

# Local Coverage Determination (LCD): Pulmonary Function Testing (L34247)

Links in PDF documents are not guaranteed to work. To follow a web link, please use the MCD Website.

## Contractor Information

CONTRACTOR NAME	CONTRACT TYPE	CONTRACT NUMBER	JURISDICTION	STATE(S)
Noridian Healthcare Solutions, LLC	A and B MAC	01112 - MAC B	J - E	California - Northern
Noridian Healthcare Solutions, LLC	A and B MAC	01182 - MAC B	J - E	California - Southern
Noridian Healthcare Solutions, LLC	A and B MAC	01212 - MAC B	J - E	American Samoa Guam Hawaii Northern Mariana Islands
Noridian Healthcare Solutions, LLC	A and B MAC	01312 - MAC B	J - E	Nevada

## LCD Information

### Document Information

**LCD ID**

L34247

**Original Effective Date**

For services performed on or after 10/01/2015

**LCD Title**

Pulmonary Function Testing

**Revision Effective Date**

For services performed on or after 10/01/2019

**Proposed LCD in Comment Period**

N/A

**Revision Ending Date**

N/A

**Source Proposed LCD**

N/A

**Retirement Date**

N/A

**AMA CPT / ADA CDT / AHA NUBC Copyright Statement**

CPT codes, descriptions and other data only are copyright 2018 American Medical Association. All Rights Reserved. Applicable FARS/HHSARS apply.

**Notice Period Start Date**

N/A

**Notice Period End Date**

N/A

Association. All rights reserved.

Copyright © 2019, the American Hospital Association, Chicago, Illinois. Reproduced with permission. No portion of the AHA copyrighted materials contained within this publication may be copied without the express written consent of the AHA. AHA copyrighted materials including the UB-04 codes and descriptions may not be removed, copied, or utilized within any software, product, service, solution or derivative work without the written consent of the AHA. If an entity wishes to utilize any AHA materials, please contact the AHA at 312-893-6816. Making copies or utilizing the content of the UB-04 Manual, including the codes and/or descriptions, for internal purposes, resale and/or to be used in any product or publication; creating any modified or derivative work of the UB-04 Manual and/or codes and descriptions; and/or making any commercial use of UB-04 Manual or any portion thereof, including the codes and/or descriptions, is only authorized with an express license from the American Hospital Association. To license the electronic data file of UB-04 Data Specifications, contact Tim Carlson at (312) 893-6816 or Laryssa Marshall at (312) 893-6814. You may also contact us at [ub04@healthforum.com](mailto:ub04@healthforum.com).

## **CMS National Coverage Policy**

Title XVIII of the Social Security Act (SSA), §1862(a)(1)(A), states that no Medicare payment shall be made for items or services that "are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member."

Title XVIII of the Social Security Act, §1862(a)(7) and 42 Code of Federal Regulations (CFR), §411.15, exclude routine physical examinations.

Title XVIII of the Social Security Act, §1833(e), prohibits Medicare payment for any claim lacking the necessary documentation to process the claim.

42 CFR §410.32 and §410.33, indicate that diagnostic tests are payable only when ordered by the physician who is treating the beneficiary for a specific medical problem and who uses the results in such treatment.

CMS Manual System, Publication 100-08, *Medicare Program Integrity Manual*, Chapter 3, §3.2.3.3, Third-party Additional Documentation Request.

CMS Manual System, Publication 100-08, *Medicare Program Integrity Manual*, Chapter 15, Enrollment, §§15.5.19 - 15.5.19.7 Independent Diagnostic Testing Facilities Standards. See also 42 CFR 410.33.

CMS Manual System, Publication 100-02, *Medicare Benefit Policy Manual*, Chapter 15, §§60 and 80, indicate that the technical component of diagnostic tests are not covered as "incident-to" physician healthcare services, but under a

distinct coverage category and subject to supervision levels found in the Physician Fee Schedule database. See also 42 CFR §§410.32 and 410.33.

Ruling of the Administrator 95-1 (HCFA Ruling 95-1), binding on providers, contractors, and Administrative Law Judges, states that by virtue of their licensure and practice, providers are responsible for knowing norms of community practice.

CMS Manual System, Publication 100-08, *Medicare Program Integrity Manual*, Chapter 3, §3.4.1.3., Diagnosis Code Requirement.

## Coverage Guidance

### Coverage Indications, Limitations, and/or Medical Necessity

#### Pulmonary Function Tests

Pulmonary Function Tests (PFTs) are a broad range of diagnostic procedures that measure two components of the respiratory system's functional status: 1) the mechanical ability to move air in and out of the lungs, and 2) the effectiveness of providing oxygen to the body and removing carbon dioxide.

Pulmonary function tests are divided into five general areas:

- Spirometry,
- Lung Volume,
- Diffusion Capacity,
- Lung compliance, and
- Pulmonary Studies during Exercise Testing.

General indications for any of the pulmonary function tests include:

- To determine the presence of lung disease or abnormality of lung function,
- To determine the type of abnormality,
- To determine the extent of abnormality,
- To determine the extent of disability due to abnormal lung function, and
- To determine and evaluate one or more courses of therapy in the treatment of the particular condition.

General limitations for any of the pulmonary function tests include:

- All diagnostic tests payable by Medicare must be ordered by a treating physician and used in patient care. Community standards always apply.
- The various modalities to assess pulmonary function must be used in a purposeful and logical sequence.
- Tests performed as components rather than as a single test will be denied.
- **Medicare does not cover screening tests.** Medicare coverage excludes routine (screening) tests for asymptomatic patients with or without high risk of lung disease (e.g., prolonged smoking history). It also excludes studies as part of a routine exam, and studies as part of an epidemiological survey.

**Medical necessity is an overriding requirement for Medicare coverage of diagnostic testing.** When a diagnosis or evaluation can be made clinically or when test results are not necessary to manage the patient's disease, then Pulmonary Function Testing is not reasonable and necessary. In addition, on routine visits for other

medical conditions, when a patient claims to be stable or does not report clinically meaningful changes in pulmonary status, and physical exam and interview confirm this, repeat testing is unlikely to be necessary. Noridian has found that in many patients routine use of PFTs at each office visit is not a necessary and reasonable clinical practice and as such, cannot be reimbursed.

Providers should pay particular attention to guidelines for the usage of the CPT codes relative to Medicare's standards of reasonable and necessary care found in the Billing and Coding article attached under Related Local Coverage Documents below.

## **1. Spirometry:**

Spirometry is performed by having the patient breathe into a mouthpiece that is connected to an instrument called a spirometer. The spirometer records the amount of air and the rate that it is breathed in and out over a specified amount of time (approximately 10 seconds). Some of the test measurements are obtained by normal breathing and other measurements require forced inhalation and exhalation.

Spirometry is most useful for assessing obstructive lung diseases such as asthma and chronic obstructive pulmonary disease (COPD).

Refer to the Billing and Coding article attached under Related Local Coverage Documents below for the CPT codes for Spirometry. Routine and/or repetitive billing for unnecessary batteries of tests is not clinically reasonable.

### **Specific indications for spirometry include:**

Diagnostic indications:

- Detect the presence or absence of lung dysfunction suggested by history or clinically significant physical signs and symptoms,
- Detect the presence or absence of lung dysfunction suggested by other abnormal diagnostic tests (e.g., radiography, arterial blood gas analysis).

Monitoring indications:

- Quantify the severity of known lung disease,
- Assess the change in lung function over time,
- Assess the change in lung function following administration of or a change in therapy,
- Assess the risk for surgical procedures known to affect lung function.

### **Limitations to performing spirometry are:**

- Routine or repetitive batteries of tests are not clinically reasonable.
- In many scenarios, simple spirometry is a mainstay of pulmonary function testing and is usually sufficient to differentiate between obstructive and restrictive disorders and evaluate their severity. Extensive testing may often not be necessary for adequate clinical assessment.
- Post-bronchodilator spirometry is used to evaluate the reversible component of bronchospasm and to determine if the patient is a bronchodilator therapy candidate. Claims for spirometry will be subject to medical review as follows: there are clinical signs and symptoms consistent with bronchospasm; or spirometry without bronchodilator is abnormal; or reversibility or nonreversibility of bronchospasm has not been demonstrated. Repeat studies are covered only with clinically significant change, necessitating adjustment/augmentation of

therapy, appropriately documented.

- General clinical contraindications to spirometry include: hemoptysis of unknown origin, pneumothorax, unstable cardiovascular status, thoracic/abdominal or cerebral aneurysms, recent eye surgery, recent thoracic or abdominal surgery, and presence of acute disease processes that interfere with test performance.

## **2. Lung volume**

The entire lung volume is not measured by simple spirometry because it is larger than the air quantity exhaled/inhaled. Lung volume is measured when a person breathes nitrogen or helium gas through a tube for a specified period of time. The change in concentration of the gas in a chamber attached to the tube is measured before and after test breathing, allowing estimation of the lung volume. Measures include total lung capacity, residual volume, and functional residual capacity.

Lung volume tests are most useful for assessing restrictive lung diseases such as those caused by scarring inside the lungs or by abnormalities in the ribcage or muscles of the chest wall.

CPT codes for lung volume determination may be added when clinically relevant (see Section 4).

**Indications for a lung volume test are as follows, when consistent with community standards of reasonable clinical practice:**

- Evaluation of the type and degree of pulmonary dysfunction,
- Evaluation of dyspnea, cough, and other symptoms,
- Early detection of lung dysfunction,
- Follow-up and response to therapy,
- Preoperative evaluation,
- Track pulmonary disease progression,
- Assess the effectiveness of therapy for pulmonary conditions,
- Pre and post-op evaluations for Lung Volume Reduction Surgery (LVRS).

**Limitations to performing a lung volume test are:**

- Functional Residual Capacity (FRC) may be artificially high if the measurement is taken at a higher lung volume secondary to pain or anxiety,
- Subject cooperation is necessary,
- A complete evaluation may require the use of inhaled gases,
- Repetitive testing of total lung volume is not usually clinically necessary.

## **3. Diffusion Capacity**

Diffusion capacity is measured when a person breathes in a measured amount of carbon monoxide for a very short time (often just one breath). While breathing out, the concentration of carbon monoxide is measured. The difference in the amount of carbon monoxide inhaled and the amount exhaled allows estimation of how rapidly gases can travel from the lungs into the blood.

Diffusion capacity tests are most useful for the assessment of how well the lung tissues transfer oxygen from the air inside the lungs, across thin membranes, into the blood.

**Indications for diffusion capacity (DLCO) are as follows, when consistent with community standards of reasonable clinical practice:**

- Evaluate and follow up parenchymal lung diseases associated with dusts or drug reactions or Sarcoidosis,
- Evaluate and follow up emphysema and cystic fibrosis,
- Differentiate between chronic bronchitis, emphysema, and asthma in patient with obstructive patterns,
- Evaluate the pulmonary involvement in systemic diseases (e.g., rheumatoid arthritis, systemic lupus),
- Help in the evaluation of some types of cardiovascular disease (e.g., primary pulmonary hypertension, pulmonary edema, acute or recurrent thromboembolism),
- Predict arterial desaturation during exercise in chronic obstructive pulmonary disease,
- Evaluate and quantify the disability associated with interstitial lung disease,
- Evaluate the effects of chemotherapy agents or other drugs known to induce pulmonary dysfunction,
- Evaluate hemorrhagic disorders.

**Limitations to performing a diffusion capacity test are:**

- Mental confusion or muscular incoordination preventing the subject from adequately performing the maneuver,
- Single breath DLCO requires breath holding at maximal inhalation. Some patients may be limited by syncopal symptoms triggered by an associated Valsalva or Muller maneuver which may slow the heart rate.

#### **4. Lung Compliance**

Lung compliance studies are performed only when all other PFTs give equivocal results or results which must be confirmed by additional lung compliance testing. Lung compliance measures the elastic recoil/stiffness of the lungs. It is more invasive than other PFTs, because the patient is required to swallow an esophageal balloon.

#### **5. Pulmonary Studies during Exercise Testing**

Pulmonary stress testing is done in two (2) forms.

- The simple pulmonary stress testing is a test that allows quantification of workload and heart rate activity, while measuring the degree of oxygen desaturation. This test is undertaken to measure the degree of hypoxemia or desaturation that occurs with exertion. It is also used to optimize titration of supplemental oxygen for the correction of hypoxemia.
- A more complex protocol involves the measurements of oxygen uptake, CO<sub>2</sub> production, and O<sub>2</sub>. Indications for this protocol include the following:
  - To distinguish between cardiac and pulmonary causes for dyspnea;
  - To determine the need for and dose of ambulatory oxygen;
  - To assist in developing a safe exercise prescription for patients with cardiovascular or pulmonary disease;
  - To predict the morbidity of lung resection; or
  - To titrate optimal settings in selected patients who have physiologic pacemakers.

#### **Qualifications of personnel**

Personnel who perform all pulmonary function tests should have verifiable training in all aspects of spirometry, lung volume, diffusion capacity, lung compliance, and pulmonary exercise testing, including equipment operation, quality control, and test outcomes relative to diagnosis and medical history.

This A/B MAC would anticipate that clinical practices with heavy emphasis on extensive batteries of complex pulmonary function tests and primary focus on treating severe pulmonary disease would often be managed by pulmonologists or by other physicians with specialized experience in respiratory disorders, and that such pulmonary testing centers would often have staff with specific training in respiratory therapy (for example, associate degree in respiratory therapy, licensure as a Respiratory Care Practitioner, or National Board of Respiratory Care (NBRC) certification).

According to National Regulations, clinics which are (a) not physician owned and which are (b) billing Medicare primarily for diagnostic tests may be required to enroll as IDTFs. For example, a nonphysician owner who establishes a diagnostic PFT clinic by leasing office space, equipment, and hiring technicians, and hires a retired ophthalmologist to provide off-site (general) supervision of diagnostic testing without treatment would be more appropriately enrolled as an IDTF.

### **Summary of Evidence**

NA

### **Analysis of Evidence (Rationale for Determination)**

NA

---

## **General Information**

### **Associated Information**

N/A

### **Sources of Information**

1. Commission of Accreditation of Allied Health Education Programs. Available at: [www.caahep.org](http://www.caahep.org) Accessed 3/13/2012.
2. Cystic-L. PFTs Explained For You. Available at: [www.cystic-l.org/handbook/html/pft\\_s\\_explained\\_for\\_you.htm](http://www.cystic-l.org/handbook/html/pft_s_explained_for_you.htm) Accessed 03/13/2012.
3. Puritan Bennett. Reimbursement: Spirometry. Available at: <http://www.puritanbennett.com/remb/spirometry.aspx> Accessed 03/13/2012.
4. Respiratory Care Board of California. Available at: [www.rcb.ca.gov/applicants/education\\_regs.shtml](http://www.rcb.ca.gov/applicants/education_regs.shtml) Accessed 03/13/2012.  
[www.rcb.ca.gov/licensees/scopeofprac.shtml](http://www.rcb.ca.gov/licensees/scopeofprac.shtml) Accessed 03/13/2013.
5. University of Maryland Medical Center. Pulmonary Function Tests. Available at:

6. WebMD Health. Lung Function Tests. Available at:  
www.webmd.com Accessed 3/13/2013.

7. This contractor’s prior LCDs “Pulmonary Function Tests”, (L10375, L10412) which will be retired once this policy becomes effective.

8. Other contractors’ LCDs including Healthnow (L3929, in particular for pulmonary exercise testing), BCBS Arkansas (L13428), and Trailblazer (L11908).

9. Contractor Medical Director

**NOTE: Some of the websites used to create this policy may no longer be available.**

**Bibliography**

NA

---

## Revision History Information

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASON(S) FOR CHANGE
10/01/2019	R10	<p>As required by CR 10901, all billing and coding information has been moved to the companion article, this article is linked to the LCD.</p> <p>10/01/2019 - At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy</p>	<ul style="list-style-type: none"> <li>• Revisions Due To Code Removal</li> </ul>
10/01/2019	R9	<p>Effective 10/01/2019, added and revised the following ICD-10 codes in Group1 per the annual 2019/2020 ICD-10-CM updates.</p> <p>Group 1 Codes Added:</p> <ul style="list-style-type: none"> <li>• I26.93 Single subsegmental pulmonary embolism without acute cor pulmonale</li> <li>• I26.94 Multiple subsegmental pulmonary emboli without acute cor pulmonale</li> <li>• Z86.15 Personal history of latent tuberculosis infection</li> </ul>	<ul style="list-style-type: none"> <li>• Creation of Uniform LCDs Within a MAC Jurisdiction</li> <li>• Revisions Due To ICD-10-CM Code Changes</li> </ul>

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASON(S) FOR CHANGE
		<p>Group 1 Code Description Changes:</p> <ul style="list-style-type: none"> <li>Revised from J44.0 - Chronic obstructive pulmonary disease with acute lower respiratory infection to J44.0 - Chronic obstructive pulmonary disease with (acute) lower respiratory infection.</li> </ul> <p>09/16/2019 - At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy</p>	
10/01/2018	R8	<p>10/16/18-At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</p> <p>ICD-10 codes G70.00 and G70.01 added back in to the Group 1 ICD-10 Codes That Support Medical Necessity section after inadvertently deleting them with the 2019 Annual ICD-10 Code Update effective 10/01/2018.</p>	<ul style="list-style-type: none"> <li>Typographical Error</li> </ul>
10/01/2018	R7	<p>09/06/2018 - At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</p> <p>The following ICD-110 codes were added, deleted and revised per the Annual ICD-10 Updates.</p> <p><b>Added:</b> G71.00, G71.01, G71.02 and G71.09</p> <p><b>Deleted:</b> G71.0.</p> <p><b>Revised:</b> J84.848.</p>	<ul style="list-style-type: none"> <li>Revisions Due To ICD-10-CM Code Changes</li> </ul>

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASON(S) FOR CHANGE
01/01/2018	R6	<p>11/29/17: At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</p> <p>Added procedure codes 94617 and 94618 effective 01/01/2018 and deleted 94620 effective 12/31/2017.</p>	<ul style="list-style-type: none"> <li>• Revisions Due To CPT/HCPCS Code Changes</li> </ul>
10/01/2017	R5	<p>08/24/2017: At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</p> <p>Effective DOS 10/01/2017 the following ICD-10-CM codes were added, deleted and had a description change:</p> <p>Added:</p> <ul style="list-style-type: none"> <li>• I27.20</li> <li>• I27.21</li> <li>• I27.22</li> <li>• I27.23</li> <li>• I27.24</li> <li>• I27.29</li> <li>• I27.83</li> </ul> <p>The following ICD-10 codes were deleted from the ICD-10 Codes that Support Medical Necessity field: I27.2 was deleted from Group 1</p> <p>The following ICD-10 code descriptions were changed in the ICD-10 Codes that Support Medical Necessity field: M33.01 descriptor was changed in Group 1 M33.02 descriptor was changed in Group 1 M33.09 descriptor was changed in Group 1 M33.11 descriptor was changed in Group 1 M33.12 descriptor was changed in Group 1 M33.19 descriptor was changed in Group 1</p>	<ul style="list-style-type: none"> <li>• Revisions Due To ICD-10-CM Code Changes</li> </ul>
10/01/2016	R4	<p>The LCD is revised to add ICD-10 codes effective 10/1/2016: I69.010, I69.011, I69.012, I69.013, I69.014, I69.015, I69.018, I69.110, I69.111, I69.112, I69.113, I69.114,</p>	<ul style="list-style-type: none"> <li>• Revisions Due To ICD-10-CM Code Changes</li> </ul>

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASON(S) FOR CHANGE
		I69.115, I69.118, I69.210, I69.211, I69.212, I69.213, I69.214, I69.215, I69.218, I69.310, I69.311, I69.312, I69.313, I69.314, I69.315, I69.318, I69.810, I69.811, I69.812, I69.813, I69.814, I69.815 and I69.818 to Group 1.  The following ICD-10 deleted effective 10/1/2016 from Group 1: I69.01, I69.11, I69.21, I69.31 and I69.81.	
10/01/2015	R3	RLCD revised to add J44.9 to Group 2 ICD-10 Codes that Support Medical Necessity	<ul style="list-style-type: none"> <li>Revisions Due To ICD-10-CM Code Changes</li> </ul>
10/01/2015	R2	R2 Added ICD-10 codes J45.901, J45.902 & J45.909 to Group 1 & 2 ICD-10 Codes that Support Medical Necessity. Deleted Group 4 paragraph Section D stating "The following CPT codes apply to any diagnosis codes from Sections A, B, or C: 94013, 94250, 94400, 94450, 94640, 94680, 94681, 94690, 94726, 94727, 94728, 94729, and 94750. CPT code 94664 applies to any diagnosis code from section A, B, or C. See sections for Indication or Utilization" and added the information from Group 4 to Groups 1, 2 and 3.	<ul style="list-style-type: none"> <li>Reconsideration Request</li> <li>Revisions Due To ICD-10-CM Code Changes</li> </ul>
10/01/2015	R1	The LCD is revised to add J44.9 in group 1.	<ul style="list-style-type: none"> <li>Revisions Due To ICD-10-CM Code Changes</li> </ul>

## Associated Documents

### Attachments

N/A

### Related Local Coverage Documents

Article(s)

A57216 - Billing and Coding: Pulmonary Function Testing

### Related National Coverage Documents

N/A

### Public Version(s)

Updated on 10/04/2019 with effective dates 10/01/2019 - N/A

Updated on 10/17/2018 with effective dates 10/01/2018 - 09/30/2019

Updated on 09/08/2018 with effective dates 10/01/2018 - N/A

# Keywords

- 94010
- 94011
- 94012
- 94013
- 94060
- 94070
- 94150
- 94200
- 94250
- 94375
- 94400
- 94450
- 94617
- 94618
- 94621
- 94640
- 94664
- 94680
- 94681
- 94690
- 94726
- 94727
- 94728
- 94729
- 94750
- Pulmonary
- Function