

## Appendix B

### 6-Minute Walk Test (6MWT)

According to ATS guidelines, a 30 m distance course is recommended. Turnaround points should be identified. Three-meter interval measurements are marked with colored tape on the floor. Shorter corridor lengths may increase the 6 MWD due to more frequent turns involved.

#### Required equipment

1. Stop watch or timer
2. Two small cones to mark the lap boundaries
3. Measurement scale for floor measurement
4. Mechanical lap counter
5. Resuscitation equipment

The 6 MWT is performed on a walking track in a facility. The track has been marked at 3-m intervals so that accurate measurement of the walking distance can be performed. Chairs are available at 30-m intervals in case the patients become so symptomatic that they have to stop and sit.

#### Client Preparation

1. Comfortable clothing should be worn
2. Environment temperature should be ambient
3. Shoes should be comfortable and any walking aids that the patient ordinarily uses should be used
4. Light meals are acceptable before morning and afternoon tests

#### Technique

1. Don't perform a warm up before the test.
2. The subject should rest comfortably for 10 minutes prior to the test. During this time blood pressure and heart rate should be measured and potential contraindications assessed.
3. Before the test starts, the subject should stand up and rate his/her dyspnea and fatigue. The Borg scale may be used for this.
4. Set the lap counter to zero and timer to 6 minutes. Assemble all necessary equipment and move to starting point.
5. The tester may walk a lap to demonstrate performance of the test to the client. During the test the tester should never walk with or in front of the subject as the subject may try to match the tester's pace. The tester may walk behind the subject to support him/her in case of staggering or to prevent falling. The subject is allowed to rest during the test if he/she gets fatigued.
6. Use standardized phrases and an even tone for encouragement at completion of each minute of the test. For an example of a standardized script, the reader is referred to the 2002 ATS guidelines. It is recommended to give standardized encouragement every 30 seconds using phrases "keep up the good work" or "you are doing fine".
7. Resting during the test is allowed, but don't stop the clock. If the subject cannot go any further, the test should be stopped and distance covered recorded.
9. Stop the test if patient develops chest pain, intolerable dyspnea, staggering, diaphoresis, intolerable cramps, and/or ashen appearance. Test supervisors should be trained to provide appropriate care at this point.
10. At the conclusion of the test, ask the subject to rate his/her dyspnea and fatigue levels. Record the reason for stopping the test.

Norms: The six-minute walk distance in healthy adults has been reported to range from 400m to 700m. Age and sex-specific reference standards are available and may be helpful for interpreting 6MWT scores for both healthy adults and those with chronic diseases such as MS. However, it is difficult to use normative values because of the differing methods used in studies. An improvement of 54m has been shown to be a clinically important difference.

6 Minutes WalkTest		
Normal Range of Scores		
Age	Distance covered by Women in meters	Distance covered by Men In meters
60 - 64	498 - 603	558 - 673
65 - 79	457 - 580	512 - 640
70 - 74	439 - 571	498 - 622
75 - 79	398 - 535	430 - 585
80 - 84	352 - 454	407 - 553
85 - 90	311 - 466	347 - 521