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Your practical guide to current coding

Pulmonary Function Testing

There have been a number of additions and revisions to the pulmonary section of *CPT 1999.* Three new codes have been created to report spirometric measurements taken by the patient at home (94014, 94015, and 94016). Two of the existing codes describing bronchospasm evaluation have been editorially revised (94060 and 94070). The single code describing simple or complex pulmonary stress testing (94620) has been editorially revised and is now to be used only for simple pulmonary stress testing with the new code (94621) for reporting complex pulmonary stress testing. In this article, we will take a closer look at these new and revised codes.

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Patient Initiated Spirometric Recording

This method of obtaining ongoing spirometric analysis of lung function is relatively new, but is widely accepted in both the pulmonary medicine and transplant community. Patient initiated spirometric recording is currently being used following lung transplant and requires the patient to perform the spirometry at a predetermined time each day. The results are stored in a small computer that is part of the spirometer. At a scheduled time, the patient is contacted and the data is downloaded via modem from the spirometer's computer to another computer. The data is then trended and analyzed to identify problems such as rejection, infection, or bronchiolitis obliterans following lung transplant.

The New Codes

94014 **Patient initiated spirometric recording per 30 day period of time; includes reinforced education, transmission of spirometric tracing, data capture, analysis of transmitted data, periodic recalibration and physician review and interpretation**

94015 **Patient initiated spirometric recording per 30 day period of time; recording (includes hook-up, reinforced education, data transmission, data capture, trend analysis, and periodic recalibration)**

94016 **Patient initiated spirometric recording per 30 day period of time; physician review and interpretation only**

Code 94014 is intended to describe the global service, (ie, both the professional and technical components of the service).

Code 94015 describes only the technical component of the service, including recording, hook-up, reinforced education, data transmission, data capture, trend analysis, and periodic recalibration.

Code 94016 is intended to represent only the physician (professional) component of the service.

Rationale for New Codes for Patient Initiated Spirometric Recording

The existing spirometric code (94010) did not adequately describe patient initiated spirometric recording as the code does not recognize all the components of this new spirometric methodology. The new codes recognize the following: the machine must be hooked up; the patient must receive thorough instructions as to how to run the test and transmit the data; the trending of the data; the analysis of the data (separate and apart from the physician's interpretation); and the professional recalibration of the machine at designated intervals.

Clinical Vignette

A 50-year-old man is discharged from the hospital following a successful lung transplantation. Shortly before discharge, he is shown the spirometer that has a computer attached and given detailed instructions as to how to perform the tests, capture the test results, and transmit the test result correctly. After successful repeat demonstrations, the patient performs the procedure daily in his home. The test results data are transmitted to a distant computer via modem on a daily basis. These results are trended and analyzed. In addition, the physician analyzes the data at least once a week (and more often if necessary) and makes an interpretation so that complications/problems are recognized at a far earlier stage. The machine is recalibrated at least once every three months in the first year, every six months in the second year, and then yearly thereafter.

Bronchospasm Evaluation

The descriptors of two existing codes describing bronchospasm evaluation were editorially revised for *CPT 1999*.

The Revised Codes

94060 **Bronchospasm evaluation: spirometry as in 94010, before and after bronchodilator (aerosol or parenteral)**

(For prolonged exercise test for bronchospasm with pre- and post-spirometry, see 94620)

94070 **Prolonged postexposure evaluation of bronchospasm with multiple spirometric determinations**

after antigen, cold air, methacholine or other chemical agent, with subsequent spirometrics

Rationale for the Revisions to Bronchospasm Evaluation Codes

CPT code 94060 was editorially revised by removing the words "or exercise" from the code descriptor. A cross reference was added instructing the use of code 94620 for reporting prolonged exercise test for bronchospasm with pre and post spirometry.

Code 94070 was editorially revised by deleting the reference to "spirometry as in 94010" and replacing it with "subsequent spirometrics" to provide clarity of the intended use of the code. When 94010 is performed as the initial spirogram, it is usually performed as a preliminary test, the results of which may lead to the performance of a provocative test using methacholine (94070). Therefore, under these circumstances, code 94010 should be reported separately, in addition to code 94070. However, the subsequent spirometrics are considered part of the procedure (94070) itself and should not be individually reported.

Clinical Vignettes

94060 Bronchospasm evaluation: spirometry as in 94010, before and after bronchodilator (aerosol or parenteral)

A 65-year-old man is evaluated for increasing shortness of breath with exertion, he has a history of coronary heart disease and has also been a cigarette smoker for 50 years. A spirogram is obtained in order to determine whether the patient has significant pulmonary dysfunction and to further separate this into predominantly restrictive or obstructive disease.

94070 Prolonged postexposure evaluation of bronchospasm with multiple spirometric determinations after antigen, cold air, methacholine or other chemical agent, with subsequent spirometrics

A 65-year-old woman with increasing shortness of breath and chronic cough has been evaluated with a spirogram, which is essentially normal. The patient has a family history of asthma and it is suspected that she also may have reactive airways dysfunction as a cause for her symptoms. A provocative test using methacholine is performed in order to determine whether the patient has reactive airways dysfunction. If the patient develops significant bronchospasm following the administration of the methacholine, then a bronchodilator may be administered to reverse the effects of the test and relieve any acute distress that the patient may have experienced as a result of the test.

Pulmonary Stress Testing

CPT code 94620 was editorially revised to make it clear that this code is used only for reporting simple pulmonary stress testing. A new code (94621) was added for reporting complex pulmonary stress testing.

It is important to note that exercise with pulse oximetry to document desaturation, or to determine oxygen flow to prevent desaturation, should be reported with code 94761.

The New and Revised Code

94620 Pulmonary stress testing; simple (eg, prolonged exercise test for bronchospasm with pre- and post-spirometry)

94621 Pulmonary stress testing; complex (including measurements of CO_2 production, O_2 uptake, and electrocardiographic recordings)

Rationale for New and Revised Code for Pulmonary Stress Testing

As simple and complex pulmonary stress testing are vastly different in the amount of resources needed to perform the different tests, one code cannot describe two such disparate procedures utilizing the same code.

Complex stress testing measures the integration of cardiac and pulmonary function and the status of physical fitness and includes measuring CO_2 production, O_2 uptake, and electrocardiographic recordings of the patient's response to the stress. The outputs of this panel of complex metabolic tests are analyzed and interpreted by the physician and a report is generated.

Clinical Vignettes

94620 Pulmonary stress testing; simple (eg, prolonged exercise test for bronchospasm with pre- and post-spirometry)

Vignette #1: A 65-year-old woman is seen because of dyspnea and cough after walking several city blocks. She has a normal physical examination and a spirogram is normal. A simple exercise test is performed with baseline spirogram. She walks on a treadmill until dyspnea occurs and a repeat spirogram is obtained to evaluate for exercise induced bronchospasm.

Vignette #2: A 65-year-old woman with documented COPD is evaluated for entrance into a pulmonary

rehabilitation program. A six minute walk is performed to evaluate distance, dyspnea, oxyhemoglobin desaturation and heart rate. The test is usually repeated after a rest period to eliminate learning bias (but reported as one test).

Note: Exercise with pulse oximetry to document desaturation or to determine oxygen flow to prevent desaturation should be coded as 94761 (Noninvasive ear or pulse oximetry for oxygen saturation; multiple determinations (eg, during exercise).

94621 Pulmonary stress testing; complex (including measurements of CO_2 production, O_2 uptake, and electrocardiographic recordings)

Vignette: A 66-year-old male has unexplained dyspnea which interferes with his ability to work and exercise. A complex pulmonary stress test is ordered after other studies fail to identify the cause of the dyspnea. The complex stress test measures the integration of cardiac and pulmonary function and the status of the patient's physical fitness. There is a measurement of CO_2 production, O_2 uptake, and electrocardiographic monitoring with recordings using a graded exercise protocol. Data are captured about peak cardiovascular and ventilatory responses. From this panel of complex metabolic tests, the physician, through his/her analysis and interpretation of the data, is able to calculate such items as a dyspnea index, an anaerobic threshold as a percentage of maximum O_2 uptake, and O_2 consumption as it relates to cardiac output. The physician prepares a written interpretation of the test results. #

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