

European Respiratory Society Annual Congress 2012

Abstract Number: 1575

Publication Number: 1660

Abstract Group: 9.1. Respiratory Function Technologists/Scientists

Keyword 1: Sleep studies **Keyword 2:** Physiological diagnostic services **Keyword 3:** Primary care

Title: The Epworth sleepiness score should not be used to screen out patients with suspected sleep-breathing disorders

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Body: The Epworth Sleepiness Score (ESS) is used to assess the level of daytime sleepiness as perceived by the patient. In some centres and in primary care, the ESS is used to reduce the number of referrals for suspected sleep-breathing disorders (SBD), where an ESS is within normal range (≤ 10). Aim: To determine the limitations of using ESS to screen patients with suspected SBD. Methods: 150 consecutively referred patients were given an ESS and had 2 nights of oximetry at home (Minolta 300i). The oximetry data was analysed using Download 2001 (Stowood Scientific,UK) for 4% dips/hr and an Δ index cut-off of >0.6 . Data is given as median (range). The highest dips/hr and Δ index was used in the analysis from either night. Results: 130 patients had usable data; 39F and 91M, aged 50 yrs (19-79), ESS - 11.5 (1-23), 4% dips/hr - 4.8 (0.3-119) and 6.2 (0.1-118), and Δ index - 0.57 (0.2-5.6) and 0.63 (0.2-10.9) on the 2 nights respectively. There was no correlation between ESS and oximetry indices.

Distribution of patients based on Epworth Score

	≤ 10	11 - 15	> 15
< 5 4% dip/hr	25	14	13
5-15 4% dip/hr	13	14	15
15-30 4% dip/hr	11	4	2
> 30 4% dip/hr	5	6	6
Δ index < 0.6	20	15	16
Δ index > 0.6	34	23	20

25/130 (19%) had a normal 4% dips/hr and 20/130 (15%) had a normal Δ index in with a normal ESS of ≤ 10 . 27/130 (21%) had a normal 4% dips/hr with an ESS >10 . Conclusion: The ESS, within limitations, is a guide as to whether daytime sleepiness is present. It should not be used to reduce referrals for assessment of suspected SBD, but as part of a screening assessment using oximetry and a good clinical history. The

reasons why patients have a high ESS in the absence of a significant SBD requires further investigation.