### Paediatricians with Expertise in Cardiology Special Interest Group

**839 IMPACT OF COVID ON LOCAL PAEDIATRIC CARDIOLOGY SERVICE**

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**Background** The surge in COVID infections over the last year have forced major changes in the delivery of healthcare around the world. The NHS had to adapt and restructure to maintain safe levels of patient care under social distancing and lockdown restrictions. Outpatient services across all specialties have adopted innovative methods to deliver patient care, by reducing the number of face-to-face (F2F) consultations and introducing virtual and telephone clinics. The aim of this study was to review the positive and negative impact of COVID restrictions on our paediatric cardiology service.

**Objectives**
- To compare the number of patients who have been referred and accessed the paediatric cardiology service between 2 time periods: pre-COVID (PC) from 1st April to 30th September 2019 and COVID period (CP) from April to September 2020.
- To review clinic attendances in local, outreach and transition clinics, by comparing the DNA rates and type of consultation: face to face (F2F) and telephone consultations (TC).

**Methods** Database for local, outreach and transition clinics were generated from hospital electronic record systems (EPIC and CHEQS) for the chosen time periods. This was recorded in Excel spreadsheets, analysed and compared. Final report was disseminated to the paediatric cardiology team, clinic administrators and service managers.

**Results** The number of ‘clinic sessions’ fell from 113 PC to 102 during CP (9.7%). The number of patients seen F2F fell from 1202 to 494 (58.9%) over the two periods. No TCs were conducted PC whilst 442 occurred during CP, representing 47.2% of all consultations. The number of joint cardiology clinics increased from 9 to 13 sessions (44.4%), with the number of consultations increasing from 118 to 132 (11.8%). All consultations PC were F2F. During CP, 63 (47.7%) reviews were F2F and 69 (52.2%) were TC. There were 22 consultations in 3 transition clinics PC, all of whom were seen F2F. Eight patients were seen in 2 clinics during COVID with 50% F2F. There was a 47% reduction in did-not-attend (DNA) consultations, due in part to the use of TC for some non-attenders. There was a 5-fold increase in the number of advice and guidance requests from GPs, 119 during CP compared to 23 PC. There was no adverse outcome following the introduction of telephone consultations.

**Conclusions** Outpatient paediatric cardiology activity was sustained during the COVID pandemic period through service adaptation, for example via TC and ECG-only appointments with TC follow-up. This has had a positive effect on the number of appointments offered and reduced DNA rate. The impact of COVID on the service has been far from negative and made our service more patient convenient and cost effective.

### International Child Health Group

**841 DEVELOPING A NOVEL ONE-DAY PAEDIATRIC ASSESSMENT AND STABILISATION (PAS) COURSE FOR FRONT LINE HEALTHCARE WORKERS IN LUSAKA, ZAMBIA**

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**Background** A large proportion of front-line paediatric healthcare in Zambia is delivered by staff with no specialist paediatric training, and training this group could significantly reduce preventable child deaths. In 2019–2020, the Tropical Health and Education Trust undertook a 6-month paediatric capacity building project in Lusaka, Zambia, funded by Health Education England.

**Objectives** The aim of the project was to improve paediatric skills of front-line healthcare workers.

**Methods** Three volunteers were recruited (2 paediatric registrars and 1 programme and evaluation consultant) to work with first (district) level hospitals in Lusaka. A needs analysis found that there was an under-utilisation of the structured approach to the recognition and stabilisation of unwell children on the front line.

The initial suggestion of embedding the Emergency Triage and Treatment (ETAT) course was not an option due to insufficient resources and funding for a five-day course. The volunteers worked with local and international colleagues to design a one-day alternative based on local data, priorities and available resources. The Paediatric Assessment and Stabilisation (PAS) course is based on national Zambia Paediatric Association and international protocols (including ETAT, APLS and WHO).

A ‘teach the teacher’ approach was used with instructors nominated from four first level hospitals and University Teaching Hospital (the local tertiary referral hospital). Two half-day sessions were held to train instructors on course teaching methods, and encourage them to be local ‘PAS Champions’ to embed their new knowledge and skills amongst their own hospital teams post-course.

The pilot was funded by Lusaka Provincial Health Office, with participants recruited from the same four first level hospitals as the instructors. The course was delivered in small groups using Peyton’s four stage approach and simulation. A simulation test scenario was used at the end of the course to ensure credibility. Impact of the course was measured using a Likert scale questionnaire to assess participant confidence in managing critically ill children before and after the course.

**Results** The pilot ran four separate PAS courses. These were attended by 91 participants (including clinical officers, medical officers and nurses) of which 88 passed. Pre and post course questionnaires showed participant confidence scores increased by 19% in assessment of unwell children, and by 22% in treatment of unwell children. Free text by participants showed a positive impact on individual clinical practice. 25 instructors were trained to teach on the PAS course, as well as 2 course directors and 1 course administrator. Instructors also fed back...
that critically unwell children were more effectively managed within their facilities after the course. Ownership of the course was handed back to the ZPA and Ministry of Health at the end of the pilot. Unfortunately, the COVID-19 pandemic prevented any further impact analysis, and any further PAS courses were put on hold.

Conclusions At a time where national resources are limited to fund internationally recognised paediatric courses (e.g. ETAT), it is hoped that the structured approach learned on the PAS course can benefit front line paediatric care in Zambia at present, and become an effective ‘stepping-stone’ to these courses.

British Paediatric Allergy Immunity and Infection Group

**843 CLINICO-ETIOLOGICAL PROFILE OF CHILDREN WITH PLEURAL EFFUSION IN A DEVELOPING COUNTRY: AN OBSERVATIONAL STUDY FROM A TERTIARY CARE CENTRE IN NORTH INDIA**

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Background Pleural effusion is the pathological accumulation of fluid in the pleural space. Pediatric pleural effusion usually present with a dynamic profile over time both in terms of its etiology and the causative organisms. This study aimed to provide a description of the clinic-etiological profile of these patients with an emphasis to identify the bacteriological spectrum of the pleural fluid in developing countries for an appropriate, and timely management of these children.

Objectives To study the clinical profile of hospitalised children 0–19 years with pleural effusion in a tertiary care centre.

Methods A prospective hospital based observational study was conducted on 133 children diagnosed with pleural effusion to study its etiology and clinic-bacteriological profile in a tertiary care hospital in north India.

Results The most common etiology of pleural effusion observed in the study was tuberculosis (21.1%) followed by empyema (20.3%). Maximum patients were in the age group of 6–12 years (36.8%) with males (54.1%) being affected more frequently affected. Exudative effusion was more common than transudative effusion. Fever and cough were the most common symptoms. Right sided effusion was more common (49.6%). Parenchymal disease was associated in 22.6% of the exudative effusion. The most common organism isolated was Staphylococcus aureus followed by Streptococcus pneumonia. Significant association was seen between age and the etiology of pleural effusion.

Conclusions Pleural effusion in children can have varied etiologies and proper clinical history, examination and evaluation of the characteristics of pleural fluid can help in identifying the etiology of pleural effusion and selecting the best treatment approach for a favourable outcome.

**Quality Improvement and Patient Safety**

**846 ‘CLINICAL PEARLS’ A SMALL STEP TOWARDS LEARNING IN THE PANDEMIC**

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Background In these unprecedented times, delivery of teaching has had many challenges. Here, we present our learning initiative which is made accessible to the entire team on a weekly basis. It encompasses sharing of, snippets of clinical information, on a digital platform. The pandemic has changed the whole world and we’re recognising its indirect effects on training and education. Although a minor hit, it still has a significant impact on learning. We realized that teaching or learning was becoming passive. This paved way to the idea of a trainee led learning and we named it ‘Clinical Pearls’.

At work, each day brings us new challenges and each individual’s clinical experience is variable. We are all aware however systematic a person is, no one can amass all the knowledge or look at all resources especially in the field of medicine. Hence Clinical Pearls was created to share knowledge and resources that people have collated.

Objectives To improve learning by sharing knowledge and experiences among the multidisciplinary team in the COVID pandemic.

Methods
- As soon as the idea was developed, it was introduced to the team and a survey was conducted.
- The survey identified the unmet learning needs in the pandemic.
- We started to collate slides on google drive to include problem based learning, interesting journal articles and sign posting to useful resources following a receptive response.
- The nursing team came forth with learning points from their Quality improvement projects and recent clinical incidents.
- These learning sheets were circulated on an electronic platform every week amongst the entire team.
- After a trial period of 8 weeks, a survey was conducted, to gather valuable feedback on Clinical Pearls.

Results Clinical Pearls has been very well received by the team. We were given appreciation in the recent Local Clinical Governance and Quality improvement meetings. This learning venture has been commented as, good innovative practice and shared with Patient safety & Quality board.

The response from the feedback survey, after a trial period of 8 weeks, are as follows:
- All the participants unanimously supported and were satisfied with the quality and usefulness of the slides.
- 100% of the respondents, recommended it to be the part of ongoing departmental educational learning activity.
- 95% of the responses highlighted that Clinical Pearls encouraged more reflective practice.
- We have also developed a certificate of appreciation to value individual contributions to Clinical Pearls.