

Medical Coverage Policy | Home Spirometry



EFFECTIVE DATE: 07|01|1999
POLICY LAST UPDATED: 07|15|2014

OVERVIEW

Home spirometry devices allow for the monitoring of pulmonary function in the home. Their primary proposed use is by lung transplant recipients to aid in the early diagnosis of infection and rejection. They can potentially also be used in other situations that require pulmonary function monitoring.

PRIOR AUTHORIZATION

Not applicable.

POLICY STATEMENT

Blue CHiP for Medicare and Commercial

Home spirometry is considered not medically necessary as there is not sufficient published, peer-reviewed, scientific literature that demonstrates that the procedure is effective.

MEDICAL CRITERIA

Not applicable.

BACKGROUND

In the immediate post-operative period, lung transplant recipients must be carefully monitored for the development of either rejection episodes or infectious complications. Monitoring techniques include complete pulmonary function testing, serial chest x-rays, bronchioalveolar lavage, and transbronchial biopsy. Transbronchial biopsy is thought to be the only objective method of distinguishing between these 2 common complications. Transbronchial biopsy is typically performed on a routine schedule, with additional biopsies performed if the patient becomes symptomatic. Home spirometry is proposed as a technique to provide daily monitoring to promptly identify presymptomatic patients who may benefit from a diagnostic transbronchial biopsy.

Home spirometry uses battery-operated spirometers that permit regular daily measurement of pulmonary function in the home, typically forced expiratory volume in 1 second (FEV-1) and forced vital capacity (FVC). The device has been primarily investigated among lung transplant recipients as a technique to provide early diagnosis of infection and rejection. Home spirometry may also be referred to as ambulatory spirometry.

There are few studies on home spirometry use and most of the available literature did not evaluate the impact of home spirometry use on health outcomes. The evidence is insufficient that home spirometry improves the net health outcome and thus the technology is considered not medically necessary.

COVERAGE

Benefits may vary between groups/contracts. Please refer to the appropriate Evidence of Coverage or Subscriber Agreement for limitations of benefits/coverage when services are not medically necessary.

CODING

BlueCHiP for Medicare and Commercial

The following codes are **not medically necessary**:

94014, 94015, 94016

RELATED POLICIES

Not applicable.

PUBLISHED

Provider Update	Sep 2014
Provider Update	Nov 2013
Provider Update	Jul 2012
Provider Update	Sep 2011
Provider Update	Oct 2010
Provider Update	Jun 2009

REFERENCES

1. Otulana BA, Higenbottam T, Ferrari L et al. The use of home spirometry in detecting acute lung rejection and infection following heart-lung transplantation. *Chest* 1990; 97(2):353-7.
2. Fracchia C, Callegari G, Volpato G et al. Monitoring of lung rejection with home spirometry. *Transplant Proc* 1995; 27(3):2000-1.
3. Adam TJ, Finkelstein SM, Parente ST et al. Cost analysis of home monitoring in lung transplant recipients. *Int J Technol Assess Health Care* 2007; 23(2):216-22.
4. Kugler C, Fuehner T, Dierich M et al. Effect of adherence to home spirometry on bronchiolitis obliterans and graft survival after lung transplantation. *Transplantation* 2009; 88(1):129-34.
5. Guihot A, Becquemin MH, Couderc LJ et al. Telemetric monitoring of pulmonary function after allogeneic hematopoietic stem cell transplantation. *Transplantation* 2007; 83(5):554-60.
6. Brouwer AF, Roorda RJ, Brand PL. Comparison between peak expiratory flow and FEV(1) measurements on a home spirometer and on a pneumotachograph in children with asthma. *Pediatr Pulmonol* 2007; 42(9):813-8.

[CLICK THE ENVELOPE ICON BELOW TO SUBMIT COMMENTS](#)

This medical policy is made available to you for informational purposes only. It is not a guarantee of payment or a substitute for your medical judgment in the treatment of your patients. Benefits and eligibility are determined by the member's subscriber agreement or member certificate and/or the employer agreement, and those documents will supersede the provisions of this medical policy. For information on member-specific benefits, call the provider call center. If you provide services to a member which are determined to not be medically necessary (or in some cases medically necessary services which are non-covered benefits), you may not charge the member for the services unless you have informed the member and they have agreed in writing in advance to continue with the treatment at their own expense. Please refer to your participation agreement(s) for the applicable provisions. This policy is current at the time of publication; however, medical practices, technology, and knowledge are constantly changing. BCBSRI reserves the right to review and revise this policy for any reason and at any time, with or without notice. Blue Cross & Blue Shield of Rhode Island is an independent licensee of the Blue Cross and Blue Shield Association.

