

# Recommendations From the 6th LTOT Consensus Conference

RECOMMENDATIONS OF THE 6TH LONG-TERM OXYGEN THERAPY CONSENSUS CONFERENCE  
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1. In order to assure quality LTOT patient care, we recommend comprehensive education for patients, prescribing primary-care and specialist physicians, respiratory therapists (RTs) and other respiratory professionals, regulatory agencies, payers, families, caregivers, and the public. Easy-to-use, understandable, and readily available educational resources should be further developed to meet these needs, including printed and audiovisual materials, as well as Internet resources. LTOT education should also be incorporated into the curriculum of health-professional training programs for those who will provide care to LTOT patients. Consensus was not reached with regard to the practicality and requirement for credentialed educators to initiate and follow LTOT delivery to patients. However, it was agreed that such programs of education and/or certification should be developed and implemented to meet these potential needs in the future.

2. Clinical educational materials should be developed and provided to the patient and LTOT caregiver/provider, including but not limited to the following topics:

- Details of competitive bidding, with quality standards (supplier selection process)
- Self-monitoring (eg, spirometry, oxygen liter flow, and oxygen saturation)
- Reimbursement (eg, the criteria of the Centers for Medicare and Medicaid Services [CMS] and other 3rd-party payers, including managed-care organizations)
- Compliance and adherence to the LTOT prescription
- Benefits and availability of pulmonary rehabilitation
- What to do in emergency situations (eg, loss of electrical power or malfunction of stationary/portable delivery devices, such as liquid-oxygen source equipment)

3. All patients of all groups should have access to the appropriate LTOT delivery systems and accessories, to optimize maximal medical compliance, activities of daily living inside and outside the home, and travel (planes, trains, automobiles, and cruise ships). Patients should have access to respiratory-care professionals adequately trained in LTOT, on an intermittent basis, in the home/place-of-residence or the clinic, depending on the patient's degree of mobility, as deemed appropriate by the physician or physician-designated respiratory-care professional following that patient's LTOT.

4. Standards for LTOT should be further developed that would provide clinical practice guidelines that, whenever possible, are evidence-based and/or supplemented by expert opinion. These standards should be interdisciplinary and address the role of not only physicians, but also of RTs and other allied health and respiratory professionals providing LTOT care. The pediatric patient should also be considered in the development of these standards. These standards, for example, could include, but should not be limited to, indications for LTOT, patient education, matching the proper LTOT delivery device and accessories to the patient's needs and abilities, appropriate monitoring, the role of pulmonary rehabilitation, and current policies and procedures for travel with supplemental oxygen therapy. Performance measures should be established to evaluate quality of care.

5. All patients who are provided an intermittent-flow device (which is one category of oxygen-conserving devices) must be clinically evaluated and titrated to the intermittent flow required by the specific device being employed, in order to ensure optimal oxygen delivery for that individual patient during rest and during routine activities of daily living.

6. Consideration should be encouraged for improving all of the processes involved in the delivery of LTOT. This would include education for physicians, case managers, discharge planners, home-medical-equipment providers, RTs, and other professionals involved in the management of LTOT patients.

7. Evidence-based criteria are needed to define “ambulatory,” “portable,” and “wearable” oxygen technologies as they apply to each specific patient’s clinical and lifestyle needs, on an individualized basis. Until such evidence exists, the physician, patient, and home-medical-equipment provider must effectively collaborate, using their best efforts and state-of-the-art knowledge in that time frame to ensure that all LTOT users have access to the best and most appropriate technologies that fit their clinical and lifestyle needs.

8. LTOT should be reimbursed adequately for the LTOT delivery device, accessories, and associated LTOT services provided, linked to approved standards of care when available, and wherever possible based on clinical outcomes research. Reimbursement obstacles to providing quality LTOT in the patient’s home or other place of residence by RTs or other respiratory-care professionals should be resolved, as well as obstacles to providing comprehensive pulmonary rehabilitation. Reimbursement should be based on the LTOT device that is “best for the patient,” as prescribed by an MD or DO.

9. CMS and other payer organizations should be encouraged to support appropriate reimbursement that will ensure access to innovative technologies that are appropriate for the individual patient’s clinical and daily lifestyle needs.

10. LTOT should be incorporated into the disease-management/ health-maintenance approach to the comprehensive care of patients with chronic lung and/or cardiac disease. This recognizes the importance of providing an interdisciplinary continuum of care across all sites, including, but not limited to, facilitating access to pulmonary rehabilitation by adequate reimbursement. The benefits of such disease management should be evaluated on an ongoing basis by appropriate outcome evaluations and performance-improvement measures.

11. Funding should be provided for research to evaluate the outcomes and cost-effectiveness of LTOT, including, but not limited to, research on the safety and efficacy of established as well as new oxygen-delivery devices, and research on other indications for LTOT, such as enhancing quality of life and reduction of symptoms. This might be accomplished by joint projects with CMS and other payers and research organizations, and by helping to recruit patients needed for ongoing and future research studies.

12. All professional and lay organizations and societies should incorporate LTOT patients into their advocacy efforts for LTOT.

13. We recommend development of a demonstration project(s) to evaluate the utilization of resources for LTOT and to incorporate compliance data into a recertification process(es) when oxygen is prescribed in acute situations. An example might be establishment of a regional facility for conduct of recertification examinations. Such a center would be capable of evaluating LTOT prescription at rest, during exercise, and during sleep. Studies should utilize the equipment modality that the patient is currently using or will be using in the near future. Recommendations might also be made as to the LTOT modality that would provide greatest benefit for the patient, based on his or her individualized activities of daily living and lifestyle (at rest and during usual daily activity). This would relieve the prescribing primary-care physician, pulmonologist, RT, or

home-medical-equipment provider from the responsibility of conducting these examinations. Feedback should be provided to the physician/clinician and home-medical-equipment provider. A study to evaluate the need for an initial LTOT prescription following an exacerbation of COPD and for the need to continue LTOT after recovery and stabilization is recommended.