

Appendix 5 (as supplied by the authors): Diagnostic accuracy parameters reported in included studies

Study	Diagnostic Accuracy Measure	Sleep Study Apnea-Hypopnea Index Cut-off							
		≤5/hr	≥5/hr	≥10/hr	≥15/hr	≥20/hr	≥25/hr	≥30/hr	≥50/hr
Simultaneous and Separate studies									
Abraham et al. ⁽¹⁾ (2006) At-home	Sensitivity	-	95.2%	88.2%	67%	-	-	-	-
	Specificity	-	52.2%	63.0%	78%	-	-	-	-
	PPV	-	64.5%	60.0%	53.3%	-	-	-	-
	NPV	-	92.3%	89.5%	86.2%	-	-	-	-
	LR+	-	1.99	2.38	3.04	-	-	-	-
	LR-	-	0.09	0.19	0.423	-	-	-	-
	T+	-	20	15	8	-	-	-	-
	T-	-	12	17	25	-	-	-	-
	F+	-	11	10	7	-	-	-	-
	F-	-	1	2	4	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	73%	73%	73%	-	-	-	-
AUC	-	-	-	-	-	-	-	-	
Ayappa et al. ⁽²⁾ (2008) At-home	Sensitivity	-	92.0%	89.0%	76.0%	-	-	-	-
	Specificity	-	67.0%	72.0%	82.0%	-	-	-	-
	PPV	-	88.0%	77.0%	81.0%	-	-	-	-
	NPV	-	75.0%	85.0%	78.0%	-	-	-	-
	LR+	-	2.76	3.15	4.29	-	-	-	-
	LR-	-	0.12	0.16	0.30	-	-	-	-
	T+	-	45	13	25	-	-	-	-
	T-	-	12	23	8	-	-	-	-
	F+	-	6	9	6	-	-	-	-
	F-	-	4	4	8	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
AUC	-	-	-	-	-	-	-	-	
Ayappa et al. ⁽²⁾ 2008 In-lab	Sensitivity	-	98.0%	97.0%	91.0%	-	-	-	-
	Specificity	-	76%	78.0%	92.0%	-	-	-	-
	PPV	-	91.0%	82.0%	92.0%	-	-	-	-
	NPV	-	94.0%	96.0%	92.0%	-	-	-	-
	LR+	-	4.12	4.38	11.85	-	-	-	-
	LR-	-	0.03	0.03	0.10	-	-	-	-
	T+	-	51	36	31	-	-	-	-
	T-	-	16	28	36	-	-	-	-
	F+	-	5	8	3	-	-	-	-
	F-	-	1	1	3	-	-	-	-
	Prevalence	-	71%	51%	47%	-	-	-	-
	Accuracy	-	92%	87.6%	91.7%	-	-	-	-
AUC	-	-	-	-	-	-	-	-	
Garcia-Diaz et al. ⁽³⁾ (2007) In-lab	Sensitivity	-	-	94.6%	100%	-	-	95.8%	-
	Specificity	-	-	96.0%	96.7%	-	-	94.7%	-
	PPV	-	-	97.0%	97.0%	-	-	92.0%	-
	NPV	-	-	92.0%	100%	-	-	97.0%	-
	LR+	-	-	23.64	30	-	-	18.2	-
	LR-	-	-	0.06	-	-	-	0.04	-
	T+	-	-	34	32	-	-	23	-
	T-	-	-	25	29	-	-	36	-
	F+	-	-	1	1	-	-	2	-
	F-	-	-	2	0	-	-	1	-
	Prevalence	-	-	58%	51%	-	-	39%	-
	Accuracy	-	-	95%	98%	-	-	95%	-

Appendix to: El Shayeb M, Topfer LA, Stafinski T, et al. A comparison of level 3 portable sleep tests to level 1 polysomnography in the diagnosis of sleep-disordered breathing: a systematic review and meta-analysis. *CMAJ* 2013; DOI:10.1503/cmaj.130952. Copyright © 2013 Canadian Medical Association or its licensors

Study	Diagnostic Accuracy Measure	Sleep Study Apnea-Hypopnea Index Cut-off							
		≤5/hr	≥5/hr	≥10/hr	≥15/hr	≥20/hr	≥25/hr	≥30/hr	≥50/hr
	AUC	-	-	0.97	0.99	-	-	0.98	-
Garcia-Diaz et al. ⁽³⁾ (2007) At-home	Sensitivity	-	-	86.4%	87.5%	-	-	91.7%	-
	Specificity	-	-	100%	96.7%	-	-	94.7%	-
	PPV	-	-	100%	97.0%	-	-	92.0%	-
	NPV	-	-	84.0%	88.0%	-	-	95.0%	-
	LR+	-	-	Infinity	27.0	-	-	17.0	-
	LR-	-	-	0.14	0.13	-	-	0.09	-
	T+	-	-	-	30	-	-	23	-
	T-	-	-	-	27	-	-	35	-
	F+	-	-	-	1	-	-	2	-
	F-	-	-	-	4	-	-	2	-
	Prevalence	-	-	-	55%	-	-	40%	-
Accuracy	-	-	-	91.6%	-	-	93%	-	
AUC	-	-	0.97	0.97	-	-	0.98	-	
Kuna et al. ⁽⁴⁾ (2005) At-home	Sensitivity	-	-	-	86.7%	-	-	-	-
	Specificity	-	-	-	77.8%	-	-	-	-
	PPV	-	-	-	93.0%	-	-	-	-
	NPV	-	-	-	64.0%	-	-	-	-
	LR+	-	-	-	3.90	-	-	-	-
	LR-	-	-	-	0.17	-	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
Accuracy	-	-	-	-	-	-	-	-	
AUC	-	-	-	-	-	-	-	-	
Kuna et al. ⁽⁴⁾ (2005) In-lab	Sensitivity	-	-	-	96.6%	-	-	-	-
	Specificity	-	-	-	100%	-	-	-	-
	PPV	-	-	-	-	-	-	-	-
	NPV	-	-	-	-	-	-	-	-
	LR+	-	-	-	-	-	-	-	-
	LR-	-	-	-	0.03	-	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
Accuracy	-	-	-	-	-	-	-	-	
AUC	-	-	-	-	-	-	-	-	
Polese et al. ⁽⁵⁾ (2009) In-lab	Sensitivity	-	93.9%	-	96.2%	-	-	93.7%	-
	Specificity	-	100%	-	100%	-	-	78.9%	-
	PPV	-	100%	-	100%	-	-	71%	-
	NPV	-	59.0%	-	91.0%	-	-	92%	-
	LR+	-	Infinity	-	Infinity	-	-	4.44	-
	LR-	-	0.061	-	0.038	-	-	0.08	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
Accuracy	-	-	-	-	-	-	-	-	
AUC	-	-	-	-	-	-	-	-	
Santos-Silva et al. ⁽⁶⁾	Sensitivity	-	98.0%	-	97.0%	-	-	96.0%	-
	Specificity	-	62.0%	-	74.0%	-	-	92.0%	-

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Study	Diagnostic Accuracy Measure	Sleep Study Apnea-Hypopnea Index Cut-off							
		≤5/hr	≥5/hr	≥10/hr	≥15/hr	≥20/hr	≥25/hr	≥30/hr	≥50/hr
(2009) In-lab	PPV	-	87.0%	-	78.0%	-	-	87.0%	-
	NPV	-	93.0%	-	96.0%	-	-	98.0%	-
	LR+	-	2.58	-	3.73	-	-	12.0	-
	LR-	-	0.032	-	0.041	-	-	0.043	-
	T+	-	57	-	38	-	-	28	-
	T-	-	14	-	30	-	-	47	-
	F+	-	8	-	11	-	-	4	-
	F-	-	1	-	1	-	-	1	-
	Prevalence	-	72%	-	49%	-	-	36%	-
	Accuracy	-	88%	-	85%	-	-	93%	-
AUC	-	0.97	-	0.98	-	-	0.98	-	
Santos-Silva et al. ⁽⁶⁾ (2009) At-home	Sensitivity	-	93.0%	-	85.0%	-	-	77.0%	-
	Specificity	-	59.0%	-	80.0%	-	-	93.0%	-
	PPV	-	85.0%	-	80.0%	-	-	81.0%	-
	NPV	-	76.0%	-	84.0%	-	-	91.0%	-
	LR+	-	2.27	-	4.25	-	-	11.0	-
	LR-	-	0.12	-	0.19	-	-	0.25	-
	T+	-	53	-	33	-	-	17	-
	T-	-	14	-	33	-	-	54	-
	F+	-	9	-	8	-	-	4	-
	F-	-	4	-	6	-	-	5	-
Prevalence	-	71.4%	-	48.5%	-	-	28%	-	
Accuracy	-	83%	-	82%	-	-	88.5%	-	
AUC	-	0.90	-	0.92	-	-	0.95	-	
Smith et al. ⁽⁷⁾ (2007) At-home	Sensitivity	-	-	-	58.3%	-	-	-	-
	Specificity	-	-	-	62.5%	-	-	-	-
	PPV	-	-	-	70.0%	-	-	-	-
	NPV	-	-	-	50.0%	-	-	-	-
	LR+	-	-	-	1.55	-	-	-	-
	LR-	-	-	-	0.67	-	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
Prevalence	-	-	-	-	-	-	-	-	
Accuracy	-	-	-	-	-	-	-	-	
AUC	-	-	-	-	-	-	-	-	
Tonelli de Oliveria et al. ⁽⁸⁾ (2009) At-home	Sensitivity	-	96.15%	90.7%	81.3%	-	-	80.0%	-
	Specificity	-	64.7%	82.9%	82.6%	-	-	92.1%	-
	PPV	-	94.3%	92.9%	88.4%	-	-	85.7%	-
	NPV	-	73.3%	68.4%	73.1%	-	-	88.6%	-
	LR+	-	2.7	5.2	4.6	-	-	10.1	-
	LR-	-	0.05	0.11	0.22	-	-	0.21	-
	T+	-	100	78	55	-	-	36	-
	T-	-	11	29	44	-	-	70	-
	F+	-	6	6	9	-	-	6	-
	F-	-	4	8	13	-	-	9	-
Prevalence	-	85%	70%	52%	-	-	37%	-	
Accuracy	-	92%	88%	82%	-	-	88%	-	
AUC	-	0.96	0.92	0.91	-	-	0.92	-	
Tonelli de Oliveria et al. ⁽⁸⁾ (2009) In-lab	Sensitivity	95.3%	-	-	-	-	-	-	-
	Specificity	75.0%	-	-	-	-	-	-	-
	PPV	-	-	-	-	-	-	-	-
	NPV	-	-	-	-	-	-	-	-
	LR+	3.81	-	-	-	-	-	-	-

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Study	Diagnostic Accuracy Measure	Sleep Study Apnea-Hypopnea Index Cut-off							
		≤5/hr	≥5/hr	≥10/hr	≥15/hr	≥20/hr	≥25/hr	≥30/hr	≥50/hr
	LR-	0.06	-	-	-	-	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	-	-	-	-	-	-	-
Simultaneous studies									
Amir et al. ⁽⁹⁾ (2010)	Sensitivity	-	97.2%	-	100%	-	-	-	-
	Specificity	-	94.1%	-	92.7%	-	-	-	-
	PPV	-	92%	-	80%	-	-	-	-
	NPV	-	94%	-	100%	-	-	-	-
	LR+	-	16.47	-	1.66	-	-	-	-
	LR-	-	0.029	-	infinity	-	-	-	-
	T+	-	35	-	12	-	-	-	-
	T-	-	16	-	38	-	-	-	-
	F+	-	1	-	3	-	-	-	-
	F-	-	1	-	0	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
AUC	-	-	-	-	-	-	-	-	
Candela et al. ⁽¹⁰⁾ (2005)	Sensitivity	-	-	97%	96%	96%	-	98%	-
	Specificity	-	-	82%	94%	97%	-	98%	-
	PPV	-	-	93%	96%	98%	-	98%	-
	NPV	-	-	92%	94%	95%	-	98%	-
	LR+	-	-	5.39	16	32.0	-	49.0	-
	LR-	-	-	0.037	0.042	0.041	-	0.020	-
	T+	-	-	63	53	53	-	45	-
	T-	-	-	22	35	35	-	45	-
	F+	-	-	5	2	2	-	1	-
	F-	-	-	2	2	2	-	1	-
	Prevalence	-	-	71%	60%	60%	-	50%	-
	Accuracy	-	-	92.6%	95%	95%	-	98%	-
AUC	-	-	0.971	0.975	0.995	-	0.996	-	
Cheliout-Heraut et al. ⁽¹¹⁾ (2011)	Sensitivity	-	83.6%	-	-	-	-	-	-
	Specificity	-	81.8%	-	-	-	-	-	-
	PPV	-	-	-	-	-	-	-	-
	NPV	-	-	-	-	-	-	-	-
	LR+	-	4.59	-	-	-	-	-	-
	LR-	-	0.002	-	-	-	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
AUC	-	-	-	-	-	-	-	-	
Driver et al. ⁽¹²⁾ (2009)	Sensitivity	-	97.0%	84.0%	80.0%	80.0%	-	70.0%	-
	Specificity	-	67.0%	91.0%	97.0%	95.0%	-	100.0%	-
	PPV	-	94.0%	96.0%	97.0%	93.0%	-	100.0%	-
	NPV	-	80.0%	71.0%	76.0%	84.0%	-	88.0%	-
	LR+	-	2.94	9.33	22.7	16.0	-	Infinity	-
	LR-	-	0.04	0.18	0.21	0.21	-	0.3	-
	T+	-	59	44	35	26	-	-	-
	T-	-	-	-	-	-	-	-	-

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Study	Diagnostic Accuracy Measure	Sleep Study Apnea-Hypopnea Index Cut-off							
		≤5/hr	≥5/hr	≥10/hr	≥15/hr	≥20/hr	≥25/hr	≥30/hr	≥50/hr
	T-	-	8	19	28	38	-	-	-
	F+	-	4	2	1	2	-	-	-
	F-	-	2	8	9	7	-	-	-
	Prevalence	-	84%	71%	60%	45%	-	-	-
	Accuracy	-	92%	86%	86%	88%	-	-	-
	AUC	-	0.94	0.944	0.926	0.889	-	0.87	-
Ferre et al. ⁽¹³⁾ (2008)	Sensitivity	-	93.3%	-	84.2%	-	-	55.6%	-
	Specificity	-	86.7%	-	100%	-	-	96.4%	-
	PPV	-	-	-	-	-	-	-	-
	NPV	-	-	-	-	-	-	-	-
	LR+	-	7.01	-	Infinity	-	-	15.44	-
	LR-	-	0.08	-	0.16	-	-	0.46	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	-	-	-	-	-	-	-
Goodrich et al. ⁽¹⁴⁾ (2009)	Sensitivity	-	85%	92%	87%	85%	100%	88%	-
	Specificity	-	67%	88%	82%	94%	97%	100%	-
	PPV	-	-	-	-	-	-	-	-
	NPV	-	-	-	-	-	-	-	-
	LR+	-	2.58	7.67	4.83	14.16	33.33	Infinity	-
	LR-	-	0.22	0.09	0.16	0.16	-	0.12	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	-	-	-	-	-	-	-
Grant et al. ⁽¹⁵⁾ (2009)	Sensitivity	-	97.0%	-	97.0%	-	-	-	-
	Specificity	-	73.0%	-	81.0%	-	-	-	-
	PPV	-	-	-	47.0%	-	-	-	-
	NPV	-	-	-	99.0%	-	-	-	-
	LR+	-	3.6	-	5.1	-	-	-	-
	LR-	-	0.015	-	0.041	-	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	-	-	-	-	-	-	-
Ng et al. ⁽¹⁶⁾ (2010)	Sensitivity	-	92.4%	90.0%	87.8%	85.3%	-	-	-
	Specificity	-	85.7%	86.7%	94.9%	95.7%	-	-	-
	PPV	-	96.8%	91.8%	94.7%	93.5%	-	-	-
	NPV	-	70.6%	83.9%	88.1%	89.8%	-	-	-
	LR	-	6.46	6.77	17.22	19.84	-	-	-
	LR	-	0.089	0.115	0.126	0.154	-	-	-
	T+	-	61	45	36	29	-	-	-
	T-	-	12	26	37	44	-	-	-
	F+	-	2	4	2	2	-	-	-
	F-	-	5	5	5	5	-	-	-
	Prevalence	-	82%	62%	51%	42%	-	-	-
	Accuracy	-	91%	89%	91%	91%	-	-	-

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Study	Diagnostic Accuracy Measure	Sleep Study Apnea-Hypopnea Index Cut-off							
		≤5/hr	≥5/hr	≥10/hr	≥15/hr	≥20/hr	≥25/hr	≥30/hr	≥50/hr
	AUC	-	-	-	-	-	-	-	-
NG et al. ⁽¹⁷⁾ (2009)	Sensitivity	-	100%	97.7%	94.7%	96.9%	-	-	-
	Specificity	-	100%	100%	100%	100%	-	-	-
	PPV	-	100%	100%	100%	100%	-	-	-
	NPV	-	100%	87.5%	85.7%	94.7%	-	-	-
	LR	-	infinity	infinity	Infinity	Infinity	-	-	-
	LR	-	0	0.23	0.05	0.031	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	1	1	0.99	-	-	-	-
Nigro et al. ⁽¹⁸⁾ (2010)	Sensitivity	-	75%	-	85.7%	-	-	100%	-
	Specificity	-	86.7%	-	91.4%	-	-	98.8%	-
	PPV	-	88.2%	-	80%	-	-	77.3%	-
	NPV	-	72.2%	-	94.1%	-	-	100%	-
	LR+	-	5.6	-	10	-	-	9.8	-
	LR-	-	0.29	-	0.016	-	-	-	-
	T+	-	28	-	16	-	-	17	-
	T-	-	25	-	43	-	-	44	-
	F+	-	4	-	4	-	-	5	-
	F-	-	9	-	3	-	-	0	-
	Prevalence	-	57%	-	29%	-	-	26%	-
	Accuracy	-	80%	-	90%	-	-	92%	-
	AUC	-	-	-	-	-	-	-	-
Orr et al. ⁽¹⁹⁾ (2006)	Sensitivity	-	-	83.0%	82.0%	-	100%	-	-
	Specificity	-	81.0%	87.0%	81%	-	-	100%	-
	PPV	-	-	-	-	-	-	-	-
	NPV	-	-	-	-	-	-	-	-
	LR+	-	-	6.38	4.31	-	-	-	-
	LR-	-	-	0.195	0.222	-	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	-	-	-	-	-	-	-
Su S, et al. ⁽²⁰⁾ (2004)	Sensitivity	-	98.0%	87.8%	83.9%	-	-	-	-
	Specificity	-	40.0%	73.7%	75.9%	-	-	-	-
	PPV	-	89.1%	87.8%	78.8%	-	-	-	-
	NPV	-	80.0%	73.7%	81.5%	-	-	-	-
	LR+	-	1.63	3.33	3.64	-	-	-	-
	LR-	-	0.05	0.165	0.159	-	-	-	-
	T+	-	49	36	26	-	-	-	-
	T-	-	4	14	23	-	-	-	-
	F+	-	6	5	7	-	-	-	-
	F-	-	1	5	4	-	-	-	-
	Prevalence	-	88.8%	68%	50%	-	-	-	-
	Accuracy	-	88.3%	83%	82%	-	-	-	-
	AUC	-	0.945	0.908	0.872	-	-	-	-
Sullivan et al. ⁽²¹⁾ (2009)	Sensitivity	70.0%	86.0%	-	57.0%	-	-	75.0%	-
	Specificity	100%	82.0%	-	88.0%	-	-	97.0%	-
	PPV	-	-	-	-	-	-	-	-

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Study	Diagnostic Accuracy Measure	Sleep Study Apnea-Hypopnea Index Cut-off							
		≤5/hr	≥5/hr	≥10/hr	≥15/hr	≥20/hr	≥25/hr	≥30/hr	≥50/hr
	NPV	-	-	-	-	-	-	-	-
	LR+	infinity	4.78	-	4.75	-	-	25.0	-
	LR-	0.3	0.17	-	0.49	-	-	0.26	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	-	-	-	-	-	-	-
Takaman et al. ⁽²²⁾ (2010)	Sensitivity	-	-	-	-	81%	-	-	-
	Specificity	-	-	-	-	86%	-	-	-
	PPV	-	-	-	-	-	-	-	-
	NPV	-	-	-	-	-	-	-	-
	LR+	-	-	-	-	5.79	-	-	-
	LR_	-	-	-	-	0.25	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	-	-	-	0.87	-	-	-
To et al. ⁽²³⁾ (2009)	Sensitivity	-	84.0%	-	-	-	-	-	-
	Specificity	-	100%	-	-	-	-	-	-
	PPV	-	100%	-	-	-	-	-	-
	NPV	-	27%	-	-	-	-	-	-
	LR+	-	Infinity	-	-	-	-	-	-
	LR-	-	0.16	-	-	-	-	-	-
	ROC	-	-	-	-	-	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	0.96	-	-	-	-	-	-
Yagi et al. ⁽²⁴⁾ (2008)	Sensitivity	-	-	-	95%	-	-	-	-
	Specificity	-	-	-	-	-	-	-	-
	PPV	-	-	-	95%	-	-	-	-
	NPV	-	-	-	-	-	-	-	-
	LR+	-	-	-	-	-	-	-	-
	LR-	-	-	-	-	-	-	-	-
	ROC	-	-	-	-	-	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	-	-	-	-	-	-	-
Separate studies									
Alvarez et al. ⁽²⁵⁾ (2008)	Sensitivity	-	-	61.9%	-	-	-	-	-
	Specificity	-	-	95.8%	-	-	-	-	-
	PPV	-	-	92.9%	-	-	-	-	-

Study	Diagnostic Accuracy Measure	Sleep Study Apnea-Hypopnea Index Cut-off							
		≤5/hr	≥5/hr	≥10/hr	≥15/hr	≥20/hr	≥25/hr	≥30/hr	≥50/hr
	NPV	-	-	74.2%	-	-	-	-	-
	LR+	-	-	14.78	-	-	-	-	-
	LR-	-	-	0.40	-	-	-	-	-
	T+	-	-	13	-	-	-	-	-
	T-	-	-	23	-	-	-	-	-
	F+	-	-	1	-	-	-	-	-
	F-	-	-	8	-	-	-	-	-
	Prevalence	-	-	47%	-	-	-	-	-
	Accuracy	-	-	80%	-	-	-	-	-
	AUC	-	-	0.875	-	-	-	-	-
Campbell et al. ⁽²⁶⁾ (2010)	Sensitivity	-	88%	90.5%	93.7%	-	-	-	-
	Specificity	-	50%	88.9%	96.9%	-	-	-	-
	PPV	-	-	-	-	-	-	-	-
	NPV	-	-	-	-	-	-	-	-
	LR+	-	1.76	8.14	4.06	-	-	-	-
	LR-	-	0.24	0.11	0.81	-	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	0.90	0.92	0.94	-	-	-	-
Cilli et al. ⁽²⁷⁾ (2006)	Sensitivity	-	93.0%	-	-	-	-	-	-
	Specificity	-	44.4%	-	-	-	-	-	-
	PPV	-	89.5%	-	-	-	-	-	-
	NPV	-	57.1%	-	-	-	-	-	-
	LR+	-	1.67	-	-	-	-	-	-
	LR-	-	0.16	-	-	-	-	-	-
	T+	-	43	-	-	-	-	-	-
	T-	-	4	-	-	-	-	-	-
	F+	-	5	-	-	-	-	-	-
	F-	-	3	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	-	-	-	-	-	-	-
Danzi-Soares et al. ⁽²⁸⁾ (2012)	Sensitivity	-	92%	-	67%	-	-	-	-
	Specificity	-	66%	-	78%	-	-	-	-
	PPV	-	95%	-	78%	-	-	-	-
	NPV	-	54%	-	66%	-	-	-	-
	+ LR	-	2.75	-	3.61	-	-	-	-
	- LR	-	0.12	-	0.44	-	-	-	-
	T+	-	56	-	26	-	-	-	-
	T-	-	6	-	25	-	-	-	-
	F+	-	3	-	7	-	-	-	-
	F-	-	5	-	13	-	-	-	-
	Prevalence	-	87.5%	-	55%	-	-	-	-
	Accuracy	-	88.5%	-	72.8%	-	-	-	-
	AUC	-	0.90	-	0.79	-	-	-	-
Finkel et al. ⁽²⁹⁾ (2009)	Sensitivity	-	95.0%	-	-	-	-	-	-
	Specificity	-	33.3%	-	-	-	-	-	-
	PPV	-	83.0%	-	-	-	-	-	-
	NPV	-	67.0%	-	-	-	-	-	-
	LR+	-	1.42	-	-	-	-	-	-
	LR-	-	0.15	-	-	-	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-

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Study	Diagnostic Accuracy Measure	Sleep Study Apnea-Hypopnea Index Cut-off							
		≤5/hr	≥5/hr	≥10/hr	≥15/hr	≥20/hr	≥25/hr	≥30/hr	≥50/hr
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	-	-	-	-	-	-	-
Fordyce et al. ⁽³⁰⁾ (2009)	Sensitivity	-	80.0%	-	-	-	-	-	-
	Specificity	-	100%	-	-	-	-	-	-
	PPV	-	100%	-	-	-	-	-	-
	NPV	-	80.0%	-	-	-	-	-	-
	LR+	-	Infinity	-	-	-	-	-	-
	LR-	-	0.20	-	-	-	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	-	-	-	-	-	-	-
Furukawa et al. ⁽³¹⁾ (2009)	Sensitivity	-	-	-	-	88%	77%	72%	-
	Specificity	-	-	-	-	61%	81%	90%	-
	PPV	-	-	-	-	76%	84.6%	91.2%	-
	NPV	-	-	-	-	79.1%	71.4%	70%	-
	LR+	-	-	-	-	2.25	4.05	7.2	-
	LR-	-	-	-	-	0.19	0.28	0.31	-
	ROC	-	-	-	-	38	33	31	-
	T+	-	-	-	-	19	25	28	-
	T-	-	-	-	-	12	6	3	-
	F+	-	-	-	-	5	10	12	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	75.7%	78.4%	79%	-
	Accuracy	-	-	-	-	-	-	-	-
AUC	-	-	-	-	-	-	-	-	
Gjevre et al. ⁽³²⁾ (2011)	Sensitivity	-	90%	75%	62.5%	46%	-	28.1%	-
	Specificity	-	66%	86.7%	93.3%	100%	-	100%	-
	PPV	-	83%	92.3%	95.2%	100%	-	100%	-
	NPV	-	75%	61.9%	53.9%	46.9%	-	39.5%	-
	LR+	-	2.26	5.63	9.32	Infinity	-	Infinity	-
	LR-	-	0.156	0.288	0.402	-	-	-	-
	T+	-	29	24	20	-	-	-	-
	T-	-	9	13	14	-	-	-	-
	F+	-	6	2	1	-	-	-	-
	F-	-	3	8	12	-	-	-	-
	Prevalence	-	68%	68%	68%	-	-	-	-
	Accuracy	-	80%	78.7%	72.3%	-	-	-	-
	AUC	-	-	-	-	-	-	0.88	-
Hernandez et al. ⁽³³⁾ (2007)	Sensitivity	-	-	83.3%	-	-	-	-	-
	Specificity	-	-	78.9%	-	-	-	-	-
	PPV	-	-	91.8%	-	-	-	-	-
	NPV	-	-	62.5%	-	-	-	-	-
	LR+	-	-	3.95	-	-	-	-	-
	LR-	-	-	0.21	-	-	-	-	-
	T+	-	-	45	-	-	-	-	-
	T-	-	-	15	-	-	-	-	-
	F+	-	-	4	-	-	-	-	-
	F-	-	-	9	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-

Study	Diagnostic Accuracy Measure	Sleep Study Apnea-Hypopnea Index Cut-off							
		≤5/hr	≥5/hr	≥10/hr	≥15/hr	≥20/hr	≥25/hr	≥30/hr	≥50/hr
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	-	-	-	-	-	-	-
Masa et al. ⁽³⁴⁾ (2011)	Sensitivity	-	-	-	-	-	-	52%	-
	Specificity	-	-	-	-	-	-	76%	-
	PPV	-	-	-	-	-	-	-	-
	NPV	-	-	-	-	-	-	-	-
	LR+	-	-	-	-	-	-	2.18	-
	LR-	-	-	-	-	-	-	0.63	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	-	-	-	-	-	-	
Masdeu et al. ⁽³⁵⁾ (2010)	Sensitivity	-	-	86%	81%	-	-	-	-
	Specificity	-	-	84%	94%	-	-	-	-
	PPV	-	-	-	-	-	-	-	-
	NPV	-	-	-	-	-	-	-	-
	LR+	-	-	5.375	13.5	-	-	-	-
	LR-	-	-	0.166	0.202	-	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	85%	86%	-	-	-	-
	AUC	-	-	-	-	-	-	-	
Quintana-Gallego et al. ⁽³⁶⁾ (2004)	Sensitivity	-	82.5%	79.3%	68.4%	-	-	-	-
	Specificity	-	88.6%	97.8%	94.6%	-	-	-	-
	PPV	-	-	-	-	-	-	-	-
	NPV	-	-	-	-	-	-	-	-
	LR+	-	7.24	36.04	12.67	-	-	-	-
	LR-	-	0.20	0.21	0.33	-	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	0.986	0.907	0.862	-	-	-	
Shrivastava et al. ⁽³⁷⁾ (2006)	Sensitivity	-	-	-	86.4%	-	-	-	-
	Specificity	-	-	-	80.8%	-	-	-	-
	PPV	-	-	-	-	-	-	-	-
	NPV	-	-	-	-	-	-	-	-
	LR+	-	-	-	4.50	-	-	-	-
	LR-	-	-	-	0.17	-	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	-	-	-	-	-	-	
Skomro et al. ⁽³⁸⁾ (2005)	Sensitivity	-	92.0%	-	-	-	-	-	-
	Specificity	-	67.0%	-	-	-	-	-	-
	PPV	-	88.0%	-	-	-	-	-	-

Study	Diagnostic Accuracy Measure	Sleep Study Apnea-Hypopnea Index Cut-off							
		≤5/hr	≥5/hr	≥10/hr	≥15/hr	≥20/hr	≥25/hr	≥30/hr	≥50/hr
	NPV	-	75.0%	-	-	-	-	-	-
	LR+	-	2.79	-	-	-	-	-	-
	LR-	-	0.12	-	-	-	-	-	-
	T+	-	22	-	-	-	-	-	-
	T-	-	6	-	-	-	-	-	-
	F+	-	3	-	-	-	-	-	-
	F-	-	2	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	-	-	-	-	-	-	-
To et al. ⁽³⁹⁾ (2012)	Sensitivity	-	-	89%	-	-	-	-	-
	Specificity	-	-	50%	-	-	-	-	-
	PPV	-	-	-	-	-	-	-	-
	NPV	-	-	-	-	-	-	-	-
	LR+	-	-	1.78	-	-	-	-	-
	LR-	-	-	0.22	-	-	-	-	-
	T+	-	-	-	-	-	-	-	-
	T-	-	-	-	-	-	-	-	-
	F+	-	-	-	-	-	-	-	-
	F-	-	-	-	-	-	-	-	-
	Prevalence	-	-	-	-	-	-	-	-
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	-	0.89	-	-	-	-	-
Yin et al. ⁽⁴⁰⁾ (2006)	Sensitivity	-	100%	-	93.8%	-	-	79.2%	90.0%
	Specificity	-	-	-	25.0%	-	-	70.0%	97.1%
	PPV	-	93.2%	-	76.9%	-	-	76.0%	90.0%
	NPV	-	-	-	60.0%	-	-	73.7%	97.1%
	LR+	-	-	-	1.25	-	-	2.64	31.03
	LR-	-	-	-	0.228	-	-	0.297	0.103
	T+	-	-	-	30	-	-	19	9
	T-	-	-	-	3	-	-	14	33
	F+	-	-	-	9	-	-	6	1
	F-	-	-	-	2	-	-	5	1
	Prevalence	-	-	-	72%	-	-	54%	23%
	Accuracy	-	-	-	-	-	-	-	-
	AUC	-	-	-	-	-	-	-	-

AUC = area under the curve; F+ = false positive; F- = false negative; LR+ = positive likelihood ratio; LR- = negative likelihood ratio; NPV = negative predictive value; PPV = positive predictive value; T+ = true positive; T- = true negative;

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