

Appendix 5 (as supplied by authors): Characteristics of 26 studies of diagnostic tests on dizziness feasible in primary care

Study, year (Reference)	Analysed participants, n (women, %)	Age mean, y (range, y)	Study Entry and Inclusion Criteria	Setting	Target condition	Index test	Reference standard
PSYCHIATRY, Psychogenic dizziness							
Persoons et al., 2003 (43)	97(66)	48 (18–75)	Random sample of dizzy patients referred to otorhinolaryngologist	Outpatient tertiary academic clinic, Belgium	Major Depressive Disorder	Depression part Patient Health Questionnaire	MINI interview
					Panic Disorder	Panic disorder part Patient Health Questionnaire	
NEURO-OTOLOGY							
Questionnaires							
†Kental and Rauch, 2003 (36)	57 (74)	47 (20–78)	Consecutive patients with dizziness	Outpatient tertiary clinic, United States of America	Vertigo	Dizziness questionnaire	Diagnosis after clinical evaluation
López-Escámez et al., 2000 (37)	100 (65)	NR	Non-selected (no details) patients with dizziness or vertigo	Outpatient clinic, Spain	Ménière's disease	Structured Questionnaire of Vertigo	Criteria Ménière's disease of the American Academy of Otolaryngology, Head and Neck Surgery after 10 months follow-up
von Brevern et al., 2006 (24)	61 (51)	NR (18-60+)	Consecutive patients with dizziness	Outpatient tertiary clinics, Germany	Benign Paroxysmal Positional Vertigo (BPPV)	Vestibular vertigo questionnaire	Dix-Hallpike maneuver and/or diagnosis after clinical evaluation
Whitney et al., 2005 (48)	373 (64)	61 (15-95)	Non-selected (no details) patients with balance and/or vestibular disorder	Outpatient academic (physical therapy) clinic, United States of America	BPPV	DHI BPPV subscore, 5 items	Dix-Hallpike maneuver
						DHI BPPV subscore, 2 items	
Symptoms and signs							
Chan, 2008 (27)	88 (52)	79 (median) (33-90)	Consecutive patients with dizziness not fulfilling exclusion criteria	Outpatient tertiary? clinic, China	BPPV	Spinning	Dix-Hallpike and side-lying maneuver
						Episodic	
						Positional	
						Nausea/Vomiting	
Dix-Hallpike maneuver							
‡Cohen, 2004 (29)	29 (NR)	NR (NR)	Selected patients with vertigo provoked by head movements and referred for vestibular testing	Outpatient tertiary academic clinic, United States of America	BPPV	Dix-Hallpike maneuver	Battery of vestibular tests
Norré, 1994 (41)	85 (61)	54 (14-87)	Selected patients with vertigo provoked by head movements	Outpatient academic clinic, Belgium	BPPV	Dix-Hallpike maneuver	Battery of vestibular tests
Side-lying maneuver							
‡Cohen, 2004 (29)	29 (NR)	NR (NR)	Selected patients with vertigo provoked by head movements and referred for vestibular testing	Outpatient tertiary academic clinic, United States of America	BPPV	Side-lying maneuver	Battery of vestibular tests
Head shaking nystagmus							

Burgio et al., 1991 (25)	115 (NR)	NR (NR)	Non-selected (no details) referred dizzy patients	Outpatient academic clinic, United States of America	Peripheral vestibular dysfunction	Head shaking nystagmus	Caloric tests and ENG
Fujimoto et al., 1993 (30)	1364 (58)	48 (8–91)	Consecutive patients during routine ENG testing (no details)	Outpatient academic clinic, Canada	Peripheral vestibular dysfunction	Head shaking nystagmus	>20% difference in R/L caloric testing
Goebel and Garcia, 1992 (31)	214 (NR)	55 (median) (9 – 83)	Randomly selected dizzy patients	Outpatient tertiary clinic, United States of America	Peripheral vestibular dysfunction	Head shaking nystagmus	Caloric tests
‡Guidetti et al., 2006 (32)	661 (65)	55 (14-80)	Non-selected (no details) patients with and without vertigo	Outpatient tertiary academic clinic, Italy	Peripheral vestibular dysfunction	Head shaking nystagmus	Caloric tests
‡Harvey et al., 1997 (34)	105 (67)	52 (13–87)	Consecutive dizzy patients	Outpatient tertiary academic clinic, United States of America	Peripheral vestibular dysfunction	Head shaking nystagmus	Caloric tests
Jacobson et al., 1990 (35)	116 (NR)	NR (NR)	Consecutive dizzy patients referred for balance testing	Outpatient clinic, United States of America	Peripheral vestibular dysfunction	Head shaking nystagmus	Battery of vestibular tests
‡Mandala et al., 2008 (38)	65 (37)	54 (13-84)	Selected patients with vestibular neuritis	Outpatient academic clinic, Italy	Peripheral vestibular dysfunction (vestibular neuritis)	Head shaking nystagmus	Caloric tests
Tseng and Chao, 1997 (45)	258 (62)	NR (14–79)	Consecutive patients with dizziness or vertigo	Outpatient academic clinic, Taiwan	Peripheral vestibular dysfunction	Head shaking nystagmus	Caloric tests with ENG
Vicini et al., 1989 (46)	277 (53)	47 (6-83)	No details about study entry; Referred patients with vestibular and/or neurological complaints	Outpatient (academic) clinics, Italy	Peripheral vestibular dysfunction Central vestibular dysfunction	Head shaking nystagmus	Battery of vestibular tests
Head impulse test							
Beynon et al., 1998 (23)	150 (NR)	51 (13-76)	No details about study entry; Patients with balance disorder	Outpatient clinics, United Kingdom of Great Britain	Peripheral vestibular dysfunction	Head impulse test	Caloric test
Cnyrim et al., 2008 (28)	83 (53)	53 (NR)	Selected patients with vertigo, nystagmus and postural imbalance	Outpatient academic clinics, Germany and United States of America	Peripheral vestibular dysfunction (vestibular neuritis) Central vestibular dysfunction	Head impulse test	Caloric tests with ENG and cranial MRI
Harvey et al., 1996 (33)	112 (65) (224 ears)	53 (13–87)	No details about study entry; dizzy patients	Outpatient academic clinic, United States of America	Peripheral vestibular dysfunction	Head impulse test	Caloric tests
‡Harvey et al., 1997 (34)	105 (67)	52 (13–87)	Consecutive dizzy patients	Outpatient tertiary academic clinic, United States of America	Peripheral vestibular dysfunction	Head impulse test	Caloric tests
‡Mandala et al.,	65 (37)	54	Selected patients with	Outpatient academic	Peripheral	Head impulse test	Caloric tests

2008 (38)		(13-84)	vestibular neuritis	clinic, Italy	vestibular dysfunction (vestibular neuritis)		
Newman-Toker et al., 2008 (40)	42 (35)	64 (26-92)	Consecutive referred patients with acute vertigo and high risk for stroke	(Outpatient) tertiary academic clinic, United States of America	Peripheral vestibular dysfunction (vestibular neuritis) Central vestibular dysfunction (brainstem or cerebellar stroke)	Head impulse test	ENG or videonystagmography and cranial MRI
Perez and Rama-Lopez, 2003 (42)	265 (50)	50 (NR)	Non-selected (no details) referred patients with vertigo	Outpatient academic clinic, Spain	Peripheral vestibular dysfunction	Head impulse test	Caloric tests
Vibration induced nystagmus							
‡Mandala et al., 2008 (38)	64 (37)	54 (13-84)	Selected patients with vestibular neuritis	Outpatient academic clinic, Italy	Peripheral vestibular dysfunction (vestibular neuritis)	Vibration induced nystagmus	Caloric tests
Michel et al., 2001 (39)	399 (NR)	NR (NR)	No details about study entry; Vertiginous patients and non vertiginous patients	Outpatient clinics, France	Peripheral vestibular dysfunction	Vibration induced nystagmus	Caloric tests
Cold mini caloric test							
Weinberg and Sadé, 1984 (47)	124 (NR)	NR (NR)	No details about study entry; Patients with vestibular neuronitis, Menière disease, acoustic tumor or dizziness	Outpatient clinic, Israel	Peripheral vestibular dysfunction	Cold mini caloric test	Clinical diagnosis
Head heave test							
‡Mandala et al., 2008 (38)	65 (37)	54 (13-84)	Selected patients with vestibular neuritis	Outpatient academic clinic, Italy	Peripheral vestibular dysfunction (vestibular neuritis)	Head heave test	Caloric tests
High-frequency oscillopsia test							
Burgio et al., 1992 (26)	115 (NR)	NR (NR)	Non-selected (no details) referred dizzy patients	Outpatient academic clinic, United States of America	Peripheral vestibular dysfunction	Oscillopsia test	Caloric tests and ENG
Hyperventilation-induced nystagmus							
Robichaud et al., 2002 (44)	38 (66)	53 (25-72)	Selected referred dizzy patients with >25% difference in R/L caloric testing	Outpatient tertiary academic clinic, Canada	Peripheral vestibular dysfunction	Hyperventilation-induced nystagmus	Caloric tests
	24 (54)	58 (39-78)	Patients with acoustic neurinoma		Central vestibular dysfunction		Cranial MRI
Positional nystagmus test							
‡Guidetti et al., 2006 (32)	661 (65)	55 (14-80)	Non-selected (no details) patients with and without vertigo	Outpatient tertiary academic clinic, Italy	Peripheral vestibular dysfunction	Positional nystagmus by direct observation	Caloric tests

‡instrument for triage, not diagnostic; †the same article with two or more studied tests; NR: not reported