



**Service Priorities and Programmes**  
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**Continuous Quality Improvement in Physiotherapy Vestibular Rehabilitation Service Collaborated with ENT Department in TKOH**

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**Introduction**

Patients with vestibular dysfunction often complain of dizziness, vertigo, balance problem and visual disturbance. Vestibular Rehabilitation Therapy (VRT) and Particle Repositioning Maneuver (PRM) are evidence-based management of vestibular hypofunction and Benign Paroxysmal Positional Vertigo (BPPV). Physiotherapy vestibular rehabilitation service was launched in 2011 to address our local demand. Review was conducted for the efficacy and continuous quality improvement of the service.

**Objectives**

The review aims to evaluate the effectiveness of vestibular rehabilitation service.

**Methodology**

From mid-2011 to December 2012, patients referred to physiotherapy out-patient department for vestibular rehabilitation were triaged to two specific vestibular rehabilitation programs: (1) PRM for BPPV management, (2) VRT for management of chronic dizziness due to various vestibular dysfunctions. Data was collected upon initial-assessment and discharge. Outcome indicators included : Visual Analog Scale (VAS) for symptoms severity, Dizziness Handicap Inventory (DHI) for quality of life, Dynamic Gait Index (DGI) for gait stability and subjective percentage improvement; for patients underwent VRT, Sensory Organization Test (SOT) composite score was used additionally for postural stability assessment. Pre- and post-intervention outcomes were evaluated with Wilcoxon sign-rank test. P-value of 0.05 was considered to be statistically significant.

**Result**

Fifty-seven patients (mean age 58.7) were included in the review. 70% of them were referred by TKOH ENT SOPD. Fifteen patients with BPPV underwent PRM. They

achieved 82% subjective improvement with average 2.67 sessions. They showed significant improvement in symptoms severity, quality of life and gait stability as reported in VAS ( $p<0.05$ ), DHI score ( $p<0.05$ ) and DGI score ( $p<0.05$ ) respectively. Forty-two patients with chronic vestibular symptoms (average chronicity 37months) underwent VRT. They achieved 62% subjective improvement with average 6 sessions. They showed significant improvement in symptoms severity, quality of life, gait and postural stability as reported in VAS ( $p<0.05$ ), DHI score ( $p<0.05$ ), DGI score ( $p<0.05$ ) and SOT composite score ( $p<0.05$ ) respectively. In conclusion, the two specific vestibular rehabilitation programs are effective in managing patient with various vestibular dysfunctions. With aging population and expansion of ENT service in TKOH, growing demand on vestibular rehabilitation service is expected. A collaborated vestibular rehabilitation clinic with ENT Department is highly recommended to enhance communication, to provide fast tract triage mechanism, and to enhance efficiency and quality of service delivery.