

## **Weakness after the ICU: A pilot study on the incidence and impact of Critical Illness Polyneuromyopathy in Rehabilitation**

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**Rationale:** Critical Illness Polyneuromyopathy (CIPNM) is of clinical importance as it is associated with increased mortality and greater financial burden during acute hospital stays. There are no studies to date that have prospectively examined the prevalence and impact of CIPNM in patients in the rehabilitation setting.

**Objectives:** To determine the proportion of patients in rehabilitation with a history of Intensive Care Unit (ICU) stay who have electrodiagnostic evidence of CIPNM, the impact of CIPNM on function and the identified risk factors for CIPNM in the ICU that are associated with CIPNM in the rehabilitation setting.

**Design:** Prospective observational pilot project to determine feasibility and provide preliminary data for design of a larger study.

**Setting:** Single, free-standing inpatient rehabilitation centre.

**Participants:** Rehabilitation inpatients with an ICU stay of 72 hours or more and no history diabetes, myopathy, polyneuropathy or neuromuscular junction disorder.

**Interventions:** In this observational study, all participants who meet inclusion and exclusion criteria and provide informed consent undergo electrodiagnostic studies. Diagnosis of CIPNM is made based on electrodiagnostic evidence of axonal neuropathy in at least one upper and one lower extremity nerve and/or myopathy in at least one upper and one lower extremity muscle

**Results:** We present preliminary data on the demographics and electrodiagnostic results of eligible participants thus far and demonstrate the prevalence of CIPNM in our sample population to date.

**Conclusions:** CIPNM is common in the rehabilitation setting in people with previous ICU stays. Further research will help elucidate the impact CIPNM has on function.