have had to be very different during 2020. One aspect of the new working model, has been the requirement to wear, 'Personal Protective Equipment.' (PPE). Seeing healthcare workers in full PPE is a new experience for most children and it became obvious, early on during the pandemic, that we needed to find ways to make PPE more, 'child-friendly,' to minimise anxiety as much as possible for children presenting to hospital and in particular to theatre.

Methods Discussion with colleagues working in the operating theatres at Great Ormond Street Hospital revealed various adaptations to make PPE more, 'child-friendly.' Some children were asked for feedback related to this. A PubMed literature search regarding PPE use in paediatric settings and also the wearing of face masks by children was also conducted. In addition to this, an internet search provided information from other NHS Trusts.

Results Inventive solutions such as cartoon characters on visors and drawing on them have been very well received. Videos about PPE were also helpful. In addition, the importance of non-verbal communication has become very apparent.

Discussion Creating, 'child-friendly,' PPE has been hugely beneficial to children presenting to hospital during the pandemic. It helps to allay their fears and increases their understanding of the current, challenging world that they are living in.

49

SIGHT ++: PROTOTYPING A COMPUTER VISION GUIDED ASSISTIVE TECHNOLOGY

¹Sven Finlay, ²Sheena Visram, ¹Gisli Georgsson, ¹Yanru Chen, ¹Songping Lin, ¹Xingda Cen, ³Costas Stylianou, ³Chris Feltham, ³Phillippa Chick, ¹Dean Mohamedally, ⁴Neil J Sebire, ¹Emmanuel Letier. ¹UCL Department of Computer Sciences; ²University College London; ³Intel; ⁴GOSH DRIVE

10.1136/archdischild-2020-gosh.49

Introduction The visually impaired in society are amongst the most impacted by social isolation restrictions of the COVID-19 pandemic, fueling research into assistive technologies, including devices primed for computer vision task-orientated image recognition. We present a Proof of Concept prototype modular system that uses Intel RealSense depth cameras connected to a modular ML inference platform to construct near field object information that guides and encourages exploration for users.

Methods Early engagement from experts in the field of global disability enabled us to better appreciate orientation, mobility-related considerations, sensory components and meaningful voice instructions. We subsequently designed a novel modular, extensible platform that runs inference classification and depth detection on camera input, then uses heuristic AI Prioritiser to analyse and identify essential guidance output for the users.

Results Sight ++ uses object recognition to accurately inform users on near field objects, including data on proximity. By parsing the items through a series of environment rules, which results in objects having more or less relative importance, the system can output qualified audio guidance for obstacle avoidance and awareness. The use of OpenVINO resulted in a 2-fold increase in performance of our inference classifiers. We anticipate that a miniaturised depth camera would be fitted to a backpack adjustable strap to offer real-time object recognition and meaningful notification of artefacts of interest at waist height and above.

Conclusion We have produced a robust, foundational assistive system which rather than replace recognised and trusted

methods of navigation, introduces a new dimension of intelligence. Future versions will implement motion tracking of the objects, haptic feedback and a teleassistance function connecting a sighted volunteer to enhance guidance. We aspire that future improvements offer a seamless understanding of new environments and create a novel user experience for exploration that are designed for personalisability, social acceptability and social inclusion.

50

SHAKE, RATTLE AND ROLL – A SERVICE EVALUATION OF A MULTIDISCIPLINARY MUSIC GROUP FOR FAMILIES WITH BERLIN HEARTS

Zoe Vamplew, Sarah Rickard, Katya Herman, Emma Shkurka. *Great Ormond Street Hospital*

10.1136/archdischild-2020-gosh.50

Introduction Ventricular assist devices are implanted as a bridge to heart transplant. Inpatient wait time on a Berlin Heart EXCOR (BH), can be up to 17 months. This prolonged hospitalisation has a significant impact on the child's psychological and physiological development, leading to limited educational and social integration. It is important that the developmental treatment of these children incorporates a family centred and holistic approach. This service evaluation assessed the effectiveness and safety of a multidisciplinary music group on BH patients, their carers and nursing staff.

Method A structured multidisciplinary music group was created by Physiotherapy, Music and Occupational therapy. Carer involvement was a key component. Each session included: singing, actions, turn taking, gross and fine motor activities and a story. Feedback via anonymous survey was sought from carers and nursing staff after six sessions regarding structure, content and environment.

Results Five children and six carers participated over 12 weeks. The average age was 21 months and wait time since implantation 126–368 days. All carers and three bedside nurses completed the survey.

75% carers found the group beneficial and 75% felt their child enjoyed all components. Carers reported improved peer interaction and motor development. All advocated for the group to continue. Feedback included more actions and sensory stories. All nurses found the group overall 'extremely beneficial' and 66.67% felt the children 'extremely enjoyed' the sessions. 100% observed positive changes in the children and carers since commencement. No adverse events or safety concerns were raised.

Conclusion This service evaluation suggests that the multidisciplinary music group is a safe and valuable therapeutic component that can improve family experience and interaction for children on a BH. Carers and staff observed a positive impact on motor and social development as well as enjoyment. The group is now routinely part of the BH therapy programme.

51

POSCU – JOINED UP WORKING VIA GOSHLINK

Bing Wang, Lynne Riley, Rachel Edmead, Joshua Giddings, Chris Grant. *Great Ormond Street Hospital*

10.1136/archdischild-2020-gosh.51

All members of the patient's care team using GOSHLink can view the patient's full, contemporaneous electronic medical

record in real-time, placing the most relevant and time critical information at the centre of patient care.

GOSH Link is a web based, clinician facing portal, providing 'external to GOSH' care providers with access to a patient's GOSH digital electronic medical record, regardless of the digital maturity of the external hospital. Using GOSH Link clinicians can view the patient's: encounters, allergies, problems, notes, medications, lab results, radiology reports. Furthermore, using GOSH Link external care providers can upload documents (request to upload documents) to the patient's GOSH record, with further potential to engage actively with the patient's treatment at GOSH.

Without GOSHLink the local hospital team would have to rely on the family or GOSH haematology/Oncology team letting them know of any future appointments/interventions, followed by the initiation of an appropriate management plan. This could have added additional days to the patient's overall care plan through finding out information, or rescheduling the procedure

Being one 'virtual' team- The PTC and POSCU relationship has always been at the very core of facilitating excellent patient care between 2 centres, and good communication is vital for this. GOSHLink has facilitated all of this.

Clinical governance- real time documentation that both the PTC and POSCU can view

Patient experience-families are reassured to know there is electronic documentation of discussion between PTC and POSCU.

Rolling out GOSHLink to POSCU PTC is so much more efficient, saves on time spent chasing appointments by email or telephone. Improves patient safety, and communication. Better patient care. Prevents procedures being cancelled or postponed. GOSHLink supports the response to the COVID-19 pandemic between GOSH and local hospitals.

52 QUALITY IMPROVEMENT INITIATIVE: REDUCING UNNECESSARY STOOL TESTING AND RELATED LABORATORY COSTS

Malti Nakrani, Wisdom Musabaike, Christine Morris, Nuwanthi Yapa Mahathanthila. *Great Ormond Street Hospital*

10.1136/archdischild-2020-gosh.52

Background Stool samples sent to the lab without an indication for screening was in the top 5 rejections in the hospital. Approximately 440 stool samples were rejected annually in the Microbiology lab for being sent for testing too frequently. A majority of these rejections were from wards with immunocompromised patients. Requisition/testing unnecessary samples leads to negative patient experience and unnecessary health-care costs. A stool microscopy and culture costs £21.00. This is quite significant compared to the number of tests requested.

Our aim was to investigate ward practices in sending stool samples for testing and the causes for high rejection rates of these.

Method Current policies and practices for stool testing in wards and labs were studied, especially the weekly screen for neutropenic patients. Historic and live data were reviewed. Various teams were interviewed to understand the requirements for stool testing. Key groups involved: Infection Prevention and Control (IPC), Laboratory, Microbiologists, Specialty leads and nurses. Ethical clearance was not needed.

Results We found mismatch in protocols held with different departments. We identified discrepancy of policy versus practices and lack of understanding between ward and the lab. We observed inconsistencies between wards.

While many samples were rejected, we also found many were unnecessarily tested.

Discussion Results indicated that a coherent update in departmental policies is required between IPC, Microbiology Laboratory and Nursing teams. Due to significant cultural implications, multiple approaches to educate staff in the updated practice will be required. A special focus is needed to the decision making at the point of requisition. Solutions such as simple flow charts, system updates to aid optimal test requisition on the electronic requesting system and education sessions will be explored in the next part of this study.

Conclusion Differences in practices, guidance and its interpretation led to a significant number of unnecessary testing.

53 DISCHARGE SUMMARY (SIGHT & SOUND): ARE WE MEETING THE GOSH TARGET?

Sevasti Konstantinidou, Miane Min Yan Ng, Bushra Zia, Christopher Jephson. *Great Ormond Street Hospital*

10.1136/archdischild-2020-gosh.53

Objective In order to facilitate safe management of complex patients following discharge from GOSH, the Trust Timeline Target is to send all discharge letters within 24 hours. This project aims to assess Sight and Sound Directorate's compliance with this standard, identify potential causes of non-compliance and implement sustainable change.

Methods Retrospective data collection was performed via Epic system. The first audit cycle started in September 2019 and the second was completed in August 2020. Due to suboptimal initial results, areas of weakness were identified and changes were implemented. Audit results and educational materials were disseminated within the directorate to emphasise the importance of timely completion and distribution of discharge letters. Directorate managers worked closely with administrative team and a new administrative role was created to facilitate adequate weekend cover.

Results The initial results were worrisome, as none of the departments met the Trust Timeline Target. The percentage of discharge summaries sent within 24 hours ranged from 0% to 88.24%, with an average of 54.4% across the departments. The majority of letters were completed in a timely manner, but the summaries of the weekend discharges were rarely sent within 24 hours. Following the implementation of changes, the compliance improved significantly, with the proportion ranging from 69.3% to 100%. Three departments achieved 100% compliance with the standard and the average percentage was 89.5%.

Discussion This project demonstrates that Sight and Sound Directorate was initially not meeting the Trust Target for discharge letters. This was mainly due to inadequate administrative staff cover over the weekend. After changing that and high-lightening to our teams the importance of sending discharge summaries within 24 hours, the compliance with the GOSH standard drastically improved. We aim to continue monitoring the situation to ensure that the results we achieved are sustainable.