

**Methodology** 40 eligible ALS patients with respiratory failure were randomised to the breath-stacking BS technique (n=21) or to mechanical insufflator/exsufflator MI-E (n=19).

**Findings** There were 13 episodes of chest infection in the BS group and 19 episodes in MI-E group (p=0.92), requiring 90 and 95 days of antibiotics respectively (p=0.34). The mean duration of symptoms per chest infection was 6.9 days in the BS group and 3.9 days in MI-E group (p=0.16). There were six episodes of hospitalisation in each group (p=0.64). The chance of hospitalisation, in the event of a chest infection was 0.46 in the BS group and 0.31 in MI-E group (p=0.47). Median survival in the BS group was 535 days and 266 days in MI-E group (p=0.34). The QoL was maintained above 75% of baseline for a median of 329 days in the BS group and 205 days in MI-E group (p=0.41).

**Interpretation** These results suggest non-inferiority of the BS to MI-E. We recommend that the BS technique is prescribed as a low cost, first-line intervention.

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### ROLE OF COUGH AUGMENTATION IN AMYOTROPHIC LATERAL SCLEROSIS

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**Background** There is no clear consensus about how best to enhance cough in patients with ALS.