

435 DRAGON BYTES: USING DATA ANALYTICS TO DETERMINE LEARNER INTERESTS

Stacey Harris, Assim Javaid. UK

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Background A new trainee-oriented paediatric podcast was launched on 8th September 2019; Dragon Bytes. The aim of this was to support trainees more holistically with training. Episodes covering a wide range of topics; complex conditions, reflective writing or career advice for example. The aim of this study is to use Data from streaming websites to determine user demographics and preferences.

Objectives Methods:

User analytics were accessed on Spotify, SoundCloud, apple and google podcasts on 4th January 2021, over one year after launch, for the most current statistics. These were exported to SPSS for analysis.

Results A total of 48 episodes have been released in the first year. With 64 episodes at the time by the data was collected.

Listeners on Spotify are 57% female and 42% male. Those aged 28–34 are most likely to listen, accounting for 43% of listens.

Outside of the UK, the three countries that most listen to the podcasts are the United States, Australia and the Sauda Arabia.

There have been 17,121 listens to the podcasts; 12,386 via SoundCloud and 4,313 via Spotify, 390 on apple podcasts and 38 on google podcasts. The average number of listeners per podcast was 267.5. The most popular podcast was with RCPCH COVID adapted clinical exam with over 1000 listens. 'Paediatric Knowledge' were the most popular group of podcasts with an average of over 7.23 listens/week, the least popular was 'Field Reports' with 2.73 listens/week.

Conclusions A Wales-led educational podcast has an international audience. Having teaching delivered digitally has the advantage of easy access to analytical data that can shape future teaching sessions.

We could use the data to promote the listening further to an international audience and the accessibility of the different podcast platforms.

There is clearly a strong appetite for Dragonbytes podcasts with RCPCH and also theory-based podcasts and so more focus needs to be given to this area in future.

436 NON-ACCIDENTAL INJURY AND ABUSIVE HEAD TRAUMA IN CHILDREN – IS THE COVID-19 PANDEMIC IMPACTING TEESIDE DIFFERENTLY?

Matthew Davidson, Shashwat Saran, Qasim Mansoor, Thomas Salisbury. UK

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Background An article published by Sidpra J et al, in ADC in July 2020 reported an increase of approximately 1500% in the incidence of abusive head trauma (AHT) in children, understandably shocking paediatricians nationally.

Objectives We wanted to see the impact of lockdown on referrals made to our hospital (University Hospital of North Tees, Stockton, UK) for children suspected to have non-accidental injuries (NAI) or AHT.

Methods We audited the records of children referred with suspected NAI during the first lockdown period (23rd of March

to 4th of July 2020) and compared it with the preceding year (23rd of March to 4th of July 2019)

As children under two are more likely to suffer AHT, these cases were identified by two auditors and then a single auditor reviewed these case records in detail.

Results Total of thirty-one children in 2019 & twenty-five in 2020 were referred for Child Protection Medical Assessments. Eleven children - six in 2019 and five in 2020 - were less than two years old. Of these, four were girls and seven boys. Five children were less than three months old

Nine children were referred with suspicious bruising, one was the sibling of an index child with NAI and for one, an allegation was made of rough handling.

Two children with skull fractures and one with a rib fracture (on follow up scan) were identified on radiological investigations. Hematological investigations and ophthalmic findings were unremarkable for all the children.

All children were seen within 24 hours of a referral being made. In all cases, an interim report was provided on the same day and a final report within seven working days. All children were investigated as per RCPCH guidelines.

Seven out of eleven children referred for NAI assessment were concluded to have probable non-accidental injuries – three in 2019, and four in 2020.

Our neighbouring hospital received five and four referrals for suspected NAI in children under 2 years old in the same period of time in 2019 and 2020 respectively. One of these children in 2020 had retinal haemorrhages associated with AHT and a skull fracture.

Conclusions Our audit of children referred for NAI medical assessment does not suggest any significant difference between numbers in 2019 and 2020. This is in contrast with what colleagues from UCL, London have reported, and surprising given the high levels of socioeconomic deprivation in our area, which is usually associated with a higher incidence of child abuse.

In order to understand national trends, we recommend other areas of the United Kingdom to review their data to establish whether this pandemic and associated lockdowns are impacting children in Teesside differently.

438 PROMOTING SAFE SLEEPING IN A NEONATAL UNIT

Catherine Taylor, Amna Suliman, Martha Jones, Louise Mawby, Esmira Jafarova, Sarah Panjwani. UK

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Background Sudden Infant Death Syndrome (SIDS) has been significantly reduced in the UK following the introduction of the 'back to sleep campaign' and ongoing efforts in raising public awareness of the importance of a safe sleep environment. Babies born prematurely or who have ongoing health conditions are known to be at higher risk. Local data suggests most babies that die from SIDS locally have modifiable risk factors.

On neonatal units, babies may initially require prone positioning and the presence of equipment within an incubator, however they should be transitioned to a safe sleep environment prior to discharge. Research has shown that modelling a safe sleep environment on neonatal units can improve parental compliance and patient safety after discharge.

Objectives To assess our baseline for sleeping environments within our unit and then perform interventions and repeat this process in PDSA cycles to improve the sleep environment of our vulnerable patients prior to discharge.

Methods We performed sequential PDSA cycles after an initial baseline evaluation of sleeping environments on our neonatal unit. For each cycle we assessed cots according to the defined features of a safe sleep cot. Inclusion criterion was any baby in an open cot admitted to the neonatal unit. Safe sleep cots were defined by current lullaby trust guidelines: Clear without other items, flat and firm mattress, baby sleeping on its back, baby sleeping with their feet to foot of cot and blankets below shoulder level and not loose. The quality improvement project is registered locally.

Results Baseline data in 2018 showed that no babies were in a cot consistent with all guidelines, only two thirds were on their back (n=28/42) and only one cot was bare. 83% (n=35/42) were on tilted mattresses and only 17% (n=7/42) of babies had feet at the foot of the cot. Blankets were loose in 60% (n=25/42) and only below the shoulders in half the babies.

Results were presented to our neurodevelopmental MDT. Initial interventions were around team education, widening the project team and introduction of cot cards to be placed in cots and updated with any individual planned variances. We also liaised with our local Child Death Overview Panel, for whom SIDS is a local priority.

Repeated PDSA cycles in 2020 showed some initial improvement from baseline with 80% (n=8/10) of babies on their backs, 60% of cots bare, 60% of babies at the foot of the cot, and blankets only loose in 20% and above the shoulders in 30%. Subsequent interventions included laminated signs being placed on all cots. Progress stalled at the most recent completed cycle with 79% (n=22/28) of babies on their back but only 11% (n=3/28) of cots bare.

Further planned work includes increasing parent engagement and education earlier in admission and incorporating sleeping environment into standard daily documentation.

Conclusions This ongoing quality improvement project shows that over time safe sleep environments can improve on a neonatal unit, which is known to have a positive influence on this vulnerable patient group being in a safe cot at home after discharge.

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DUPILUMAB FOR CHILDREN AND ADOLESCENTS WITH ATOPIC DERMATITIS: AN ASIAN PERSPECTIVE

Shi Yun Chia, Lynette Wei Yi Wee, Mark Jean Aan Koh. *Singapore*

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Background Atopic dermatitis (AD) is a common, chronic, recurrent inflammatory skin disease. Poorly controlled AD can lead to reduced quality of life (QoL) and psychosocial impairment. Dupilumab is the first approved monoclonal antibody targeting type 2 inflammation, for adolescent and adult patients with moderate-to-severe AD.

Objectives We review our cohort of Asian pediatric and adolescent patients with moderate-to-severe AD treated with dupilumab in KK Women's and Children's Hospital (KKH), the largest tertiary pediatric hospital in Singapore, with a total bed capacity of 830. We assessed both objective and subjective

Abstract 443 Table 1 Mean Outcome measures - EASI, IGA and Quality of life index scores (CDLQI, T-QoL and DFI)

	Commencement of dupilumab	12–16 weeks of dupilumab
Mean IGA score (n=12)	4	2.2
Mean EASI score (n=12)	48.2	19.3
Mean T-QoL (n=11)	18.7	7.5
Mean CDLQI (n=1)	11	1
Mean DFI (n=12)	19.6	8.6

outcome measures, as well as the side effects encountered in our cohort of patients.

Methods We performed a retrospective analysis of the efficacy and safety of dupilumab in a cohort of Asian children and adolescents with moderate-to-severe AD. Clinical response was documented with Investigator Global Assessment (IGA) and Eczema Area and Severity Index (EASI) scores. Improvement in QoL was assessed using Child Dermatology Life Quality Index (CDLQI) or Teenager's Quality of Life (T-QoL), and caregivers' QoL was assessed using Dermatitis Family Impact (DFI) questionnaire.

Results Twelve patients were recruited, aged between 6–18 years of age (mean 13.3 years), with mean duration of AD of 9.8 years. At baseline, the mean IGA score was 4 and the mean EASI was 48.2. The mean T-QoL and DFI scores at baseline were 18.7 and 19.6, respectively. After 12–16 weeks of treatment, the mean IGA score decreased to 2.2. The mean EASI decreased to 19.3 with mean reduction of 28.9. The mean T-QoL decreased to 7.5 with mean reduction of 11.2, and the mean DFI decreased to 8.6 with mean reduction of 11 (table 1). Adverse events included mild conjunctivitis in 2 patients and paradoxical head and neck erythema in 1 patient.

EASI, Eczema Area and Severity Index; IGA, Investigator Global Assessment; CDLQI, Child Dermatology Life Quality Index; T-QoL, Teenager's Quality of Life; DFI, Dermatitis Family Impact Questionnaire.

Conclusions Our study supports dupilumab as an effective and safe treatment option for Asian children and adolescents with moderate-to-severe AD.

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LESSONS IN FAMILY-CENTRED PANDEMIC CARE: THE PSYCHOLOGICAL OUTCOMES OF FAMILIES ADMITTED WITH COVID-19 IN SINGAPORE

Annushkha Sinnathamby, Celeste Yong, Amanda Zain, Siau Hwei Ng, Xin Yi Thong, Si Min Chan. *Singapore*

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Background Children are mostly infected with SARS-CoV-2 through household transmission. All children diagnosed with COVID-19 in Singapore require hospital isolation in one of Singapore's 2 paediatric units. Discharge was initially upon nasopharyngeal clearance. This was revised on 29 May 2020 to time-based discharge of well patients, regardless of viral clearance, after Day 21 of illness. Concerted efforts are made to admit infected children together with their caregivers as a family unit.

Objectives This study aims to explore the psychological experiences of children and their caregivers isolated in hospital due to COVID-19.