Conclusions Wellbeing is multi-faceted and as such is difficult to measure. We have measured markers for engagement in our project rather than wellbeing per se.

There was a low response rate to our survey, though those who did respond were very positive. This is likely to be a confounding factor of the motivation of responders being those who are 'engaged'. From the survey results we have reduced the frequency of emails to weekly, and have acted on suggestions for content.

Overall our project has been well received and has raised the importance of staff wellbeing within our department.

Quality Improvement and Patient Safety

671 LEARNING FROM DEATHS – STILLBIRTHS, CHILDREN AND YOUNG PEOPLE

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Background Structured judgement reviews (SJR) are designed to help acute hospitals learn from retrospective mortality reviews. *'The process ensures a traditional, clinical-judgement review method but in a standardised format with a view to identify and make improvements in quality of care.'*¹

Trained reviewers score six phases of care from admission to end-of-life care. They also make explicit written comments about care for each phase. At the end of the review, a subjective 'avoidability of death judgement score' is made, the scoring system is as follows:

- Score 1 definitely avoidable
- Score 2 strong evidence of avoidability
- Score 3 probably avoidable (more than 50:50)
- Score 4 possibly avoidable but not very likely (less than 50:50)
- Score 5 slight evidence of avoidability
- Score 6 definitely not avoidable

*'The result is a relatively short but rich set of information about each case in a form that can also be aggregated to produce knowledge about clinical services and systems of care.'*¹

The trusts 'Learning from Deaths Policy' mandates that all deaths amongst children, young people, 16–25 year olds and stillbirths undergo an SJR.

Aim To highlight learning from avoidable and unavoidable deaths amongst stillbirths, children and young people <25 years old, over an 18-month period across the trust.

Methods Review cases that underwent a SJR, over an 18 month period from July 2017 – December 2018. The trust SJR secure database was used to capture the data. In cases where the 'avoidability of death score' was 3 or less i.e.

suggesting the death may or was avoidable – the cases were reviewed in detail. In cases where the 'avoidability of death score' was 4 or above, the recommendations and key learning points were reviewed.

Results 3154 cases underwent a SJR. 171 deaths occurred in the sub-group we analysed. The structured judgement of avoidability of death in the cases are detailed below:

Conclusions The data seemed to mirror itself – problem areas identified in avoidable cases, scoring 1–3, conversely were highlighted as areas of good care in unavoidable deaths, scoring 4–6. These areas have been stratified into two key themes with learning points highlighted below

- Patient assessment and management:
 - Know and use local guidelines
 - Identify and respond to problems early
 - Involve seniors
 - Involve the multidisciplinary team
- Communication:
 - Adequate documentation
 - Clear communication
- Of results
- Overcoming 'language barriers'
- With patient and family regarding problems
 - Parental involvement, discussion and support
 - Future planning

REFERENCE

1. Royal College of Physicians. Using the structured judgement review method - A guide for reviewers. England: RCP, 2016.

Association of Paediatric Emergency Medicine

672 PAEDIATRIC CARDIAC ARRESTS – A DESCRIPTIVE AUDIT REPORTING CARDIAC ARRESTS PRESENTING TO A TERTIARY PAEDIATRIC EMERGENCY DEPARTMENT

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Background The 2018 Out-of-Hospital Cardiac Arrest Outcomes Registry saw 530 paediatric Out of Hospital Cardiac Arrests (OHCAs) in England, with a survival to discharge rate of 12.1%. It is widely reported that paediatric OHCAs have poor outcomes, with downtime being a strong prognostic determinant for survival to discharge. This audit will retrospectively describe local patients attending a tertiary paediatric emergency department (ED) presenting after undergoing a cardiac arrest between 2015–2020.

Objectives

SJR Score:	1	2	3	4	5	6	Total Number of Deaths
Avoidable:	Definitely avoidable	Strong evidence avoidable	Probably avoidable	Possibly avoidable	Slight evidence avoidable	Definitely not avoidable	
Stillbirths	-	1	4	3	8	49	65
Neonates	1	-	-	2	7	46	56
Paediatrics	-	-	-	1	2	29	32
16–25	-	-	1	-	1	16	18

- To identify the patient demographic presenting to the emergency department who have undergone an out of hospital or in department cardiac arrest.
- To compare outcomes of OHCA's presenting to a ED to the existing literature.
- To identify areas of good practice and improvements, specifically documentation and recorded downtime.

Methods Patients presenting to the ED aged 18 or under were included. The audit data was taken between 2015 and 2020 using patient data who required a '2222' cardiac arrest team call or were coded within electronic patient records as 'CARDIAC ARREST'. For audit inclusion, patients had to receive CPR before or within the emergency department. CPR was defined as the receipt of external chest compressions and/or internal cardiac massage for at least 60 seconds. All patients received by the emergency department after transfer from a local district general prior were excluded.

Results Survival

Following the inclusion criteria, 34 paediatric cardiac arrests were eligible for this audit, of these patients, 7 survived to discharge. The average age of all discharged survivors was 9.4 years with an age range of 5 weeks to 17 years. Survival to discharge for cardiac arrests within the department was 60% compared to 13.8% for OHCA's. All patients who survived to discharge either suffered a cardiac arrest within the ED or had a pre-hospital return of spontaneous circulation (ROSC).

Downtime (Temporal duration of cardiac arrest identified-to-ROSC)

The average total downtime for all 34 patients was 35.8 minutes with the shortest downtime being 1 minute and 106 minutes recorded as the longest. Average downtime for patients who survived to discharge was 8.4 minutes. No patient who had a downtime greater than 20 minutes survived to discharge.

Aetiology

In total there were 9 Hypoxic cardiac arrests, 4 of cardiac origin, 2 traumatic cardiac arrests and 19 classified initially as Sudden Unexpected Death of Infant/Child (SUDI/SUDC). Cardiac arrest deemed cardiac in aetiology had the greatest survival rate of 75%. SUDI/SUDC was the most common aetiology of cardiac arrest, making up 56% of cardiac arrests attending the department.

Conclusions This is the first audit at this tertiary centre describing in detail cardiac arrests presenting to the ED. OHCA's attending the audited ED have an increased survival to discharge rate compared to trends in recent reports. Survival rates based on total downtime and aetiology dependant cardiac arrests align to the existing evidence. Improvement and uptake of the existing cardiac arrest proforma would notably improve documentation. A downtime box in the department's pre-alert sheet could help guide clinicians on the expected outcome for an incoming cardiac arrest.

Background Novel Coronavirus-19 infection with its original and mutant variant (seems to be more contagious) is an emerging threat today, nevertheless, the children population cannot be overlooked, as a certain risk group child are also infected in the UK. The children mainly present with respiratory symptoms ranging from mild to severe respiratory distress. The racial predilection, weight percentile, and consistency of management protocol of Paediatric COVID-19 infection is an important issue in the UK, needs to be addressed.

Objectives The objectives of the study were:

- To identify the main presenting complaints among the children cohort with Covid-19 infection
- Whether children are the source of primary or secondary infection of COVID-19
- Whether the children visited with any comorbidity with COVID infection
- Any predilection of ethnicity and the
- Pattern of disease progression with COVID-19.

Methods A pre-tested open and close-ended (dichotomous) questionnaire was developed and used for the study.

The criteria for selection of the cases were- the children who presented with fever, respiratory and other symptoms, and who were admitted to the ward for treatment. The patient cohort was swabbed as per existing NHS guidelines for the detection of COVID-19 infection¹. The data protection act and the patient's confidentiality were strictly followed. The study was standardized as per protocol of the WHO guidelines, NHS website, and Public Health England including Royal College of Paediatrics and Child Health (RCPCH) guidelines 3,4. This was an observational study carried out among 158 children, ages ranging between 0 and 15 years. This study was carried out during the pandemic period of March-May 2020 at Queen's Hospital under Barking, Havering, and Redbridge University Hospital NHS Trust. The laboratory investigations were carried out at the local and tertiary hospitals.

Results From among 158 cases, 34 (21.3%) cases were COVID-19 positive, 8 (5%) cases suffered from Paediatric Inflammatory Multisystem Syndrome PIMS-TS. The demographic pattern which was expressed in number (n) of the cases by age, gender, and ethnicity.

It is revealed that ethnicity-wise, the Black, and Asian children are affected more. 24% of children were not swabbed, 8.7% of cases were wrongly labelled. It is elucidated the percent distribution of the cases who were not swabbed and wrongly labelled and negative cases. Only one case (n=1) was detected as COVID-19 positive and PIMS. It is depicted the percent distribution of the total patients of COVID-19 positive and PIMS-TS cases.

Conclusions Healthy children are affected, no children with underlying co-morbidity was noted and the ethnicity predilection is Black and Asian group, similarly, weight of higher centile category of children is affected more. Although the severity of infection is mild among children, the consequence of this infection cannot be overlooked.

To expedite the test and trace service

To develop strong liaison with tertiary care for sero-surveillance

To develop a consistent follow-up protocol

To develop proper documentation system

Development of appropriate swab technique and ensuring labelling whilst transferring the swab.

Ensuring appropriate PPE

British Association of General Paediatrics

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CHILDREN ARE AT RISK OF COVID-19 INFECTION: A PROFILE FROM A UK HOSPITAL

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