not be reliable predictors of safe driving. Whether poor performance on an advanced driving simulator is predictive of poor on road performance needs to be established.

P21 DOES TIME OF DAY AFFECT OUTCOMES ON AN ADVANCED OFFICE BASED DRIVING SIMULATOR IN PATIENTS WITH OBSTRUCTIVE SLEEP APNOEA SYNDROME (OSAS)?

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Introduction Road traffic accidents (RTA) are known to peak at certain times of the day especially early afternoons. OSAS patients are at higher risk of being involved in RTA. Recently we have established that it is possible to identify with high degree of certainty a group of OSAS sufferers who perform significantly worse than others using specific simulator parameters on our advanced office based driving simulator (miniSim). We now explore whether the time of day when the study is performed affects simulator outcomes.

Methods 205 (52±10 yrs, ESS 12±5, AHI 33±22) patients performed a 90 km motorway driving scenario on the miniSim. Two events were programmed to trigger evasive actions, one subtle (Veer event) where an alert driver should not crash, while with the other (Brake event) even a fully alert driver might crash. There were three possible outcomes of the simulator runs; "fail", "indeterminate" and "pass". "Fail" was defined by any crash other than at the brake event and/or inability to complete the test. Comparisons were made between the patient populations performing the test before & after 12:00 in terms of demographics, symptoms & severity of OSAS. Outcomes on the simulator, lane position & reaction times were also compared between these groups.

Results There were no differences between the patients performing at the different time slots in terms of age, BMI, ESS & AHI (Abstract P21 table 1). The number of "fails", "indeterminates" & "passes" during morning & afternoon runs were: 16/26/70 (n=112) & 22/30/41 (n=93). Patients performing in the afternoon were no more likely to fail the test than those doing it in the morning (Fisher's exact test p=0.1). There were no differences in terms of lane position or reaction times (p=0.38, 0.65).

Abstract P21 Table 1 Comparing patients performing before and after 12:00 h

Parameters	Patients performing before 12:00 h (n=112) Mean (SD)	Patients performing after 12:00 h (n=93)	p Values (t tests)
Age (years)	52.7 (10.5)	52.2 (10.5)	0.74
BMI (kg/m^2)	34 (6.3)	35 (7)	0.25
ESS	11 (6)	12 (5)	0.15
AHI (events/hour)	32.6 (23.3)	32.7 (20)	0.96
ODI (events/hour)	32.6 (22.5)	35.4 (24)	0.41
SDLP (metres)	0.42 (0.15)	0.44 (0.13)	0.38
VeerRT (sec)	1.63 (0.54)	1.59 (0.47)	0.65

AHI, Apnoea Hypopnoea Index; BMI, Body mass index; ESS, Epworth Sleepiness Scale; ODI, Oxygen Destauration index; SDLP, Mean of SD of lane position; VeerRT, Reaction time at the Veer event.

Conclusion The results indicate that the time of day the study is performed is unlikely to affect outcomes on this driving simulator. It has implications for its clinical use as the test can performed at any time of the day.

P22 DO OBSTRUCTIVE SLEEP APNOEA (OSA) PATIENTS WITH NORMAL EPWORTH SCORES COMPLY WITH CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP) THERAPY?

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Introduction Current recommendations suggest CPAP treatment in patients with OSA and excessive daytime sleepiness. The Mosaic trial showed a reduction in Epworth Sleepiness Score (ESS) in minimally symptomatic patients although there was no change in cardiovascular risk. However, patients with significant co-morbidities and objective evidence of severe OSA are often treated. The treatment compliance of patients with a normal ESS is not well established. We reviewed compliance with CPAP therapy in patients with OSA with an ESS <10 who were started on treatment due to a variety of indications.

Methods Review of CPAP compliance on the Sleep medicine database in patients diagnosed with OSA and ESS <10 from July 2008 to December 2009.

Results 86 patients with OSA and ESS <10 were started on CPAP. Indications for CPAP included daytime somnolence, morning headache, distressing apnoeic events, diabetes mellitus with complications, significant ischaemic heart disease, cerebrovascular accidents, COPD and renal failure. 33 patients (38%) had mild OSA, 33 (38%) had moderate OSA and 20 (24%) had severe OSA. The mean ESS in the mild, moderate and severe groups were 6.3, 5.4 and 5.5 respectively.27 patients (31%) were noncompliant. In this group, CPAP was withdrawn at 2 weeks in 23 patients and at 3 months in four patients. 59 patients (69%) continued to be on treatment and have had symptomatic improvement. Mean ESS in the compliant group decreased from 5.7±2.6 to 1.3±1.8 (p<0.001) post treatment. 45 (76%) of the compliant patients had an average daily CPAP usage >4 h with a mean ESS change from 5.5 to 1.1. 14 (24%) patients using CPAP <4 h found symptomatic improvement with a mean ESS change from 6.3 to 2.0. Overall in the compliant group, the mean Oxygen Desaturation Index and Apnoea Hypopnoea Index decreased by 71% and 76% respectively.

Conclusion Over two-third of patients with low ESS and symptoms/significant co-morbidities were compliant with CPAP therapy. All patients had improvement in ESS on treatment. A trial of treatment in this group of patients with a low ESS appears to be worthwhile.

P23 500 CONSECUTIVE REFERRALS TO A DGH SLEEP SERVICE: HOW USEFUL IS THE EPWORTH?

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Introduction and Objectives Our sleep service offers assessment and treatment of sleep-disordered breathing (SDB). Our commissioners suggested that patients with an Epworth Sleepiness Score (ESS) = 9 did not require assessment. We assessed the characteristics of patients referred and usefulness of baseline ESS. All patients referred for assessment of SDB were entered onto a database prospectively from October 2009 to June 2011. Baseline data recorded was: referral source, demographics, ESS, sleep study type, oxygen desaturation index >4% (ODI), study interpretation, treatment decision.

Results 500 patients were referred, most commonly by GP (n=349), endocrinology (n=50), respiratory (n=34) and ENT (n=29). 365 patients were male, mean age (±SD) 51.3±13.5 years. 476 patients