Priority Health

MEDICAL POLICY
No. 91452-R3

PULSE OXIMETRY FOR HOME USE

Effective Date: December 1, 2024	**Review Dates: 8/02, 8/03, 11/04, 10/05, 10/06, 10/07, 10/08, 10/09, 10/10, 10/11, 10/12, 10/13, 11/14, 11/15, 11/16, 11/17, 11/18, 11/19, 11/20, 11/21, 11/22, 11/23, 11/24**
Date Of Origin: August 28, 2002	**Status: Current**

Summary of Changes

Deletion: I.A.4 Deleted specific age range of less than one year old.

I. POLICY/CRITERIA

Pulse oximetry may be covered under the DME benefit for the indications listed below. Prior authorization is required after the initial 3 months of use.

A. Pulse oximetry for short-term home use is medically necessary for *any* of the following indications:

1. When weaning the member from home oxygen; ***or***
2. When a change in the member's physical condition requires an adjustment in the liter flow of their home oxygen needs; ***or***
3. To determine appropriate home oxygen liter flow for ambulation, exercise, or sleep.
4. Children on home oxygen therapy
5. Use of home pulse oximetry for indications other than those listed above may be approved on a case-by-case basis after review by the medical director.

B. Pulse oximetry for long-term home use is medically necessary for the following indication only:

1. Tracheostomy and ventilator patients

C. The use of home pulse oximetry is not medically necessary for the following indications:

1. Asthma management.
2. When used alone as a screening/testing technique for suspected obstructive sleep apnea or other sleep disturbance.
3. Continuous monitoring for patients with COPD, pulmonary fibrosis, or other chronic lung disease.

II. MEDICAL NECESSITY REVIEW

Prior authorization for certain drugs, services, and procedures may or may not be required. In cases where prior authorization is required, providers will submit a

request demonstrating that a drug, service, or procedure is medically necessary. For more information, please refer to the Priority Health Provider Manual.

III. APPLICATION TO PRODUCTS

Coverage is subject to member's specific benefits. Group specific policy will supersede this policy when applicable.

- **HMO/EPO:** ***This policy applies to insured HMO/EPO plans.***
- **POS:** ***This policy applies to insured POS plans.***
- **PPO:** ***This policy applies to insured PPO plans. Consult individual plan documents as state mandated benefits may apply. If there is a conflict between this policy and a plan document, the provisions of the plan document will govern.***
- **ASO:** ***For self-funded plans, consult individual plan documents. If there is a conflict between this policy and a self-funded plan document, the provisions of the plan document will govern.***
- **INDIVIDUAL:** ***For individual policies, consult the individual insurance policy. If there is a conflict between this medical policy and the individual insurance policy document, the provisions of the individual insurance policy will govern.***
- **MEDICARE:** ***Coverage is determined by the Centers for Medicare and Medicaid Services (CMS) and/or the Evidence of Coverage (EOC); if a coverage determination has not been adopted by CMS, this policy applies.***
- **MEDICAID/HEALTHY MICHIGAN PLAN:** ***For Medicaid/Healthy Michigan Plan members, this policy will apply. Coverage is based on medical necessity criteria being met and the appropriate code(s) from the coding section of this policy being included on the Michigan Medicaid Fee Schedule located at: http://www.michigan.gov/mdch/0,1607,7-132-2945_42542_42543_42546_42551-159815--,00.html. If there is a discrepancy between this policy and the Michigan Medicaid Provider Manual located at: http://www.michigan.gov/mdch/0,1607,7-132-2945_5100-87572--,00.html, the Michigan Medicaid Provider Manual will govern. For Medical Supplies/DME/Prosthetics and Orthotics, please refer to the Michigan Medicaid Fee Schedule to verify coverage.***

IV. CODING INFORMATION

ICD-10 codes

Diagnosis codes will vary. See criteria.

CPT/HCPCS code:

E0445 Oximeter device for measuring blood oxygen levels noninvasively *(Not covered for Priority Health Medicare)*

This is paid as a capped rental service at the DME benefit level

V. DESCRIPTION

Pulse oximetry is a noninvasive measure of the saturation of oxygen (SpO_2) in the blood. For patients on long-term oxygen therapy, pulse oximetry measurements are unnecessary except to assess changes in clinical status, or to facilitate changes in the oxygen prescription. Home pulse oximetry is also indicated when there is a

need to monitor the adequacy of SpO_2 or the need to quantitate the response of SpO_2 to a therapeutic intervention. Prescription oximeters undergo FDA review and are available only with a prescription. The FDA requires that these pulse oximeters undergo clinical testing to confirm their accuracy. They are most often used in hospitals and doctors' offices, although they may sometimes be prescribed for home use. Over-the-counter oximeters are sold directly to consumers in stores or online as general wellness products or for sports or aviation use. These devices are not intended for medical purposes and do not undergo FDA review.

Pulse oximetry is the primary method of monitoring SpO_2 in the pediatric population. Home oxygen therapy is often required in children with chronic respiratory conditions. The use of in-home pulse oximetry for long-term monitoring of home oxygen therapy in children is unanimously endorsed by an expert panel convened by the American Thoracic Society (ATS). In their 2019 clinical practice guideline, ATS concluded that pulse oximetry is sufficient for diagnosing hypoxemia in pediatric patients because arterial blood analysis for partial pressure oxygen is not practical for routine monitoring due to technical difficulty and pain associated with the arterial stick. In children younger than 1 year old, hypoxemia was defined as spending 5% of the recording time with SpO2 less than or equal to 90% or, if measurements are taken intermittently, obtaining three independent measurements of SpO2 less than or equal to 90%. In children 1 year old and older, hypoxemia was defined as spending 5% of the time with SpO2 less than or equal to 93% or, if measurements are taken intermittently, obtaining three independent measurements of SpO2 less than or equal to 93%. However, appropriate caregiver training is required for its use and application (Hayes, 2019).

A National Heart, Lung and Blood Institute/World Health Organization Global Asthma Initiative Report concluded that pulse oximetry was not an appropriate method of monitoring patients with asthma. The report explained that, during asthma exacerbations, the degree of hypoxemia may not accurately reflect the underlying degree of ventilation-perfusion (V-Q) mismatch. In 2021, the FDA issued a safety communication to inform public and health care providers of the limitations and accuracy. Factors that can affect the accuracy of a pulse oximeter reading include poor circulation, skin pigmentation, skin thickness, skin temperature, current tobacco use and fingernail polish. Patients with conditions such as COVID-19 should not rely solely on pulse oximeter measurements to monitor their health at home as they are not a substitute for a medical diagnosis by a health care provider (FDA, 2021).

Pulse oximetry alone is not an efficient method of screening or diagnosing patients with suspected obstructive sleep apnea. The sensitivity and negative predictive value of pulse oximetry is not adequate to rule out obstructive sleep apnea in patients with mild to moderate symptoms. Therefore, a follow up sleep study would be required to confirm or exclude the diagnosis of obstructive sleep apnea, regardless of the results of pulse oximetry screening.

Global Initiative for Chronic Obstructive Lung Disease (GOLD): Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease update (2024) states that if peripheral arterial oxygen is < 92%, arterial blood gases should be measured due to the imperfect correlation between oxygen saturation detected via pulse oximetry as compared to arterial blood gas.

VI. REFERENCES

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