

**OPTN Lung Transplantation Committee  
Six-Minute Walk Workgroup  
Meeting Summary  
September 28, 2023  
Conference Call  
Marie Budev, DO, Chair  
Matthew Hartwig, MD, Vice Chair**

## **Introduction**

The Six-Minute Walk Workgroup (the Workgroup) met via Webex teleconference on 9/28/2023 to discuss the following agenda items:

1. Welcome and agenda
2. Review workgroup poll results
3. Defining a standard oxygen titration test
4. Next steps and closing comments

The following is a summary of the Workgroup's discussions.

### **1. Welcome and agenda**

The Chair welcomed Workgroup members.

#### Summary of discussion:

There was no further discussion by the Workgroup.

### **2. Review workgroup poll results**

The Workgroup responded to a poll that outlined three different paths forward for the Workgroup to consider as potential policy, data collection, or guidance document changes. The options are outlined below:

- Option 1: Require one oxygen titration test and one six minute walk test (6MWT)
  - Outline a standard oxygen titration protocol designed to determine oxygen needs for performing the 6MWT
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  - This oxygen level would be used for conducting the 6MWT
  - Titration during the test not permitted
- Option 2: Require two 6MWTs with separate oxygen requirements
  - The first 6MWT would use minimum oxygen (The Workgroup would need to determine whether "minimum oxygen" is "at rest" oxygen or minimum required to complete 6MWT)
    - Intent is to capture disease severity
  - The second 6MWT would use maximum oxygen (The Workgroup would need to define this e.g. using nonrebreather or based on University of Pittsburgh Medical Center exercise protocol)
    - Intent is to assess frailty/strength

- The Workgroup would need to select one of these tests for incorporation into the allocation score while collecting data
  - The second 6MWT is recommended for incorporation into the allocation score since this is likely to give patients a higher allocation score
- Option 3: Two 6MWTs
  - One “current” test and one “standard” test
  - The first 6MWT would allow transplant programs to keep doing whatever they are doing now; this value would feed into the allocation score
  - The second 6MWT would involve new data collection following a standard approach for supplemental oxygen provision

Summary of discussion:

Decision #1: Eight Workgroup members favored option 1, one Workgroup member favored option 2, and one Workgroup member voted for an alternative approach.

There were no concerns about proceeding with option 1. A member commented transplant programs should pause and let candidates rest when needed throughout the 6MWT.

**3. Defining a standard oxygen titration test**

The Workgroup re-reviewed Duke University’s protocol for an oxygen titration test. Staff recommended the respiratory therapists on the Workgroup review and modify oxygen titration protocols as needed. The goal of the oxygen titration protocol was defined as determining how much supplemental oxygen should be provided during the 6MWT for the patient to complete the test (if possible) without titration during the test. The Workgroup discussed what else should be considered specific to the development of an oxygen titration protocol.

Summary of discussion:

Decision #2: The Workgroup will finalize a proposal for Winter 2024 public comment in their next meeting.

The Chair suggested an oxygen titration test should be repeated multiple times if a candidate is declining. Members agreed this should be left up to clinical discretion. A member suggested the oxygen titration test and 6MWT should be required to be updated every three to six months. Members agreed that since the current requirement is for the six-minute walk distance to be updated every six months, it should be recommended that the oxygen titration protocol be repeated on the same timeline.

A member stated that pediatric respiratory therapists use a wide variety of devices to conduct a 6MWT, so a specific device should not be required by policy. The Chair commented that a separate protocol may need to be created for pediatric candidates. Members noted maximum oxygen delivered differs at each transplant program, so it will be difficult to standardize this. Members agreed it may be helpful to standardize some aspects of the 6MWT through guidance so as not to dictate too many details in policy.

A member stated there should be a limit of oxygen used to titrate a candidate if the candidate begins to desaturate. A member suggested a threshold of at least 15 liters of oxygen. While the Duke protocol uses a maximum of 15 liters per minute before terminating the test, members recommended raising this to 25 liters per minute.

Members initially agreed that transplant programs should not titrate candidates during the 6MWT. The Chair commented that although she agrees, transplant programs will likely titrate during the 6MWT anyway. A member said that transplant programs will need to change their behavior. A member said that if a candidate is desaturating near the end of the 6MWT, it is not reasonable for the program to stop the test, re-do the oxygen titration test, and then re-do the 6MWT. Members agreed with recommending that oxygen titration during the test should be avoided. A member questioned how soon an oxygen titration test should be performed in reference to the 6MWT. She said if transplant programs elect to perform the 6MWT more than once every six months then they should also have to redo the oxygen titration test. A member suggested that the oxygen titration protocol should be reported as 'oxygen needed at rest.' A member responded it would not be feasible to complete another oxygen titration test every time 'oxygen needed at rest' changes since that is so variable. A member recommended considering the six-minute walk distance to be separate from the supplemental oxygen data collection.

#### **4. Next steps and closing comments**

Staff will draft a proposal based on the Workgroup's discussions and send the draft out for review and discussion at the next Workgroup meeting.

#### Summary of discussion:

There was no further discussion by the Workgroup.

#### **Upcoming Meetings**

- October 19, 2023, teleconference, 5pm ET

## Attendance

- **Workgroup Members**
  - Marie Budev
  - Cynthia Gries
  - Aleksander Tomas
  - Abby Motz
  - Brian Armstrong
  - Kevin McCarthy
  - Dennis Lyu
  - Erika Lease
  - Nirmal Sharma
  - John Reynolds
  - Wayne Tsuang
- **HRSA Representatives**
  - Jim Bowman
  - Marilyn Levi
- **SRTR Staff**
  - Katherine Audette
  - David Schaltdt
- **UNOS Staff**
  - Kaitlin Swanner
  - Taylor Livelli
  - Chelsea Weibel
  - Samantha Weiss
  - Sara Rose Wells