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OVERVIEW

Dynamic posturography tests a patient's balance control in situations intended to isolate factors that affect balance in everyday experiences. It provides quantitative information on the degree of imbalance present in an individual but is not intended to diagnosis specific types of balance disorders.

MEDICAL CRITERIA

Not applicable

PRIOR AUTHORIZATION

Not applicable

POLICY STATEMENT

Medicare Advantage Plans

Dynamic posturography is not covered as the evidence is insufficient to determine the effects of the technology on health outcomes.

Commercial Products

Dynamic posturography is not medically necessary as the evidence is insufficient to determine the effects of the technology on health outcomes.

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

Complaints of imbalance are common in older adults and contribute to the risk of falling in this population. Falls are an important cause of death and disability in this population in the United States. Maintenance of balance is a complex physiologic process, requiring interaction of the vestibular, visual, and proprioceptive/somatosensory system, and central reflex mechanisms. Balance is also influenced by the general health of the patient (ie, muscle tone, strength, range of motion). Therefore, identifying and treating the underlying balance disorder can be difficult. Commonly used balance function tests (eg, electronystagmography, rotational chair tests) attempt to measure the extent and site of a vestibular lesion but do not assess the functional ability to maintain balance.

Dynamic posturography aims to provide quantitative information on a patient's functional ability to maintain balance. The patient, wearing a harness to prevent falls, stands on an enclosed platform surrounded by a visual field. By altering the angle of the platform or shifting the visual field, the test assesses movement coordination and the sensory organization of visual, somatosensory, and vestibular information relevant to postural control. The patient undergoes 6 different testing situations designed to evaluate the vestibular, visual, and proprioceptive/somatosensory components of balance. In general terms, the test measures an individual's balance (as measured by a force platform to calculate the movement of the patient's center of mass) while visual and somatosensory cues are altered. These tests vary by whether eyes are open or closed, the platform is fixed or sway-referenced, and whether the visual surround is fixed or sway-referenced. Sway-referencing involves making instantaneous computer-aided alterations to the platform or visual surround to

coincide with changes in body position produced by sway. The purpose of sway-referencing is to cancel out accurate feedback from somatosensory or visual systems that are normally involved in maintaining balance. In the first 3 components of the test, the support surface is stable, and visual cues are either present, absent, or sway-referenced. In tests 4 to 6, the support surface is sway-referenced to the individual, and visual cues are either present, absent, or sway-referenced. In tests 5 and 6, the only accurate sensory cues available for balance are vestibular cues. Results of computerized dynamic posturography have been used to determine what type of information (ie, visual, vestibular, proprioceptive) can and cannot be used to maintain balance. Dynamic posturography cannot be used to localize the site of a lesion.

Posturography tests a patient's balance control in situations intended to isolate factors that affect balance in everyday experiences. Balance can be rapidly assessed qualitatively by asking the patient to maintain a steady stance on a flat or compressible surface (ie, foam pads) with the eyes open or closed. By closing the eyes, the visual input into balance is eliminated. Use of foam pads eliminates the sensory and proprioceptive cues. Therefore, only vestibular input is available when standing on a foam pad with eyes closed.

For individuals with suspected balance disorders who receive dynamic posturography, the evidence includes cross-sectional comparisons of results in patients with balance disorders and healthy controls and retrospective case series reporting outcomes for patients assessed with dynamic posturography as part of clinical care. Relevant outcomes are test accuracy and validity, symptoms, and morbid events. There are no generally accepted reference standards for dynamic posturography, which makes it difficult to determine how testing results can be applied to clinical care. There are no studies demonstrating the clinical utility of the test that would lead to changes in management that improve outcomes (eg, symptoms, function). The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

REGULATORY STATUS

In 1985, the NeuroCom EquiTest® (NeuroCom International, Portland, OR; now Clackamas, OR), a dynamic posturography device, was cleared for marketing by the U.S. Food and Drug Administration (FDA) through the 510(k) process. Other dynamic posturography device makers include Vestibular Technologies (Cheyenne, WY) and Medicapteurs (Balma, France). Companies that previously manufactured dynamic posturography devices include Metitur (Jyvaskyla, Finland) and Micromedical Technology (Chatham, IL). FDA product code: LXXV.

CODING

The following code(s) are not covered for Medicare Advantage Plans and not medically necessary for Commercial Products:

- 92548** Computerized dynamic posturography
- 92549** Computerized dynamic posturography sensory organization test (CDP-SOT), 6 conditions (ie, eyes open, eyes closed, visual sway, platform sway, eyes closed platform sway, platform and visual sway), including interpretation and report; with motor control test (MCT) and adaptation test (ADT)

RELATED POLICIES

None

PUBLISHED

Provider Update, May 2023
Provider Update, May 2022
Provider Update, May 2021
Provider Update, May 2020
Provider Update, June 2019

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