A Double-Blind Randomized Trial of Low Dose Naltrexone on ME/CFS Triggered by COVID in Canada

Grant Amount	£131,919
Location	University of British Columbia, Canada
Research Field	Treatment
Lead Researcher/s	Dr Luis Nacul
Start Date	13/03/2025
Duration	9 months
Status	In progress
Latest Update	Leading UK Charity invests in Canadian trial of drug treatment for ME/CFS and Long Covid

BACKGROUND

Previous research has demonstrated the safety and effectiveness of LDN in other chronic conditions, such as Fibromyalgia, while existing observational studies suggest benefits in terms of increased energy, improvement in pain and sleep, with only minor adverse effects in those with ME/CFS.

Naltrexone is an opiate antagonist approved by Health Canada for treatment for alcohol and opiate use disorders. It is used off label at low doses for conditions such as ME/CFS, Fibromyalgia and Crohn's disease, with a good safety profile and some evidence of benefit.

LDN seems to exert its effect by temporarily blocking certain opioid receptors, causing these receptors to increase in number and sensitivity. LDN also increases circulation of endogenously produced opiate-like molecules which are found to be reduced in ME/CFS. This may help to reduce pain and inflammation and improve immune function and well-being. It may also counterbalance the pro-inflammatory status that has been implicated in ME/CFS symptoms, particularly at early stages of disease, which can hamper recovery.

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MRI studies also show evidence of brain inflammation, connectivity deficits, and reduced levels of brain activation in ME/CFS. A suggested brainstem dysfunction in ME/CFS, if also applied to Long Covid, could well explain many of the symptoms, such as those related to autonomic dysregulation, cognitive impairment, and reduced energy.

PROJECT DETAILS

This trial will determine if Low Dose Naltrexone (LDN) improves fatigue, pain, sleep, orthostatic intolerance and other related symptoms, reduces inflammatory markers in blood, and enhances an individual's quality of life. Results from the trial should help to clarify whether LDN can affect the underlying disease processes in ME/CFS and Long Covid and improve symptoms.

Conducted as a double-blind, randomized, placebo-controlled study, the trial will include 160 participants between the ages of 19–69 who meet the American Institute of Medicine diagnostic criteria for ME/CFS following a COVID-19 infection. Participants will receive either LDN (n=80) or a placebo (n=80), following a structured titration schedule (1mg to 4.5 mg or maximum tolerated dose), with progress monitored through multiple assessments over 16 weeks.

IMPORTANCE OF FUNDING

- **Addressing Unmet Medical Needs:** ME/CFS and Long Covid affect millions worldwide, yet effective treatments remain limited. This study could offer a much-needed therapeutic option.
- **Advancing Biomedical Understanding:** Findings may provide insights into the biological mechanisms underlying these conditions, supporting the development of targeted treatments.
- **Improving Quality of Life:** LDN has shown promise in other chronic conditions, and its potential benefits in ME/CFS and Long Covid could significantly enhance patients' well-being.
- **Public Health Implications:** With Long Covid emerging as a major global health concern, identifying viable treatments will be crucial for healthcare systems and affected individuals.

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The ME Association's investment in this trial underscores its commitment to biomedical research that could lead to effective treatments for ME/CFS and Long Covid. Funding this project will help advance scientific knowledge and improve patient outcomes.

The ME Association's investment in this study reflects its increased commitment to biomedical research that could help deliver effective treatments for ME/CFS and Long Covid.

N.B The original clinical trial was funded by the Canadian Institutes of Health Research (funding £440,000), the ME association has provided funded for future recruitment and follow-up of participants.