Background on Medicare's Oxygen Coverage

The coverage criteria for oxygen therapy found in the Centers for Medicare & Medicaid Services (CMS) national coverage determination and the DME MACs' Oxygen and Oxygen Equipment LCDs can be traced to a 1980 clinical study comparing continuous versus nocturnal oxygen usage. This study, the Nocturnal Oxygen Therapy Trial (NOTT), was led by Dr. Tom Petty (affiliated with the University of Colorado Health Sciences Center). Over 200 patients with chronic obstructive pulmonary disease (COPD) were given either nocturnal or continuous oxygen and followed for at least 12 months. A brief synopsis of the trial is that patients who used nocturnal oxygen only were almost twice as likely to die as those using continuous oxygen. Thus, continuous oxygen therapy for patients with chronic lung diseases such as COPD will help them live longer. Now, almost 35 years later, oxygen is still the only therapy for COPD that has been shown to prolong life.

Medicare's coverage criteria were influenced by the patient population and results of the NOTT study. For Medicare to consider paying for oxygen therapy, the beneficiary must meet one of the following…

Group 1

- An arterial PO2 at or below 55 mm Hg or an arterial oxygen saturation at or below 88 percent taken at rest (awake)

Group 2

An arterial PO2 of 56-59 mm Hg or an arterial blood oxygen saturation of 89 percent at rest (awake), during sleep for at least 5 minutes, or during exercise (as described under Group I criteria) and any of the following:

- Dependent edema suggesting congestive heart failure; or,
- Pulmonary hypertension or cor pulmonale, determined by measurement of pulmonary artery pressure, gated blood pool scan, echocardiogram, or "P" pulmonale on EKG (P wave greater than 3mm in standard leads II, III, or AVF); or,
- Erythrocythemia with a hematocrit greater than 56 percent.

In addition to the test results noted above, the following conditions must be met:

1. The treating physician has determined that the beneficiary has a severe lung disease or hypoxia-related symptoms that might be expected to improve with oxygen therapy; and,
2. The beneficiary's blood gas study meets the criteria stated below; and,
3. The qualifying blood gas study was performed by a physician or by a qualified provider or supplier of laboratory services; and,
4. The qualifying blood gas study was obtained under the following conditions:
    a. If the qualifying blood gas study is performed during an inpatient hospital stay, the reported test must be the one obtained closest to, but no earlier than 2 days prior to the hospital discharge date; or,
    b. If the qualifying blood gas study is not performed during an inpatient hospital stay, the reported test must be performed while the beneficiary is in a chronic stable state – i.e., not during a period of acute illness or an exacerbation of their underlying disease; and,
5. Alternative treatment measures have been tried or considered and deemed clinically ineffective.

There are two main points to consider beyond the test results.

First, the beneficiary exhibits significant hypoxemia while in a chronic stable state and not during a period of acute illness or exacerbation of the underlying disease (e.g., not in the emergency room of a hospital for a condition impacting the beneficiary's pulmonary function).

Second, Medicare requires that beneficiaries have a severe, underlying chronic lung disease (i.e., CPOD or diffuse interstitial lung disease). The policy has no mention of pneumonia or an undefined hypoxia. Medicare expects medical records to show the underlying cause of a diagnosis of hypoxia or hypoxemia. Contractors also expect to see how the condition is being treated or managed. If the main diagnosis is COPD, what steps have previously been taken to help the beneficiary? Have inhalation medications and nebulizer treatments or inhalers been prescribed but they no longer help the beneficiary?

Physicians must prescribe a defined liter flow as well. Medicare will not consider payment for oxygen therapy when orders indicate an "as needed" basis.

Please refer to the following before supplying oxygen to Medicare beneficiaries:

- Jurisdiction C Local Coverage Determination (LCD) for Oxygen and Oxygen Equipment (L33797)
- Jurisdiction C Related Policy Article for Oxygen and Oxygen Equipment (A52514)
- Jurisdiction C Supplier Manual
- CMS National Coverage Determinations manual (Internet-only Manual, Pub. 100-3), Chapter 1, Part 4, Section 240.2.

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