Medical Coverage Policy | Esophageal pH Monitoring

EFFECTIVE DATE: 10|1|2015
POLICY LAST UPDATED: 7|7|2015

OVERVIEW
Esophageal pH monitoring using wired or wireless devices can record the pH of the lower esophagus for a period of 1 to several days. These devices may aid in the diagnosis of gastroesophageal reflux disease (GERD) in patients who have an uncertain diagnosis after clinical evaluation and endoscopy.

MEDICAL CRITERIA
Not applicable.

PRIOR AUTHORIZATION
Prior authorization review is not required.

POLICY STATEMENT
Esophageal pH monitoring using a wireless or catheter-based system may be considered medically necessary in adults and children or adolescents able to report symptoms.

24-hour catheter-based esophageal pH monitoring may be considered medically necessary in infants or children who are unable to report or describe symptoms of reflux.

Catheter-based impedance-pH monitoring may increase positive tests or diagnostic yield, the potentially increased sensitivity may be accompanied by a decrease in specificity and the net effect on patient management and patient outcomes is not certain. Therefore, impedance-pH testing is considered not medically necessary.

COVERAGE
Benefits may vary between groups and contracts. Please refer to the appropriate Evidence of Coverage or Subscriber Agreement for applicable not medically necessary benefits/coverage.

BACKGROUND
Acid reflux is the cause of heartburn and acid regurgitation esophagitis, which can lead to esophageal stricture. Acid reflux may also be the cause or a contributing factor in some cases of asthma, posterior laryngitis, chronic cough, dental erosions, chronic hoarseness, pharyngitis, subglottic stenosis or stricture, nocturnal choking, and recurrent pneumonia.

GERD is most commonly diagnosed by clinical evaluation and treated empirically with a trial of medical management. For patients who do not respond appropriately to medications, or who have recurrent chronic symptoms, endoscopy is indicated to confirm the diagnosis and assess the severity of reflux esophagitis. In some patients, endoscopy is nondiagnostic, or results are discordant with the clinical evaluation. In these cases, further diagnostic testing may be of benefit.

Esophageal monitoring is done through the use of a tube with a pH electrode attached to its tip, which is then passed to almost exactly 5 cm above the upper margin of the lower esophageal sphincter. The electrode is attached to a data logger worn on a waist belt or shoulder strap. Every instance of acid reflux, as well as its duration and pH, is recorded, indicating gastric acid reflux over a 24-hour period. Esophageal pH electrodes are U.S. Food and Drug Administration (FDA) 510(k) exempt Class I devices. A catheter-free, temporarily

implanted device (Bravo™ pH Monitoring System, Medtronic) has been cleared for marketing by the FDA 510(k) process for the purpose of "gastroesophageal pH measurement and monitoring of gastric reflux in adults and children from 4 years of age." Using endoscopic or manometric guidance, the capsule is temporarily implanted in the esophageal mucosa using a clip. The capsule records pH levels for up to 96 hours and transmits them via radiofrequency telemetry to a receiver worn in the patient's belt. Data from the recorder are uploaded to a computer for analysis by a nurse or doctor.

Another technology closely related to pH monitoring is impedance-pH monitoring, which incorporates pH monitoring with measurements of impedance, a method of measuring reflux of liquid or gas of any pH. Multiple electrodes are placed along the length of the esophageal catheter. The impedance pattern detected can determine the direction of flow and the substance (liquid or gas). Impedance monitoring is able to identify reflux events in which the liquid is only slightly acidic or nonacidic.

Esophageal pH monitoring using wired or wireless devices can record the pH of the lower esophagus for a period of 1 to several days. These devices may aid in the diagnosis of GERD in patients who have an uncertain diagnosis after clinical evaluation and endoscopy. Therefore, the use of wired or wireless esophageal pH monitoring may be considered medically necessary in the patient meeting the above criteria.

Given the lack of a criterion standard, evidence supporting the use of impedance-pH testing is lacking. While impedance-pH testing may increase positive tests or diagnostic yield, the potentially increased sensitivity may be accompanied by a decrease in specificity and the net effect on patient management and patient outcomes is not certain. Therefore, impedance-pH testing is considered not medically necessary.

CODING

The following CPT codes are medically necessary when filed with a covered diagnosis:
91034 Esophagus, gastroesophageal reflux test; with nasal catheter pH electrode(s) placement, recording, analysis and interpretation
91035 Esophagus, gastroesophageal reflux test; with mucosal attached telemetry pH electrode placement, recording, analysis and interpretation

The following CPT codes are not medically necessary:
91037 Esophageal function test, gastroesophageal reflux test with nasal catheter intraluminal impedance electrode(s) placement, recording, analysis and interpretation
91038 Esophageal function test, gastroesophageal reflux test with nasal catheter intraluminal impedance electrode(s) placement, recording, analysis and interpretation; prolonged (greater than 1 hour, up to 24 hours)

List of covered ICD-10 diagnosis:

ICD 10 list Esophageal ph Monitoring.xlsx

RELATED POLICIES

None

PUBLISHED

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