against nonpolio enteroviruses. The consultant was keen to exhaust every option, so reached out to the company in the US. The company (Virodefense) offered to provide the drug on a compassionate use/open label trial basis, asking that regular pharmacokinetics tests be carried out as part of the agreement to supply.

Pharmacy contribution Following the initial contact with Virodefense, there were several challenges for the specialist pharmacist and pharmacy procurement team. Working with IDIS and Virodefense, arrangements were made for shipment of the medication to the pharmacy department. This was complicated by the urgency of the situation and the time differences involved. Pocapavir is in phase 2 clinical trial which required the MHRA to be notified to approve the importing of the drug into the country. The MHRA were quick to give a positive decision which allowed the product to be delivered direct to the hospital while IDIS handled the importing documentation. The advised dose was 25mg/kg daily, the drug came as 500 mg capsules containing 200mg of pocapavir (with 300 mg excipients).

The patient (2.7 kg) required 67.5 mg daily. The pharmacy manufacturing unit packed down 170 mg capsule contents (68 mg active ingredient) into individual pots for the neonatal unit to administer. Doses were mixed with EBM and given daily for 14 days.

Outcome The patient recovered from the acute sepsis episode. The patient was also treated with immunoglobulin and standard supportive care so it is impossible to know how much can be attributed to the pocapavir. Pharmacokinetic samples were taken as agreed. After recovering from the initial acute sepsis the patient developed hypoglycaemia between feeds. These were investigated and metabolic causes were excluded. The working diagnosis was a response to the large hit to the liver during the septic episode, although an adverse effect of pocapavir cannot be excluded. Hypoglycaemic episodes continued and the patient was still fed 3 hourly on discharge. The patient is growing and developing well, tolerating longer fasts of 6 hours without hypoglycaemia and reducing risk in the provision of parenteral nutrition for effects that could occur due to opioid toxicity. The patient has been discharged from neonatal follow up.

Lessons to be learned Where there's a will there's a way! There were many barriers to overcome including regulatory, logistical and practical complications but thanks to a concerted effort from a wide variety of teams, co-ordinated by pharmacy, the patient received this treatment. Although the contribution of this experimental drug is unclear the positive outcome for a very unwell infant should be celebrated.

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P012 PRELIMINARY EXPERIENCE OF THE USE OF ORAL POSACONAZOLE AND TERBINAFINE TO TREAT LOMENTOSPORA PROLIFICANS AND SCEDOSPORIUM APIOSPERMUM IN CHILDREN WITH CYSTIC FIBROSIS

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Background Itraconazole and voriconazole are the drugs of choice for Lomentospora prolificans and Scedosporium apiospermum. Posaconazole, is often substituted when there is intolerance or lack of efficacy to first line agents. Terbinafine, an allylamine antifungal, is recommended with an azole for the treatment of L.prolificans, though there is no published use of this combination in children with cystic fibrosis (CF).

Aim To evaluate the safety, tolerability and efficacy of this regimen in CF children.

Methods Retrospective case note review of CF children receiving terbinafine and posaconazole, from Nov 2015 to Nov 2016. Children were identified from pharmacy records and clinical data collected from case notes and laboratory records.

Results There were 4 children (all girls), median age 15 years (range 10–16), with a median FEV1% predicted of 70.5% (range 55–88%). 2 children chronically isolated L.prolificans, 2 isolated S.apiospermum. 3 also had CF related diabetes and chronic Pseudomonas aeruginosa infection. 1 child received treatment for 6 weeks. 3 children are taking long- term treatment (median 50 weeks; range 35–59). 2 children improved FEV1% predicted with treatment by 14% and 15%; one was stable. Importantly the trend graphs for lung function in these 3 children appear to stabilise post initiation of treatment. One child did not improve her lung function but also had recurrent MRSA infections and significant nutritional complications. No adverse effects from the combination were reported. Posaconazole levels were therapeutic (>1 mg/l) in all children (range 1.22–3.85 mg/l). Terbinafine levels were not measured.

Conclusion In this small case series, combination treatment with posaconazole and terbinafine was well tolerated and a positive clinical effect on lung function was evident. This is the first report on the use of this regimen for this indication in CF children and we will continue to use it, whilst gathering safety and efficacy data.

P013 DEVELOPING STANDARDISED NEONATAL PARENTERAL NUTRITION ACROSS A NETWORK

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Background and aim Parenteral Nutrition (PN) forms the mainstay of nutritional support for extremely low birth weight (ELBW) infants immediately after birth to promote optimal growth and neurodevelopmental outcomes. The National Confidential Enquiry into Patient Outcome and Death (NCEPOD) published in 2010 indicated that only 24% of neonates received parenteral nutrition that was considered good practice1. NCEPOD, alongside the Paediatric Chief Pharmacists Group Report, highlighted issues with prescribing and administration of PN linked to unnecessary variation in practice between hospitals.[1] [2] This encourages use of standardised PN with associated guidelines for use and administration. The aim was to be able to provide nutritionally complete PN for preterm and sick term babies in a ready to use formulation, 24 hours a day, 7 days a week without access to an onsite aseptic service and for the nutrition a baby receives to be consistent across the network regardless of which hospital they are in.

Methods There is a robust network neonatal nutrition group, comprising neonatologists, pharmacists, dietitians and nutrition nurses. The remit of the group was initially to audit their

current practice and agree the new standardized formulations and develop guidelines for use. These were based on European Society of Paediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN) and British Association of Perinatal Medicine (BAPM) guidelines and expert opinion.[3 4] Advice on stability and compounding was sought from commercial experts. Assistance to award a contract to supply the network was sought from a group purchasing organisation to ensure capacity planning and cost effectiveness.

Results Consensus on four concentrated formulations was agreed by the network group and all six units within the network are now successfully using these.

Conclusion This has been a lengthy process but it was possible to establish agreement of a structured set of standard bags that would deliver nutritionally complete PN to the cohort of babies in our network. Re-audit is now underway in house to compare to previous practice and we hope to shortly roll this audit out across the network. Future aspirations are to devise a system to manage stock control across the entire network, work towards reaching national consensus, work with commercial partners to obtain extended expiry with peditrace addition and to work in partnership with commercial companies to formulate licensed products.

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P014 AN AUDIT ASSESSING THE PRESCRIBING OF NALOXONE IN PAEDIATRIC PATIENTS

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Aim To assess whether paediatric patients who were prescribed opioids, had also been prescribed naloxone.

Methods The audit was registered with the Clinical Audit and Effectiveness Department and ethical approval was not required. Patients who were taking weak opioids were excluded from this audit. A data collection sheet was created and data collected prospectively, over a two-month period. Forty-one inpatient medication charts were reviewed, to identify whether naloxone had been prescribed on the PRN section of the chart for patients who had been prescribed opioids, also to see whether the standards set for this audit had been met. The data was analysed with Microsoft excel.

Results There were 41 paediatric inpatient charts reviewed in total. Three standards were set for this audit which were derived from local 'Multidisciplinary Guidelines for Acute Pain Management in Children and Young People'.[1] The first standard was that 'all paediatric patients who are prescribed opioids should have naloxone prescribed' which was met by 17% (7/41) of the inpatient charts. The second standard was that 'naloxone should be prescribed on the 'when required' PRN section of the drug chart' which was met by 100% (7/7) of the inpatient charts. The last standard was that 'the directions for naloxone should include instructions to call a medical practitioner and to immediately commence the administration, if respiratory depression is encountered',[1 2] which was met by 86% (6/7) of the inpatient charts.

Conclusion There is significant lack of naloxone prescribing in paediatric patients who are on opioids. This is reflected from the results showing that only 17% (7/41) of patients on opioids had naloxone prescribed on the PRN section of the chart. The inpatient charts which had naloxone prescribed, did not all have the correct dose and instructions on how it should be administered, only 86% (6/7) did. The results suggest that there is a lack of understanding on the importance of naloxone and how it should be prescribed on inpatient charts. The findings of this audit will be presented at the Paediatric Audit meeting and the Surgical Paediatric meeting, to educate prescribers on the importance of prescribing naloxone in patients who are receiving opioids and to reduce adverse effects that could occur due to opioid toxicity.

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P015 YELLOW CARDS ARE STILL NOT ON EVERYONE'S TO DO LIST

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Aim To look at how the Yellow Card Scheme is used by health care professionals (HCPs) in child health.

Methods An online SurveyMonkey questionnaire was devised to look at how healthcare professionals (HCPs) have used the Yellow Card Scheme in clinical practice. It comprised of 10 questions (9 multiple choice and 1 freestyle text). What type of healthcare professional are you? Are you aware of the Yellow Card reporting scheme? Have you ever used the Yellow Card Scheme to report an adverse drug reaction? If yes, how did you make the report? (If no, select N/A) If you haven't ever reported a reaction, would you know how to? Have you ever completed an e learning module about the Yellow Card Scheme? Are you aware that parents can report adverse drug reactions using the Yellow Card Scheme? Have you ever been aware of an adverse drug reaction but decided not to report it? If yes, what was the reason you chose not to report it? (If no, select N/A) Can you think of any ways to make the Yellow Card Scheme more accessible to healthcare professionals? It was piloted on 5 HCPS and minor textural revisions made. The questionnaire was then undertaken via face-to-face interviews during June 2018.

Results 50 healthcare professionals completed the questionnaire: 16 doctors, 13 nurses, 8 pharmacists, 9 medical students, 2 nursing students and 2 pharmacy technicians. 43/50 were aware of the Yellow Card Scheme (10 undergraduates and 33 postgraduates). 18 participants had used the Yellow Card whilst 32 had not reported an adverse drug event. Out of the 32 respondents who had never reported a reaction, 13 (7 undergraduates and 6 postgraduates) said that they would not know how to report a reaction if required. Only 9 had completed an online e learning module about the Yellow Card