

EFFECTS OF SCORING CRITERIA ON HOME POLYGRAPHY RESULTS: 4% DIPS vs AASM v2

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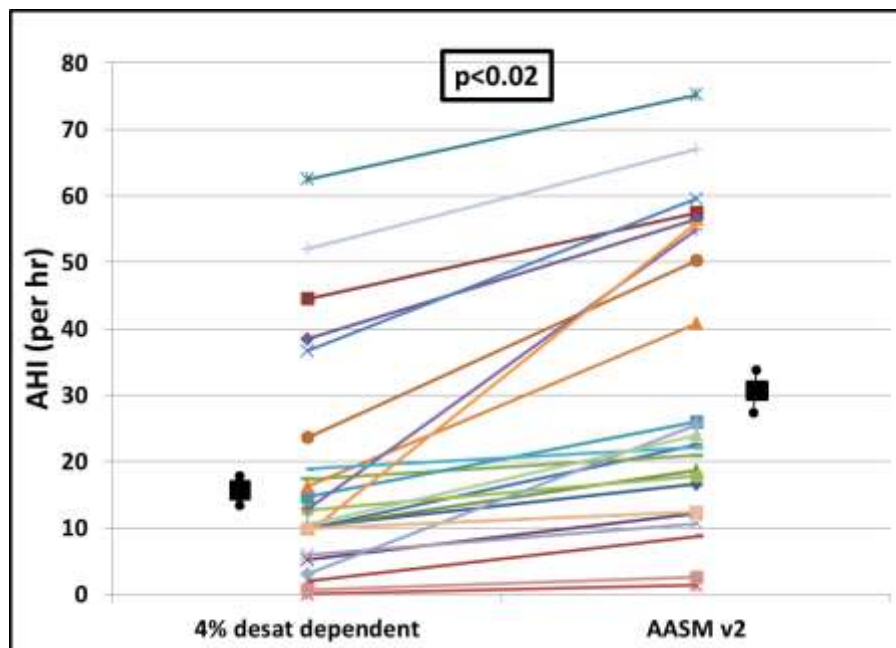
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Aims: To compare apnoea+hypopnoea index (AHI) and severity category from two different sets of scoring criteria.

Methods: 24 unattended home cardio-respiratory polygraphies were scored independently by between 3 and 5 scorers by two differing scoring criteria, during monthly quality-control exercises over 24 months. The first scoring criteria required a 4% desaturation to confirm any respiratory event (4% desat), and the second (AASM v2)¹ required no desaturation for an apnoea and a 3% desaturation or >6 bpm change in heartrate to confirm a hypopnoea. AHI severity class was assigned by AHI categories of <5, 5-14, 15-29 and 30+ per hr².

Results: Average AHI of was significantly higher under AASM v2 (31 ± SEM 4 per hr) than 4% desat scoring criteria (17 ± 3 per hr; Wilcoxon p<0.02; Fig 1).

Fig 1: Mean AHI (±SEM) by scoring criteria



AHI severity class was also significantly higher by AASM v2 than 4% desat criteria (Table 1; χ^2 , p<0.02), with 14/24 cases moving up one severity class or more.

Table 1: AHI severity class by scoring criteria

4% desat ↓	AASM v2 →	AHI <5	AHI 5-14	AHI 15-29	AHI 30+
AHI <5		2	1	1	
AHI 5-14			2	8	2

AHI 15-29				1	2
AHI 30+					5

Discussion: Polygraphy scoring criteria can have statistically and clinically significant effects on diagnostic outcomes. Standardisation of criteria (AASM v2) could aid comparisons within and between patients and clinics.

References:

1. *Berry RB et al. The AASM Manual for the Scoring of Sleep and Associated Events: Rules, Terminology and Technical Specifications, Version 2.0.2. www.aasmnet.org, Darien, Illinois: American Academy of Sleep Medicine, 2013.*
2. *Scottish Intercollegiate Guidelines Network (SIGN) 73: Management of obstructive sleep apnoea/hypopnoea syndrome in adults. 2003.*