

The First Time – Long Covid Dr Jo Scott-Jones

2799 people have recovered from COVID19 in New Zealand, 26 have died, and 45 currently have the illness (as of 31/07/2021 ¹).

Liu et al followed up all 3096 cases of covid diagnosed in New South Wales in the first 5 months of 2020, they found that 80% of people had recovered by 4 weeks, 90% by 2 months and 93% by 3 months after onset of symptoms². It is estimated internationally that around 10% of people who encounter the SARS-COV2 virus will have prolonged symptoms, or “long covid.”

This implies approximately 280 people in New Zealand may have long-covid – so it’s not currently very likely that you will encounter a patient, but what should you expect the first time this happens?

Firstly the symptoms complex is very varied, SARS-COV2 impacts multiple organs, long-covid has multiple manifestations, the commonest symptoms are fatigue, post-exertional malaise and cognitive dysfunction.

Davis et al. surveyed 3762 post-covid patients from 56 different countries and identified three different symptom clusters³.

Cluster 1 have prolonged diarrhoea, loss of appetite, vomiting, runny nose, sore throat, dry cough, rattling breath, feeling feverish and elevated temperatures.

Symptoms have been present since onset and they tend to recover after 2- 3months.

Cluster 2 have fainting, burning feelings, tachycardias, “covid toe” rash, abdominal pain, nausea, bone and muscle aches, tight chest, confusion, ongoing taste and sense of smell changes, balance issues, hallucinations, headaches, insomnia, sleep apnoea, slurred speech, breathing difficulties with normal O2 saturations, productive cough, chills, flushing sweats, normal temperature, and fatigue.

These symptoms have often been present from week one of the illness and may persist for 6 months or more.

Cluster 3 have bradycardia, palpitations, bulging veins, peeling skin, petechiae, skin rashes, constipation, reflux, visual symptoms, hearing symptoms including tinnitus and hearing loss, the develop new allergies or new anaphylaxis, joint pain, muscle spasms, all the sensorimotor symptoms, “brain fog”, neuralgia, tremors, and vibrating sensations, menstrual and bladder problems, post exertional malaise and temperature control issues.

¹ <https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-data-and-statistics/covid-19-current-cases>

² <https://www.thelancet.com/action/showPdf?pii=S2666-6065%2821%2900102-4>

Whole of population-based cohort study of recovery time from COVID-19 in New South Wales Australia Bette Liu et al The Lancet Regional Health Western Pacific Vol 12 July 1 2021

³ [https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370\(21\)00299-6/fulltext](https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(21)00299-6/fulltext)

Characterizing long COVID in an international cohort: 7 months of symptoms and their impact Davis, Hannah E. et al. EClinicalMedicine, Volume 0, Issue 0, 101019

In this group the onset of symptoms may be 2- 3 months after the initial infection, and again may continue for months. (Figure 1.)

People in all groups find that stress, physical and mental activity can trigger relapses of symptoms, and one in three people who menstruate describe relapse during or before menstruation.

This is a growing area of research and the syndrome or disease is not yet universally well defined or classified.

In addition to “long covid” you may come across “long-haul covid” “post-acute covid” “chronic covid” and the “long term effects pf covid”.

Usefully the CDC categorise three types of post-covid symptoms⁴.

New or ongoing symptoms described in the clusters above that may occur in anyone who has had covid19, including potentially those who were asymptomatic.

Multi-organ impacts, including the rare multisystem inflammatory syndrome which is more likely in children, that follow on from severe covid19 disease and may be associated with immune function dysregulation.

The physical and psychological impacts of hospitalisation and post-intensive care syndrome, which can leave people fatigued, suffering from Post Traumatic Stress Disorder, and with cognitive impairments.

Theories about the causes of new and ongoing symptoms include the triggering of an autoimmune phenomenon by the virus, and the reactivation of other underlying viral and inflammatory conditions made possible as the immune system preferentially responds to the SARS-Cov2 virus.

Studies into the symptom complex and pathophysiology are being actively pursued internationally⁵, but the similarities with chronic fatigue syndrome have not been overlooked⁶. It may be that the research into “long-covid” will finally reveal what underlies other conditions that have been medically unexplained.

Given the breadth of potential symptoms long-covid often requires a multidisciplinary approach with the support of many specialised services. The NHS is investing heavily in “long-covid clinics” for children, adults and in general practice providing physiotherapists, occupational therapists, nurses, dieticians, social workers and doctors to work together to support families suffering from this condition⁷.

⁴ <https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects.html>

⁵ Editorial www.thelancet.com/respiratory Vol 9 June 2021 COVID-19 pathophysiology: looking beyond acute disease

[https://www.thelancet.com/journals/lanres/article/PIIS2213-2600\(21\)00242-3/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(21)00242-3/fulltext)

⁶ <https://www.nzdoctor.co.nz/article/opinion/can-long-covid-shine-light-chronic-fatigue-syndrome>

⁷ <https://www.england.nhs.uk/2021/06/nhs-sets-up-specialist-young-peoples-services-in-100-million-long-covid-care-expansion/>

With such a small number of potential patients in New Zealand it is possible this group of patients will go unrecognised and unsupported, although even in New Zealand there has been some work done to explore the issue ⁸ and on post-covid recovery ⁹.

There are even a few New Zealand specific self-help groups developing online. The New Zealand Covid Long Haulers facebook group has 244 members (<https://www.facebook.com/groups/308080550429147Facebook/>) and Dr Anna Brooks leads @LongCovidNZ on Twitter, for those patients who Tweet.

Nalbandian et al reporting in Nature describe in detail the therapeutic approaches to the multiorgan syndromes characterised by long-covid ¹⁰ which may need specialised investigation, and medication management from cardiac, respiratory, endocrine, renal, dermatological, gastroenterological and psychiatric experts.

This aspect of COVID19 disease is still very new, its pathophysiology still unknown, its management a matter of pragmatism and educated guess work. First, you save yourself, don't manage this on your own.

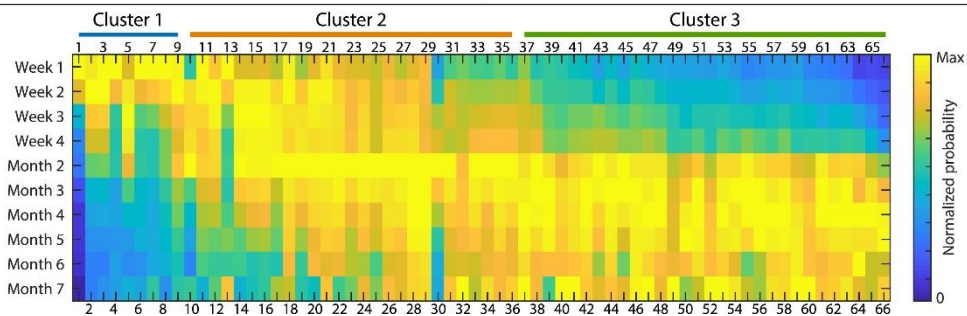
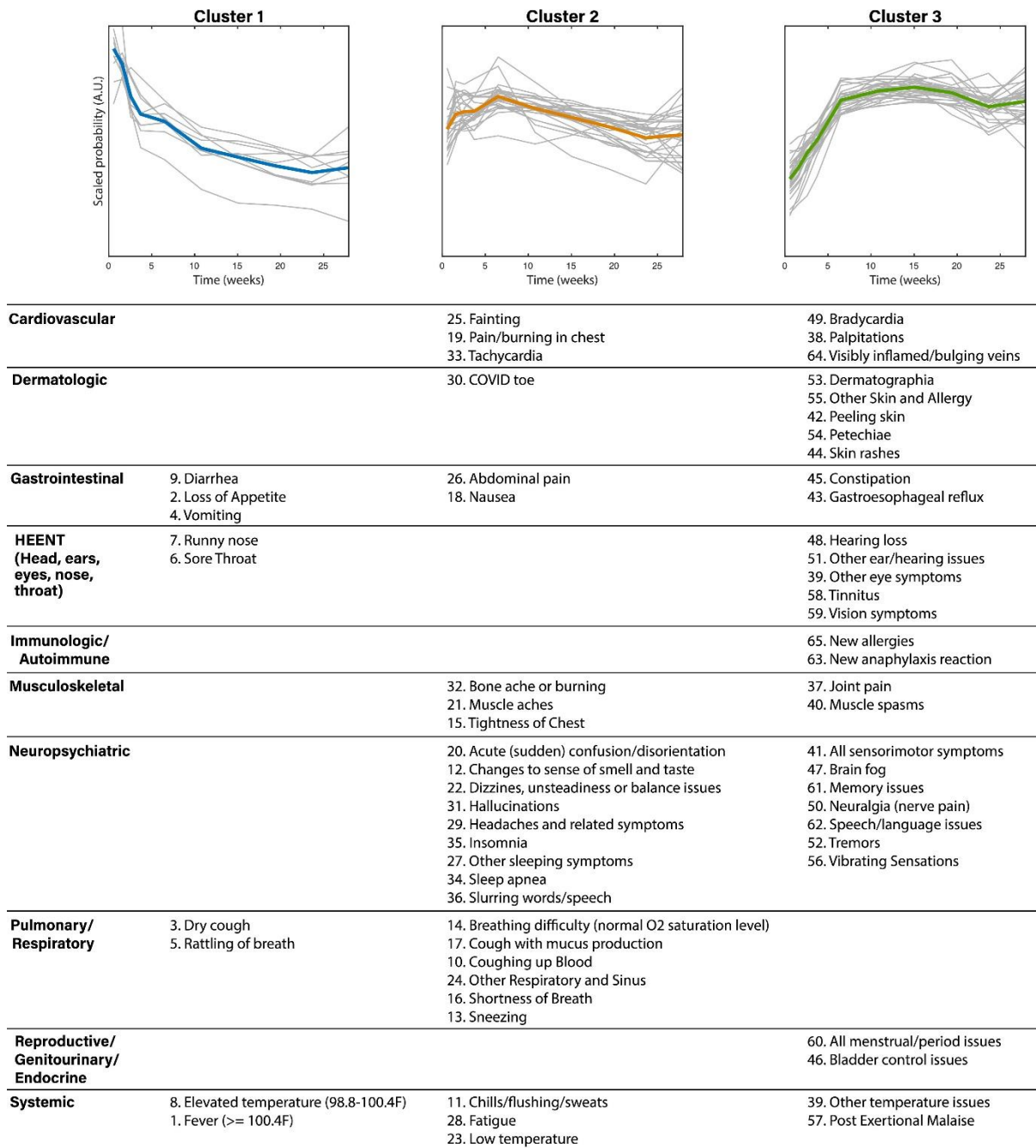
Patients with "long-covid" need our help and support, they need our understanding and to be heard, and they need our skilled navigation of the multiple providers who need to be involved in their care.

⁸ <https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-health-advice-public/long-covid>

⁹ <https://www.health.govt.nz/publication/guidance-rehabilitation-people-or-recovering-covid-19-aotearoa-new-zealand>

¹⁰ Nalbandian, A., Sehgal, K., Gupta, A. *et al.* Post-acute COVID-19 syndrome. *Nat Med* **27**, 601–615 (2021). <https://doi.org/10.1038/s41591-021-01283-z>

(Figure 1) Symptom clusters in long covid.



From (Characterizing long COVID in an international cohort: 7 months of symptoms and their impact Davis, Hannah E. et al. EClinicalMedicine, Volume 0, Issue 0, 101019)

Further reading :

MOH collated information on long COVID:

<https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-health-advice-public/long-covid>

<https://www.health.govt.nz/publication/guidance-rehabilitation-people-or-recovering-covid-19-aotearoa-new-zealand>

Previous NZ Doctor articles on long COVID:

<https://www.nzdoctor.co.nz/article/news/how-manage-post-acute-covid-19-patients-primary-care-bmj-paper>

<https://www.nzdoctor.co.nz/article/undoctored/lancet-one-two-hospitalised-covid-19-patients-develop-complication>

<https://www.nzdoctor.co.nz/article/opinion/can-long-covid-shine-light-chronic-fatigue-syndrome>

<https://www.nzdoctor.co.nz/article/print-archive/once-worst-over-long-recovery-primary-care-covid-19-patients>