| **First Author, Year** **Country** | **PM Name****PM Type (Number of Channels)****PM Channels\*** | **PM Setting****PM Timing** | **N Enrolled (N Analyzed)** | **Mean (SD) AHI [Range]** | **Mean (SD) ESS [Range]** | **Mean Age, Yr** | **% Female** | **Mean BMI, kg/m2** | **Participants** | **% With OSA According to Specific PSG AHI Cutpoints** | **Quality** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Alvarez, 2009126Spain | Criticare 504 Pulse OximeterIV (2)1, 6 | Sleep labSimultaneous | 187 (187) | AHI ≥10: 40 (19.6) [NR]AHI<10:2.0 (2.4) [NR] | NR | 58 | 21 | 30 | Patients with suspected OSA | AHI >10: 59 | Good |
| Nigro, 2010124Argentina | ApneaLinkIV (2)†7, 8 | Sleep labSimultaneous | 76 (66) | 10 (NR) [4.1- 34.1] | NR | 52 | 29 | 29 | Consecutive patients referred for possible sleep apnea hypopnea syndrome  | Mild (RDI=5-<15): 30Moderate (RDI=15-<30): 21Severe (RDI ≥30): 26 | Fair |
| Nigro, 2013117Argentina | ApneaLink OxIV (2)1, 8 | Sleep labSimultaneous | 55 (55) | NRǂ | NR | 48 | 31 | 30 | Patients with suspected OSA referred to clinic | RDI ≥5: 78 | Good |
| Poupard, 2012120France | Nonin WristOxIV (2)1, 6 | Sleep labSimultaneous | 106 (106) | NR | NRAHI<5: 11 (7) [NR];5≤AHI<15: 8 (5) [NR]; 15≤AHI<30: 9 (5) [NR]; AHI ≥30: 10 (6) [NR] | 57 | 35 | 29 | Consecutive patients referred to sleep laboratory for suspected sleep apnea syndrome | AHI ≥15: 50 | Fair |
| Yadollahi, 2010123Canada | Acoustical Sleep Apnea Diagnosis (ASAD) System§IV (2)1, 7 | Sleep labSimultaneous | 66 (66) | 24 (30.3) [0.2-125.7] | NR | 51 | 27 | 32 | Population already undergoing full-night PSG study | AHI ≥5: NR | Fair |

\* 1=oxygen saturation from pulse oximetry; 2=EEG; 3=electro-oculogram; 4=electromyogram; 5=electrocardiogram; 6=heart rate; 7=snoring; 8=airflow; 9=chest wall motion; 10=abdomen motion; 11=body position; 12=leg movements; 13=thermal flow; 14=photoplethlysmograph; 15=peripheral arterial tone; 16=wrist activity

† Authors describe ApneaLink as a single-channel portable monitor that measures airflow; we reclassified it as a dual-channel portable monitor since it also measures snoring.

ǂ The mean RDI was 15 (NR) [6-35].

§ The ASAD system included an omnidirectional microphone (Sony ECM-77B) and Masimo pulse oximeter.

**Abbreviations:** AHI=apnea-hypopnea index; BMI=body mass index; ESS=Epworth Sleepiness Scale; kg=kilograms; m=meters; N=sample size; OSA=obstructive sleep apnea; PM=portable monitor; PSG=polysomnography; RDI=respiratory disturbance index; SD=standard deviation; yr=years.