gestation. The diameter of the hair in these children is smaller than in those born on time. That is, structural and morphological immaturity of hair, deficiency of nutrients involved in its formation may be one of the factors of premature birth.

**Association of Paediatric Emergency Medicine**

**ABSTRACT WITHDRAWN**

Paediatric Mental Health Association

**REACHING OUT TO CHILDREN AND YOUNG PEOPLE ABOUT MENTAL HEALTH IN THE COVID-19 PANDEMIC**

Bianca Cuellar, Bianca Cuellar, Emma Morgan. UHBW

Background Since the start of the Covid-19 pandemic the mental health of children and young people across the country has been affected. The ongoing uncertainty during the pandemic has made normality a thing of the past. The burden of this has created an escalation of worsening mental health diagnoses and created a new population with new mental health issues.

Children’s mental health week is celebrated every year in the hospital. This year, given the pandemic restrictions, new ways of raising awareness of children’s mental health was sought with using social media outlets.

Objectives To create content on the hospital trust social media pages that would engage children and young people in children’s mental health week.

To use social media to showcase the mental health teams that work in the hospital and the mental health organisations who work in the city who are frequently signposted to from the hospital mental health teams.

Methods Children’s mental health week runs over seven days and we created content for each day. Firstly, we obtained photos of each mental health team in the hospital and a blurb to introduce themselves and what their job entailed. Secondly, we asked various organisations who are based in our city, whose work revolves around children’s mental health, to provide the same information. Thirdly, and most importantly, we asked the hospital youth involvement group to create questions to ask all the teams involved as we wanted to showcase the voice of the young person in this week. The week also focused on allowing the children and young people who were in patients in the hospital to share their talents and express themselves in ways they manage their mental health.

Results The performance for each post on each day was analysed and compared to other posts that had happened after this week. Each different post for each day gained a high number of likes, shares and comments. Although one of the comparative posts gained more likes and reactions compared to our week, the post shares were considerably higher for our week overall and the Facebook reach was also higher.

The advantage of using social media in this way also highlighted the week to other outlets and the city online paper featured our story on their social media pages.

Conclusions It was clear that the subject of children’s mental health is an area which still requires highlighting. The comments we received about the content during the week has prompted us to continue with this style, to raise awareness of children’s mental health. The advantages of using social media on this subject enabled us to reach a larger number of young people and their families and carers. The trust social media pages have a large number of followers and to be able to reach so many people on such an important subject made a larger impact than the previous years.

British Association of Perinatal Medicine and Neonatal Society

**THE INCIDENCE OF METABOLIC BONE DISEASE OF PREMATURETY (MBDP) IN A HIGH-RISK POPULATION**

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Background MBDP describes inadequate mineralisation of bones in the premature infant. There are no consensus diagnostic criteria, however most neonatal units use biochemical markers to screen babies at risk of MBDP.

Maximal placental transfer of minerals occurs from 28 weeks gestation and requires adequate placental blood flow. It follows that infants born before 28 weeks or with evidence of placental insufficiency are at high risk of MBDP. The reported incidence is 23–60% of babies born weighing less than 1500 grams. The diagnosis carries significant morbidity including a risk of pathological fractures, respiratory difficulties due to excessive chest wall compliance and poor linear growth through childhood.

Objectives We undertook a review of data across two neonatal intensive care units with the following objectives: i) to report the incidence of MBDP defined by biochemical markers on routine blood testing of high risk infants ii) to report the incidence of MBDP and related fractures as documented in the BadgerNet database.

Methods Infants born at less than 30 weeks or with birth weight less than 1500 grams admitted between 01/01/2015 and 31/12/2019 were identified using the Vermont Oxford Network (VON) and BadgerNet databases. Blood biochemistry results were obtained for the duration of their admission. Biochemical MBDP was defined as alkaline phosphatase (ALP) >500IU/L and either phosphate <1.8mmol/L or corrected calcium <2.2 mmol/L (values taken from Tinnion RJ, Embleton ND, Arch Dis Child Educ Pract Ed 2012; 97: 157–163).

Infants with a documented diagnosis of MBDP or related fracture were identified with a search of the BadgerNet database using the terms ‘Metabolic Bone Disease – Osteopenia’ and ‘Fracture’.
Results A total of 1293 infants were identified over a 5 year period between the two sites. Subgroup analysis of infants with a length of stay ≥28 days showed 424 out of 809 infants met biochemical criteria for MBDP (52.4%). The median time to meeting biochemical criteria was 16 days. Only 54 infants had a documented diagnosis of metabolic bone disease on BadgerNet (4% of all high-risk infants and 6.7% of infants with a length of stay ≥28 days); 8 of these babies did not meet biochemical criteria for MBDP. There were 5 documented fractures (2 humeral and 3 rib fractures), described as incidental findings on routine radiographs.

Conclusions
- The percentage of infants meeting biochemical criteria for MBDP is consistent with published incidence data. Using these biochemical criteria does not overestimate the incidence in this population.
- The median time to meeting biochemical criteria is consistent with published literature and highlights the key period to screen at-risk infants.
- Biochemical MBDP is under-reported on the BadgerNet database. This suggests that increased awareness of MBDP may be required or that biochemical criteria are not being routinely used to make the diagnosis. Caution should be exercised when interpreting BadgerNet data in view of this.
- The documented incidence of fracture related to biochemical MBDP was 1%, well below the published incidence of 10%.
  This may be due to suboptimal data entry but may also be related to under-recognition of such fractures.

British Paediatric Neurology Association

542 SERONEGATIVE NMOSD – A POST SARS-COV-2 NEUROLOGICAL COMPLICATION ASSOCIATED WITH PAEDIATRIC MULTISYSTEM INFLAMMATORY SYNDROME (PIMS)?

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Background Neuromyelitis Optica Spectrum Disorder (NMOSD) is an inflammatory demyelinating disease of the central nervous system (CNS) primarily affecting the optic nerves and spinal cord, but also involving other regions of the CNS including the area postrema, periaque ductal gray matter, and hypothalamus. There are limited cases describing the development of NMOSD post SARS-COV-2.

Objectives We present a case of seronegative NMOSD meeting the diagnostic criteria with coronary artery involvement and the probable association of Paediatric Multisystem Inflammatory Syndrome (PIMS)/SARS-COV-2.

Methods A 13-year-old female of Chinese descent met the diagnostic criteria for sero-negative NMOSD:
- Optic neuritis (presented initially with decreased vision right eye, progressed to complete blindness involving both eyes; optic discs swelling bilaterally) + enhancing focus in left parieto-occipital region
- Area postrema syndrome (intractable vomiting) + enhancing lesion in the left aspect of the dorsal medulla
- Acute brainstem syndrome (autonomic dysfunction, respiratory distress with new-onset squint) + enhancing foci in medulla
- Symptomatic cerebral syndrome (left arm weakness, headache, behaviour change) + several enhancing foci within the cerebral hemisphere and sulcal thickening/edema enhancement in the right fronto-temporal lobe

She presented initially with headache and behaviour change x8 days; weakness left arm x6 days; loss of vision right eye x6 days; facial numbness x6 days; vomiting x2 days but no preceding viral illness/vaccine. She was initially managed as ADEM/ADS with steroids (imagining at this time revealed cerebral lesions). However, a protracted illness persisted with intractable nausea/vomiting, and development of new symptoms (squint, autonomic dysfunction, respiratory distress). Repeat imaging showed new involvement of the dorsal and ventral medulla. IVIG and rituximab treatment were then commenced.

Results CSF pleocytosis (22 white cells) and elevated protein concentration (131mg/dL) were present.

Anti-MOG and Aquaporin-4 antibodies testing post steroids were negative.

ESR increased to 82 mm/hr and ANA titre was mildly elevated during her illness. ENA, dsDNA titres normal.

COVID-19 IgM antibody level rose to 0.921. Infectious screen negative (Hepatitis studies, HIV, HCV, ASOT).

Neoplastic workup negative (Antineuronal antibodies, CEA, CA-125, AFP, Blood film).

Anticardiolipin and lupus anticoagulant antibodies negative.

Interestingly, ECHO done post steroids, IVIG and during rituximab treatment showed moderately dilated left middle coronary artery and severely dilated left anterior descending artery.

Her neurological function has improved post IVIG and rituximab.

Conclusions Due to the evidence of inflammation and neurological and cardiac dysfunction, we question whether this could be a post SARS-COV-2 related presentation of PIMS.

This is our 3rd case in Trinidad & Tobago linking coronary artery and neurological involvement in the same patients possibly in relation to SARS-COV-2.

The other cases:
1) 20-month-old with corpus callosal lesions and right coronary artery ectasia post-treatment
2) 2-year 7-months-old with long segment of cord enlargement with heterogenous appearance from C1 to C6 and dilated coronary arteries/mild mitral regurgitation/pericardial effusion

Quality Improvement and Patient Safety

545 OXYGEN SATURATION TARGETING IN INFANTS ON THE NEONATAL UNIT

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