Spirometry

Adjudication Guideline

Rule Category:	Ref: No:	Version Control:	Effective Date:	Revision Date:
Medical	2020-MN-0052	Version No. 2.0	01/05/2020	25/12/2024

Approved by:	Responsible:	Related Adjudication Guidelines:
Daman	Medical Standards & Research	N/A

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1. Abstract

1.1 For Members

Spirometry is a simple test used to help diagnose and monitor certain lung conditions by measuring how much air can be exhaled in one forced breath. It's carried out using a device called a spirometer, which is a small machine attached by a cable to a mouthpiece.

Conditions that can be picked up and monitored using spirometry include:

- Asthma: a long-term condition in which the airways become periodically inflamed (swollen) and narrowed.
- Chronic obstructive pulmonary disease (COPD): a group of lung conditions where the airways become narrowed.
- Cystic fibrosis: a genetic condition in which the lungs and digestive system become clogged with thick, sticky mucus.
- Pulmonary fibrosis: scarring of the lungs.

1.2 For Medical Professionals

Spirometry measures the rate at which the lung changes volume during forced breathing maneuvers. Spirometry begins with a full inhalation, followed by a forced expiration that rapidly empties the lungs.
Expiration is continued for as long as possible or until a plateau in exhaled volume is reached.
These efforts are recorded and graphed. Spirometry is a powerful tool that can be used to detect, follow, and manage patients with lung disorders. These can be:

1. Restrictive: such as Pulmonary fibrosis, Neuromuscular disorders, Pulmonary Oedema.
2. Obstructive: such as Chronic obstructive pulmonary disease (COPD), Asthma, Bronchiectasis/cystic fibrosis, Bronchiolitis, α1– antitrypsin deficiency.

2. Scope

The scope of this adjudication rule is to highlight the medical necessity and coverage of spirometry for all health insurance plans administered by Daman subject to policy terms and conditions.

3. Adjudication Policy

3.1 Eligibility / Coverage Criteria

Indications for spirometry

1. The evaluation of symptoms, signs or abnormal investigations:

    a. Symptoms:

    - Chronic cough lasting 8 weeks or longer.
    - Chronic dyspnoea lasting more than one month.
    - Wheeze in asthmatic patients, orthopnoea, sputum production.

    b. Signs:

    - Chest deformity (barrel chest).
    - Cyanosis.
    - Prolonged expiration.
    - Wheeze/stridor.

    c. Unexplained crackles.

2. Investigations: to evaluate abnormal lab tests such as Pulse oxygen saturation, Arterial blood gases

3. To monitor therapy (performed before and after) bronchodilator and response to biologic drugs.

4. To assess preoperative risk in patients:

    Spirometry is useful for determining the risk of postoperative pulmonary complications in certain high-risk situations, including patients known to have COPD or asthma, current smokers, and those scheduled for thoracic or upper abdominal surgery.

    If spirometry demonstrates moderate to severe obstruction and the surgery can be delayed, a prophylactic program of pulmonary hygiene, including smoking cessation, inhaled bronchodilators or glucocorticoids, and possibly antibiotics for bronchitis, will reduce the risk.

5. Screening for employment status at risk of having pulmonary disease.

6. To follow the course of disease and assess prognosis (Obstructive/ restrictive/ Asthma):

   Suggested pattern based on FEV1 & FVC:

FEV1/FVC	FVC	Suggested Pattern
Normal	Normal	Normal
Normal	Decreased	Restrictive
Decreased	Normal	Obstructive
Decreased	Decreased	Mixed (obstructive/Restrictive)

Contraindications

If any of the following have occurred recently, then it may be better to wait until the patient has fully recovered before carrying out spirometry:

- Haemoptysis of unknown origin.
- Pneumothorax.
- Unstable cardiovascular status, recent myocardial infarction or pulmonary embolism.
- Thoracic, abdominal or cerebral aneurysms.
- Recent eye surgery.
- Acute disorders affecting test performance, such as nausea or vomiting.
- Recent thoracic or abdominal surgical procedures.

Clinician Eligibility Criteria

Eligible Clinicians
Allergy and Immunology
Cardiology
Emergency and Critical Care Medicine
Family Medicine
General Practitioners and Privileged physicians
Infectious Diseases
Internal Medicine and relevant subspecialties
Medical Oncology
Neurology
Occupational Medicine
Paediatrics and relevant subspecialties
Respiratory medicine
Adolescent Medicine
Allergy and Immunology
Cardiology
Emergency and Critical Care Medicine
Family Medicine
Undersea and Hyperbaric Medicine

3.2 Requirements for Coverage

- ICD and CPT codes must be coded to the highest level of specificity.
- Failure to submit documentation or reports, to establish clinical history, can result in rejection of the claim.

3.3 Non-Coverage

- If not medically indicated.
- Not covered for visitor plan.

3.4 Payment and Coding Rules

Please apply Regulator payment rules and regulations and relevant coding manuals for ICD, CPT, etc.

4. Denial Codes

Code	Code description
MNEC-003	Service is not clinically indicated based on good clinical practice
MNEC-004	Service is not clinically indicated based on good clinical practice, without additional supporting diagnoses/activities
CODE-010	Activity/diagnosis inconsistent with clinician specialty

5. Appendices

5.1 References

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- https://www.aappublications.org/content/32/12/25
- https://www.dynamed.com/evaluation/pulmonary-function-tests#GUID-161F0DD5-CC3F-485A-94D0-520A4ED0B7A1
- https://www.aafp.org/afp/2012/0715/p173.html
- https://www.aafp.org/pubs/afp/issues/2020/0315/p362.html
- https://www.aafp.org/afp/2012/0715/p173.html#:~:text=Chronic%20dyspnea%20has%20been%20defined,When%20shortness%20of%20breath%20is

5.2 Revision History

Date	Change(s)
09/02/2021	Release of V1.0
27/12/2024	Release of V2.0 • General content review • References and template updated