

**Multimedia Appendix 11.** Epoch-by-epoch agreement: subgroup analysis of the apnea-hypopnea index.

Device	AHI		AHI	
	≤ 5	> 5	≤ 30	> 30
<b>Airable</b>				
SleepRoutine (67)	0.6317	<b>0.7073</b>	<b>0.6773</b>	<b>0.7119</b>
SleepScore (38)	0.3489	0.4234	0.4099	0.3870
Pillow (74)	0.2731	0.2526	0.2632	0.2398
<b>Nearable</b>				
Withings Sleep Tracking Mat (75)	0.4623	0.4434	0.4642	0.3883
Google Nest Hub 2 (33)	0.3505	0.2815	0.3078	0.2564
Amazon Halo Rise (28)	<b>0.6337</b>	0.6192	0.6162	0.6567
<b>Wearable</b>				
Google Pixel Watch (30)	0.5972	0.5559	0.5529	0.6141
Galaxy Watch 5 (22)	0.5803	0.5741	0.5753	0.5868
Fitbit Sense 2 (26)	0.6216	0.5611	0.5721	0.6179
Apple Watch 8 (26)	0.4303	0.5290	0.5279	0.2170
Oura Ring 3 (53)	0.5506	0.5097	0.5165	0.5261

Values of the top-performing CSTs are shown in bold. Abbreviations: *AHI*, apnea-hypopnea index; *CST*, consumer sleep tracker.