

## Vestibular Rehabilitation

### Objective

Therapy provided to address symptoms of dizziness, vertigo, gaze instability and associated balance impairments.

### Coverage

Treatment for vestibular symptoms is covered when the member meets the following IS/SI criteria.

### Initial Authorization

4 weeks with Assessment in 4 week blocks

### Initial Review, All:

- **Clinical Presentation > All**

|   |   |
|---|---|
| + Symptoms ≥ One  |   |
| <ul style="list-style-type: none"> <li>• Vertigo, Dizziness, Lightheadness</li> <li>• Diplopia, Oscillipsia, Blurred vision</li> <li>• Dysequilibrium, Loss of balance, Falls, Fear of falling</li> </ul>   | <ul style="list-style-type: none"> <li>• Aural fullness, Altered hearing, Tinnitus</li> <li>• Nausea, Vomiting</li> </ul>   |
| + Positive Diagnostic Tests ≥ One   |   |
| <ul style="list-style-type: none"> <li>• Electonystagmogram</li> <li>• Electrooculography (EOG)</li> <li>• Infrared oculography (IRO) and Video Oculography (VOG)</li> <li>• Caloric Testing</li> <li>• Rotary Chair Test</li> <li>• Visual-Vestibular Interaction Rotation test (VVI)</li> </ul> | <ul style="list-style-type: none"> <li>• Vestibular Evoked Myogenic Potential Test</li> <li>• Diagnostic Imaging via MRI, MRA or Head CT Scan</li> <li>• Vestibular Ocular Reflex (VOR) Test</li> <li>• Positional Testing</li> <li>• Motion Sensitivity Test</li> <li>• Neck Torsion Test</li> </ul> |
| + Strength of major muscle groups of lower extremities  |   |
| + Balance and gait assessment > One   |   |
| <ul style="list-style-type: none"> <li>• Computerized Dynamic Posturography</li> <li>• Limits of Stability</li> <li>• Perturbations</li> </ul>  | <ul style="list-style-type: none"> <li>• Romberg &amp; Sharpened Romberg (heel-to-toe tandem stance)</li> <li>• Fukuda Step Test</li> <li>• Functional Mobility and ADL ability</li> </ul>  |

## Goal:

### • Rehab potential with expectation for clinical/functional improvement

|   |   |
|---|---|
| + Treatment Plan, All:  |   |
| <ul style="list-style-type: none"><li>• Therapeutic exercise for strength/endurance/balance</li><li>• Instruction in home Rx Program</li><li>• Goals, All:<ul style="list-style-type: none"><li>» Decreased sensation of 'dizziness' or 'vertigo'</li><li>» Decreased frequency of falls</li><li>» Improve balance</li><li>» Improve gaze stability</li></ul></li></ul> | <ul style="list-style-type: none"><li>» Increased range of motion and/or strength</li><li>» Progress toward independence with home exercise program and safety strategies</li><li>» Decrease fall risk</li><li>» Able to walk outdoors/do all ADL's, read. Return to drive, return to work, etc.</li><li>» Reduce fear of falling</li></ul> |

## Ongoing Review, All:

### • Clinical Presentation > All

|   |  |
|---|--|
| + Symptoms > One  |  |
| <ul style="list-style-type: none"><li>• Vertigo, Dizziness, Lightheadness</li><li>• Diplopia, Oscillipsia, Blurred vision</li><li>• Dysequilibrium, Loss of balance, Falls, Fear of falling</li></ul>   | <ul style="list-style-type: none"><li>• Aural fullness, Altered hearing, Tinnitus</li><li>• Nausea, Vomiting</li></ul>   |
| + Positive Diagnostic Tests > One   |  |
| <ul style="list-style-type: none"><li>• Electronystagmogram</li><li>• Electrooculography (EOG)</li><li>• Infrared oculography (IRO) and Video Oculography (VOG)</li><li>• Caloric Testing</li><li>• Rotary Chair Test</li><li>• Visual-Vestibular Interaction Rotation test (VVI)</li></ul> | <ul style="list-style-type: none"><li>• Vestibular Evoked Myogenic Potential Test</li><li>• Diagnostic Imaging via MRI, MRA or Head CT Scan</li><li>• Vestibular Ocular Reflex (VOR) Test</li><li>• Positional Testing</li><li>• Motion Sensitivity Test</li><li>• Neck Torsion Test</li></ul> |

### • Strength of major muscle groups of lower extremities

|  |  |
|--|--|
| + Balance and gait assessment > One  |  |
| <ul style="list-style-type: none"><li>• Computerized Dynamic Posturography</li><li>• Limits of Stability</li><li>• Perturbations</li></ul> | <ul style="list-style-type: none"><li>• Romberg &amp; Sharpened Romberg (heel-to-toe tandem stance)</li><li>• Fukuda Step Test</li><li>• Functional Mobility and ADL ability</li></ul> |

### • Rehab potential with expectation for clinical-functional improvement

|                        |  |
|------------------------|--|
| + Treatment Plan, All: |  |
|------------------------|--|

## Discharge Review, One:

- New onset or worsening of Sx or findings require reassessment prior to continuation of outpatient rehabilitation program
- Further improvement or integration of skills expected with patient or caregiver adherence to home Rx program

### + Goals met, All:

- Sx or findings,  $\geq$  One:
  - » No longer present or new skill acquired
  - » Improved ability to manage limitations
- Independent with home treatment program

## • Functional plateau reached since last authorization

### + Rehabilitation potential poor, $\geq$ One

- Chronic functional loss and maximal functional ability achieved
- Unable to learn or participate in a home therapy program
- Lack of motivation or refusal to continue home therapy program

## References

1. Guide to Physical Therapy Practice, Second Edition; American Physical Therapy Association (2001; 81: 9-744 and revised June 2003)
2. Bronstein AM, Lempert T. Management of the patient with chronic dizziness. *Restor Neurol Neurosci*, 2010;28:83-90.
3. Course Workbook ~ Vestibular Rehabilitation: Evaluation and Management; Cross Country Education, Chris Carpino, MPT, 2009
4. Gill-Body KM. Current Concepts in the Management of Patients with Vestibular Dysfunction. APTA Continuing Education Series No. 23 in PT Magazine.
5. Desai A, et al. Relationship Between Dynamic Balance Measures and Functional Performance in Community-Dwelling Elderly People. *Phys Ther* 2010; 90(5); 748-760.
6. Duncan P, Weiner D, Chandler J, Studenski S: Functional Reach: A New Clinical Measure of Balance. *J of Gerontology* 1990; 45:M192-197.
7. Gill-Body KM, Beninato M, Krebs D. Relationship Among Balance Impairments, Functional Performance, and Disability in People with Peripheral Vestibular Hypofunction. *Phys Ther* 2000; 80(8): 748-758.
8. Gottshall KR, Moore RJ, Hoffer ME. Vestibular rehabilitation for migraine-associated dizziness, Int Tinnitus J, 2005;11(1):81-84.
9. Helminski JO, et al. Effectiveness of Particle Repositioning Maneuvers in the Treatment of Benign Paroxysmal Positional Vertigo: A Systematic Review. *Phys Ther* 2010; 90(5); 663-678.
10. Labuguen, RH. Initial Evaluation of Vertigo. *American Family Physician* 2006; 73(2): 244-251.
11. Landel R. Cervicogenic Dizziness: An evidence-based competency course, Course Notes, Massachusetts General Hospital 2008;October 3-5.

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12. Lempert T, Neuhauser H. Epidemiology of vertigo, migraine and vestibular migraine, *J Neurol*, 2009;256:333-338.
13. Nelson JA, Viirre E. The Clinical Differentiation of Cerebellar Infarction from Common Vertigo Syndromes. *West J Emerg Med*. 2009; 10(4):273-277.
14. Pavlou M, The use of optokinetic stimulation in vestibular rehabilitation. *JNPT*, 2010;349(2):105-110.
15. Shumway-Cook A, Baldwin M, Polissar N, Gruber W. Predicting the Probability for Falls in Community-Dwelling Older Adults. *Phys Ther* 1997; 77(8); 812-819.
16. Tinetti ME. Performance Oriented Assessment of Mobility Problems in Elderly Patients. *J Am Geriatric Society* 1986; 34: 119-126.
17. Wisley DM, Kumar NA. Functional Gait Assessment: Concurrent, Discriminative, and Predictive Validity in Community-Swelling Older Adults. *Phys Ther* 2010; 90(5); 761-773.
18. Wisley DM, Witney SL, Furan JM. Vestibular rehabilitation outcomes in patients with a history of migraine. *Otol Neurotol*, 2009;Jul;23(4):483-487.
19. [www.dizziness-and-balance.com/disorders/bilat/ototoxins.html](http://www.dizziness-and-balance.com/disorders/bilat/ototoxins.html) (December 29, 2010)
20. [www.emedicine.medscape.com/article/883878-print](http://www.emedicine.medscape.com/article/883878-print) (December 30, 2010)
21. [www.mayoclinic.com/health/menieres-disease/DS00535/DSECTION=symptoms](http://www.mayoclinic.com/health/menieres-disease/DS00535/DSECTION=symptoms) (December 30, 2010)
22. [www.menieresinfo.com/prognosis.html#bilateral](http://www.menieresinfo.com/prognosis.html#bilateral) (December 30, 2010)
23. [www.annals.edu.sg/pdf/34VolNo4200505/V34N4p289.pdf](http://www.annals.edu.sg/pdf/34VolNo4200505/V34N4p289.pdf) (December 30, 2010)
24. [www.medicinenet.com/vestibular\\_balance\\_disorders/page11.htm](http://www.medicinenet.com/vestibular_balance_disorders/page11.htm) (January 3, 2011)
25. [www.healthcentral.com/encyclopedia/408/371\\_pf.html](http://www.healthcentral.com/encyclopedia/408/371_pf.html) (January 3, 2011)
26. [www.mult-sclerosis.org/vertigo.html](http://www.mult-sclerosis.org/vertigo.html) (January 3, 2011)
27. [www.vestibular.org/vestibular-disorders/specific-disorders/labyrinthitisvest-neuritis.php](http://www.vestibular.org/vestibular-disorders/specific-disorders/labyrinthitisvest-neuritis.php) (January 3, 2011)
28. [www.anausa.org/](http://www.anausa.org/) (January 3, 2011)
29. [www.nlm.nih.gov/medlineplus/ency/article/003429.htm](http://www.nlm.nih.gov/medlineplus/ency/article/003429.htm) (January 3, 2011)
30. [www.emedicine.medscape.com/article/1159069-overview](http://www.emedicine.medscape.com/article/1159069-overview) (January 3, 2011)
31. [www.vestibular.org/vestibular-disorders/specific-disorders/endolymphatic-hydrops.php](http://www.vestibular.org/vestibular-disorders/specific-disorders/endolymphatic-hydrops.php) (January 5, 2011)
32. [www.emedicine.medscape.com/article/857914-print](http://www.emedicine.medscape.com/article/857914-print) (January 5, 2011)
33. [www.emedicine.medscape.com/article/884048-print](http://www.emedicine.medscape.com/article/884048-print) (January 5, 2011)

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