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The Accuracy in the 6-Minute Walk Test in Determining V02peak 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.