

**Background** Ankyloglossia is a developmental anomaly causing restricted tongue mobility. Posterior types are usually identified latest and least commonly. Currently, there are no standardised national/international guidelines for diagnosis. This case series aims to highlight the importance of early diagnosis to reduce cases identified only following significant morbidity.

**Methods** Over a 2 year period, consecutive patients diagnosed with posterior ankyloglossia were identified.

**Results** Of the 15 patients identified, mean age at diagnosis was 24 days (range 4–42). 8(53%) had regained their birthweight however, for 3(38%) of these, weight gain was slow/inadequate. The remaining 7(47%) had lost weight with a mean weight loss of 8.54% (range 2.56–16.06). 13(86%) were exclusively breastfed, 1(7%) both breast- and formula-fed, and 1(7%) formula-fed. Presenting features included poor latch (60%), weight loss (47%), sore nipples (40%), irritability (40%), poor weight gain (20%), increased feed duration (20%), and lethargy (20%). 9(60%) were diagnosed by breastfeeding co-ordinators, 4(26%) by community midwives, and 1(7%) each by a paediatrician and neonatal nurse. All patients underwent a frenotomy following which both weight gain and feeding improved in 11(73%). Behavioural improvements were noted in 8(53%). 11(73%) mothers felt their baby's symptoms had improved. All of the 6 mothers who initially described symptoms of their own reported improvement.

**Conclusion** For many infants, posterior ankyloglossia is often detected only once feeding has deteriorated enough to result in significantly poor weight gain or weight loss. To prevent this and other morbidities shown in this small case series, a standardised assessment tool may be a useful method to facilitate earlier diagnosis and improve clinical practice.

#### PO-0983 VIROLOGY ASSOCIATED WITH LUNG CONSOLIDATION IN INFANTS AND CHILDREN WITH ACUTE BRONCHIOLITIS

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**Background** Bronchiolitis, a lower respiratory tract infection that primarily affects the small airways (bronchioles), is a common cause of illness and hospitalisation in infants and young children. Although several Studies suggest that radiographs in children with typical bronchiolitis have limited value, chest x ray still performed on routine basis. There is limited data regarding which viral-associated bronchiolitis has the highest rate of consolidation on a Chest Radiograph.

**Aim** The purpose of our study is to determine which virus inducing bronchiolitis has the highest rate of consolidation of a chest radiograph.

**Methods** A retrospective and descriptive study was conducted at Hamad Medical Corporation (HMC).

Infants and children ages 0 to 18 months hospitalised in our paediatric unit with acute bronchiolitis from October 2010 to March 2013 were included in the study. The following data were collected: age at diagnosis, sex, *direct fluorescent antibody* (DFA) and results of chest radiograph.

**Results** The study comprised of 838 infants, median age 3.6 months, and boys constituted 60% of total infants. 606 infants and children had a routine chest radiograph done in the paediatric emergency centre prior to admission. n = 226, 37.3%,

showed normal findings on chest radiographs, while n = 380, 62.7% showed consolidations. 70 chest radiographs (18.4%) with consolidation were attributed to infants and children with bronchiolitis and negative DFA.

The results of positive DFA associated with consolidation on chest radiograph were as follow:

Respiratory Syncytial Virus (RSV) 161, 42.4%; rhinovirus 68, 17.9%; Human metapneumovirus (hMPV) 25, 6.6%; parainfluenza virus (type1) 3, 0.8%; parainfluenza virus (type 2) 2, 0.5%; parainfluenza virus (type 3) 15, 3.9%; parainfluenza virus (type 4) 4, 1.1%; coronavirus 11, 2.9%; adenovirus 10, 2.6%; enterovirus 3, 0.8%; bocavirus 5, 1.3%; H1N1 2, 0.5%; Influenza virus B 1, 0.3%. There was no statistically significant difference relating chest consolidation with DFA status, p = 0.773

**Conclusions** Bronchiolitis can be triggered by a diversity of respiratory viruses that appear similar on a chest radiograph; therefore, chest imaging is not routinely required in the initial management of bronchiolitis unless the diagnosis is uncertain.

#### PO-0984 ASTHMA: A DIAGNOSTIC DILEMMA

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Asthma is one of the most common chronic conditions with 1.1 million children experiencing asthma in their childhood. Much of the related morbidity is due to poor management, particularly the under use of preventative medicine.

This was a collaborative participatory study aimed at identifying where along the asthma pathway resources needed to be focused to improve asthma management. Interviews and focus groups were used to explore barriers to optimal asthma management with communities, children, families and healthcare professionals (HCPs). Key themes were drawn from the data, prioritised and translated into an intervention.

Diagnosis was identified as the key priority and one that all parents/carers felt needed to be addressed first, although it was considered a low priority to HCP. For parents there was confusion surrounding the diagnostic process, and the label of asthma itself. The diagnostic process also raised concerns, with some HCPs being reluctant to diagnose or suggesting that some children may be 'too young to diagnose'. Parents and carers reported problems with delays in treatment following a diagnosis, and inconsistent information being provided at the point of diagnosis. To improve the diagnostic process, a multifaceted, integrated intervention programme was developed.

This study highlighted that 'getting a diagnosis' was a priority. The disparity in priorities between HCPs and families around 'getting a diagnosis' emphasises the importance of working collaboratively with families as well as HCPs to ensure that key priorities, for service users and providers, are understood and addressed appropriately.

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**PO-0985 VITAMIN D DEFICIENCY IN THE HIGH RISK SOMALI COMMUNITY IN WEST LONDON: PHASE I UNDERSTANDING THE COMMUNITY**

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**Background and aims** There is increasing evidence that childhood vitamin D deficiency is associated with poorer overall health and associated with numerous diseases. We wanted to assess knowledge and use of vitamin D in mothers of the Somali Community in West London with the aim of improving knowledge, access to vitamin D and reducing the burden of vitamin D associated healthcare problems in mothers and their children.

**Methods** A representative sample of Somali individuals were contacted by HASVO (Harrow Association of Somali Voluntary Organisations) and three meetings conducted with these community members. Participants were asked to complete a detailed vitamin D questionnaire assessing baseline knowledge of vitamin D deficiency, awareness of its importance and current uptake. This was followed by an educational presentation and discussion. Questionnaires and presentations were in English and translators provided for those who required assistance.

**Results** 45 participants completed the questionnaire. Most participants had heard of vitamin D deficiency (33), but the participants and their children were at high risk of it through lifestyle factors, particularly low sun exposure. The discussion exposed variability in both lay health beliefs and experiences with healthcare professionals.

**Conclusion** Phase I of this study has shown that (i) there is a current vitamin D crisis in this community and knowledge is variable, (ii) clearer community information is needed about vitamin D dosage, (iii) access to cheap vitamin D needs to be better publicised. Thus, we propose that a vitamin D campaign is needed and will be rolled out in Phase II.

**PO-0986 INVESTIGATION AND MANAGEMENT OF VITAMIN D DEFICIENCY/INSUFFICIENCY-A SERVICE EVALUATION**

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**Introduction** Vitamin D is essential for bone and skeletal health. The major natural source of Vitamin D is from skin exposure to sunlight. Current evidence suggests that there isn't enough ambient ultraviolet sunlight from October to April in UK (UK). Similarly, there are reports of rickets re-emerging in parts of UK. There is no internationally agreed consensus regarding cut off value denoting Vitamin D insufficiency/deficiency. Variable practice exists in treating symptomatic and asymptomatic children with Vitamin D insufficiency/deficiency.

**Aim** To evaluate our current practice in investigating and managing children with subnormal Vitamin D levels (<50 nmol/l).

**Method** We carried out a retrospective data review on all patients <17 years of age who had vitamin D levels checked in a District General Hospital setting. Data was collected from 2008–2012 and analysed using Microsoft excel.

**Results** Vitamin D levels were checked on 136 occasions in 89 patients (60% male). 41% of the values were above 50 nmol/l while 20% were <20 nmol/l. ~3/4 values of <20 nmol/l were from children of Indian and Pakistani origin. 80% of patients

with values <50 were treated with oral Vitamin D supplementation. Treatment dose varied from 400–10000 IU/day to 20000–40000 IU/week (ergocalciferol or cholecalciferol).

**Conclusion** Our data reiterates lack of unified guidance and variable practice amongst clinicians managing Vitamin D deficiency/insufficiency. Careful attention is required when managing South Asian children with chronic illnesses. There is urgent need for multicentre/national research and unified guideline for prevention and treatment of Vitamin D deficiency in children.

**PO-0987 FEVER IN CHILDREN WITH ACUTE RESPIRATORY INFECTIONS: PRACTICES AND RECOMMENDATIONS**

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**Aim** To assess treatment practices versus recommendations for fever treatment in children with acute respiratory infections (ARI).

**Material and methods** We analysed 189 clinical records of children hospitalised with ARI, aged from 4 months to 7 years: 4–12 months – 23.8%; 1–3 years – 67.7% and older than 3 years – 8.5% children. The exclusion criteria were: children under 3 months; congenital malformations or chronic diseases; history of febrile seizures. The review included treatment of febrile syndrome in different stages of paediatric healthcare (home treatment, primary medical care and in hospital).

**Results** Results of the research revealed many deficiencies in therapeutic management of the febrile syndrome: in 28% cases was an inappropriate use of antipyretic drugs by caregivers (at body temperatures below 38°C); the adequate rehydration of children with fever was provided only in 22% of children; Metamizole was used in 23.4%. The source of information for parents regarding the treatment of children with fever was not always the doctor; many parents followed the advices from their relatives, friends and pharmacist. Family doctors and paediatricians were consulted in only 43.9% and 10.1% cases, respectively.

**Conclusions** Results of the study showed that the existing practices in the fever treatment in children with ARI are explained by low level of information of caregivers regarding the care of a sick child at home and some divergence between international and national recommendations for fever management in children.

**PO-0988 HOW TO PREVENT AND IMPROVE MANAGEMENT OF IRON DEFICIENCY ANAEMIA IN CHILDREN**

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**Aims** The aim of our retrospective chart review is to identify causes and improve management of iron deficiency anaemia (IDA) amongst toddlers in outpatient paediatric clinics.

**Methods** This is a retrospective chart review of children, aged 6 months to 2 years old, who were diagnosed with IDA over 1 year study period in outpatient clinics. Identification of cases with iron deficiency anaemia were from outpatient pharmacy who were prescribed iron supplements during the study period.