

**P21 NEURODEVELOPMENTAL DISORDERS AND INSOMNIA:
OUTCOME OF SLEEP-PRACTITIONER INTERVENTION ON
SLEEP, WELLBEING AND MEDICATION PRESCRIBING**

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Over 80% children with neurodevelopmental diagnoses have sleep difficulties, including bedtime resistance, night-time awakenings and shortened sleep duration (McDonald 2019). The impact on the wellbeing of the child and family can be considerable. Behavioural interventions can be highly effective (Elphick 2019) but many children in the UK are prescribed melatonin due to inconsistent access to trained sleep practitioners.

The study aimed to support children with neurodevelopmental problems to develop long-term strategies for promoting sleep, in turn improving the health and well-being of the child and family and to reduce drug prescriptions where not needed.

A longitudinal randomised case control study with delayed intervention in the control arm was carried out with children aged 4–11 years with a neurodevelopmental condition who had been taking melatonin for at least 12 months for severe sleep disturbance. Each child's parents/carers received support from a trained sleep practitioner for 8 weeks.

Melatonin was actively weaned or stopped. Evaluation of sleep and wellbeing parameters was completed at 3 timepoints.

32 participants were recruited and randomised; 20 completed the intervention and evaluation at all 3 timepoints. From baseline to final evaluation, time to settle to sleep improved from 137.9 to 81.7 minutes ($p < 0.05$); mean total CSHQ score improved from 55.8/99 to 46.7/99 ($p < 0.05$); mean total wellbeing scores improved from 18.8/30 to 13.8/30 (child - $p < 0.05$); and from 22.1/45 to 17.9/45 (parent - $p < 0.05$); mean quality of life score (CHU 9D) improved from 18.8/45 to 13.8/45 ($p < 0.05$); mean total SDQ score improved from 22.3/40 to 19/40 ($p = 0.052$). 42% participants stopped melatonin and a further 35% reduced the dose. Cost savings for melatonin prescriptions was equivalent to £5,937.48/year for the 26 patients analysed ($p < 0.05$).

We suggest that, even in a complex group of children, a non-pharmacological approach to sleep support delivers an effective, sustainable alternative to melatonin prescribing.

**P22 UNDIAGNOSED OBSTRUCTIVE SLEEP APNOEA IN THE
PERIOPERATIVE PERIOD: PREVALENCE AND
MANAGEMENT**

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Introduction Obstructive sleep apnoea (OSA) is common and significantly underdiagnosed. It increases the risk of type two diabetes, cardiovascular disease, and death, and treatment with continuous positive airways pressure (CPAP) reduces these risks.¹

Patients with OSA are at significantly increased risk of perioperative complications and treatment with CPAP therapy reduces these risks.²

Opportunities to identify and treat patients with OSA should be taken whenever possible.

Methods We designed a pathway to identify high risk patients who were undergoing major surgery (figure 1). Patients underwent a home sleep study using peripheral arterial tonometry technology (WatchPAT®ONE).

Project aims 1) Assess prevalence of undiagnosed OSA in high risk patients in the perioperative period

2) Identify patients for perioperative multidisciplinary team (MDT) discussion regarding surgical risk

3) Initiate long term management of OSA

Results In 14 months between 17/02/22 and 17/04/23, 91 patients were identified as high risk and underwent a home sleep study. Of these, 69 (75.8%) were newly diagnosed with OSA, with 43 (47.3%) being diagnosed with moderate or severe OSA.

Newly diagnosed patients were discussed by the MDT regarding risks of surgery. Patients with moderate or severe OSA were seen urgently in clinic for review and initiation of CPAP therapy.

Discussion Undiagnosed OSA is a significant burden in the perioperative period. The pre-operative period is an optimum time to screen, diagnose, and treat patients. As well as highlighting patients at increased surgical risk, long term



Abstract P22 Figure 1 Pathway for screening and diagnosis of high risk patients. BMI = body mass index (kg/m^2). STOPBANG = screening questionnaire. AHI = apnoea hypopnoea index. ODI = Oxygen Desaturation Index. OSA = obstructive sleep apnoea