## REFERENCES

1. Smith T, *et al*. Annual BANS Report, 2011. Artificial Nutrition Support in the UK 2000-2010. A report by the British Artificial Nutrition Survey (BANS), a committee of BAPEN (British Association for Parenteral and Enteral Nutrition). Available at: https://www.bapen.org.uk/pdfs/bans_reports/bans_report_11.pdf
2. European Medicines Agency. Reflection paper on the pharmaceutical development of medicines for use in the older population. EMA/CHMP/QWP/292439/2017. Available at: https://www.ema.europa.eu/en/documents/scientific-guideline/reflection-paper-pharmaceutical-development-medicines-use-older-population-first-version_en.pdf


## P37 ADMINISTERING MEDICINES SAFELY AT HOME: USING AN EVIDENCE BASED APPROACH TO HELP A FAMILY WITH COMPLEX HEALTH NEEDS

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**Introduction** Helping families to use medicines safely at home is a huge problem for both patients and professionals. Families who are unable to use medicines safely will experience poor health outcomes and require repeated health service visits.

This case involves a family who were resident in the UK under refugee status. Their child was admitted to our hospital for an operation to treat their complex congenital heart disease. At discharge the child was prescribed five medicines, and three of them needed to be manipulated in order to give the necessary dose. Both parents were present but unable to communicate using the English language.

The aim of this project was to describe how an innovative evidence based approach can ensure that when a family with complex needs goes home from hospital, they are able to continue to use medicines safely and effectively.

**Method** We structured our approach in two stages according to the principles of Medicines Optimisation.

The first stage would ensure we understood the patient experience as best we could. This would allow us to build a relationship between ourselves (the professionals) and the family. This was guided by qualitative studies that describe the experience of families caring for sick children[1] and the importance of building relationships between professionals and families.[2]

The second stage would use quantitative evidence to provide effective interventions that would support them to use medicines at home. These included providing a personalised pictogram of how to administer their medicines,[3] and finally using simulation of medicines administration to check their understanding.[4]

**Results** The first stage involved a pharmacist and a specialist nurse meeting the family using a telephone interpreter. We found that there were significant problems for this family that needed addressing. For example, they had no immediate family to support them, had poor literacy and lack of understanding of the English language. Subsequently, another meeting with the family was arranged using a face to face translator, a doctor, a nurse and a pharmacist. This meeting allowed a more comprehensive discussion about their child, their medical needs and their medicines.

The second stage involved training the family to administer their medicines. A pharmacist and a specialist nurse used a telephone translator with parents. The medicines were dispensed to the ward and a pictogram was created which used pictures and icons. A medicines administration simulation was conducted to support the family to use their medicines.

Following this training, the parents were pleased with the support and were able to demonstrate they understood how to give their child's medicines as instructed. The family went home and were followed up by our specialist cardiology team. There were no readmissions, or subsequent issues reported by the family with their medicines at home.

**Conclusion** This case highlight some of the many challenges that professionals and families face with supporting families to use medicines at home. Despite the significant risks involved, using a personalised and collaborative approach between families and professional can have successful outcomes.


## REFERENCES

1. Page BF, Hinton L, Harrop E, *et al*. The challenges of caring for children who require complex medical care at home: 'The go between for everyone is the parent and as the parent that's an awful lot of responsibility'. *Health Expectations* 2020;**23**:1144-1154.
2. Doyle C. The importance of supportive relationships with general practitioners, hospitals and pharmacists for mothers who 'give medicines' to children with severe and profound intellectual disabilities. *Journal Intellectual Disabilities* 2020 Aug 20:1744629520951003.
3. Yin HS, Parker RM, Sanders LM, *et al*. Pictograms, units and dosing tools, and parent medication errors: a randomized study. *Pediatrics* 2017;**140**:e20163237.
4. Kutzin JM, Janicke P. Incorporating rapid cycle deliberate practice into nursing staff continuing professional development. *Journal of Continuing Education in Nursing* 2015;**46**:299-301.


## P38 AN AUDIT OF EXCIPIENTS OF ONE MANUFACTURER'S UNLICENSED LIQUID PREPARATIONS IN A TERTIARY PAEDIATRIC HOSPITAL

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**Background** Many unlicensed medicinal products routinely used to treat the paediatric population do not undergo the same rigorous assessment that adult preparations do prior to coming to market. This means that many preparations are not authorised for paediatric use and consequently there is widespread use of unlicensed medicines and 'off-label' use of licensed medicines. Evaluation of excipients in unlicensed medicines is an integral part of assessing their suitability for use in paediatric patients.[1] Excipients of concern include (but are not limited to) propylene glycol, ethanol, hydroxybenzoates, artificial sweeteners. Medicines are carefully selected for use based on agreed criteria. The assessment tool used in this centre is the 'New Products Assessment Form' and helps the assessor identify potential issues with excipients.

**Aim** This review aimed to reassess excipients in one manufacturer's portfolio of unlicensed liquid preparations, stocked and regularly used at this centre. An informed decision could then be made to switch to a more suitable alternative if necessary.

**Method** A list of the manufacturer's unlicensed liquid preparations was compiled, 14 in total. The company was contacted and requested to provide a comprehensive list of excipients. A New Products Assessment Form was completed for each product, which identified potential issues with excipients, in line with European Medicines Agency (EMA) guidelines. A list of all preparations where excipients exceeded acceptable daily intake (ADI) was made. Based on dosing regimens and weight/age the ADI of each excipient was calculated and documented. Where a preparation exceeded ADI for a particular excipient the manufacturing



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company was informed and a request for reformulation made. Alternative preparations were sought from other specialist manufacturing companies where necessary. Each product was assessed in the same manner. Pharmacy colleagues were consulted throughout the process and provided feedback on alternative preparations available. Concerns around labelling and similarities with other products, cost and reimbursement status, whether tablets could be crushed and dispersed in water as an alternative were highlighted and discussed. Relevant prescribing consultants were also informed. An informed decision was made to switch to an alternative product where indicated.

**Results** In total, a review of fourteen preparations stocked was conducted. Five out of 14 (36%) were changed to an alternative more appropriate preparation in terms of excipients. Four of the fourteen (29%) were suitable for use in patients across all age groups. Four of the fourteen (29%) exceeded the ADI for a particular excipient for preparations for use in neonates (suitable for all other age groups). Of the four, two were not routinely prescribed in neonates. One preparation was removed from the market. The remaining two products were considered suitable for use for their respective indications and dosing regimens.

**Conclusion** Unlicensed medicines and medicines that are used in neonate and paediatric patients must be carefully assessed for excipients before use.[1–3] A risk benefit assessment[4] should be conducted to establish if an unlicensed medicine should be used and prescribers notified of any excipients of concern.

## REFERENCES


1. Annex to the European Commission guideline on 'Excipients in the labelling and package leaflet of medicinal products for human use' (SANTE-2017-11668). Available at: www.ema.europa.eu/docs/en_GB/document_library/Scientific_guideline/2009/09/WC500003412.pdf
2. European Medicines Agency. Committee for Medicinal Products for Human Use (CHMP): *Information for the package leaflet regarding ethanol used as an excipient in medicinal products for human use* (EMA/CHMP/43486/2018); September 2018. Available at: https://www.ema.europa.eu/en/documents/scientific-guideline/information-package-leaflet-regarding-ethanol-used-excipient-medicinal-products-human-use_en.pdf
3. NPPG Neonatal and Paediatric Pharmacists Group Newsletter No 61 Autumn 2016. Excipients in medicines for Children. Available at: www.nppg.scot.nhs.uk/wp-content/uploads/2017/04/NPPG-61.pdf
4. Neonatal and Paediatric Pharmacists Group and Royal College of Paediatrics and Child Health, UK. *Using Standardised Concentrations of Unlicensed Liquid Medicines in Children*. April 2020. Available at: https://nppg.org.uk/wp-content/uploads/2020/04/NPPG-Position-Statement-18-01-V5-April-2020.pdf


## P40 IMPLEMENTATION OF STANDARD PARENTERAL NUTRITION (PN) IN A LARGE TERTIARY NEONATAL SERVICE DURING COVID-19 PANDEMIC – THE CONSIDERATIONS, THE CHALLENGES AND THE LESSONS LEARNT

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The COVID-19 pandemic brought with it many challenges for the NHS; for our neonatal unit, staffing and resource concerns necessitated a review of PN provision to our dual site neonatal managed clinical service. Our service comprises of two sites (and includes neonatal surgical cots) and has a combined capacity of 90 cots. Prior to the pandemic the usual PN requirement was between 12 and 20 patients per day, approximately 75% of the PN was individualised (bespoke) and manufactured on site in our unlicensed aseptics units.

To support the nursing teams in adult critical care areas, pharmacy aseptics unit were asked to manufacture ready to use infusions; the requirement to make new products along with staff shortages challenged our capacity.

Patient individualised parenteral nutrition is highly complex, requiring specific prescriber training of those involved in requesting or ordering, and those involved in ensuring clinical suitability of the prescription. In addition, bespoke compounding or manufacturing is an intricate process requiring appropriately trained staff and specialised equipment.

An MDT approach was adopted to review and improve the resilience of our PN service and reduce the need for aseptics manufacture.

An options appraisal of the following factors was carried out: availability of sufficient product, license status of the products, nutritional content of regimens, lipid and protein sources, time taken to prescribe, time taken to clinically validate, time taken to prepare, storage requirements, stability/shelf life of chosen product, time taken to set up, provision of vitamins and trace elements, total fluid volume required for nutrition, supplementation of electrolytes, composition of the PN (2 phase system vs 1 phase system), pump and equipment provision.

For our neonatal population Baxter Numeta G13E and G16E bags were selected as the most appropriate option.

Moving away from prescribing and administering individualised PN products to using Numeta we were challenged to: design an appropriate prescription chart and regimens, ensure that we were able to prescribe and administer supplementary electrolytes and fluids, review the use of filters for fungi, bacteria and endotoxins on lines used for the administration of PN, ensure that we had sufficient stock of IV lines to enable more frequent line changes, review PN – drug IV compatibility and provide training to prescribers, nurses and pharmacists.

Standard bag PN allows greater flexibility to manage unstable patients and has increased our PN capacity. For the proportion of infants for whom Numeta is not appropriate we prescribe either 'start up potassium and sodium free PN' or individualised PN for infants who require long term PN with specific micro or macronutrient requirements. Audit is required to evaluate hypercalcaemia seen in a proportion of infants less than 2kg in weight. Numeta bags do not provide 100% of normal fluid volume for most patient's, the additional fluid requirement significantly increases the number of infusion pumps required to administer PN. After 15 months, Numeta continues to be used as the primary PN product in approximately 90% of our neonatal population.

## P41 EVALUATING PATIENT/CARER SATISFACTION WITH MEDICINES INFORMATION PROVISION WITHIN PAEDIATRIC NEUROLOGY OUTPATIENTS

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**Background** Providing patients/carers with relevant medicines information (MI) helps adherence and therefore patient outcomes. Improved adherence is particularly important in patients with long term conditions. To provide greater

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