help staff stratify which discharge medication supply method was most appropriate, a simple algorithm was written and displayed on the wards. Supply through the hospital pharmacy remained an option if required. Regardless of which strategy was used, communication to the GP of medicines supplied was essential.

**Results** The impact of the new process was assessed as part of a Foundation Trainee Year Pharmacist Audit. The audit sought a subjective opinion from staff. The results of this audit showed that staff were using the discharge pathways regularly, thought the discharge process was faster without compromising safety and patient care, and was undertaken well within their scope of competency. Prescription tracker data showed the number of discharge prescriptions being dispensed in pharmacy more than halved. A concern had been that medicines supplied on discharge would not be well communicated to the GP, but a review of a random sample of electronically transmitted IDLs showed that medications supplied via these new processes were being documented.

**Conclusion** Discharge medicines can be supplied safely and without delay at ward level, or via Hospital community pharmacy prescriptions, if the correct processes are implemented and followed.

## REFERENCE

1. Scientific Advisory Group for Emergencies. PHE-SARS CoV-2, SARS-CoV1 and MERS-CoV What do we know about children. 9 March 2020 – Updated 13 May 2022, https://www.gov.uk/government/publications/phe-sars-cov-2-sars-cov-1-and-mers-cov-what-do-we-know-about-children-9-march-2020a [Accessed 13 June 2022]

## P08 PRECISION MEDICINES IN PRACTICE: THE CONNECTION BETWEEN CFTR MODULATORS AND DERANGED LIVER ENZYMES

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**Background and Aim** For most of the 83 years since acknowledging cystic fibrosis (CF) as a separate disease entity, treatment has primarily focused on symptomatic relief.[1] Following the discovery of the CFTR gene, efforts have been made to produce therapies to target the underlying dysfunctions caused by CFTR mutations.[2] Moderate transaminase elevations are commonly observed in CF patients. Severe transaminase elevations have been observed in patients taking CFTR modulators in clinical trials with the initial STRIVE trial revealing that treatment discontinuation was commonly due to an increase in hepatic enzymes.[3] Consequently, liver function test (LFTs) monitoring is recommended for all patients before commencing therapy, every three months for the first year and annually thereafter. This audit aims to assess the compliance of LFT monitoring in clinical practice for paediatric patients initiated on CFTR modulators, evaluate the incidence of liver-related adverse effects, and examine trends between the CFTR modulator used and the clinical significance of LFT derangements, and determine if there are any sex-related correlations.

**Methods** Patient data, including date and age on treatment initiation, gender, LFT results at baseline (AST, ALT, ALP, GGT and total bilirubin), first derangement since initiation and monitoring frequency were extracted from the clinical system Meditech®, pseudonymised and analysed. There were 91 records of patients being treated with a CFTR modulator. Some patients were on more than one CFTR modulator as treatment can be switched if eligible. For the purpose of the audit after consultation with the local CF clinical team, a two-month deviation outside of the recommended monitoring frequency was considered non-compliant. LFT derangements were classified as clinically significant if the result was higher than 3 times the upper limit of normal (ULN).

**Results** Our study found that most patients (50/91 – 54.9%) on CFTR modulators in the tertiary centre did not have their LFTs monitored following the recommended guidelines. A statistically significant increase in LFT abnormalities from pre- to post- intervention with a CFTR modulator was observed ($p=0.015$). Kaftrio®/Kalydeco® (3/20 – 15%) and Orkambi® (1/29 – 3.4%) were the only CFTR modulators that led to patients developing clinically significant derangements (>3x ULN). Additionally, a greater proportion of females (24/51 – 47.1%) than males (15/40 – 37.5%) had abnormal LFTs within the tertiary centre contrary to previous epidemiological studies where males have been documented to have a greater risk of abnormal LFTs. However, the strength of this association was negligible ($\phi = 0.096$, $p=0.360$).

**Conclusion** In conclusion, the tertiary centre's compliance with LFT monitoring guidelines for patients initiated on CFTR modulators was substandard. Most records of treatment initiation occurred during COVID-19, which impacted monitoring as many hospitals suspended routine clinical work to limit the spread of the infection in high-risk groups. Time constraints limited the audit during the data extraction period; therefore, results should be interpreted cautiously. In the absence of the COVID-19 pandemic a re-audit process should include patient lifestyle data and consider other medication regimens that could potentially alter LFTs. Introducing a blood clerk would enable the CF unit to monitor LFT changes more efficiently.

## REFERENCES

1. Guimbellot J, Taylor-Cousar JL. Combination CFTR modulator therapy in children and adults with cystic fibrosis. *The Lancet Respiratory Medicine* 2021;**9**:677–679.
2. Lopes-Pacheco M. CFTR Modulators: The Changing Face of Cystic Fibrosis in the Era of Precision Medicine. *Frontiers of Pharmacology* 2020;**10**:1662.
3. Gavioli EM, Guardado N, Haniff F, *et al*. A current review of the safety of cystic fibrosis transmembrane conductance regulator modulators. *Journal of Clinical Pharmacy and Therapeutics* 2021;**46**:286–294.

## P10 INITIATION OF BISOPROLOL IN PAEDIATRIC PATIENTS – EXPERIENCE FROM A SPECIALIST PAEDIATRIC CARDIAC CENTRE

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**Aim** Given the lack of published dosing information to guide the use of bisoprolol in our paediatric cardiology patients, we assessed the safety and tolerability of initiation and maintenance doses of bisoprolol in a cohort of children with congenital structural heart disease, cardiomyopathy, or structural normal heart, to treat heart failure, arrhythmias or hypertension, and prevention of arrhythmias in channelopathies.

**Method** A retrospective review of hospital records of all children who received bisoprolol between May 2014 and August 2019 in a tertiary paediatric referral centre. Patients were identified via pharmacy records and clinical informatic systems were used to identify the indication, dose at initiation (mg/kg), up-titration dose, and any documented side effects.