destruction of expired stock is also time-consuming. When a licensed midazolam 5 mg/ml oral solution single dose preparation became available, the Trust wanted to investigate whether a switch to this product would be beneficial. The new product is supplied as a single dose preparation and is orange flavoured.

**Method** Pharmacy completed a 'new drug risk assessment' for the product ensuring that the excipients were appropriate for paediatric patients. The risk assessment also identified possible problems associated with the implementation of the new product across the trust (eg different strength, single use bottle, time taken for dispensing of single bottles rather than a stock bottle, storage capacity for multiple bottles, changes to documentation in CD registers) [This hospital stores and records midazolam in CD cupboards]. Any potential cost pressure was also identified and highlighted to the finance department. A pilot was undertaken with 10 patients. Nurses and anaesthetists were asked for feedback regarding a switch to this product prior to implementing a complete switch. The electronic prescribing system was updated, and communications circulated to the hospital to alert all staff of the change of product.

**Results** All nurses and anaesthetists involved in the pilot were positive in their evaluation of the new product. Comments such as 'the child took this well and then accepted other medicines' were recorded. Since the switch occurred there have not been any clinical incidents reported of issues with running balances or patient safety incidents involving oral midazolam. All areas reported no impact upon department due to storage capacity or increased workload based upon record keeping. Since moving to the new product feedback from clinicians has continued to be positive particularly relating to improved patient compliance due to both flavouring and smaller administrative volumes. The pharmacy has also not had any requests for return for destruction of midazolam as all destructions of remaining liquid is carried out at a ward level. The additional cost was £18,300 but the Trust were happy to offset this against the reduced risk of cancelled operations due to inadequate pre-medication. The nursing staff have noted no increased workload in practice. The has been a neutral impact upon pharmacy workload as although there is increased dispensing times as more bottles are dispensed per order the pharmacy has not been required to destroy expired stocks.

**Conclusion** The move to the licensed oral midazolam liquid for pre-medication has resulted in better patient compliance, there have been no clinical incidents reported and workload has not been adversely affected.

## P27 THE ACCURACY OF TABLET SPLITTING TO PROVIDE APPROPRIATE PAEDIATRIC ENALAPRIL DOSES

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10.1136/archdischild-2023-NPPG.26

**Aim** The angiotensin-converting enzyme inhibitor, enalapril, is considered a first-line treatment for chronic heart failure in children. However, there is a lack of an age-appropriate formulation and tablet splitting, although not recommended, is common, in an attempt, to provide suitable doses for paediatric use. An analysis of currently available UK brands explored the accuracy of splitting low-dose tablets of enalapril.

**Method** Four different commercially available enalapril tablets were evaluated: Innovace® enalapril 2.5 mg and 5 mg, (both Organon Pharma UK), generic enalapril 5 mg (Ria Generics Ltd) and generic enalapril 2.5 mg (Dexcel Pharma Ltd). Five tablets from each brand/dose were split manually where possible. For unscored tablets, a sharp knife or metal spatula was used to replicate the home environment. Tablet fragments were weighed. Using high-performance liquid chromatography, the percentage of the theoretical 1.25 mg or 2.5 mg dose contained within the half-tablet fragments was analysed (percentage label claim [%LC]) and the uniformity of dosage units was calculated (acceptance value [AV]), where an AV of ≤15 is considered to meet the acceptance criteria.

**Results** Manual splitting proved relatively easy only with the deep-scoring of the Innovace 5 mg tablets; 0.007 to 0.483 mg of material was lost across the five replicates, the mean%LC (SD) was 97.5% (4.3) and the AV was 11.3. The unscored Innovace 2.5 mg tablets split less easily; 0.113 to 0.627 mg of material was lost, mean%LC (SD) was 99.9% (10.7) and the AV was 25.7. The soft 5 mg Ria Generics tablets split with high variability: 0.609 to 13.488 mg of material was lost, mean%LC (SD) was 96.0% (17.9) and AV was 45.5. Dose variation was also high with 2.5 mg Dexcel tablets, with 1.097 to 13.801 mg of material lost, mean%LC (SD) of 95.9% (11.7) and an AV of 30.7.

**Conclusion** In general, splitting low-dose tablets of enalapril for paediatric use results in inaccurate dosing. Acceptable dosing was only achieved with the scored 5 mg tablets. Accurate doses below 2.5 mg were not achieved. An age-appropriate dosage formulation of enalapril to provide dosing below 2.5 mg is needed.

## P28 AN AUDIT OF LIVER FUNCTION TESTING IN PAEDIATRIC PATIENTS NEWLY STARTED ON KAFTRIO®

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10.1136/archdischild-2023-NPPG.27

**Aim** To investigate whether the current practice of liver function test (LFT) monitoring within a large tertiary paediatric cystic fibrosis centre adheres to local and national guidelines with respect to baseline monitoring, frequency of monitoring in the first year of treatment and action taken in the event of abnormal results for patients newly started on Kaftrio® treatment.

**Method** All patients currently receiving Kaftrio® treatment were identified. Patients were excluded if they had not been on treatment for one year, if they had prolonged gaps in treatment or if they had bloods taken at outreach clinics with results not accessible to the investigator. Data was retrieved from each patient's electronic laboratory reports and recorded on a data collection form. Data collected included: date Kaftrio® started; did the patient have baseline LFTs within one year before starting; did the patient have their first LFTs done 3 months after starting; in the first year did the patient have four sets of LFTs at 3-month intervals; were LFTs in range; if LFTs were abnormal was appropriate action taken. A 2-week tolerance was permitted. The data was analysed to assess compliance to guidelines. Assessments of transaminases (ALT and AST) and total bilirubin are recommended prior to initiating treatment then every 3 months during the first year of treatment.[1–3] Elevated ALT/AST two to three times the upper limit