser horaire occupationnel
- Gestion d'énergie (marge manœuvre)
- Dosage activités (adaptation tâche, compensations)
- Expositions progressives selon exigences (physiques, cognitives, affectives, sensorielles)
- Conseils hygiène de vie

Reconnaître ses limites: Référer
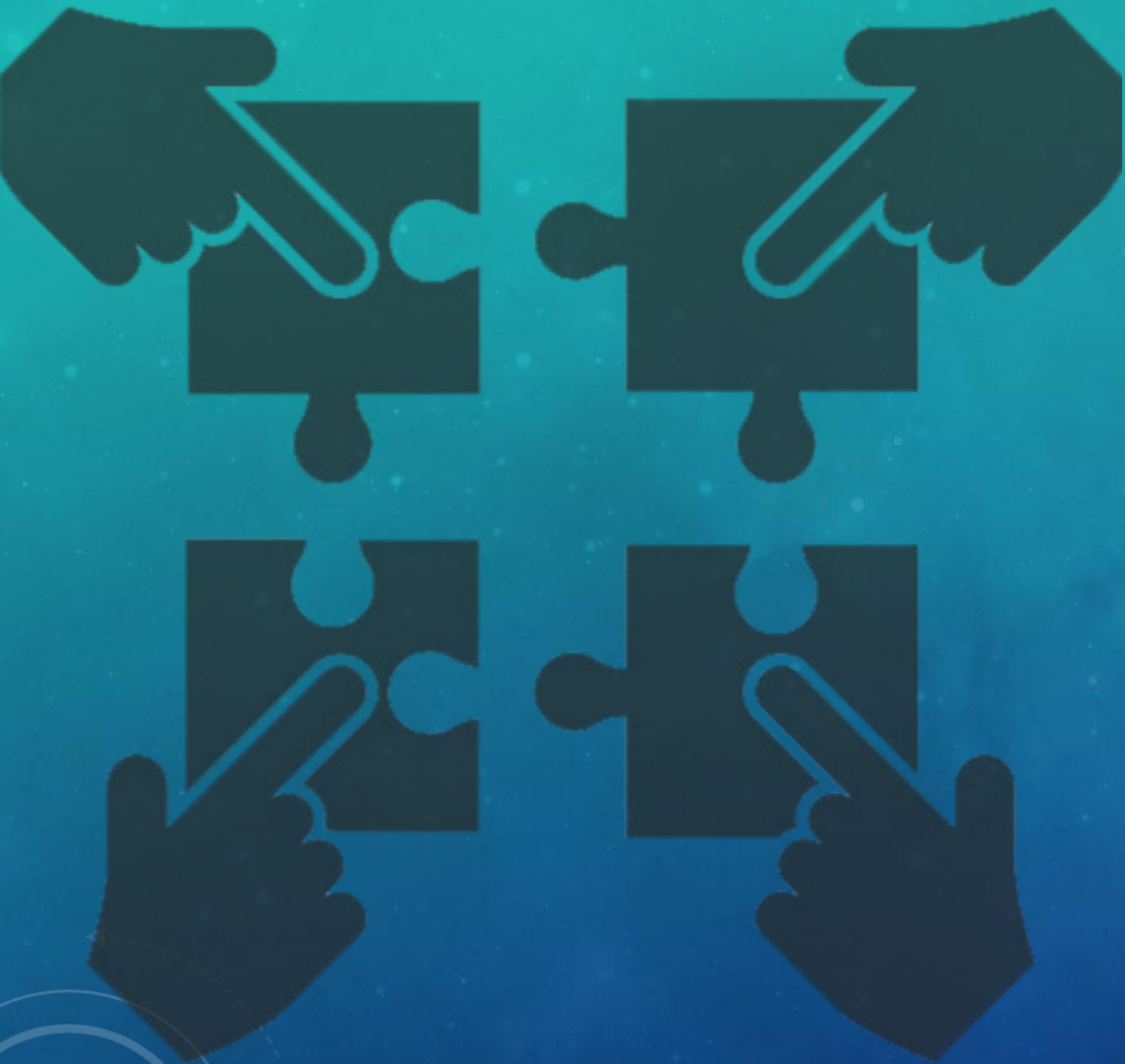
CONCLUSION

Maladie multi systémique

Notre rôle: Collecter → Dépister → **Partager**

Collaboration interdisciplinaire

RÉFÉRENCES

Diapo 3: Davis, H. E., Assaf, G. S., McCorkell, L., Wei, H., Low, R. J., Re'em, Y., ... & Akrami, A. (2021). Characterizing long COVID in an international cohort: 7 months of symptoms and their impact. *Available at SSRN 3820561*.

Diapo 4: Stussman, B., Williams, A., Snow, J., Gavin, A., Scott, R., Nath, A., & Walitt, B. (2020). Characterization of post–exertional malaise in patients with myalgic encephalomyelitis/chronic fatigue syndrome. *Frontiers in Neurology*, *11*, 1025.

Diapo 8: Rehab-allied-health-practice-considerations-post-covid.pdf.

Diapo 9: Postigo-Martin, P., Cantarero-Villanueva, I., Lista-Paz, A., Castro-Martín, E., Arroyo-Morales, M., & Seco-Calvo, J. (2021). A COVID-19 Rehabilitation Prospective Surveillance Model for Use by Physiotherapists. *Journal of clinical medicine*, *10*(8), 1691.

Diapo 10 à 24:
- Subjectif:
  - Davis, H. E., Assaf, G. S., McCorkell, L., Wei, H., Low, R. J., Re'em, Y., Redfield, S., Austin, J. P. et Akrami, A. (2021). Characterizing long COVID in an international cohort: 7 months of symptoms and their impact. *EClinicalMedicine*, *38*, 101019. https://doi.org/10.1016/j.eclinm.2021.101019
  - Bateman L, Bested AC, Bonilla HF. Myalgic Encephalomyelitis/Chronic Fatigue Syndrome: Essentials of Diagnosis and Management - ClinicalKey. Accessed November 23, 2021. https://www.clinicalkey.com/#!/content/playContent/1-s2.0-S0025619621005139?returnurl=https:%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS0025619621005139%3Fshowall%3Dtrue&referrer=https:%2F%2Fpubmed.ncbi.nlm.nih.gov%2F
- Objectif:
  - Postigo-Martin P, Cantarero-Villanueva I, Lista-Paz A, Castro-Martín E, Arroyo-Morales M, Seco-Calvo J. A COVID-19 Rehabilitation Prospective Surveillance Model for Use by Physiotherapists. *J Clin Med*. 2021;10(8):1691. doi:10.3390/jcm10081691
  - covid19-rapid-guideline-managing-the-longterm-effects-of-covid19-pdf-51035515742.pdf. Accessed November 23, 2021. https://www.nice.org.uk/guidance/ng188/resources/covid19-rapid-guideline-managing-the-longterm-effects-of-covid19-pdf-51035515742
  - Rehab-allied-health-practice-considerations-post-covid.pdf.