Home Pulse Oximetry

DESCRIPTION

Pulse oximetry measures oxygen saturation levels using a noninvasive probe which provides an estimate of arterial oxyhemoglobin saturation (SaO2), using selected wavelengths of light, to determine the saturation of oxyhemoglobin (SpO2). A home pulse oximeter is considered durable medical equipment and can provide a single SaO2 or a continuous reading (trending) of an individual’s oxygenation.

Pulse oximetry is considered a safe procedure, but has device limitation. Inaccurate readings may result from interference from ambient light, highly pigmented skin, low perfusion states, and motion artifact. False-negative results for hypoxemia and/or false-positive results for normal oxygen saturation may lead to inappropriate treatment of an individual. In addition, tissue injury may occur at the site of the probe, as a result of inappropriate use (e.g., pressure sores from prolonged application or electrical shock and burns from the substitution of incompatible probes between instruments).

Note: This policy exists for the purpose of supporting the Reimbursement Guidelines for Home Pulse Oximetry.

POLICY

- Home pulse oximetry, is considered medically necessary if the medical appropriateness criteria are met. (See Medical Appropriateness below.)

- Home pulse oximetry is considered investigational for diagnosing or managing the following conditions/disorders:
  - Obstructive sleep apnea (adults or children)
  - Asthma

MEDICAL APPROPRIATENESS

- Home pulse oximetry is considered medically appropriate for ANY ONE of the following:
  - Long term (years) oxygenation monitoring using home pulse oximetry for ANY ONE of the following:
    - Diagnosis of a chronic condition that may impair ventilation (e.g. neuromuscular disease such as Duchenne muscular dystrophy or spinal muscular atrophy, airway anomalies such as congenital subglottic stenosis, tracheal malformations, or Pierre Robin, lung disease/disorders of infancy such as bronchopulmonary dysplasia or barotrauma from mechanical ventilation)
    - Ventilator dependant individual
  - Short term (months) oxygenation monitoring using home pulse oximetry may be indicated for ANY ONE of the following:
    - Diagnosis of acute respiratory condition with documented oxygen desaturation when the use of home pulse oximetry will guide home oxygen management (e.g., Apnea of Prematurity, polycythemia, failure to thrive, exacerbations of COPD)
    - Changes in individual’s condition that requires adjustment of home oxygen therapy (e.g. hypoplastic left heart, post-operative heart surgery such as the Norwood procedure, COPD with resting hypoxemia)
    - Home supplemental oxygen therapy assessments are needed during ambulation, exercise and/or sleep (e.g. Cystic Fibrosis, spinal muscular atrophy, use of nighttime home noninvasive ventilation)
    - Weaning individual from home oxygen therapy

IMPORTANT REMINDERS

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Any specific products referenced in this policy are just examples and are intended for illustrative purposes only. It is not intended to be a recommendation of one product over another, and is not intended to represent a complete listing of all products available. These examples are contained in the parenthetical e.g. statement.

We develop Medical Policies to provide guidance to Members and Providers. This Medical Policy relates only to the services or supplies described in it. The existence of a Medical Policy is not an authorization, certification, and explanation of benefits or a contract for the service (or supply) that is referenced in the Medical Policy. For a determination of the benefits that a Member is entitled to receive under his or her health plan, the Member’s health plan must be reviewed. If there is a conflict between the Medical Policy and a health plan, the express terms of the health plan will govern.

ADDITIONAL INFORMATION

Differing from continuous or trending oximetry a ‘spot’ pulse oximetry check is a single measurement of oxygen saturation to provide adjunctive information for the clinician. It may be included with other routine vital signs (e.g., temperature, pulse, and blood pressure) obtained as part of a general assessment. (Note: spot sat checks should never utilize the HCPCS code E1399.)

Factors or situations that may affect accuracy of readings and/or performance of the pulse oximetry include:
- Motion artifact (e.g., movement)
- Abnormal hemoglobin levels
- Exposure of probe to ambient light sources during measurement
- Low perfusion states (e.g., peripheral vascular disease, low body temperature)
- Hypothermia
- Skin pigmentation (e.g., very dark pigmented African-American individuals)
- Nail polish or nail coverings when using finger probe (e.g., acrylic nail overlays)
- Inability to detect saturations below 83% with same degree of accuracy and precision seen at higher saturations

SOURCES


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**EFFECTIVE DATE** 5/31/2019

ID_Product Development

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