P046 GP BASED OXIMETRY AS AN INITIAL DIAGNOSTIC TEST FOR OBSTRUCTIVE SLEEP APNOEA (OSA), OUTCOMES

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Introduction For >5 years we have offered a pathway for suspected OSA using a questionnaire and home-oximetry distributed from GP surgeries with interpretation and advice from the sleep centre. We reviewed one year's activity to see if this 'off-tariff' pathway delivers whole-system health economy savings.

Methods Mean ESS and ODI (from home-oximetry) were extracted for referrals on the pathway in 2017–18. Individual charges to the CCG were taken from the hospital finance system. We modelled the cost of home respiratory polygraphy (RP) as an alternative first test, assuming a higher rate of first appointment discharges.

Results We found that 628/5127 (13.3%) of our new referrals came through the GP pathway. The cost to the CCG of each oximetry alone was £99. Patients seen in clinic after oximetry were charged as new patients (£276) and the oximetry became 'free'. RP was charged at £350 with a follow up appointment at £110 and full polysomnography as an inpatient averaged £762.

228 people (36.3%) were immediate discharges with advice and no clinic appointment (ODI 4, ESS 9.3); 192 started CPAP, 121 after oximetry (ODI 38, ESS 13.5) and 71 after a further sleep test. All discharged patients were given lifestyle advice and invited to seek re-referral if symptoms persisted/deteriorated. The cost with this system

to diagnose a person with OSA needing CPAP was £989. An initial RP (modelled with 50% immediate discharges) would have cost £1464 per CPAP starter. The total saving is estimated at £91281 p.a. equivalent to 48% of the current cost.

Conclusion Our OSA pathway reduces travel for patients, as more than a third do not need to attend the hospital. Even with conservative assumptions it offers considerable savings to the local health economy reducing the cost to diagnose a patient with significant OSA by almost a third.

P047 UTILITY OF PEDIATRIC SLEEP QUESTIONNAIRE SLEEP-RELATED BREATHING DISORDER QUESTIONNAIRE SUBSCALE (PSQ-SRBD) IN THE PREDICTION OF OBSTRUCTIVE SLEEP APNOEA (OSA) IN CHILDREN WITH EPILEPSY (CWE)

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Introduction Epilepsy and OSA are common conditions, affecting 0.5%¹ and 6%² of children respectively. Pilot data utilising the PSQ-SRBD reported a high risk of OSA in 55% of CWE

Abstract P047 Table 1 Summary of anthropometric, questionnaire and polysomnographic data for children with epileptic control children. Groups compared using Student's t-test for continuous variables and chi-square test for discrete variables. Results presented as number(%), mean± SD or median (IQR25-75%) as appropriate.

	Group		p
	Children with epilepsy n=35	Non-epileptic control children n=17	
Sex	21 (60%) male : 14 (40%) female	10(59%) male : 7 (41%) female	1.000
Age (years)	11±3	11±3	0.997
Body mass index (BMI; kg/m ²)	21.3±5.4	19.0±3.8	0.125
Children's Epworth Sleepiness Score (cESS; /24)	5(3-10)	3(1-5)	0.006 *
Excessive daytime somnolence (EDS; cESS>10)	8 (23%)	0 (0%)	0.031 *
PSQ-SRBD score (range 0-1)	0.35(0.23-0.53)	0.09(0.00-0.25)	<0.0001 *
PSQ-SRBD high risk of SRBD (score ≥0.33)	21 (60%)	2 (12%)	0.001 *
	n=29 scored PSGs	n=15 scored PSGs	
Obstructive apnoea/hypopnoea index (oAHI; /hour)	0.1(0.0-0.7)	0.1(0.0-0.4)	0.640
Apnoea/hypopnoea index (AHI; /hour)	0.5(0.2-1.5)	0.8(0.4-1.0)	0.652
Oxygen desaturation index (ODI; /hr)	0.3(0.1-1.3)	0.2(0.0-0.7)	0.194
SpO ₂ nadir (%)	93±3	93.3±3	0.535
Obstructive sleep apnoea (OSA) positive (oAHI≥1/hr)	5 (14%)	2 (12%)	1.000
Obstructive sleep apnoea/hypopnoea syndrome (OSAHS) positive (oAHI≥1 + ESS>10)	0 (0%)	0 (0%)	-

*Significant result (p<0.005)