

Fisher's Exact Test showed an overall statistical significant relationship between polypharmacy and discrepancy rates ($p=0.05$). Only one source was used for MedRec in 32 (51%) of patients. In 2 (3%) of those patients that source were the patient's own medicines, not the parent/patient/carer.

Conclusion GP repeat lists on the SCR are not an accurate source in paediatric MedRec and should only be used to support another source. Discrepancy rates per patient were much higher compared to previous studies (86% vs 45%),²⁻³ and could have been overestimated as some GP surgeries do not add unlicensed medicines to the repeat section of the SCR. Only a small proportion of omitted medicines were unlicensed or off-label, suggesting licensing status on its own is not responsible for omissions.

A statistically significant relationship between polypharmacy and chance of discrepancy was found, but larger study numbers are needed. Local SOPs were not followed in a small number of patients (3% overall).

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05

TREATMENT OF INFANTILE BOTULISM WITH BOTULISM IMMUNE GLOBULIN (BABYBIG)

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Background A 7 month old male infant was admitted to their local hospital with poor feeding, reduced urine output, cough and respiratory distress. Worsening respiratory distress and apnoea required ventilation and transfer to a tertiary paediatric intensive care unit, with a presumed diagnosis of respiratory sepsis. Following 1 day of intensive care, intravenous sedation was discontinued with a view to extubation. After 48 hours sedation hold, the patient still had no spontaneous movements and unreactive pupils. Following further review, stool samples were sent to the Health Protection Agency (HPA) for botulism testing. Although initial tests (culture) were negative, a mouse bioassay test was subsequently reported as positive for botulism toxin. HPA and the California Public Health Department (CDPH) confirmed that treatment with botulism immune globulin (BabyBIG) was indicated. How does BabyBIG work: BabyBIG consists of human-derived anti-botulism-toxin antibodies and is approved in the U.S. for treatment of infant botulism types A and B. BabyBIG immediately neutralises circulating neurotoxin and allows motor nerve regeneration to begin. Complete recovery can take several months.¹⁻² Supply of BabyBIG: Diagnosis of botulism was made out of hours at a weekend, requiring BabyBIG to be obtained directly from CDPH. Pharmacy contacted the Medicines and Healthcare Regulatory Authority

(MHRA) on-call service to authorise UK importation of BabyBIG. Pharmacy worked closely with the clinical team and MHRA to ensure that relevant paperwork required by CDPH was completed. Cost of BabyBIG is \$43,000 USD and required the Trust Medical Director to authorise funding. CDPH authorised release of BabyBIG, which was received in the Trust 48 hours later. Administration of BabyBIG: Pharmacy prepared an IV monograph document to assist preparation and administration of BabyBIG, which is presented as 100 mg vials for reconstitution with 2 ml water for injection. BabyBIG is administered as a single dose of 50 mg/kg, infused at an initial rate of 25 mg/kg/hour for 15 minutes which, if tolerated, is increased to 50 mg/kg/hour for the remainder of the infusion. The infusion is administered via an 18 µm filter.

Patient outcome Within 24 hours of administration, there was some movement in the patient's upper limbs and some triggering of the ventilator. By day 12 post-administration pupils were more reactive and there were some antigravity movements. By Day 15 there were signs of facial movement and improved grip strength. A tracheostomy was performed to facilitate weaning from the ventilator. By Day 67 the infant was off the ventilator and on Day 93 was discharged to their local hospital.

Summary Pharmacy played a significant role, ensuring correct processes were followed for BabyBIG to be ordered out of hours, liaising with international partners, organising international transit, ensuring import documentation was available, providing important drug information to ensure the drug was prescribed and administered correctly, and answering parent's questions about the medication. In this case, BabyBIG provided a highly effective treatment for infant botulism.

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06

BRIDGING AN INFORMATION GAP: DEVELOPMENT OF DRUG SPECIFIC FACTSHEETS FOR CHILDREN AND YOUNG PEOPLE WITH CANCER

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Aim Patient information leaflets (PILs) have been a legal requirement in the UK for all medicines for almost 20 years. However, as many of the drugs used in children with cancer are unlicensed or used outside the terms of their licence 'off-label', information provided by the manufacturer does not always tell parents/patients everything they need to know about the use of the medicine in children and young people. In 2014, a survey conducted by the Children's Cancer and Leukaemia Group (CCLG) revealed 92% of parents wanted more drug specific information. The aim of this piece of work was to address these information needs through the development of standardised drug specific factsheets for children and young people with cancer.

Methods Information was collated on the availability of paediatric drug specific PILs at primary treatment centres (PTC's)

in the UK and Ireland. The CLLG and members of the Paediatric Oncology Pharmacists (POP) group worked together in reviewing and comparing a selection of PILs already available, in addition to agreeing a standardised format and outline of headings for proposed factsheets. Drafts were produced for 10 of the most common oral chemotherapy drugs used in children. These were reviewed for content, language, punctuation, grammar and structure by a wide range of end users, such as parents of children on treatment, parents of children whose treatment had finished, clinical nurse educators, paediatric oncology/haematology consultants, clinical nurse specialists, ward managers and different members of the POP group. Feedback and comments were collated. Proposed changes suggested were either actioned or reasons for not actioning documented on a change log. This process repeated until a final version was agreed.

Results Of the 12 PTC's, 5 had their own oral chemotherapy PIL's, with the range of leaflets available varying across these five centres. Only 1 PTC had their own intravenous (IV) chemotherapy PIL's. Information provided varied from centre to centre with drug information also provided from treatment protocols, the Macmillan website or from the manufacturers summary of product characteristics (SPC). Factsheets for the following oral chemotherapy drugs have been produced; chlorambucil, cyclophosphamide, dexamethasone, etoposide, imatinib, lomustine, mercaptopurine, methotrexate, procarbazine and temozolomide. A factsheet on the 'safe handling of oral chemotherapy' was developed alongside these to further support parents in managing their child's oral chemotherapy safely at home.

Conclusion User engagement is paramount in producing information that is clear, accurate, up-to-date, easy to understand and practical. Factsheets are available to order/download free of charge providing equal access to all healthcare professionals, parents/carers and patients across the UK and Ireland, ensuring families are not disadvantaged by geographical treatment location. Current multimedia technology offers the benefit of increased and fast access to information; however, a further survey of families is required to establish whether parents drug information needs have been met though the availability of these factsheets.

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07

GENERAL PHARMACEUTICAL COUNCIL REVALIDATION: WHAT IS THE BEST APPROACH FOR CONDUCTING A PEER DISCUSSION FOR PAEDIATRIC PHARMACISTS?

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Aim In 2018 the General Pharmaceutical Council (GPhC) made it mandatory for pharmacists and pharmacy technicians in the UK to conduct a peer discussion as part of their annual revalidation assessment. The criteria from the GPhC states

that a practitioner must record why a peer was chosen, how the process of peer discussion has benefited their practice and how the process of peer discussion has benefited the people using their services.¹ The GPhC describes several examples of who can act as a peer; for example a line manager, colleague or other healthcare professional. However, there is no specific format for the discussion, but it may include personal development plans, recent successes or challenges to the individual, medication related incidents or quality improvement work. Case based discussion (CBD) is a tool used for peer discussions, primarily in medical training. They are used to assess a clinician's knowledge of a condition, the potential management options available to them and decision making abilities. It allows a clinician to objectively reflect on their own practice,² and allow for abstract conceptualisation. This is a vital process that links learning to practice, as described by Kolb's experiential learning theory.³

The aim of this project was to assess whether a case based discussion between two experienced paediatric pharmacists will fulfil the GPhC requirements for revalidation.

Methods Two experienced paediatric pharmacists participated in this study. Each took the turn as the subject and the peer. As part of the pre-discussion phase and with agreement from senior management, a job swap was arranged for two weeks to allow each pharmacist to gain an understanding of the demands of their colleague. At the end of this period, the two CBDs were conducted using cases selected from the 2 week period.

Results The two pharmacists selected were practicing in neonatal intensive care and paediatric intensive care. Each CBD lasted approximately one hour and both were conducted in the clinical environment. Using this format provided discussion around a variety of elements of paediatric pharmacy practice; such as clinical assessment skills, interpreting evidence and applying guidelines to practice, identifying knowledge gaps and exploring medication safety issues. The result of each CBD was that each pharmacist was able to successfully complete a peer discussion record that complied with the GPhC criteria.

Conclusion This abstract has highlighted that peer discussion has the potential as a powerful tool for ensuring quality and improvement in paediatric pharmacy practice. This is especially applicable to specialist practice. The Neonatal and Paediatric Pharmacist Group is a potential peer network for facilitating collaborations between paediatric pharmacists. The lack of specific framework is an opportunity for future development.

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08

SUPPRESSED VANCOMYCIN REACTION IN A PATIENT RECEIVING PARENTERAL CORTICOSTEROIDS

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Background A baby boy, (37 +6 weeks, 3 kg) was admitted on day 1 of life with an ante-natal diagnosis of a right side