

Marc Jamouille MD, PhD  
[marc.jamouille@uliege.be](mailto:marc.jamouille@uliege.be)  
11/02/2024

access to slides: <http://tinyurl.com/EBMGS-slides>

## Contribution to the DUODECIM Evidence-Based Medicine Guidelines advisory group online meeting (8 slides) (February 19, 2024)

### Slides 2 Introduction

It's quite difficult to talk about Long-Covid because it's a completely new phenomenon in the history of medicine, at least as new as AIDS and HIV research in the 80'. After two years of following a cohort of Long-Covid patients (162 at present), I think I can say, as a clinician, that it's a chronic virus. Both the fluctuating clinical state of the patients and the latest international research point in the direction of chronic virosis with a constellation of immunological distortions.

### Slides 2 Bibliography

Long Covid can only be studied from the bibliography, as it is a disease that did not exist in the medical corpus before 2021. A search using the strategy; ("Post-Acute COVID-19 Syndrome" [Mesh]) OR "long COVID brain fog" [Supplementary Concept] OR "long Covid"[TW] on PubMed yields 5,285 results as of 11 February 2024. A PubMed watch has been in place since 2021 and regular use of Twitter, LinkedIn, and Google Scholar. An online open bibliography on Zotero has been developed since July 2021, keeping track of publications that seemed relevant to general medicine. The subject matter has become so complex that entries have had to be categorized. ICPC-2, the reference classification in primary care, was naturally chosen for this purpose. We can see that the Long Covid concerns almost all bodily systems, including the mental and social fields. Q-Codes sort conceptual items such as qualitative studies or epidemiology.

### Slide 2 bis Bibliography (continued)

An image extracted from Li, Jingwei, et al gives an overview of the evolution of Sas Cov 2 infection and the complexity of the pathophysiology of Long Covid. Research is currently guided by a number of hypotheses or findings, including viral persistence, the inflammatory process, autoimmunity, microbial dysbiosis, vascular endothelitis, and platelet microaggregates.

### Slide 3 Research path

This slide gives access to a poster presented in Madrid in 2023 and updated which presents the research pathway (follow the arrows). Faced with a set of medically unexplained symptoms, the family doctor can accompany the patient and study the phenomenon. Based on the bibliography, isotopes can also be useful in primary care, and brain SPECT-CT scans were requested, which were able to show severe cerebral blood flow disorders. The collection of spontaneous testimonies and interviews with patients was analyzed as a qualitative study. Most

patients agreed to have blood samples taken for research purposes. Most of the usual cell biology tests are fruitless in Long Covid. The COVID Human Genetic Effort network was contacted and molecular biology studies were carried out in various transcriptomics and proteomics laboratories. The patients were also referred to an experimental neurobiology laboratory to study antineuronal antibodies. Finally, the texts collected will be used in textual analysis for the development of terminology based on the patient's words on the Long Covid.

### Slide 3 bis Research trail (continued)

In 2021, Deer et al published a terminology relating to Long Covid. The 286 terms deemed specific to the disease by a group of authors were selected from 47 publications. A reclassification of each term in the International Classification of Primary Care, 3rd edition was carried out by two authors, general practitioners and co-authors of ICPC-3. The distribution according to the 16 chapters of ICPC-3 (14 body systems plus psychological and social domains) shows that the long COVID covers almost all the body systems with a very marked preeminence for the neurological and psychological domains.

### Slide 4 First results

This poster, also presented in Madrid, shows the male-female distribution and average age, the distribution of the DUSOI and COOP charts, and the bag of words of patients' symptoms in the cohort of clinically Long Covid identified patients. A striking image of the technetium brain scintigraphy (SPECT-CT) shows the vascular flow disorder. Initial results of transcriptomic studies show the presence of viral RNA and platelet-activating RNA, explaining the tendency to thrombosis.

### Slide 5 Implications for EBMGs.

During the process of checking the translation from English into French of the BMG updates, some substantive comments were compiled in an online Google sheet file reproduced here. We can see that Covid and Long covid are going to have a major impact on the drafting of EBMGs, given that, as already mentioned above, sars-cov-2 has an impact on virtually all bodily systems, including mental and social

### Slide 6 publications

The last slide shows the publications and submissions in progress in the research network created with the patients.

#### **Specific tools cited in the text**

EBMG; Evidence-Based Medicine Guidelines. The Finnish Medical Society Duodecim. <https://www.duodecim.fi/english/>

DUSOI; Duke Severity Overall Index.

- Parkerson Jr, G. R., Broadhead, W. E., & Chiu-Kit, J. (1993). The Duke Severity of Illness Checklist (DUSOI) for measurement of severity and comorbidity. *Journal of Clinical Epidemiology*, 46(4), 379-393.
- Jamouille, M., Roland, M., Elkinne, J., & Parkerson, G. (2000). Le DUSOI/WONCA un indice de gravité pour la médecine générale. <https://orbi.uliege.be/bitstream/2268/228936/1/DUSOI%206-mar-2000.pdf>

COOP Charts ;

- Van Weel, C., & Scholten, J. H. G. (1992). De Dartmouth COOP Functional Health Assessment Charts/WONCA. *Huisarts Wet*, 35, 376-80. [https://www.henw.org/system/files/download/1992\\_September\\_Article\\_02.pdf](https://www.henw.org/system/files/download/1992_September_Article_02.pdf)

- Jamouille, M. (1992). Évaluation de l'état fonctionnel, les cartes COOP/WONCA.

<https://orbi.uliege.be/bitstream/2268/228936/1/DUSOI%206-mar-2000.pdf>

ICPC ; International Classification of Primary Care, second (ICPC-2, 2000) and third edition (ICPC-3, 2020); Refer to <http://wicc.news/>

**notes**; the slides are adorned with photographs of works of art to occupy readers who might be bored by the lecture.

### **Disclosure**

The author is a Belgian general practitioner and terminologist. He participated in the final revision process of the translation from English into French of the EBMGs and received funding from the Belgian company IVS (<https://www.iscientia.com>), commissioned by Duodecim.

He has been a member of the Duodecim EBMGs international advisory group since 2023. He is also a member of the Wonca International Classification Committee since 1992.