The Most Effective and Efficient Bedside Exam for the Dizzy Patient in the Acute Care Setting: A Systematic Review of the Literature

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**Discussion & Limitations**

- A general trend of high specificity and variable sensitivity was found in most vestibular tests. 9,10,16 A peripheral vestibular test with high specificity suggests the patient is presenting with a peripheral disorder when the test result is positive. In contrast, a central vestibular test with high sensitivity differentiates to the examiner that when a negative result is found, a peripheral disorder is likely the cause.

- The Dix-Hallpike Maneuver is considered the gold standard when diagnosing BPPV. 8,11,12,13 However the psychometric properties were not priority in the research articles identified through this SRL search. 4,11,12 The Triple Test can be performed bedside, and should be considered an essential component of vestibular testing. 8

- The Triple Test and STANDING protocol are combined tests that demonstrated high specificity for diagnosing BPPV. 8,11,12,13 The Triple Test was strategically designed, unless all three tests are positive, the gold standard caloric test is still required in order to confirm a peripheral diagnosis. 8

- Time efficiency may improve the overall effectiveness of a clinician’s exam. 4,11 There are a few gold standard tests used for differential diagnosis of central vs. peripheral disorders when diagnosing a patient with dizziness. 11,16 However, these exams can be lengthy due to the use of additional equipment and the potential need to consult other professionals. 11,16

- All of the bedside vestibular tests identified in this SRL can be performed by physical therapists without the need for supplementary equipment. 8,12,13,14

- The number of studies that addressed combined vestibular exams in order to diagnose dizziness in the acute care setting is sparse. A successful combination of tests may result in a more efficient and time effective approach in differential diagnosis of a patient with dizziness.

**Conclusion**

This SRL found ten published articles addressing bedside examination items for diagnosing vestibular disorders. 9,10,11,16 The search produced case studies and cohort studies, limiting our ability to determine the most effective and efficient bedside examination and appropriate pairing of tests to diagnose dizziness in the acute care setting.

**References**


**Table 2. Sensitivity & Specificity of Bedside Tests**

<table>
<thead>
<tr>
<th>Vestibular Test</th>
<th>Study</th>
<th>Sensitivity (95% CI)</th>
<th>Specificity (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head Impulse Test (HIT)</td>
<td>→</td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>Vertical Slow Phase</td>
<td>→</td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>Pneumotorax Maneuver</td>
<td>→</td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>Dix-Hallpike Nystagmus (DHN)</td>
<td>→</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>Vestibular Nystagmus (VN)</td>
<td>→</td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>Combined Vestibular Tests</td>
<td>→</td>
<td>Sensitivity (95% CI)</td>
<td>Specificity (95% CI)</td>
</tr>
</tbody>
</table>

**Table 1. Vestibular Test Results for Central & Peripheral Pathologies**

<table>
<thead>
<tr>
<th>Vestibular Test</th>
<th>Central</th>
<th>Peripheral</th>
</tr>
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<tbody>
<tr>
<td>Head Impulse Test (HIT)</td>
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</table>

**Figure 2. Selection of Studies**

- Inclusion Criteria: mention of bedside dizziness, bedside exam used, published within last 10 years
- Exclusion Criteria: not in English, published before 10 years, peripheral vestibular diagnosis not mentioned, not an original research article with participants, exam technique not performed bedside

**References**


