

A 57 year old male presents complaining of episodes of vertigo for the past week. The symptom is described as a true spinning sensation that is sometimes accompanied by mild nausea. The duration of the episodes is less than one minute. The episodes are all triggered by certain types of head movements including tilting his head back and turning toward the right side while lying in bed. He denies any other neurologic symptoms, tinnitus or hearing loss. The past medical history is unremarkable.

On physical examination, the patient is in no acute distress. His vital signs are normal. The cranial nerve examination is normal, including normal ocular motor function. The remainder of the neurological examination is also normal. Gait is intact.

Positional testing: The patient was first placed into the left head hanging position (left Dix-Hallpike test), which did not trigger any symptoms or nystagmus. The patient was then brought back up to the sitting position. Next, the patient was placed in the right head hanging position (right Dix-Hallpike test). After approximately 5 seconds in this position, the patient reported onset of his typical symptoms. A burst of upbeat-torsional nystagmus (torsional component toward the patient's right shoulder) was seen, the intensity of which gradually decreased over 20 seconds until nystagmus was no longer present. When the patient was then brought back up to the sitting position, a burst of down-beat torsional nystagmus was triggered.

1. What is the diagnosis?
 - A. Meniere's disease
 - B. Benign Paroxysmal Positional Vertigo
 - C. Cerebellar Bleed
 - D. Pontine Stroke

Answer: B.

2. Which semicircular canal is affected in this case?
 - A. Left horizontal canal
 - B. Left posterior canal
 - C. Right horizontal canal
 - D. Right posterior canal

Answer: D. The nystagmus was triggered in the right Dix-Hallpike position. When the cause is BPPV of the posterior canal, upbeat-torsional nystagmus is the pattern of nystagmus triggered by the Dix-Hallpike toward the affected side. (Note: Without treatment, momentary down-beat torsional nystagmus may be triggered after the patient is brought from the Dix-Hallpike position back up to the sitting position. This is caused by the particles moving in the opposite direction). The pattern of nystagmus triggered by BPPV of the horizontal canal is a horizontal nystagmus, best triggered by head turns while lying supine rather than the Dix-Hallpike test.

3. According to the AAN BPPV guideline treatment in this case should include:
- A. Canalith Repositioning Maneuver
 - B. Log roll Maneuver
 - C. Semont Maneuver
 - D. Brandt-Daroff exercises

Answer: A. Strong evidence supports that the Canalith Repositioning Maneuver (i.e., Epley maneuver) is established as effective and safe therapy. Weaker evidence supports the Semont maneuver as also effective.

4. There is no evidence to support or refute a recommendation of _____ for routine treatment for BPPV.
- A. benzodiazepines
 - B. meclizine
 - C. surgery
 - D. all of the above

Answer: D. The standard of care for BPPV is the Canalith Repositioning Maneuver.

5. Following the appropriate treatment, what activity restrictions are necessary for this patient?
- A. Cervical collar for 48 hours
 - B. Sleep upright for one week
 - C. Avoid sleeping on affected side for one week
 - D. All of the above.
 - E. None of the above.

Answer: E. There is insufficient evidence to indicate any benefit of post-treatment restrictions.

ICD-9 information:

Benign Paroxysmal Positional Vertigo

The correct code for this is:

386.11 Benign paroxysmal positional vertigo

CPT information

At this time, there is no additional credit given for doing the Dix-Hallpike maneuver. To best account for this procedure the AAN recommends using the coding below:

95999 Unlisted neurological or neuromuscular diagnostic procedure

E and M:

The history of this case presentation as stated would only be classified as Problem-Focused as there are 4 facts or more in the history, but here is no ROS, or no facts on the Past, Social, or Family history.

The neurological examination only generates 4 points, because one cannot say that “CN examination is normal” and one cannot say that “the rest of the neurological examination is normal”. Thus, the neurological examination is only worth 4 or 5 points and would be considered problem-focused.

Medical Decision Making would be only Straight forward since you have a minimal number of diagnoses, minimal morbidity and mortality from the diagnosis and the treatment, and no data on prior work up or planned work up. Consequently, you would only be able to code for 99241 or 99242 (Level 1 or 2 outpatient visit).

To bill for a Level 4 new patient or consultation (which would be fairly standard for a first visit to a neurologist), one would need the following:

A Comprehensive History (4 facts on HOPI, 10 facts on ROS, and 3 facts on the Past, Family, and Social History).

A Comprehensive PE: 23 points

Moderate Medical Decision Making: 1) Multiple Differential Diagnoses and 2) 3 points on review of outside data or planned data. In the case of this case presentation, the risk of the disease or its treatment is low.

Patient Safety Tips:

If the patient is experiencing vertigo, tell him not to get out of bed or walk without assistance. Instruct the patient not to make sudden position changes and to avoid tasks that can be dangerous such as driving.