discussion at a time when peer support methods were arguably needed more than ever. 

**Objectives** To pilot a facilitated peer support session in a virtual format and assess the acceptability of the format for trainees.

**Methods** A themed discussion entitled ‘In This Bleak Winter’ was incorporated into the January 2021 regional ST3 trainee study day, which was convened virtually via Zoom videoconferencing software. 21 ST3 trainees were split into three virtual breakout rooms, with at least one trainee per group given a short briefing beforehand and asked to prepare something to begin the discussion. One trainee was removed from the session due to camera issues, as the faculty felt video was crucial for maximising engagement with the session and maintaining the trust necessary to develop a ‘safe space’ for open discussion. Three members of a local chaplaincy team, trained in Schwartz and Balint methodology, facilitated group discussions which lasted for approximately 55 minutes. A scheduled break followed to allow trainees to reflect and recover before continuing with the rest of the day’s programme. Feedback was gathered via anonymous online survey.

**Results** 85% of trainees rated the session as ‘excellent’ on a five-point Likert scale, the most positive rating possible. 58% of respondents specifically mentioned the session in a free text question asking for ‘three good things about the day’. Three trainees stated in a free text question asking ‘how could the day be improved?’ that they would like facilitated peer support sessions to be scheduled during every monthly teaching programme. One trainee subsequently sought professional help for their mental health and directly cited the session as the driver to do so.

**Conclusions** The considerable positive feedback suggests that facilitated peer support sessions can be successful when held in a virtual format. Data on lasting effects were not gathered as this seemed the main barrier to participation and engagement in our pilot session.

# Abstracts

**1415** **PAEDIATRIC LESS THAN FULL TIME TRAINING SURVEY ACROSS OUR REGION: AN INITIATIVE TO SUPPORT TRAINEES**

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**Background** Paediatrics has a higher number of Less Than Full Time (LTFT) trainees in comparison to other hospital specialties. 34% of paediatric trainees in our region are in less than full time training. Trainees working LTFT have a different work experience and can encounter different challenges. The paediatric LTFT trainee representatives and the consultant trainee programme director (TPD) for LTFT training organised a survey looking at different initiatives to support less than full time trainees.

**Objectives** Aim of the survey was to explore the experiences of the paediatric LTFT trainees across our deanery and to look at the measures to be put in place to improve.

**Methods** An anonymous questionnaire was created using survey monkey. This was distributed via email to all 86 LTFT trainees in our region and it was kept open for 4 weeks. Data was subsequently collated using Microsoft excel.

**Results**
- The questionnaire was completed by a total of 50 trainees (58%) at all levels of training.
- Majority of the trainees opted to work 60% of the whole time equivalent slot.
- Childcare was the main reason for working LTFT (76%).
- Most of the trainees (87%) were able to get all ‘Work Based Assessments (WBA)’ required for the given training period.
- Only 55% of the LTFT trainees received their Rota on time.

**Conclusions**
- Providing the Rota on time has been one of the major concerns across many trusts. At deanery level, we are now introducing a recommended timeline for rota production to facilitate the LTFT rota provision on time.
- In the following placements after the survey, LTFT trainees received the confirmation of their placements and their job sharers well in advance.
- We are aiming to conduct a LTFT survey annually to address trainees concerns.

**Paediatricians with Expertise in Cardiology Special Interest Group**

**1418** **ARTERIAL FUNCTION IN PREADOLESCENT CHILDREN WITH CONGENITAL HEART DISEASE: A SYSTEMATIC REVIEW**

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**Background** Congenital heart disease (CHD) can increase long-term cardiovascular disease risk. Studying arterial stiffness, an independent predictor of cardiovascular morbidity and mortality, can improve understanding of the pathophysiology of cardiovascular disease in CHD.

**Objectives** To systematically review the literature to examine how CHD affects arterial stiffness in children ≤ 12 years, following PRISMA guidelines.

**Methods** PubMed was searched using the terms: ‘pulse wave velocity’ (PWV), ‘carotid intima-media thickness’ (cIMT), ‘arterial stiffness index’ (SIX), ‘flow-mediated dilation’ (FMD), ‘flow imaging’, ‘laser flow Doppler’, ‘venous plethysmography’, ‘cardi* magnetic resonance imaging’, ‘aortic intima-media thickness’ (aIMT), ‘vascular ultrasound’ and ‘neonat*’, ‘paedi*tric’, ‘infant*’, ‘child*’. Case reports, case series, reviews, commentaries, conference proceedings, animal studies, articles not in English and articles with children >12 years were
exclude. Articles exploring the effect of CHD on arterial stiffness measures were included.

Results 13/1084 identified studies were included. 7 studies measured PWV, 4 studies measured SIx of the ascending or descending aorta, and 6 studies measured distensibility as measures of arterial stiffness; methods included MRI, M-mode ultrasound, and oscillometry. One study performed FMD assessing endothelial function.

Patients with hypoplastic left heart syndrome following surgical correction had lower ascending aorta distensibility than healthy controls and those with other single-ventricle anatomy (3.5 ±2.9×10⁻³ vs 7.8 ±3.7×10⁻³ mmHg⁻¹, p=0.004). Toddlers with single-ventricle pathologies had lower brachial artery FMD (2.4 ±3.7% vs 11.3 ±6.0%, p<0.0005) but similar carotid-femoral PWV than those with double-ventricle circulations. In a similar cohort, aortic PWV was higher in patients with dilated aortic roots, suggesting that PWV may be an independent determinant of aortic dilatation.

Thoracic aorta PWV was higher in children with Tetralogy of Fallot (TOF) than controls in three studies, both before and after surgery. PWV was an independent determinant of aortic dilatation in TOF too.

Neonates with coarctation of the aorta had reduced ascending aortic distensibility and increased SIx pre- and postoperatively compared to controls: findings persisted three years post-surgery. Similar results were reported in asymptomatic school-aged children: higher SIx compared to healthy controls at rest (4.87±1.94 vs 3.57±1.19, p=0.021) and after exercise (4.33±1.91 vs 3.2±1.26, p=0.034). However, the method of CoA repair may affect stiffness: 6-year-olds had higher right-arm PWV and systolic blood pressure following subclavian flap repair than end-to-end anastomosis.

Aortic SIx was higher in patients with PDA requiring transcatheter closure compared to healthy controls. The delayed closure (>1y) group had higher SIx before (9.4±2.7 vs 6.7 ±2.8, p<0.05) and after closure (6.3±2.4 vs 3.8±1.4, p<0.05), than the early closure (<1y) group.

Ascending aorta distensibility was reduced in 36 children who had previously undergone arterial switch operations for transposition of the great arteries.

Conclusions CHD can significantly increase arterial stiffness; the method or timing of correction may have an influence. Proposed mechanisms include damage to vasa vasorum due to surgery, and hypoxaemia-induced endothelial dysfunction. Differences in conditions studied, techniques used, and demographics may explain inter-study variability. Increased aortic stiffness causes premature reflected waves, leading to hypertension and increased cardiovascular disease risk. Therefore, CHD patients might benefit from arterial function monitoring. Longitudinal studies examining the progression of arterial stiffness in different forms of CHD would be beneficial.

Background Urinary Tract Infections (UTIs) are common in the paediatric population and can cause life-threatening illness and significant morbidity. Clinical diagnosis remains a challenge owing to non-specific symptoms and clinical overlap with other common paediatric conditions. Prolonged jaundice may be the only clinical manifestation of an underlying UTI, and the National Institute for Health and Care Excellence (NICE) recommends that all neonates with prolonged jaundice should have a mid-stream urine (MSU) sample sent for culture. However, the evidence base behind this guidance remains unclear and has been challenged in recent literature.

Objectives 1. To assess the local incidence of positive urine cultures in neonates with isolated prolonged jaundice.

2. To compare the local incidence of positive urine cultures in neonates with isolated prolonged jaundice to published literature.

3. To review how asymptomatic neonates with a positive culture were managed by our service.

Methods The clinical records of all neonates seen in our prolonged jaundice clinic over an 8-month period in 2020 were retrospectively analysed. MSU samples were reviewed for significant pyuria (≥10 white blood cells per cubic millimetre) or significant organism growth (>100,000 colony-forming units). Patient records were reviewed to assess for symptoms of UTI at the time of, and shortly after, MSU sampling. Clinic notes, discharge summaries, electronic prescribing interfaces and radiology reports were analysed to establish the subsequent management and any significant sequelae.

Results Fifty-nine neonates met the inclusion criteria, of whom 57 (96.6%) had an MSU sample collected. Of these, 10 (17.5%) had single organism growth, 5 (8.8%) had mixed growth, and 42 (73.7%) had no growth. No patients with mixed growth met the criteria for diagnosis of a UTI as defined by NICE guidelines. The incidence of significant growth in neonates attending the prolonged jaundice clinic was 17.5% locally, compared to 0.21% reported in the literature.

All 10 samples that cultured an isolated organism had growth >100,000 colony-forming units. Organisms included Coliform Species (40%), E. Coli (20%), Enterobacter Cloacae (20%), Enterococcus (10%), and Group B Streptococcus (10%). Two (20%) also had significant pyuria. Records showed that 4 (40%) of the patients with isolated organism growth were treated with antibiotics.

Of the 6 patients (60%) with single organism growth, 6 did not receive antibiotics, none developed symptoms of a UTI or required admission. Three (30%) had a repeat MSU sample, all of which showed no growth.

Conclusions Within our sampled population there was a significantly higher number of positive urine cultures in neonates attending the prolonged jaundice clinic compared to published rates. The management of patients with significant single organism growth was variable, and in most instances was not in line with current NICE guidance. Despite this, we found no significant illness or admission to hospital in patients with positive MSUs who were not treated with antibiotics.

It remains unclear if a proportion of neonates with single organism growth may represent contamination or asymptomatic bacteriuria. Further research is required to establish the