input can help. Allowing the child to find comfort in things they find reassuring.

Parents had a positive experience of their child starting alternative analgesia, such as Ketamine and Methadone.

Conclusions Management of complex refractory multifactorial pain in a child with palliative care needs provides challenges to both the palliative care clinician and the non-specialist. Communication with, and between, children and their parents is key and this is a two-way process.

Honesty with the family, listening to and believing their lived experience are crucial. Developmentally appropriate explanations to the child can provide comfort. The use of breakthrough medication, and advocating for the child's needs help to maximise control for the child and their family.

Alternative analgesia such as Ketamine and Methadone can be used with excellent effect. Non-pharmacological methods, tailored to the child's needs should also be considered.

A holistic, collaborative approach to both assessment and management is key.

British Association of Perinatal Medicine and Neonatal Society

682 HYPOXIA AND BRADYCARDIA EPISODES IN NEONATAL ELECTIVE INTUBATIONS

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Background Hypoxia and bradycardia events are expected common complications during neonatal intubations, characteristics of which is under studied.

Objectives In this prospective audit, we studied the frequency and duration of all hypoxic events, prolonged hypoxic events, all bradycardia events, prolonged bradycardia events and ventilation frequency during neonatal elective intubations

Methods This audit was registered with South Tees audit department.

Audit definitions (based on the study by Poets et al).

- Definition of hypoxemia: Any single or consecutive oxygen saturation (Spo2) value <80%.
- Definition of bradycardia: Any single or consecutive pulse rate (PR) value <80/min
- Prolonged hypoxemia/Bradycardia: Consecutive values of Spo2/PR below the threshold for a period of 60 seconds (consecutive 30 values).
- Episode length: For each episode, the number of consecutive 2-second data values below the threshold was defined as the episode length.

Unit Practice: For all elective intubations we used propofol with or without suxamethonium as premedications. During the intubation procedure, all infants were preoxygenated and ventilated using T piece device.

Data capture and download: Masimo Pulse oximeter (8 seconds averaging time) was applied just prior to commencing elective intubation procedure. Recording was continued until the procedure is completed successfully. Pulse oximeter provided 2 second data on PR, Spo2 and Respiratory rate. All the pulse oximeter data were downloaded directly to the computer.

Abstract 682 Table 1

	N (%) / Median (IQR)
Any Hypoxia	
Number of intubation episodes with any hypoxia	13 (93%)
Median Number of episodes of any hypoxia (IQR)	35 (15–91.5)
Median duration of hypoxic episode in secs (IQR)	40 (12–72)
Severe Hypoxia	
Number of babies with severe hypoxemia	7 (50%)
Median Number of episodes of severe hypoxemia	0.5 (0–1)
Bradycardia	
Number of intubation episodes with any bradycardia	3 (21%)
Median Number of episodes with any bradycardia	0
Median duration of any bradycardia	0
Number of episodes of severe bradycardia	0
Simultaneous episodes with any hypoxia and any bradycardia	3 (21%)
Ventilation rate	
Number of babies ventilated with ventilation rate <30 (n=6)	6 (100%)
Median number of episodes with ventilation rate <30/min	148.5 (78.75–198)

Results We had a total of 10 babies with 16 intubation episodes. Median number of intubation attempts were 2 (1–3). Median Birth Gestational age in weeks was 30 (26–38) and median Birth weight in grams was 1000 (670–3875). Median age in days at the time of intubation was 1 (1–45). We used propofol with suxamethonium (n=8), Propofol only (n=1) and Buccal midazolam (n=1) as premedications. Following were the primary reasons for intubation: Respiratory distress with surfactant deficiency:6; Surgical abdomen:1; Unplanned extubation-reintubation:1; Poor neurology:1 and pneumothorax: 1.

Characteristics of hypoxic and bradycardia events are provided in table 1. Figure 1 shows Boxplot of Spo2 for each intubation episodes.

Conclusions Almost all intubation episodes are associated with hypoxia and half of them are associated with severe hypoxia. Bradycardia episodes are uncommon in our audit. In all of the intubation episodes ventilation rate were less than recommended (<30/min).

International Child Health Group

684 IMPACT OF PARENTAL EDUCATION LEVEL ON TREATMENT SEEKING BEHAVIOUR TOWARDS SUSPECTED CHILDHOOD MALARIA IN AN ENDEMIC AREA

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Background Malaria remains an important cause of morbidity and mortality for children in endemic areas.

According to the World Health Organisation guidelines for treatment of malaria, in endemic areas malaria should be suspected in anybody with a history of fever or temperature >37.5°C. Early diagnosis with prompt and effective treatment within 24–48 hours of symptom onset can prevent progression to severe disease, especially in young children and non-

immune populations. To reduce spread of drug resistance and better identify other causes of febrile illness in children, anti-malarial medicines should only be given to patients with confirmed malaria. Parasitological diagnosis of malaria is now accessible for different healthcare settings including primary care.

Objectives To assess the impact of parental education level on treatment seeking behaviour towards suspected childhood malaria in an endemic area.

Methods Over 2 days, we randomly distributed questionnaires (see table 1) to parents of children under 12 years old, in the nursery-primary school of a rural village in South-East Nigeria, and evaluated the results. The rural village and school were all chosen at random.

Results There were 94 respondents out of 138 parents. None or Primary education 39 (41.5%), Secondary education 33 (35.1%), and Post-secondary education 22 (23.4%).

Respondents with post-secondary education are more likely to suspect malaria and/or visit a primary care centre/hospital

Abstract 684 Table 1 (Questionnaire)

Gender:	Man	Woman	Non-Binary
Age:	15–20 yrs	21–25 yrs	>25 yrs
Highest educational level:	none or primary education	secondary education	post-secondary education
How do you check temperature for fever:	thermometer	hand-feeling	
Behaviour on 1st day of fever:			
(1) Do you suspect malaria on 1st day of fever	Yes	No	
(2) Action taken on 1st day of fever:			
	<ul style="list-style-type: none"> • Paracetamol/ibuprofen only then watch and wait • Herbal medicine • Patent medicine dealer • Primary care centre/Hospital visit 		

Abstract 684 Table 2 Impact of parental education level on behaviour on 1st day of fever

	Suspected Malaria on 1st day of Fever	Paracetamol/ibuprofen only then watch and wait	Herbal medicine	Patent medicine dealer	Primary care centre/Hospital visit
None or Primary education	28.21%	0	69.23%	30.77%	0
Secondary education	51.51%	24.24%	45.45%	24.24%	6.06%
Post-secondary school education	86%	22.73%	13.64%	9.09%	54.55%

on the 1st day of fever. Respondents who did not attain a post-secondary education are more likely to give their children herbal medicine on the 1st day of fever (see table 2).

Conclusions This study suggests that parental education level has an impact on treatment-seeking behaviours for suspected childhood malaria, as parents with post-secondary education are more likely to facilitate early diagnosis and treatment by 'suspecting malaria and/or healthcare facility visit on 1st day of fever'.

There could be confounding factors such as parental age/experience which weren't explored in this study. Improving parental education could be one of the solutions to keep parents informed and empowered during their children's illnesses.

Paediatricians with Expertise in Cardiology Special Interest Group

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CHEST PAIN IN THE PAEDIATRIC EMERGENCY DEPARTMENT

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Background Chest pain is common among children presenting to the Emergency Department, and is infrequently caused by cardiac pathology.

Objectives This quality improvement project aims to investigate the aetiology of chest pain in children presenting to the Emergency Department and to examine the use of investigations in these patients.

Methods Retrospective data was collected on all children attending the Emergency Department at a District General Hospital in London (The Royal Free Hospital), between June 2019 – June 2020, with a triage complaint of chest pain. Patients were categorized according to the final diagnosis at discharge. Data was collected and analysed in August 2020. Patients with a traumatic cause of their chest pain were excluded. One hundred and sixteen patients were included in this study.

Results In pre-pubescent boys (age less than 12) the causes of chest pain include musculoskeletal (26%), gastrointestinal (26%), respiratory (21%), psychiatric (11%), idiopathic (11%) and one patient had cardiac pathology (prolonged QT interval). Twelve patients had an ECG (63%), one of which was abnormal (long QT interval). Four patients had a chest x-ray (21%), one of which was abnormal (pneumonia). No patients had cardiac enzymes measured.

In post-pubescent boys the causes of chest pain include musculoskeletal (49%), idiopathic (33%), respiratory (9%), psychiatric (5%), gastrointestinal (2%) and one patient had cardiac pathology (myocarditis). Forty patients had an ECG (93%), four of which were abnormal (ST elevation; two patients had right bundle branch block; first degree heart block). Eighteen patients had a chest-xray (42%), none of which were abnormal. Five patients had cardiac enzymes measures (12%), which were elevated in one patient (myocarditis).

In pre-pubescent girls (age less than 11) the causes of chest pain include musculoskeletal (41%), respiratory (23%), gastrointestinal (9%) and one patient had cardiac pathology (supraventricular tachycardia). Nineteen patients had an ECG (86%),