

JOUNI HEDMAN
KRISTIINA JOKINEN
RISTO P. ROINE
RIITTA GRAHN

PIRJO RÄSÄNEN
Ph.D., Senior Researcher
National Institute for Health
and Welfare (THL)
E-mail: pirjo.rasanen@thl.fi



■ ENGLISH SUMMARY

Mechanical non-invasive cough assist device

The aim of the mechanical non-invasive cough assist device is to improve coughing and enhance secretion clearance in patients with impaired coughing capacity.

In this systematic literature review we evaluated the benefits and possible disadvantages of the mechanical non-invasive cough assist device compared to manually assisted coughing in patients with impaired coughing ability.

Reliable conclusions concerning the effectiveness of the mechanical non-invasive cough assist device are difficult to draw due to the limited number of studies, small numbers of patients included, and methodological weaknesses of the studies.

The findings suggest that the mechanical non-invasive cough assist device may be beneficial for patients with amyotrophic lateral sclerosis (ALS) who do not have bulbar paresis, and for patients with spinal cord injury or muscle weakness whose coughing ability is substantially diminished. Patients who have ALS with severe bulbar paresis do not seem to benefit from the mechanical non-invasive cough assist device. The evidence of benefit is conflicting in patients with chronic obstructive pulmonary disease (COPD).

More evidence concerning the effectiveness and safety of mechanical cough assist devices is needed in various disease categories and in patients with varying degrees of severity.

Suomen Lääkärilehti [The Finnish Medical Journal] 2010;65:2485–8.