A REVIEW OF THE EFFECT OF EPOETIN ALFA ON EXERCISE TOLERANCE AND PHYSICAL FUNCTIONING

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A systematic review of the published literature was conducted to evaluate the effect of Epoetin alfa on exercise tolerance and physical functioning in dialysis patients. A search was conducted in Medline and Cochrane databases and studies were included if they were case-control, cohort or cross-sectional, published in English, and included an estimate of the impact of Epoetin Alfa on exercise tolerance or physical functioning.

Table 1: Percent Improvement from Baseline: Epoetin alfa Treated*

Measure (# of studies)	**Minimum Improvement**	**Maximum Improvement**	**Range of p-values**
VO_2 (10)	15.1%	50.3%	<0.0005 to <0.05
Minutes Walked (6)	17.8%	51.7%	<0.0005 to <0.05
Distance Walked (2)	7.9%	50.0%	<0.001 to NS
Physician-assessed Karnofsky (3)	13.2%	24.7%	<0.001
Patient-reported Karnofsky (2)	3.7%	18.4%	0.0001 to <0.01
SIP Physical Function (4)	19.2%	59.4%	0.0001 to NS
KDQ Physical Symptoms (5)	6.25%	44.4%	<0.001 to <0.05
SF-36 Physical Functioning (1)	8.86%		<0.001

* Three studies did not conduct statistical testing. Baseline compared to follow-up: Epoetin alfa treated patients; NS = not significant

All published studies reviewed that conducted statistical testing reported significant improvements in exercise tolerance and physical functioning. Across studies of diverse design, Epoetin alfa is consistently associated with improvements in exercise tolerance and physical functioning.