estimated the number of referred patients, 60% saw more than >5 per month. Of centres *with no policy* only 26% estimated that they received >5 referrals per month. Without a policy 72% of referrals came from clinical suspicion alone.

Overall 96% of respondents felt that all patients at high risk of OSA should be screened for OSA. 36 respondents thought it would be ethical to randomise identified cases of OSA to a potential trial of peri-operative CPAP or no CPAP, compared with 40 who did not.

Conclusions There is no established UK standard practice for screening for OSA pre-operatively, despite a majority opinion amongst questionnaire responders that high risk patients should be. There would be cost implications if National pre-operative OSA screening was implemented and there therefore needs to be clear evidence based benefit before proceeding.

S24 REPEATABILITY AND EFFECT OF INCENTIVES ON AN OFFICE BASED ADVANCED DRIVING SIMULATOR (MINIUOLDS) TO ASSESS DRIVING PERFORMANCE IN OBSTRUCTIVE SLEEP APNOEA SYNDROME (OSAS)

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10.1136/thoraxjnl-2014-206260.30

Introduction Some patients with OSAS are at higher risk of being involved in road traffic accidents. No objective tests have been shown to predict reliably whether an individual is safe to drive or not and there is significant variation in the advice given by the clinicians. Using continuously measured variables in an advanced PC-based driving simulator the at risk patients can be identified with a high degree of accuracy.

We have investigated whether this finding is repeatable. Individuals may "raise their game" if they know that their licence is at stake. We have therefore also investigated the effect of an incentive on the test.

Methods 150 untreated OSAS patients (males-131) were randomised to either the repeatability (n = 50) or incentive arm (n = 100). All performed a simulator run, after initial acclimatisation. In the repeatability arm, patients performed the simulator run on two separate occasions with no knowledge of the results. In the incentive arm, patients performed the simulator run on two separate occasions but just prior to the second run were told about their performance and offered a prize if they could improve their performance by 10%.

SDLP in epoch 3 and "veer" reaction time (Veer-RT) were the co-primary outcome variables. Classification of patients into "pass", "fail" and "indeterminate" were the secondary outcome variables. Results were analysed using paired and unpaired T tests with the level of significance set at $p < 0.05$.

Results 137 patients (repeatability arm-48, incentive arm-89) completed the trial. The median duration between the two simulator runs was 13 days (range, 5–55). SDLP in epoch 3 and Veer-RT were repeatable (P- 0.54, Δ SDLP- 0.01 and P- 0.37, Δ Veer-RT- 0.13) respectively. There was no effect of an incentive on SDLP in epoch 3 (P-0.18) and Veer-RT (P-0.57). There was no difference in the simulator outcome between the two runs [pass (P- 0.70), indeterminate (0.06), fail (P- 0.16)].

Conclusions SDLP and Veer-RT are consistent between runs on the MiniUoLDS and this is not affected by a simple incentive. Advanced office PC based simulators may be helpful when advising patients with OSAS about driving.

S25 SLEEPY SNORERS WITH "FLOW LIMITATION SYNDROME": A MISSED OPPORTUNITY FOR CPAP?

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10.1136/thoraxjnl-2014-206260.31

Background The apnoea–hypopnoea index (AHI) is used to define Obstructive Sleep Apnoea Syndrome (OSAS). Some subjects however, present primarily with excessive daytime sleepiness (EDS) and loud snoring, but investigation may reveal an elevated Respiratory Disturbance Index (RDI) with most events comprising Flow limitations. Little UK based data exists regarding treatment outcomes in this group.

Methodology/results 118 subjects (mean age 52 years; Epworth sleepiness scale score (ESS) 13.58 (5.30); 80% male) presented between November 2011–October 2013 to the Sleep Service with EDS as a primary symptom, loud snoring, RDI >15 with AHI≤11 (Mean RDI 21.77 (9.43)); AHI 8.03(2.74); ODI 6.72 (4.49) and were treated with CPAP. At 30 day compliance review, 60% (71/118) had benefited from CPAP with mean ESS pre-CPAP 14.13 (5.12) falling to 7.70 (4.82) following CPAP. The mean BMI was found to be significantly higher in those 71 subjects benefiting from CPAP (33.20 (SD 8.13) v 30.26 (SD 7.40); p = 0.04) but no significant differences were noted in baseline Epworth score, age, gender, AHI, RDI, ODI and Pulse Transit Time (PTT).

This "Flow Limitation" cohort was compared with 261 subjects (mean age 56 years; ESS 12.47(5.61); 82%Male) diagnosed with OSAS during the same time period (Mean AHI 37.11 (19.94); mean ODI 31.15 (19.74) and treated with CPAP. 76% (199/261) of the OSAS group reported benefit from CPAP; ESS fell from 13.24 (5.35) to 6.60 (4.74) following CPAP therapy.

Comparing the "Flow Limitation" group with the "OSA" group, the mean BMI (32.03(7.94) v 34.70(8.65); p = 0.004) and age (51.75(12.34) v 56.20(12.18); p = 0.001) were significantly lower in the "Flow Limitation" subjects but no significant difference was noted in baseline ESS. Those deriving benefit from CPAP in the OSA group demonstrated significantly higher CPAP usage (4.45(2.24) v 3.83(2.15) hours/night; p = 0.04).

Conclusion Basing treatment decisions on AHI rather than RDI may miss a proportion of patients exhibiting similar levels of EDS as those with OSAS who would otherwise have gained benefit from CPAP. Despite the observed benefit, CPAP usage appeared lower in this "Flow Limitation" cohort who appeared overall to be a younger group with a lower BMI compared to those with OSA.

S26 WHAT ARE THE PREDICTORS OF DEVELOPING HYPOVENTILATION IN OBESITY?

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10.1136/thoraxjnl-2014-206260.32

Introduction Obesity Hypoventilation Syndrome (OHS) is conventionally defined by the combination of obesity (BMI >30 kg/m^2) and daytime hypercapnia ($PaCO_2$ >6 kPa, with no alternative explanation); sleep-disordered breathing may or may not be included in the definition. The development of ventilatory failure in obese individuals is highly variable, and the additional factors responsible have not been comprehensively studied. In obese