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| **Safety of the 6-Minute Walk Test in Severe Asthma** |
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| **Introduction/Aim:** The 6-minute walk test (6MWT) is considered safe for people with chronic respiratory diseases. However, the latest international 6MWT technical standard showed minimal safety evidence in people with asthma. The aim of this study was to characterise the safety of the 6MWT in people with severe asthma by describing adverse events, limiting factors, and physiological responses compared with non-severe asthma, chronic obstructive pulmonary disease (COPD), and non-respiratory disease controls. **Methods:** A total of 403 participants (severe asthma n=175; non-severe asthma n=64; COPD n=99; controls n=65) were included in this cross-sectional study. Participants completed a clinical assessment including a 6MWT. **Results:** The proportion of participants with severe asthma (10%) who rested during the 6MWT was: similar to the non-severe asthma group (9%), higher compared with the control group (2%), and lower compared with the COPD group (23%). More people with COPD reported being limited by leg fatigue (15%) and less people in the control group reported a musculoskeletal limitation (8%), compared with the severe asthma group (5%, 27%) (p<0.05). The proportion of participants in the severe asthma group who reported respiratory, cardiac or other limitations was similar to other groups. The increase in breathlessness intensity (0-10 Borg) (median [IQR]), from baseline to end 6MWT, was greater in the severe asthma group (2 [1-3]) compared with the non-severe asthma group (1.8 [1-2]) and control group (2 [1-2]) (p<0.001). Respiratory rate (bpm) (median [IQR]) increased to a greater extent in the severe asthma group (6 [4-8]) than in the COPD group (4 [4-8]). The severe asthma group had a lower proportion (3%) of participants whose SpO2 fell below 85% during the 6MWT, compared with the COPD (14%) group (p<0.05). No participant with severe asthma needed to use supplemental oxygen during the test.**Conclusion:** This study showed that the 6MWT is safe for people with severe asthma.**Grant Support:** University of Newcastle, NHMRC, Hunter Medical Research Institute, John Hunter Hospital Charitable Trust |