Abstract 24 Table 1 Descriptives on demographic, insomnia, and sleep factors (N=74)

N=74	Pre-Confinement (%/M(SD))	Confinement (%/M(SD))
Gender (female)	68%	
Age (years)	25.1 (4.4)	
Competition level (International)	92%	
Insomnia symptoms	75%	49%
Insomnia disorder	35%	28%
Total sleep time (minutes)	456 (49.8) | 7h36mins	490.8 (69.7) | 8h10mins
Total time in bed (minutes)	522.8 (49.9) | 8h48min	574.3 (71.9) | 9h34min
Training load (minutes/daily)	254 (72.5) | 4h14min	196.8 (81.4) | 3h16min

potential athlete-specific sleep risk factors of training, competition, and travel.

Participants (competition level $\geq$ national) completed baseline (prior to 23rd March 2020) and home confinement (commenced 5th May 2020) assessments. The 10-section online survey included: the PSQI; MCTQ (Munich Chronotype Questionnaire); rMEQ (Reduced Morningness-Eveningness Questionnaire; FIRST (Ford Insomnia Response to Stress Tests); PSAS-C (Pre-Sleep Arousal Scale-C); and GAD-7 (Generalised Anxiety Disorder 7-item scale), with additional expert-designed questions addressing sleep practices and DSM-5 insomnia symptoms.

Differences (N=74) between baseline and confinement responses were calculated with t-tests, Wilcoxon and McNemar's tests. There was a reduction in prevalence of insomnia symptoms (75% vs 49%; p=0.002) and insomnia disorder (35% vs 28%; p=0.286) during confinement. Increased during confinement was total sleep time (7h36min vs 8h10min; p<0.0001) and total time in bed before training days (8h48min vs 9h34min; p<0.0001). Training load (minutes/daily) was reduced (4h14min vs 3h16min; p<0.0001) in confinement (table 1). 19% of participants resolved pre-confinement insomnia disorder during confinement (figure 1).

During confinement, participants registered lowered prevalence of insomnia and training load. This research offers valuable insight on the insomnia profile of confined elite athletes, also addressing the role of the athletic lifestyle in insomnia prevalence.

25 PILOTING MODIFIED COGNITIVE BEHAVIOURAL THERAPY FOR INSOMNIA (CBT-I) IN A COMMUNITY MENTAL HEALTH TEAM (CMHT)

[1]Vinay Mandagere*, [2]Phoebe Whishart, [2]Jane Hicks. *[1]University of Bristol Medical School, Bristol, UK; [2]Avon and Wiltshire Mental Health NHS Partnership Trust, Bristol, UK*

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Introduction Cognitive Behavioural Therapy for Insomnia (CBT-I) is the first line therapy for insomnia, a common risk factor in psychiatry. We investigated whether piloting a CBT-I programme within a Community Mental Health Team (CMHT) improves insomnia symptoms. Our programme consisted mainly of Sleep Restriction Therapy (SRT) determined by individual chronotypes. CBT-I is currently under-resourced in the UK. To our knowledge, this was the first NHS programme in Bristol secondary mental health.

Methods 10 participants were recruited. Participants underwent a therapist guided initiation on (a) Sleep education (b) Sleep hygiene (c) Stimulus Control. Individual sleep windows were determined by the participants' chronotype: whether they were a 'morning lark' or 'evening owl'. Participants then underwent a 6-week course of Sleep Restriction Therapy (SRT). Weekly follow up focussed around motivation and explanation was either by phone or face-to-face due to the COVID-19 pandemic. Outcome measurements used pre- and post-intervention sleep diaries; as well as insomnia, depression (PHQ-9) and general health questionnaires (SF-36).

Results There was little improvement in Total Sleep Time (TST) (d= -0.84 hours) and patient-reported sleep quality (d= -0.67) following a 6-week course of modified CBT-I. Despite this, average number of mid-sleep awakenings roughly halved (47.9%). ISI, PHQ-9 and SF-36 questionnaires demonstrated no difference between pre-intervention and post-intervention scores. Unstructured interviews revealed that patients' thoughts and anxieties at night-time interfered with SRT.

Conclusions Our study suggests that modified CBT-I is a challenge for mental health populations. Solely SRT may not be sufficient to treat insomnia secondary to mental illness. Treating co-morbid insomnia may therefore require multi-component CBT-I to address sleep-related mental health issues, such as panic attacks, flashbacks and nightmares. CBT-I in secondary mental health services requires further development, with long-term follow up of patients to evaluate adherence to the programme and the behavioural changes needed.

26 RESPIRATORY ANNUAL REVIEW FOR CHILDREN & YOUNG PEOPLE WITH NEUROMUSCULAR CONDITIONS AND COMPLEX NEURODISABILITY: A PILOT STUDY

[1]Sairah Akbar, [1]Ruth Wakeman*, [1]Caroline Davies-Jones, [1]Joanne Gregory, [1]Alexander Thomas, [1]Bernadette Ortega, [2]Federica Trucco. *[1]Royal Brompton Hospital, Guys and St Thomas' NHS Foundation Trust, London, UK; [2]Department of Paediatric Neuroscience, Guy's and St Thomas' NHS Foundation Trust and Department of Paediatric Respiratory Medicine, Royal Brompton Hospital, London, UK*

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Introduction Children with complex neurological and neuromuscular conditions often have respiratory involvement requiring ventilatory support and multidisciplinary expertise due to their complexity.

To ensure patients' needs are met whilst minimising repeated hospital visits, an Annual Review (A/R) pathway was created to combine sleep study and multi-professional review within one admission.

Method Patients under our care with a scheduled in-patient sleep study were offered a full A/R as part of the pilot (August 2020-2021). Table 1 outlines investigations and reviews undertaken during A/R (tailored to the individual).

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Abstract 26 Table 1 A/R Reviews and Investigations

Mandatory/core reviews & investigations	Additional reviews & investigations (as indicated)
Overnight sleep study	Pulmonary function testing
Medical review	Chest x-ray
Respiratory Physiotherapist review *includes peak cough flow with provision of device for home testing during future reviews*	Nutrition & dietetic review - *planned, not currently part of the pilot*
Respiratory Clinical Nurse Specialist review	Speech & Language therapy review - *planned, not currently part of the pilot*
Cough swab/ secretions MC+S	Respiratory physiologist review (those using non-invasive respiratory support) - *review of ventilator, settings, servicing, mask fit, skin lesions/midfacial hypoplasia*
Vit D/Ferritin	ECG and Echocardiogram - *plus cardiac review if needed*
Daytime Capillary blood gas or O2/CO2	

Abstract 26 Table 2 Patient demographics

Diagnosis	No of patients
Neuromuscular	
SMA	15
Congenital myasthenia	1
Congenital myotonic dystrophy	10
Myotubular myopathy	3
Nemaline myopathy	1
Kleefstra syndrome	1
Duchenne Muscular Dystrophy	1
Friedreich's ataxia	1
Muscle eye brain disease	2
Complex neurodisability	
Undiagnosed hypotonia	1
Cerebral Palsy undefined	2
CTLC gene mutation	1
Hypoxic ischaemic encephalopathy	2
Other	5
Total	46

The A/R team met regularly to review admissions. Continuous improvement methodology was used to assess issues and implement process changes.

Key review findings were documented and shared with other teams involved. Patients and families were invited to provide feedback prior to discharge.

Results 47 AR's were performed for 46 patients. Mean age was 10.5 years (median of 11.9 years, range 1.3-17.6). 43% of patients were female.

33% (15/46 pts) had Spinal Muscular Atrophy (See table 2 for patient demographics)

54% of patients used nocturnal NIV, 11% using NIV for respiratory illnesses and 13% on oxygen. 19% had no respiratory support.

A/R led to management changes in 59% of patients. These included microbacterial growths on sputum and commencement of treatment, airway clearance plan alterations, NIV requirement/establishment, identification of cardiomyopathy, vitamin D and Iron supplementation.

Patients and families scored A/R's as 9.5/10 median (8-10).

Discussion This new model of individualised respiratory multidisciplinary review ensured a range of issues were identified, and treatment adjusted to optimise respiratory management for this cohort. Patients and families appeared receptive to the process.

Further analysis is needed to determine whether A/R's reduce the burden of travel by facilitating virtual reviews at other times.

The A/R model is being expanded for children ventilated via tracheostomy and congenital central hypoventilation syndrome.

27 ON-LINE NATIONAL SURVEY TO EXPLORE THE CHANGES IN PRACTICE OF PAEDIATRIC LONG-TERM VENTILATION

[1]Heather Elphick*, [1]Nicki Barker, [2]Aditi Singh, [1]Catherine Jesson, [2]Omendra Narayan. *[1]Sheffield Children's Hospital NHS Foundation Trust, Sheffield, UK; [2]Royal Manchester Children's Hospital, Manchester, UK*

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Background Long term ventilation (LTV) refers to mechanical support for breathing either at home or in hospital, for all or part of the day, for at least 3 months. Two national surveys carried out in 1998 and 2008, highlighted the increasing numbers of ventilator dependent children throughout the UK . Our objective was to collect current information about children receiving LTV in the UK, 10 years after the last national survey.

Methods All LTV centres in the UK completed a single time point census survey on 30th September 2019 using an electronic questionnaire. Data included the child's location, underlying diagnosis, interface and type of respiratory support, and whether disease-modifying drugs affected the decision to initiate LTV in specific groups within this target population.

Results Data was collected from 25 LTV centres. The total study population was 2383 children and young people. The median age of the overall sample was x (range x-x). 40.3% female; 57.2% of those recorded were male. Diagnoses were 417 (17.5%) central nervous system, 692 (29%) musculoskeletal and 1274 (53.5%) a respiratory, of which 31.8% of the total had upper airway obstruction. Notable changes since 1998 were the decline in the use of 24-hour ventilation, negative pressure ventilation and tracheostomy as an interface, and the increase in the proportion of patients treated at home. 115 children had received a disease-modifying drug. The use of Ataluren and Myozme did not influence the decision to treat with LTV, but in 35% of the children treated with Nusinersin the clinician stated that the use of this drug had or may have influenced their decision to initiate LTV.

Conclusion The number of children being treated with LTV has increased by 250% in the last 10 years with notable changes in practice over the last 20 years.

28 THE IMPACT OF THE COVID-19 PANDEMIC ON THE SLEEP AND MENTAL WELLBEING OF CHILDREN AND YOUNG PEOPLE WITH AND WITHOUT SPECIAL EDUCATIONAL NEEDS

[1]Heather Elphick*, [2]Philippa Howsley, [2]Nathaniel Mills, [3]Lisa Artis, [3]Vicki Dawson. *[1]Sheffield Children's Hospital, Sheffield, UK; [2]NIHR Children and Young People MedTech Co-operative, Sheffield, UK; [3]The Sleep Charity, UK*

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Background Children and young people (CYP) with special educational needs (SEN) are more likely to experience disturbed sleep and poorer mental wellbeing. This study explored

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