Results 6 exchange sessions were held covering 12 paired paediatric cases (table 1).

Feedback was collected from 13 participants (7 Malawi, 6 UK). Mean score of all 10 questions was 4.26 out of 5 for all responders (4.3 for Malawi, 4.2 for UK), indicating perceived learning was high and similar for both groups. There was no significant difference in mean scores between the groups ($p>0.05$ using Mann-Whitney-U) for all feedback questions.

Conclusions Cases without borders was perceived to enhance learning across settings, equally benefiting both sides, suggesting it is a suitable model for telemedicine programmes. Qualitative feedback suggests potential for increased interest and participation in evidence-based medicine and global child health in both contexts. Future iterations would benefit from an improved internet connexion and a larger feedback sample using a validated feedback tool.

Abstract G285(P) Table 1 Malawi

Organophosphate poisoning	Asthma exacerbation
Malaria, Malnutrition and dehydration	Diabetic keto-acidosis
PJP Pneumonia	Sickle-Cell Painful crisis
Congenital syphilis	Cerebral Malaria
Prematurity with RDS	Sepsis and metabolic condition
Rheumatic fever and Sydenham's chorea	Bronchiolitis

G286(P) THE ACCEPTABILITY, FEASIBILITY AND USABILITY OF THE NEOTREE APPLICATION IN MALAWI: AN INTEGRATED DATA COLLECTION, CLINICAL MANAGEMENT AND EDUCATION MHEALTH SOLUTION TO IMPROVE QUALITY OF NEWBORN CARE AND THUS NEWBORN SURVIVAL IN HEALTH FACILITIES IN RESOURCE-POOR SETTINGS

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Background An estimated 70% of newborn lives could be saved globally if evidence-based interventions were successfully implemented. The 'NeoTree' application (app) addresses the need for quality care for sick newborns in resource-poor settings, particularly where care is nurse-led, by providing an integrated electronic platform for three functions;

- 1) immediate digital data capture on admission,
- 2) clinical decision support according to evidence-based clinical guidelines, and
- 3) newborn education. Here, we develop the first two functions and test the acceptability, feasibility and usability of The NeoTree in a district hospital, Malawi.

Methods A mixed methods intervention development study was conducted with facility-based health care workers (HCWs) to co-develop and test the app. Methods included Focus Groups (FGs) exploring the acceptability and feasibility of digital health solutions, one-to-one usability workshops and a one-month ward-based usability study. Quantitative usability

data (systems usability score – SUS) were collected before and after the ward study. Finally, end-line qualitative FGs were completed.

Results Digital aids, specifically the NeoTree were reported to be acceptable, feasible and a potential facilitator to quality newborn care. Identified factors predicted to aid the success of the NeoTree included a positive staff attitude, training, strong leadership, teamwork and staff engagement. SUS score was high at baseline (under workshop conditions) and following the ward study ($>68/100$ average) and HCWs reported high perceptions of improved quality of care after embedding NeoTree into routine practice (see table 1).

Conclusions The NeoTree has the potential to address multiple Malawian and global policy directives around improving quality of care and outcomes for newborns. It is an acceptable, feasible and highly usable tool. Co-production and user-focused, mixed methods iterative development have been key to its success thus far. The next phase of development will focus on the educational function and data linkage with national systems.

Abstract G286(P) Table 1

Neotree usability and quality improvement scores (n=13)	Baseline	End-line
SUS (calculated from 10 questions)	80.8/100	86.1/100
PIQC (mean of 11 questions)	N/A	4.6/5

SUS=System usability score, PIQC=Perceived improved quality of care score

G287(P) INVESTIGATING THE NEED, FEASIBILITY AND INTRODUCTION OF KETAMINE SEDATION IN A PAEDIATRIC EMERGENCY DEPARTMENT IN A RESOURCE-POOR SETTING

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Aims To evaluate the need for and practicalities of introducing ketamine sedation for manipulation of fractures, within a Paediatric Emergency Department in a resource-poor setting.

Methods Patient journeys were observed and 6 months of theatre records reviewed to evaluate the current fracture management pathway and determine a need for a change to service provision. In consultation with the orthopaedic team, a draft ketamine sedation policy was created, for fracture manipulation within the paediatric emergency department. Using one patient, this was then piloted to determine the practicalities of use.

Results Review of the current patient journey confirmed that for those requiring manipulation, this is lengthy process. Patients are discharged home and subsequently return for admission to the orthopaedic ward the following Monday or Friday. They are kept nil by mouth prior to general anaesthesia and following their procedure they return to the orthopaedic ward for recovery and review of post-procedure imaging. Over a 6 month period, 307 paediatric patients underwent a manipulation under anaesthesia in theatre, with a maximum of 16 performed on one list. Approximately half of these had fractures which would have been suitable for reduction under

ketamine. Piloting of the proposed ketamine sedation policy confirmed feasibility of its use within the Paediatric Emergency Department. The process from administration of ketamine to end of casting took 11 min. The patient was able to recover in the short stay ward and after review, was discharged home. **Conclusion** Large numbers of patients, who are currently returning for manipulation under general anaesthesia, would benefit from the implementation of ketamine sedation. This would help to reduce burden on the orthopaedic ward, theatre space, and anaesthetic team. This method of sedation also carries less risks than general anaesthesia. It is anticipated that if changes are made to the emergency department layout and orthopaedic team staffing it will be feasible to carry out ketamine sedation 3 times a week. The next stage would be to carry out a week-long pilot to accurately assess the process before full implementation.

G288(P) EVALUATION OF PATIENT ADMISSIONS THROUGH A PAEDIATRIC EMERGENCY DEPARTMENT AT A CENTRAL HOSPITAL IN A RESOURCE-POOR SETTING

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Aims To evaluate patient attendance, admission rates and use of the resuscitation room in a Paediatric Emergency Department at a central hospital in a resource-poor country. To identify how trends have changed and if there is a need to change the clinical environment to match the requirements of patients seen.

Methods Data was collated from departmental daily summary books, computerised and analysed to evaluate attendance, admission and use of the resuscitation room. A 1 month period was analysed in more depth using additional resuscitation room and admission record books to review patient demographics and diagnoses.

Results Records were collected from September 2014 – May 2017 and grouped to identify year-on-year trends. Some dates had missing information so averages have been used to account for this.

There are approximately 40 000 total attendances and 11 000 admissions per year through the department. Whilst the number of admissions overall appears to be falling, the rates of those admitted through the resuscitation room appear to be increasing, from an average of 17% in 2014/15% to 22% in 2016/17. In 2016/17 the monthly percentage of admissions through the resuscitation room ranged from 17%–30%.

In evaluating a 1 month (January 2017) snapshot of 1007 admitted patients, over a quarter were under the age of 12 months. 24.9% patients admitted during this month were seen in the resuscitation room and the most common diagnoses of these patients were Malaria and/or Anaemia, Bronchiolitis and Pneumonia.

Conclusion Admissions through the department appear to be decreasing, but the proportion of sick children being assessed in the resuscitation room is increasing. This may reflect that patients with milder illnesses are now being managed better in the district hospitals, with only those who are exceedingly sick or requiring specialist services being referred.

This review identified that approximately 22% of paediatric patients admitted are currently coming through the three-

bedded resuscitation room, and due to the severity of their symptoms and the amount of clinical care required, this certainly identifies a justification for redesign and expansion of this resuscitation room.

G289(P) REFLECTIONS ON A SHORT-TERM PAEDIATRIC MEDICAL MISSION TO A SYRIAN REFUGEE CAMP IN JORDAN

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Aims The Syrian refugee crisis is entering its 7th year. There are various humanitarian organisation are on the ground conducting short-term medical missions. We aim to describe the clinical care that was delivered and my personal reflection on a short-term medical mission to Jordan with the Syrian American Medical Society (SAMS).

Methods Through the 6 day mission, we held 6 paediatric clinics each in various locations across Jordan including the Al-Zataari refugee camp near the Syrian border. We gathered prospective quantitative data including age, presenting complaint, diagnosis, management and prescription. The qualitative data is my own personal reflection on the mission.

Results We saw a total of 384 patients with an average of 32 patients per day. The average consultation time is 10 min per patient. The most common presenting complaint is sore throat with or without fever (41%). 30% of presenting complaint is related to poor growth or lack of appetite. The most common primary diagnosis is viral upper respiratory tract infection (60%). Significant diagnosis include secondary nocturnal enuresis (10 patients), rickets (1 patient), severe pneumonia and dehydration (1 patient), untreated cleft lip and palate (1 patient). Almost 75% received prescription for paracetamol. Amoxicillin was dispensed to 21% of patients. The unwell patient with pneumonia and dehydration was stabilised locally then sent to the referral hospital. The outcome of her progress is unknown. The patient with untreated cleft was referred via SAMS to a charity specialising in cleft repair. She received her operation a week after the mission.

Conclusion The high rate of well children with acute respiratory disease is attributable to living conditions and desert environment. Rigid dispensing of amoxicillin is important to prevent unnecessary use of antibiotics especially as they are able to purchase without prescription. Trauma is the most likely cause of nocturnal enuresis and the need for mental health support cannot be underestimated. Assessment of anaemia and vitamin D deficiency is prime to avoid chronic complications. While the mission is rewarding personally, there can be further improvements to create a more sustainable model of care. Trainee participation in such missions should be encouraged to raise awareness of refugees' plight and for clinical experience.

G290(P) LINKING PAEDIATRIC ONCOLOGY RESEARCH WITH ELECTIVES

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