

## Changes in Daily Use of Ventilatory Assistance Before and After Respiratory Exacerbation in Neuromuscular Patients (Exa-VNI-NM).

Evolutionary neuromuscular diseases such as amyotrophic lateral sclerosis (ALS) and Duchenne muscular dystrophy (DMD) lead to severe chronic respiratory failure for which the assumption by non-invasive ventilation support is a standard of care. However, these pathologies are also episodes of respiratory aggravation which result in a major bronchial congestion with drainage difficulties given muscular deficits in these patients. Patients sometimes dangerously delaying the use of health care system and these episodes can then lead to hospitalizations and require highly technical care (antibiotics, mechanical airway clearance, and aspiration).

The objective of this study is to evaluate if parameters recorded by non-invasive ventilation (NIV) software (respiratory rate (RR), percentage of respiratory cycles triggered by the patient (%Trigg) and NIV daily use) predict the risk of exacerbation in patients with evolutionary neuromuscular diseases.

---

### Research team

Olivier Contal, main applicant, HESAV

Jean-Paul Janssens, co-investigator,  
Geneva University Hospitals

Jean-Louis Pépin, co-investigator,  
Grenoble University Hospital

Jean-Christian Borel, co-investigator,  
Grenoble University Hospital

Stéphanie Vaudan, research assistant,  
HESAV

### Funding

Ligue Pulmonaire Genevoise

### Duration

24 months



**HESAV**  
RECHERCHE