P211 FEASIBILITY AND EARLY BENEFITS ACHIEVED BY ADOPTING TELEPHONE CONSULTATION AND 2-WAY REMOTE MONITORING FOR INITIATION OF CPAP THERAPY

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Introduction Obstructive sleep apnoea syndrome (OSAS) is common and UK sleep services are under considerable pressures. Adopting telephone consult based follow up supported by 2-way remote monitoring of CPAP treatment via a cloud-based system, with usage and treatment problem alert algorithms may achieve service efficiencies, rationalise patient travel for follow up, and improve treatment quality and outcomes.

Methods In February 2017, our clinical physiology team selectively adopted 2-way remote monitoring and telephone consult follow up for initiation of auto-titrating CPAP (Airsense 10 and Airview system, ResMed) for definite or suspected OSAS, prioritising those living distant from our hospital. Data from 61 patients who had completed follow up by June 2017 was retrospectively reviewed.

Results After monitoring period and telephone consult follow up (typically requiring 15 min of clinician time), 44 of 61 patients were benefiting from and using CPAP therapy ongoing. Remote monitoring review triggered remote therapy adjustment in 9 patients and day-case follow up of 7 patients. 16 patients required humidifier or alternative interface posted to them. CPAP trial was concluded with no symptomatic benefit in 8 patients. 7 patients were non-compliant and non-contactable: CPAP unit return was requested. Single telephone consultation was achieved in 27 patients; 18 patients required a 2nd call and 12 3 or more calls to make contact. 54 outpatient visits (median residence distance from hospital of 31 miles) were avoided, saving 3498 total travel miles.

Conclusions Adoption of 2-way remote monitoring facilitated telephone follow up of auto-CPAP initiation within a busy sleep service is feasible. Early treatment outcomes match our existing audit data for face-face follow up. Follow up hospital attendance was avoided in the majority of patients, with improvements in patient travel requirements. Remote monitoring facilitated recognition and intervention for early CPAP problems, which should in future translate into improved outcomes. Structured approach to telephone consultation and use of other communication methods should further improve service efficiency.

P212 REPEATABILITY OF SELF-REPORTED SLEEPINESS IN THE CONTEXT OF FITNESS-TO-DRIVE

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Introduction Excessive daytime sleepiness (EDS) is a contributing factor to road traffic accidents, it is assessed using self-administered questionnaires. These assessments are important information when discussing with the Driver and Vehicle Licensing Agency (DVLA) about fitness-to-drive. We

hypothesised that patients may be confounded in their assessments after being informed about these potential implications. **Patients and Methods** This was a prospective study carried out at a tertiary hospital between June 2017 and July 2017 (registration number: 2017-7478). Patients attending clinics for sleep-disordered breathing were asked to fill in the Epworth Sleepiness Scale (ESS) and the Stanford Sleepiness Scale (SSS) prior to their clinic appointment. Following the consultation, patients were informed about the risk of EDS and driving and they were informed that the DVLA might request information based on their self-assessed sleepiness. They were then asked to fill in the questionnaires a 2nd time. Parameters recorded included age, gender, BMI and driving licence. Results of the ESS and SSS before and after clinic were compared using the student's t-test for paired observations. Subgroups of patients were analysed based on EDS (ESS $\geq$ 10) and SSS. Data are presented as mean (SD).

Results 66 subjects were included (41 males, 25 females; age 59.0 (15.7) years, BMI 32.9 (9.11), driving licence held for 27.8 (20.9) years (n=50), smoking 26.9 (28.2) pack years). A total of 25 sleepy and 41 non-sleepy patients were identified. There was no difference in the ESS between the occasions [8.6 (6.2) vs 8.6 (6.2) points; p=0.738] or the SSS [2.5 (1.3) vs 2.4 (1.3) points; p=0.255]. Subgroup analyses based on sleepiness ESS (p=0.108) and SSS (p=0.233) showed no significant differences either. A total of four patients (6.1%) changed their assessment from "sleepy" to "non-sleepy" and three patients (4.5%) changed from "non-sleepy" to "sleepy" after receiving information about the DVLA.

Discussion Providing patients with information about the risk of driving in the context of sleepiness does not significantly change how they score the extent of their sleepiness using self-administered questionnaires, despite high intra-individual variability in about 1/10 of the patients depending on the information provided.

P213 IMPLEMENTATION OF A NOVEL OBSTRUCTIVE SLEEP APNOEA PATHWAY

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Introduction Obstructive Sleep Apnoea (OSA) is a common but under-diagnosed form of sleep disordered breathing. It causes debilitating symptoms and significant morbidity. The gold standard treatment for moderate to severe OSA is continuous positive airway pressure (CPAP) accompanied by lifestyle advice and weight loss. It is estimated that between 2%–4% of middle aged men and 0.5%–1% of women are affected and this service receives around 200 referrals per year consistent with national predictions.¹ Staffing remains unchanged since service set up in 2007 with two consultant sessions and one full time nurse specialist (CNS) however due to ever increasing demand the existing service was exhibiting unacceptably long referral to treatment times (RTT).

Method 202 referrals from April 2016 to end of April 2017 were retrospectively reviewed. 101 patients were seen according to the established pathway consisting of initial clinic consultation with onward investigation and management. A novel OSA pathway was initiated in February 2017 and the next 101 consecutive patients were reviewed. All patients were