

#### C.1.1.2 HINTS test

Component	Description
Review question	In people with suspected (or under investigation for) new onset of vertigo or dizziness, is the HINTS (Head-Impulse—Nystagmus—Test-of-Skew) test effective in identifying whether there is a central nervous system cause, as indicated by the reference standard, MRI?
Objectives	To evaluate the diagnostic accuracy of HINTS test in diagnosing a central nervous system cause for new onset vertigo or dizziness. In other words, how accurate is the test at distinguishing central causes (that is, damage to the brainstem) such as stroke or MS from peripheral causes due to problems with the inner ear.

Study design	Possible designs include cross sectional, cohort studies (including both retrospective and prospective analyses). Case-control studies will only be included if there is no other evidence as they are biased.
Population	All people with new onset vertigo or dizziness suspected (or under investigation for) stroke or MS
Setting	Secondary care settings for example, emergency departments
Index test	HINTS
Reference standard	MRI
Statistical measures	The following diagnostic accuracy measures of the HINTS test if available: <ul style="list-style-type: none"> <li>• 2x2 tables</li> <li>• Specificity</li> <li>• Sensitivity</li> <li>• Positive or negative predictive value</li> <li>• ROC curves and area under the curve</li> </ul>
Other exclusions	None identified
Review strategy	<p>Stratification – groups that cannot be combined:</p> <ul style="list-style-type: none"> <li>• none identified</li> </ul> <p>Subgroups where diagnostic tests may be more or less accurate – to investigate heterogeneity:</p> <ul style="list-style-type: none"> <li>• none identified</li> </ul> <p>Appraisal of methodological quality:</p> <ul style="list-style-type: none"> <li>• The methodological quality of each study will be assessed using the QUADAS-2 checklist (per target condition).</li> <li>• The overall quality of the evidence will be assessed using an adapted version of GRADE.</li> </ul> <p>Synthesis of data:</p> <ul style="list-style-type: none"> <li>• diagnostic meta-analysis will be conducted where appropriate outcome data is available and can be pooled.</li> </ul>