

their visits. The first phase of the project focusses on a range of apps designed for service improvement and patient experience.

The Digital Bedroom Project aims to enhance the experience of the patient and families through enhanced technology which will ideally improve the performance of research visits and improve patient outcomes. Research is at the heart of everything we do and by tailoring all patient visits to their individual needs we hope to link to the GOSH Always Values, making all individualised patients feel Always Welcoming to the new research environment and improve our research facilities through digital innovation.

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### COLLABORATIVE INDUCTIONS FOR HEALTHCARE SUPPORT WORKERS (HCSWS)

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10.1136/bmjpo-2023-GOSH.24

New HCSWs identified feeling daunted and isolated by existing induction processes due to multiple communications and timetables. Collaboration across Practice Education (PE) and other teams aimed to streamline this by combining Trust, Care Certificate, apprenticeship, and local induction into one two-week timetable to provide standardised teaching and encourage a community of practice and peer-support amongst HCSWs. This would reduce repetition and time spent by educators.

**Method** We met with PEs and Learning/Development teams to establish content. Meeting existing HCSWs allowed us to review the learner experience. A timetable was established, with sessions delivered by different educators allowing for a diverse teaching team, encouraging PE collaboration. The National Care Certificate standards were aligned to sessions to ensure quality, standardised teaching. We identified the need for context, so included two shadow shifts on allocated ward areas for orientation and application of learning.

During the pilot process we targeted managers and PEs for engagement. Feedback was gathered from stakeholders through an electronic questionnaire.

**Results** Aims were achieved: the initiative had an overall rating of 4.6/5. 83% of HCSWs recommended it to future cohorts. 100% found the shadow shift useful. Qualitative data showed HCSWs benefited from group working and clearly understood roles and responsibilities. PEs overall rated the experience as positive, reporting time was saved in reducing content repetition and would be likely to engage in same process again. The collaboration and networking between PEs was a real benefit, showing an appreciation for each other's roles. Throughout the two weeks peer support was observed, the HCSWs were animated, engaged and open to discussions together.

**Conclusion** The initiative achieved its aims, showcasing increased collaboration, reduced duplication and a more welcoming environment and will therefore run again. Being entry level, early investment is imperative through high-standard inductions to improve staff experience, retention, and safer patient outcomes.

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### PICTURE – LUNG FUNCTION TESTING IN CHRONIC LUNG ALLOGRAFT DYSFUNCTION

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10.1136/bmjpo-2023-GOSH.25

**Introduction** Chronic lung allograft dysfunction (CLAD) is driven by chronic rejection post lung transplantation and is the main cause of mortality in those more than one year post lung transplantation. It's defined by change in lung function (spirometry) results. We hypothesised that analysis of trends in lung function could identify early changes in spirometry (forced expiratory volume in 1 second; FEV1) trends. We built an analysis web application (PICTURE) that analyses electronic health record (EHR) data and presents it interactively or as PDF reports. We used PICTURE to compare FEV1 in transplant patients alongside additional lung function outcomes (lung clearance index; LCI), demographics, and laboratory data from the EHR.

**Methods** Data for Paediatric lung transplant patients cared for at GOSH between 01/05/2019 and 31/03/2023 were extracted and divided by outcome (presence or absence of CLAD) within PICTURE. LCI and FEV1 results were obtained and compared with the Kruskal–Wallis test.

**Results** There were 8 CLAD positive and 27 CLAD negative lung transplant patients. FEV1 scores were lower in patients with CLAD diagnoses. LCI didn't significantly differ between groups.

**Conclusions** PICTURE allows rapid extraction and analysis of datasets for children with rare diseases whose data is held at GOSH. The finding of lower FEV1 in the CLAD group validates the use of PICTURE for audit type analyses. LCI is reported to be more sensitive than spirometry in CLAD, a finding that was not reproduced in this study. As PICTURE used existing functions this report demonstrates its potential to answer queries which previously required manually transferring data between systems.

This project has been completed by Great Ormond Street Hospital NHS Foundation Trust and Roche Products Ltd as part of a collaborative working agreement. Roche Products Ltd had no influence on the results or decision to publish regarding this work. M-GB-00013791 | September 2023

**Acknowledgements for funding or support** This work is supported by the NIHR GOSH BRC. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health.

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### ACCURACY OF ARTIFICIAL INTELLIGENCE FOR FRACTURE DETECTION IN OSTEOGENESIS IMPERFECTA

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10.1136/bmjpo-2023-GOSH.26

**Purpose** The genetic condition osteogenesis imperfecta (OI) is associated with an increased risk of bone fractures. This study