

Home Pulse Oximetry for Infants and Children

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Definitions

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| Pulse oximetry | Measures the amount of saturated hemoglobin in the tissue capillaries by transmitting a beam of light through the tissue to a receiver. As the amount of saturated hemoglobin alters the wavelengths of the transmitted light, analysis of the received light is translated into a percentage of oxygen saturation (SO ₂ or SPO ₂) of the blood. |
| Infants | < 12 months of age. |
| Children | > 1 year of age — 18 th birthday. |

Guideline

1. Evaluation use

Home oximetry may be considered medically necessary to evaluate conditions that are commonly associated with oxygen desaturation (eg, chronic lung disease, chest trauma, severe cardiopulmonary disease or neuromuscular disease involving the muscles of respiration).

≥ 1:

- Initial evaluation to determine the severity of respiratory impairment.
- Evaluation of an acute change in condition.
- Evaluation of exercise tolerance in a patient with respiratory disease.
- Evaluation to establish medical necessity of an oxygen therapeutic regimen.
- To monitor for potential pulmonary toxicity effects associated medication therapy.
- Presence of a chronic condition resulting in hypoxemia and there is need to assess supplemental oxygen requirements and/or a therapeutic regimen.

2. Intermittent or short term use

Any:

- Recent hospitalization that required the use of oxygen for an acute condition or exacerbation of chronic condition.
- Weaning from home oxygen therapy.

- c. A change in physical condition that requires an adjustment in the oxygen liter flow needs.
- d. Determining appropriate home oxygen liter flow for ambulation, exercise or sleep.

These adjustments can be made by consulting with the physician during clinic visits or via telephone conversations.

3. Long term use

Any:

- a. Assisted ventilation and/or tracheostomy dependent members for whom the first sign of decannulation, disconnection or plugging would be desaturation.
- b. Weaning from assisted ventilation per a defined protocol.
- c. Members with idiopathic pulmonary hemosiderosis for whom the first sign of pulmonary hemorrhage would be desaturation.
- d. Members requiring apnea monitoring who are at risk for disconnection, strangulation, or injury from being tangled in the monitor wiring.
- e. The member has a medical condition for which intermittent arterial blood gas sampling is likely to miss important variations (eg, sleep apnea).
- f. Presence of a chronic condition resulting in hypoxemia, whereby a need exists to assess supplemental oxygen requirements and/or a therapeutic regimen (eg, bronchopulmonary dysplasia).

Limitations/Exclusions

1. Minimal suggested follow up is every six months.
2. The initial ordering and subsequent follow-up of a member on home monitoring can be accomplished by a neonatologist, pediatric pulmonologist, pediatric intensivist or pediatric cardiologist. These physicians are best able to order the proper diagnostic tests and write the prescription for a home pulse oximeter.
3. If a pulmonologist is not readily available, a pediatrician with knowledge and interest in neurologic, cardiac, airways and/or pulmonary disease that might benefit from home pulse oximetry is the next best choice.
4. The following indications are not considered medically necessary:
 - a. Asthma management.
 - b. In the absence of signs or symptoms suggestive of desaturation.
 - c. As a sole screening/diagnostic testing technique for obstructive sleep apnea.

Applicable Procedure Codes

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| 94760 | Noninvasive ear or pulse oximetry for oxygen saturation; single determination |
| 94761 | Noninvasive ear or pulse oximetry for oxygen saturation; multiple determinations (eg, during exercise) |
| 94762 | Noninvasive ear or pulse oximetry for oxygen saturation; by continuous overnight monitoring (separate procedure) |
| A4606 | Oxygen probe for use with oximeter device, replacement |
| E0445 | Oximeter device for measuring blood oxygen levels non-invasively |

Applicable ICD-10 Diagnosis Codes

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| E84.0 | Cystic fibrosis with pulmonary manifestations |
| E84.11 | Meconium ileus in cystic fibrosis |
| E84.8 | Cystic fibrosis with other manifestations |

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| E84.9 | Cystic fibrosis, unspecified |
| I27.0 | Primary pulmonary hypertension |
| I27.2 | Other secondary pulmonary hypertension (Incomplete code as of 10/1/2017) |
| I27.20 | Pulmonary hypertension, unspecified (Eff. 10/1/2017) |
| I27.21 | Secondary pulmonary arterial hypertension (Eff. 10/1/2017) |
| I27.22 | Pulmonary hypertension due to left heart disease (Eff. 10/1/2017) |
| I27.23 | Pulmonary hypertension due to lung diseases and hypoxia (Eff. 10/1/2017) |
| I27.24 | Chronic thromboembolic pulmonary hypertension (Eff. 10/1/2017) |
| I27.29 | Other secondary pulmonary hypertension (Eff. 10/1/2017) |
| I27.81 | Cor pulmonale (chronic) |
| I27.82 | Chronic pulmonary embolism |
| I27.89 | Other specified pulmonary heart diseases |
| I27.9 | Pulmonary heart disease, unspecified |
| I50.1 | Left ventricular failure, unspecified (Revision eff. 10/1/2017) |
| I50.20 | Unspecified systolic (congestive) heart failure |
| I50.22 | Chronic systolic (congestive) heart failure |
| I50.30 | Unspecified diastolic (congestive) heart failure |
| I50.32 | Chronic diastolic (congestive) heart failure |
| I50.40 | Unspecified combined systolic (congestive) and diastolic (congestive) heart failure |
| I50.42 | Chronic combined systolic (congestive) and diastolic (congestive) heart failure |
| I50.9 | Heart failure, unspecified |
| J41.1 | Mucopurulent chronic bronchitis |
| J41.8 | Mixed simple and mucopurulent chronic bronchitis |
| J47.0 | Bronchiectasis with acute lower respiratory infection |
| J47.1 | Bronchiectasis with (acute) exacerbation |
| J47.9 | Bronchiectasis, uncomplicated |
| J81.1 | Chronic pulmonary edema |
| J82 | Pulmonary eosinophilia, not elsewhere classified |
| J84.01 | Alveolar proteinosis |
| J84.02 | Pulmonary alveolar microlithiasis |
| J84.03 | Idiopathic pulmonary hemosiderosis |

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| J84.09 | Other alveolar and parieto-alveolar conditions |
| J84.10 | Pulmonary fibrosis, unspecified |
| J84.111 | Idiopathic interstitial pneumonia, not otherwise specified |
| J84.112 | Idiopathic pulmonary fibrosis |
| J84.113 | Idiopathic non-specific interstitial pneumonitis |
| J84.115 | Respiratory bronchiolitis interstitial lung disease |
| J84.17 | Other interstitial pulmonary diseases with fibrosis in diseases classified elsewhere |
| J84.89 | Other specified interstitial pulmonary diseases |
| J84.9 | Interstitial pulmonary disease, unspecified |
| J95.3 | Chronic pulmonary insufficiency following surgery |
| J95.822 | Acute and chronic postprocedural respiratory failure |
| J95.851 | Ventilator associated pneumonia |
| J96.10 | Chronic respiratory failure, unspecified whether with hypoxia or hypercapnia |
| J96.11 | Chronic respiratory failure with hypoxia |
| J96.12 | Chronic respiratory failure with hypercapnia |
| J96.20 | Acute and chronic respiratory failure, unspecified whether with hypoxia or hypercapnia |
| J96.21 | Acute and chronic respiratory failure with hypoxia |
| J96.22 | Acute and chronic respiratory failure with hypercapnia |
| J96.90 | Respiratory failure, unspecified, unspecified whether with hypoxia or hypercapnia |
| J96.91 | Respiratory failure, unspecified with hypoxia |
| J96.92 | Respiratory failure, unspecified with hypercapnia |
| P24.80 | Other neonatal aspiration without respiratory symptoms |
| P24.81 | Other neonatal aspiration with respiratory symptoms |
| P24.9 | Neonatal aspiration, unspecified |
| P25.1 | Pneumothorax originating in the perinatal period |
| P25.2 | Pneumomediastinum originating in the perinatal period |
| P25.3 | Pneumopericardium originating in the perinatal period |
| P26.8 | Other pulmonary hemorrhages originating in the perinatal period |
| P27.0 | Wilson-Mikity syndrome |
| P27.1 | Bronchopulmonary dysplasia originating in the perinatal period |
| P27.8 | Other chronic respiratory diseases originating in the perinatal period |

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| P27.9 | Unspecified chronic respiratory disease originating in the perinatal period |
| P28.2 | Cyanotic attacks of newborn |
| P28.3 | Primary sleep apnea of newborn |
| P28.4 | Other apnea of newborn |
| P28.5 | Respiratory failure of newborn |
| P28.81 | Respiratory arrest of newborn |
| P28.89 | Other specified respiratory conditions of newborn |
| Q33.4 | Congenital bronchiectasis |
| Z94.2 | Lung transplant status |
| Z94.3 | Heart and lungs transplant status |
| Z99.11 | Dependence on respirator [ventilator] status |
| Z99.81 | Dependence on supplemental oxygen |

References

Specialty-matched clinical peer review.