

Benign Paroxysmal Positional Vertigo (BPPV): Comparative Treatment Trial

- Question: Is one treatment for BPPV superior to another?
 - Abort acute episode
 - Reduce frequency and severity of lingering symptoms, recurrent events
 - Improve quality of life

Background

- BPPV is the most common cause of vertigo & is an acutely disabling condition.
- Disruption of normal endolymph flow within the inner ear's semicircular canals, often from microdebris – canalolithiasis (otoconia).
- Medications can offer symptomatic relief but are not consistently effective
- Physical maneuvers such as Epley's can also provide benefit although not consistently
- No randomized trial data

Justification

- Attempt for evidence-based care
- Unclear if combining medication & physical maneuvers is superior to either therapy alone
- Extremely common (2% of population with at least 1 episode over a lifetime)

Conceptual Approach

- Phase 3 RCT for acute episode and sequelae
- Adaptive design potential with 2 arms of a single modality collapsing to one arm vs. combined modalities
- Treat in ED after BPPV diagnosed
- Adults 18 and older, active symptoms of vertigo, positive Dix-Hallpike test with evidence of nystagmus on examination
- Exclude vestibular neuronitis and Meniere's, stroke symptoms, abnormal relevant brain lesion, prior stroke

Interventions

- Initial randomization:
 - vestibular suppressant medication
 - Epley's maneuvers
 - Both medication and maneuvers
- Adaptive design to pick superior single modality treatment vs. combined
- Blinding – through placebo medication & mock maneuver (single blind)

Outcomes

- Frequency & Time to vertigo-free status
- Dix-Hallpike maneuver at 30 days & 90 days
- Quality of life measures at 1 week, 30 days, & 90 days