Performance Measure for Improvement of Functional Capacity at Completion of Cardiac Rehabilitation (CR)

Frequently Asked Questions

What MET level should be reported if High Intensity Interval Training (HIIT) is being used?

High Intensity Interval Training (HIIT) has the potential to improve functional capacity in CR patients in excess of improvements seen with moderate continuous training. MET levels reported for patients using a HIIT protocol should be the highest MET level sustained for a minimum of three minutes to ensure patients are achieving steady-state exercise.

Some improvement in functional capacity will be expected as a result of the normal recovery following hospitalization. How will this be accounted for?

Improvement in functional capacity during CR remains at the core of a comprehensive CR program. Multiple randomized controlled, and non-randomized controlled studies have demonstrated improvement in functional capacity resulting from CR participation that exceeds that in non-participating control groups. The threshold for improvement as stated in the performance measure is based on this evidence.

Will the same increase in exercise capacity be expected in patients starting Cardiac Rehabilitation at high levels of fitness?

Most studies show an inverse relationship between initial exercise capacity and the level of improvement shown at program completion. While a smaller increase in exercise capacity will likely be noted in patients with higher initial exercise capacity, these patients should be included in the performance measure.

From the Performance Measure on Improvement in Functional Capacity:

In developing this performance measure, the committee recognizes that there is a broad distribution of functional capacity among individuals entering CR and tremendous variability in the ability of CR participants to increase their functional capacity with CR....

...As a result, the committee recognizes that not all CR participants will be able to achieve the average absolute or percent increases in functional capacity with CR quoted above and has defined the threshold for improvement to achieve this performance measure accordingly.
Should patients with substantial physical limitations that restrict exercise to only certain types of exercise modalities (i.e., upper extremity exercise) be excluded?

All patients able to exercise on equipment that is factory calibrated for METS should be included in the denominator. This includes patients able to utilize only upper extremity exercise equipment. In fact, significant improvements in exercise capacity have been demonstrated in CAD patients using upper extremity exercise only. As noted in the performance measure, the same piece of exercise equipment should be used for both pre and post measurement.

Should patients with all eligible diagnoses be included – or only those with atherosclerotic heart disease?

All patients eligible for CR should be included in the denominator. There is sufficient evidence that significant improvement in exercise capacity will occur in patients with a multitude of diagnoses, including heart failure, valve replacement or repair, left ventricular assist devices or heart transplant. In most cases, the increase in functional capacity mirrors that in the atherosclerotic heart disease population. While the magnitude of improvement may vary based on a variety of factors, including diagnosis, age, gender and others, the Quality of Care Committee has selected a level of improvement that, based on the evidence base, would be expected when considering all program participants in the overall program measure.

Why are there 3 different methods of measurement included for functional capacity?

While symptom-limited graded exercise testing provides the most accurate data related to exercise capacity, fewer CR programs are requiring graded exercise test data either before or after CR participation. For this reason, alternative methods of measuring changes in functional capacity, also having a strong evidence-base were included. The standard 6-minute walk test has shown good reliability when used to measure changes in functional capacity in CR, however routine use of this testing method in the CR setting has not been shown. While an estimation of submaximal MET level during an exercise session is open to the most variability and potential manipulation by CR staff, this measurement is routinely completed in the CR setting and allows for greater inclusion of programs in the measure.