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Systematic Review of Physiotherapy during Acute Exacerbations of Chronic Obstructive Pulmonary Disease (AECOPD)

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Systematic review of physiotherapy during acute exacerbations of chronic obstructive pulmonary disease (AECOPD)

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Rationale: In COPD patients, acute exacerbations are important events. Reviews of studies investigating treatment during AECOPD focus on medical management, with little discussion of physiotherapy. Therefore a systematic review was undertaken of the studies pertaining to physiotherapy during AECOPD. **Methods:** Studies were identified by searching databases and scanning reference lists. Appropriate studies were reviewed by two independent investigators. Data were extracted using a standardized form. Where possible, a score was assigned using the PEDro scale for assessment of study quality. **Results:** 23 studies met the study criteria. Study quality was variable with a mean PEDro score of 5±2 (range 1-7/10 points). In patients hospitalized with AECOPD, the results of the studies indicated that; (i) there is little evidence for percussion or vibration, (ii) positive expiratory pressure (PEP) mask therapy is useful for airway clearance in patients with copious secretions, (iii) PEP mask or intrapulmonary percussive ventilation therapy may reduce weaning time from non-invasive ventilation and the length of hospital stay, (iv) PEP mask, Flutter and expiration with an open glottis are equally effective in clearing sputum in patients with copious secretions, (v) the forward lean position reduces dyspnea, (vi) exercise training should be initiated early and, (vii) neuromuscular electrical stimulation (NMES) increases peripheral muscle strength in patients with marked disability. **Conclusions:** When treating patients with AECOPD, physiotherapists should include exercise training and consider PEP, Flutter and NMES.