REFERENCE FOR REHABILITATION PROFESSIONALS

CLINICAL PRACTICE GUIDELINES
FOR PERIPHERAL VESTIBULAR HYPOFUNCTION

ACADEMY OF NEUROLOGIC PHYSICAL THERAPY

Effectiveness of Vestibular Rehabilitation

- **Strong recommendation (Level I*) that vestibular rehabilitation should be offered to patients with symptoms due to:**
  - **Acute, Subacute, & Chronic Unilateral Hypofunction**
  - **Bilateral Hypofunction, including Pediatrics**
- **Benefits:**
  - Reduces dizziness/vertigo, improves gaze stability and reduces imbalance and falls
  - Improves activities of daily living and quality of life
- **Risks:**
  - Potential increase in cost & time for patient to travel
  - May increase symptom intensity at treatment onset
- **Studies show there is a preponderance of benefit compared to harm**
- **Exclusions:**
  - Compensated vestibular loss; cognitive or mobility deficit that impedes effective application; or active Meniere's disease

Factors that Modify Vestibular Rehabilitation Outcomes

- **Weak to strong recommendation (Level I-III*):**
  - **Age, gender, and symptom onset time does not affect outcomes**
  - **Potential harm if rehabilitation delayed**
  - **May have negative impact on recovery**
    - Co-morbidities (anxiety, migraine, & peripheral neuropathy)
    - Vestibular suppressants

Supervised Vestibular Rehabilitation Effectiveness

- **Moderate recommendation (Level I-III*) that patients with peripheral vestibular hypofunction use customized, supervised exercises**
- **Benefits:**
  - Promotes adherence with rehabilitation
  - Better outcomes compared to generic or solely-home programs
  - May be preferred for patients who are fearful of falling or have cognitive or mobility dysfunction
- **Risk:**
  - Potential increase in cost & time for patient to travel
- **Exclusions:**
  - Patients living long distances from therapy may not be able to participate in supervised setting

Optimal Exercise Dose

- **Expert opinion recommendation (Level V*) for gaze stabilization exercise for unilateral & bilateral hypofunction consists of:**
  - **Acute/Subacute** – Three times/day minimum (At least 12 minutes/day)
  - **Chronic** – Three times/day minimum (At least 20 minutes/day)
- **Exclusions:** Risk of bleeding or cerebrospinal fluid leak

Saccadic or Smooth Pursuit Exercises Effectiveness

- **Strong recommendation (Level I*) that voluntary saccadic or smooth pursuit eye exercises should not be offered in isolation as gaze stabilization exercises**
  - Gaze stabilization exercises, using adaptation & substitution, are more effective
- **Risk:**
  - Causes delay in receiving an effective exercise program
  - Increases cost & time for patient to travel

Effectiveness of Different Exercise Types for Unilateral Peripheral Vestibular Hypofunction

- **Moderate recommendation (Level II*) for use of targeted exercise techniques for acute and chronic hypofunction**
- **Benefit-harm assessment:**
  - Unknown consequences when patients perform an exercise that does not address their primary problem
  - Important to use the most appropriate exercise approach for identified impairments and activity limitations
- **Exclusions:**
  - Cognitive or mobility deficit than impedes effective application or active Meniere's disease

Vestibular Rehabilitation Harm/Benefit Ratio

- **Strong recommendation (Level I-III*) that quality of life improves and psychological distress reduces with rehabilitation**
  - Improvements in perceived disability and anxiety scores
- **Potential negative impact on quality of life**
  - Side effect of neck pain, motion sickness, or nausea
  - No resolution of symptoms

Stopping Vestibular Rehabilitation

- **Expert opinion recommendation (Level V*) for the decision to stop rehabilitation based on:**
  - **Goals met; symptoms resolve; reach plateau; patient choice; non-adherence; status deteriorates; prolonged symptom increase; and/or if co-morbidities affect ability to participate**
- **General recommendation for overall number of treatment sessions:**
  - Acute/Subacute Unilateral – once per week for 2-3 sessions
  - Chronic Unilateral – once per week for 4-6 weeks
  - Bilateral – once per week for 8-12 weeks
- **Patient populations that may require additional sessions:**
  - Cognitive or mobility deficit
  - Moderate-severe symptoms sensitivity
  - Taking vestibular suppressants
- **Risk:**
  - Prematurely stopping before reach maximum gains
  - Protracted treatment costly

FOR MORE DETAILED INFORMATION, PLEASE REFER TO THE ORIGINAL DOCUMENT:
http://journals.lww.com/jnpt/Fulltext/2016/04000/Vestibular_Rehabilitation_for_Peripheral.8.asp

LEVEL OF EVIDENCE*

I	II	III	IV	V
High quality (>50% critical appraisal score) diagnostic studies, prospective, or randomized controlled trial	Lesser quality (<50% critical appraisal score) diagnostic studies, prospective, or randomized controlled trial	Case-controlled or retrospective studies	Case study or case series	Expert opinion

Based on Centre for Evidence Based Medicine website: http://www.cebm.net/oxford-centre-evidence-based-medicine-levels-evidence-march-2009/

+Hall CD, et al. Vestibular Rehabilitation for Peripheral Vestibular Hypofunction: An Evidence-Based Clinical Practice Guidelines. JNPT. 2016; 40:124-156.