

Banfi P.

Respiratory Care Management of ALS: An Emerging Need.

(Gestione delle problematiche respiratorie nella SLA: un bisogno emergente)

Amyotrophic lateral sclerosis (ALS), often referred to as Lou Gehrig's disease, is a neurodegenerative disease of the upper and lower motor neurons, resulting in muscular atrophy and spasticity. It is a progressive, fatal illness with a mean survival from time of diagnosis of only 1–3 years.

The diaphragm and other muscles of respiration are invariably affected, and most patients die from respiratory complications. Because all patients eventually develop respiratory muscle impairment and most patients die from respiratory failure or pneumonia related to respiratory muscle weakness, pulmonary issues are particularly important in ALS.

The most common treatment for chronic hypoventilation in ALS is Non-Invasive Ventilation (NIV). NIV can be delivered with either a pressure-limited or volume-limited ventilator.

Individuals with ALS have an impaired cough and a reduction in peak cough flows (PCFs) as a result of inspiratory and expiratory muscle weakness.

While inspiratory muscle failure can be offset by NIV, expiratory muscle dysfunction and cough impairment can be compensated for by mechanically assisted coughing (MAC).

Respiratory infections are a common concern and a relatively frequent complication of ALS. Immobility, weakened cough, hypersialorrhea, and impaired swallowing all contribute to an increased risk of pulmonary infection.