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The Accuracy in the 6-Minute Walk Test in Determining VO₂peak in Cancer Survivors

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Peak oxygen consumption (VO₂peak) is critical for developing and implementing an exercise prescription to guide a cancer survivor's rehabilitative exercise program. The Rocky Mountain Cancer Rehabilitation Institute's (RMCRI) treadmill protocol is cancer-specific and accurately determines VO₂peak; yet many clinicians are choosing a less strenuous protocol, the 6 Minute Walk Test (6MWT), to determine VO₂peak. However, the 6MWT may yield inaccurate measurements. Purpose: To determine the accuracy of the VO₂peak value from the 6MWT compared to the VO₂peak value from the RMCRI treadmill protocol for cancer survivors. Methods: Thirty cancer survivors from RMCRI participated. Each participant engaged in the RMCRI's Treadmill Protocol and the 6MWT in randomized order one week apart. VO₂peak values derived from four commonly used equations for the 6MWT were compared to the VO₂peak value obtained from the RMCRI Treadmill Protocol. Results: A Repeated Measures ANOVA Test with $p < 0.05$ will be used to test differences between VO₂peak values derived from the 6MWT and the RMCRI Treadmill Protocol. Conclusion: Preliminary findings demonstrate the 6MWT significantly underestimates VO₂peak and should not be used in formulating an exercise prescription for the cancer population. The RMCRI treadmill protocol should be the standard protocol for determining VO₂peak in the cancer population. Accurate VO₂peak values for exercise prescriptions are critical because exercise has been shown to decrease fatigue and to improve strength and overall quality of life in cancer survivors.

