In each subgroup there were 3 roles; storyteller, listener, and an observer who would take notes on the interaction. These would rotate every 10 minutes.

Once everyone had related their stories the group would reconvene to discuss and collate themes in a section facilitated by a psychologist. Avenues of communication were available post-session via email and a survey to get in touch with the faculty regarding any outstanding issues. All information gathered was confidential.

Results Themes collected centred on persistent low morale, feelings of helplessness, uselessness and dread. All tallied well with issues we know affect existing and putative paediatric trainees.

Conclusions Results indicate that attendees found the forum a useful and open place to share their experiences, and that that this would be valuable as a regular event in the paediatric calendar, particularly with the additional stress placed on clinicians with redeployment. As such, we hope to present a replicable session template which can be adopted by other departments and hospitals. Through increased adoption and feedback the template could be improved to best fit those making use of the sessions.

British Association for Paediatric Nephrology

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DRUG-INDUCED ACUTE KIDNEY INJURY IN NON-CRITICALLY ILL, HOSPITALISED CHILDREN: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background Nephrotoxic medication associated Acute Kidney Injury (NTMx-AKI) is a potentially preventable cause of AKI.

Objectives We conducted a systematic review to appraise the epidemiology of AKI in children, and here present results of a sub-review in non-critically ill, hospitalised children.

Methods Two reviewers searched three electronic databases (EMBASE, MEDLINE and CINAHL) from January 2000 until November 2020. Eligible studies for this sub-review included in-hospital exposure to NTMx in non-critically ill children (0 to <18 years of age) with no diagnosis of kidney pathology, and reported AKI as an outcome.

Results Of 205 publications identified, 21 met the inclusion criteria for the main systematic review, and five¹⁻⁵ were included in this sub-review. Of these, two^{1,5} report AKI outcomes in all non-critically ill hospitalised patients (with and without nephrotoxin exposure), and three²⁻⁴ report outcomes only in those with nephrotoxin exposure.

The pooled incidence of AKI in all non-critically ill, hospitalised children was 32% ($p < 0.00001$, 95% CI 29–35%, pooled data from two papers^{1,5} ($n = 3088$ patients)). Children with AKI were younger than those without ($p = 0.14$, mean difference 3.10 years, 95% CI -7.22–1.01, pooled data from two papers^{1,5} ($n = 3088$ patients)), however this association was not statistically significant.

The pooled incidence of AKI in nephrotoxin-exposed, non-critically ill, hospitalised children was 17% ($p < 0.00001$, 95% CI 15–19%, pooled data from three papers²⁻⁴ ($n = 747$ patients² combined with $n = 7756$ nephrotoxin exposures^{3,4})). All papers considered nephrotoxin exposure as a risk factor for the development of AKI. However, there was insufficient homogeneity for meta-analysis.

The data suggest that AKI prolongs hospital stay ($p = 0.14$, mean difference 3.07 days, 95% CI -1.05–7.18, pooled data from two papers^{1,5} ($n = 3088$ patients)), although this was not statistically significant. Mortality was only reported in one paper.¹ In-hospital mortality was higher in those with AKI (0.6%) than without (0.06%).

Conclusions AKI is common in non-critically ill, hospitalised children. Whilst meta-analysis did not produce significant findings, the data suggest that nephrotoxin exposure and younger age are risk factors for AKI. Children with AKI also had longer hospital stays and increased mortality.

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George Still Forum: ADHD Disorders (ePoster presentations only)

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AN EVIDENCE-BASED CLINICAL GUIDANCE DESIGNED FOR MANAGING CHILDREN AND ADOLESCENTS WITH SLEEP PROBLEMS AND ASSOCIATED NEURODEVELOPMENTAL DISORDERS

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Background There is a paucity of national evidence-based guidelines that emphasises holistic care of children and adolescents with neurodevelopmental disorders, who are highly vulnerable to significant sleep disorders. In addition, clinical practice varies widely about melatonin use with enormous financial implications. There is an urgent need for implementation of safe and effective cost-saving measures to ensure sustainable provision of essential NHS services to the entire UK population.

Sleep problems are common in children and adolescents, especially among those who have recognisable

neurodevelopmental, emotional, behavioural or intellectual disorders (NDEBID). 50% to 80% of children and adolescents with NDEBID experience various types of insomnias. There is a complex relationship between sleep disorders and childhood neurodevelopmental disorders. Chronic sleep deprivation is known to significantly aggravate externalising and internalising behaviour disorders, including depression, suicide and self-harm behaviors, impaired cognitive development and learning abilities. It can also cause disorders of the cardiovascular, immune and metabolic systems, including growth disorders. It negatively impacts on the child's academic performance, personal and wider family emotional and social wellbeing.

Objectives To review the most recent published research literature and develop a practical guidance on managing sleep disorders in children and adolescents with NDEBID along with a flowchart.

Methods We carried out a literature review of the latest research on the use of cognitive-behavioural strategies and pharmacotherapy in the management of sleep problems among children with neurodevelopmental disorders such as ADHD, ASD, Epilepsy and Learning disorders using several databases including the OVID, EMBASE, CINHAL and Cochrane's Databases.

Results Treatment options for paediatric sleep insomnias include parent psychoeducation/training, sleep hygiene (modifiable daytime, bedtime, and night-time practices), behavioural strategies and pharmacological treatment for selected cases. Cognitive behavioural therapy (CBT) is also effective for adolescents.

We provide an outline of evidence-based clinical guideline for clinicians managing CYP with diverse NDEBIDs in 4 sections, including overview of sleep disorders, special circumstances, transition to adult care, shared care and appendix of definitions, online resources and easy-to-use flowchart.

Every CYP with sleep difficulties should have detailed medical and sleep history, including any possible underlying sleep apnoea, other physical explanations for insomnia including obesity, emotional problems or sources of discomfort, complemented by use of screening questionnaires, sleep diary and actigraphy (if available). This should lead to identification of specific sleep disorder type, consideration of differential diagnosis and formulation of a sleep plan with the parents or carers.

Stepwise introduction of behavioural and pharmacological treatment options are outlined, including mandatory follow-up for effectiveness, side-effects and trial of discontinuation.

Conclusions This clinical guideline and the accompanying flowchart is expected to help clinicians provide a more uniform holistic evidence-based management for every child presenting with co-morbid sleep problems associated with complex emotional behavioural and neurodevelopmental disorders. It will likely lead to less risks of patient/parent dissatisfaction with individual clinicians and help the individual NHS Trusts to identify potential areas of cost saving involved in melatonin prescriptions, as well as identifying an integrated commissioning of further services such as Behavioural/parent training interventions. We plan to pilot the guidelines among a small number of CCH clinics.

British Association of Perinatal Medicine and Neonatal Society

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CHANGES IN SURGICAL MANAGEMENT FOR NECROTISING ENTEROCOLITIS AND THE IMPACT ON MORTALITY

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Background Necrotising enterocolitis (NEC) remains one of the leading causes of morbidity and mortality in preterm infants and affects 1–5% of all neonatal intensive care admissions. Surgical intervention is required for those who don't respond to medical management or develop pneumoperitoneum.

There has been a general trend towards performing more surgery on the Neonatal Intensive Care Unit (NICU) rather than in theatres. This is typically reserved for those who are acutely unstable, requiring more than first line inotropic support, are acidotic with a lactate > 5, or on high frequency oscillatory ventilation (HFOV).

Objectives

- To compare NEC cases and their outcomes according to surgical location
- To review NEC related deaths and determine whether the number of infants who received medical versus surgical management has changed over time

Methods The badgernet system was used to identify infants who received surgical management for NEC between 1st January 2018 to 28th April 2020. The following search terms were used; 'Necrotising enterocolitis-confirmed, suspected, perforated', 'Stoma formation, closure', 'major surgery', 'explorative laparotomy', and 'Closure of stomach, small intestine, ileal, jejunal perforation'. For each infant identified, their discharge letter was used to confirm the diagnosis prior to their notes being requested.

Results There were 2025 neonatal admissions during the study period, 60 were diagnosed with suspected or medically managed NEC with an additional 28 undergoing surgical intervention. 7/28 (25%) were born $\leq 24+^0$ weeks gestation.

For those managed surgically, 18/28 (64.3%) had pneumoperitoneum at the time of their first laparotomy. 8/18 (44.4%) were operated on in theatres and 10/18 (55.6%) on the NICU. The majority of infants undergoing surgery on the NICU were born at <25 weeks gestation (8/10, 80%) with 6/10 (60%) born at $\leq 24+^0$. The remaining two ($25+^1$, birth weight 570g and $27+^2$) were both clinically very unstable requiring HFOV and inotropic support. In comparison, infants that went to theatre were clinically more stable and 6/8 (75%) were born at $>25+^0$.

The majority of infants without perforation underwent surgery in theatres (6/10, 60%). For those who remained on NICU, 3/4 (75%) were clinically very unstable and found to have NEC totalis at laparotomy.

Of those with surgically managed NEC, 11/28 (39%) died, all of whom had extensive disease at laparotomy. 10/11 (91%) of these infants underwent surgery on the NICU. Between 2012 and 2019, the total number of deaths from NEC has remained relatively static (7 vs 9). However, the number of deaths from medically managed NEC has decreased (71.4% to